ScreenService AMERICA

IT WORKS.

Broadcasting Products ATSC

Product Catalogue 3Q 2013

ScreenService

IT WORKS.

Screen Service
is a worldwide known
company focused
on turn key
and end-to-end solutions
for all broadcaster needs.

With more than
20 years of experience
and thousands
of satisfied customers,
Screen Service is the
leading company in
digital TV technology.

Historical Milestones

1980s

In the late 1980s Screen Service Italia (SSI) was founded in Brescia. It was active in management, assistance and trading of TV-radio systems, radio transmitters and other electronic equipment.

1990s

- SSI starts internal production of TV Transmitters and Microwave Links.
- Strategic partnership with M.B. International Srl, broadens its product portfolio with digital broadcasting technology.

2000s

- **2004:** SSI acquires a 39% stake in Innovaction S.r.l., a company which operates in projects and prototypes of electronics and transmission equipment.
- **2004:** Cape Natexis Private Equity Fund (CNPEF) and Fondamenta acquired a 60% stake in the company through SSBT S.p.A.
- **2005:** SSBT incorporates Screen Service America (SSA).
- **2005:** SSBT acquires the entire capital of M.B. International Telecom Labs S.r.l. (MBITL), a spin-off of M.B. International S.r.l.

2006s

- Screen Service System (SSS) is incorporated, entering into the system integration business with an opportunistic approach.
- **11-Jun-2007:** first day listed on the Milan Stock Exchange "Expandi Market".

2007s

- **Jun-2007:** MBITL signs agreement with Xilinx (NASDAQ – XLNX) as R&D partner for the development of several protocols in order to allow IPTV (Internet Protocol Television) to function on Xilinx's Platform.
- **Jun-2007:** Screenlogix is established and is expected to be involved in the development of a new generation of Hi-speed SuperComputers for number crunching, virtual servers and computer graphics.
- **Oct-2007:** SSBT acquires order from an important System Integrator for the supply of innovative transmitters for the broadcasting of digital terrestrial TV and mobile TV, manufactured according to the Software Defined Transmitter (SWDT) technology. The order has a value of approx. **16 million Euros.**
- **Oct-2007:** MBITL signs agreement with a major company, S&P 500 listed to develop software on embedded/digital signal processing family by utilizing the concept of "Software Defined Radio" of which MBITL is a pioneer.

2008s

- **At the end of January 2008,** Screen Service do Brasil (SSB) is incorporated and is already in a position to deliver the ISDB-T standard (also used in Japan) that has been adopted in Brazil for digital transmission.
- **Mar-2008:** record contract signed with RRD and Profit Group worth 14,5 million Euros (duration of 30 months w.e.f. 1-Apr-2008) for the supply of DVB-T equipment necessary to complete and define the digitalization process of the interregional broadcasters controlled by Profit Group.
- **Mar-2008:** financial loan of 8 million Euro granted to Profit Group (expired date 17-Mar-2011) which entitles SSBT to be the privileged supplier (first call-last refusal) of equipment necessary to the construction of the Wi-Max network of the following Italian Regions: Liguria, Toscana and the Province of Trento.
- **Mar-2008:** a call option has been granted by Profit Group for the purchase of 30% of share capital of RRD, leader in the supply of large scale solution in DVB-H technology. It can be exercised within March 2011 at a price of 7 million Euros.

2009s

- **SCREEN SERVICE acquires 100%** of RRD Reti Radiotelevisive Digitali S.r.l., a leader in the broadcast and telecommunications services industry.
- Screen Service and RRD play a primary role in the definition of the new standard for the US market, ATSC Mobile DTV (A/153), collaborating with OMVC (Open Mobile Video Coalition) and offering a complete high reliability end-to-end solution.

2010s

- **Screen Service founds Skylinks,** a newco with a long background of experiences in High Capacity Microwave Systems. Its product portfolio covers the broadcast needs but also telecom, defense, healthcare and many others.

2011s

- Tivuitalia becomes an officially authorized Italian Nationwide Network Operator.

Screen Service Broadcasting Technologies S.p.A.

- **Screen Service America LLC** 100%
- **Screen Service do Brasil Ltda.** 100%
- **Skylinks s.r.l.** 100%
- **Tivuitalia S.p.A.** 100%

Services

Have you decided to make the digital switch but cannot find a way to cover the initial cost in your budget? Screen Service Group will make it easy to afford the switch with Darwin Service. Darwin, otherwise known as evolutionary rental, is an innovative service with a new contractual formula allowing companies looking to make the digital switch without committing to a complete investment, or incurring upfront costs.

Screen Service always supports you, for every problem you can have using our equipments, our support center will help you. Screen Service has strategically located three different support centers in different geographical areas in order to cover the extended business hours support requirement of our customers: Italy, USA, Brazil. Call or write us (support@screen.it), we'll do our best to deliver a fast and effective solution.

Screen Service Group does not just value your company's business until the check clears; SSBT values the customer for the duration of our partnership. We hold ourselves to a high standard concerning Customer Support and Maintenance, and provide our partners with quality assistance in either field on a multinational, multilingual level. SSBT takes pride in executing our commitment to you via your warranty conditions as quickly as possible, while still adhering to the excellence and quality we have mandated for ourselves.

The Screen Service group has, through TivuItalia, network operator capabilities, installation services, and network planning. TivuItalia has a complete worldwide database with altimeters and population and twenty years of experience in network planning and coverage simulations. Thanks to their experience, TivuItalia can gather transmission site information and deliver a complete simulation of Population coverage, Errors, disturbed signals, losses of power, SFN simulations and delay calculation, Transmitting power planning and simulations and Network optimization.

The Screen Service Group have gathered an impressive range of expertise in the broadcasting industry, giving them the creditability to advice and consult in the worldwide market for digital TV, such prestige is only given to those amongst the highest echelon in their field, confirming their vast and knowledgeable experts are among the best in the world. Concerning anything from starting out, or making the transition to digital, to telecom operators seeking insight on Mobile TV business opportunities.Screen Service Group combines perspectives to give you complete results, offering you consultants from both the technical and business facets of this industry.

Screen Service Group delivers a wide range of products encompassing all services a broadcaster needs: including everything from the playout to the transmitters. Some customers want to use a particular configuration, which can be integrated into the Screen Service system. We bring a multi-product multi-platform mindset that allows us to integrate equipment our broadcasting customer already has into the Screen Service system.

Product Customization Ability

Screen Service fits customer requests into a solution.

This page shows you just a few customizations that the Screen Service engineers are capable of, have confidence in knowing that when you tell our Sales Department what you need, you are working with over twenty years of experience to ensure that you will be provided with excellent customer service and a perfectly tailored solution.

Transmitter interlock

Matching lines for the Antenna load

Emergency button

Analog dashboard

Analog Dashboard draws the output power on air and upon loading

Switching Relay

It switches from the main transmitter to the reserve with the U-Link bypass capability

TLC/TLS on top

Panel on top of the rack with all TLC and TLS signals can also have other input options, such as ASI, 10MHz and 1PPS

Dummy Load

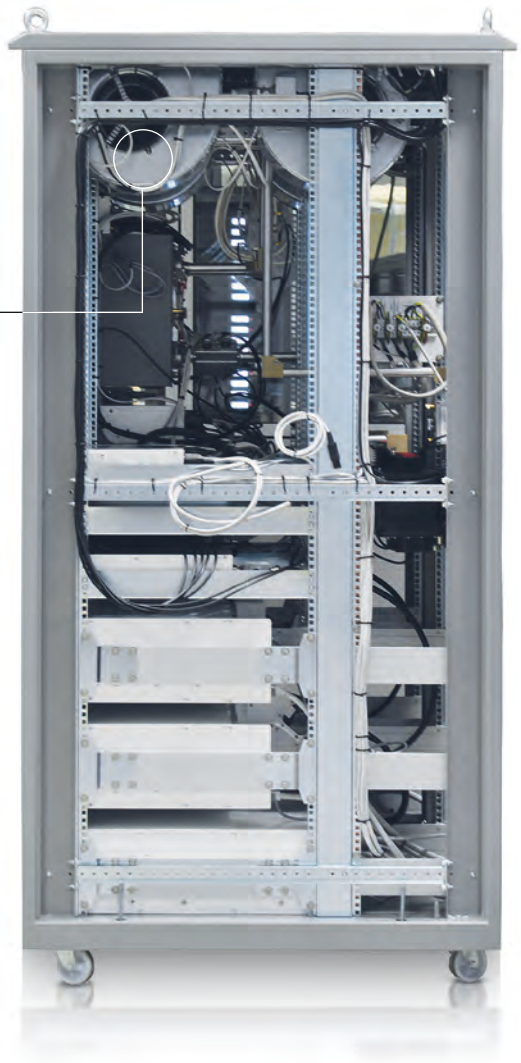
Screen Service also provides custom software applications tailored on any specific requirement our customers may have, such as the software which grants different types of access to the system allowing the authorized personnel working on it with various levels of authorizations.

Motorized Thermostatic Panel to regulate temperature

Thermostatic Panel opens and closes ducts after checking the internal temperatures (68° F, 20° C) and controls the direction of hot air in order to reduce the equipment stress

Redundant Blowers

Fans alternate operation every 300 hours



Power Distribution

Power Distribution can be provided integrating an insulator transformer, a soft start circuit, absorbtion control, and a tilting phase circuit as well as auxilary power input for the UPS system within the Control Unit

Product Portfolio

Screen Service draws the future in the broadcasting market with a wide range of advanced technology products that covers any headend, distribution, broadcast and remoting needs.

Headend

- Encoders SD, HD, H264/Decoders
- Multiplexers/Re-Multiplexers
- SFN Adapters
- Seamless ASI Switching Systems
- IRRM (Integrated Receiver and Re-Multiplexer) for Regional SFN Distribution
- Dual GPS with Seamless Switching
- Complete Head-end in a box (DVB-H) /ATSC-MH)
- T2-MI Gateway

TV Transmitters

- Multi Mode Transmitters and Transposers
- Air and Liquid Cooling
- from 1 mW to 40KW
- Analog (PAL, NTSC) and Digital
  (DVB-T/T2 - ATSC/MH – ISDB-Tb – DAB/T-DMB - DTMB)
- Transposers/Translator with Automatic Signal Recognition
- Gap Fillers With Automatic Digital Echo Cancelling Device

Test Measurement & Monitoring

- Broadcast Analyser
- Monitoring System
- Power Meter
- Multi Viewer

Radio Link Microwave System

- High Capacity Microwave Systems.
- 1+0, 1+1, 2+0, Split Mount and Full Indoor Hardware Configurations
- From 3.6 to 43 GHz., from QPSK to 1024QAM, Several HW configurations are available, scalable Ethernet from 1 up to 2Gpbs.
- Customizable radio links solutions.

Remote Network Management

All, Always, Anywhere under control... everything totally in your power. Functionality can be achieved with a minimum effort: this is the secret of modern technology. And this is also the result of uninterrupted development, where research and design push the competitive edge of technology. SSBT's remote control system is the result of this philosophy: "SSBT NMS System" embeds in a single product state-of-the-art technology, advanced features and easy of use. RDF (Radio Data Frontend), now in the third generation, SNMP advanced management, and NetLOBBY software are the complementary elements leveraging SSBT NMS System full power.

Table of Contents

ATSC Headend

Headend
Legacy and ATSC Mobile

Complete digital headend solution for ATSC Legacy (A/53) and ATSC Mobile DTV (ATSC-MH, A/153)

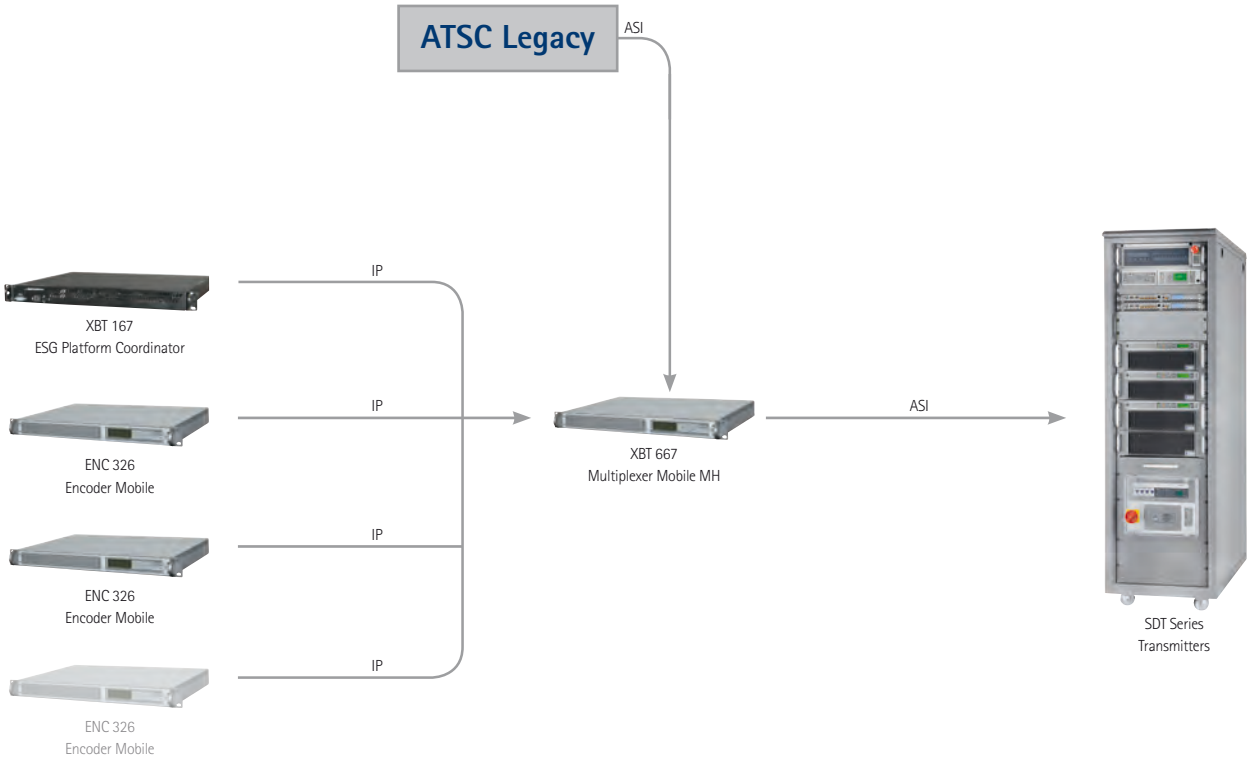
ATSC Mobile DTV turnkey solution

SPEED Mobile DTV

SPEED is the one-stop solution from testing and evaluation to full commercial service.

The Speed Mobile DTV solution consists of Mobile DTV Encoders, ESG Flute Server, Multiplexer for Mobile streaming, and Exciter fully compliant with the A/153 standard. You will get all you need to put your valuable content in your customersí hand. Speed Mobile DTV gives you the chance to boost your content, reaching your customers anywhere thus increasing revenues.

The system is built to satisfy the broadcasters priorities: ATSC Legacy backward compatibility and easy-to-use plug-and-play nature.



XBT 667

SPEED Multiplexer Mobile

> XBT 667 – Multiplexer Mobile

SPEED Multiplexer mobile is the most flexibleand scalable solution for ATSC Mobile DTV presenting a complete list of features from Preprocessor of the Mobile Stream to aggregation of the legacy ATSC and mobile ATSC MH streams into your Transmitter.

Main Features

Preprocessor:
MH Preprocessor:

- Real Time multiplexes of Mobile A/V, Data and ESG
- Information editing function of FIC, TPC, Signaling generator (SMT, GAT, SLT, CIT and RRT)
- Internal generation of SSC IP packet for each ensembles for each parade
- Dedicated Gigabit port for ATSC-MH services
- Perform single and multiple ensemble
- Perform up to 16 parades and up to 32 ensembles
- Support all modes in the ATSC A/153 standard to calibrate the right quality-of video/number-of-channel ratio
- Output interleaved transport stream by multiplexing MHE packet MH PART (MH data) and Legacy ATSC
- Packet timing and PCR restamping for the legacy ATSC packets.

INPUT TO MULTIPLEXER ARE:

- 1 ASI/SSI transport streams
- 1 GBe port for MH services

OUTPUTS FROM MULTIPLEXER ARE:

- 4 ASI transport streams carrying all the same transport stream out

AS ANY MULTIPLEXER OF THE XBT FAMILY, IT HAS BUILT-IN:

- Web server to dispatch a Java applet for interactive management
- Java applet tested on most popular browser
- Java applet downloadable for local execution
- SNMP server for remote control
- GPS receiver capable of synchronizing internal time generators
- Internal file system accessible via TCP/IP and TFTP protocols for easy remote upgrade
- Telnet server for access via character based terminals
- Geographical coordinates available
- Battery powered local time clock automatically synchronized to UTC
- 8 trap address for automatic alarm/monitoring Physical

PHYSICAL

- 1U rack frame
- Size:

W:	19,05"
H:	1,7"
Lbs:	8,81 (kg 4)
Size	
D:	13,62"

POWER SUPPLY

- 90-270 VAC PFC corrected power supply
- Nominal power 38 VA
- Power factor: 0.95
- Max inrush current 15A
- M6 screw for extra ground connection
- Power cord: US standard

ASI INPUTS

- EN 500083-9 compliant
- BNC connectors 75 ohm
- ATSC bit rate

SSI INPUTS

- EN 500083-9 compliant
- BNC connectors 75 ohm
- ATSC bit rate

ETHERNET CONNECTION

- 10/100/1000 Mbit EThernet connector
- 1 IP address for web server, management, SNMP server, Telnet, TFTP and remote update
- 1 IP address for RTP/UDP server
- 1 IP address for RTP/UDP client
- RTP protocol: ProMpeg cop3 with no FEC packet processing/ generation
- Optional NTP client

GPS INPUT

- TNC connector 50 ohm
- Phantom power 3 Volt 50 mA short circuit protected
- GPS L1
- 12 channel simultaneous operation
- 45 s typical cold start TTFF
- 38 s typical warm start TTFF
- 5 s typical hot start TTFF
- <0.5 s reacquisition
- Sensitivity Acquisition/Tracking -185dBW / -185dBW
- 30ns rms accuracy, <10ns resolution

ASI OUTPUT

- EN 500083-9 compliant
- BNC connectors 75 ohm
- Maximum bit rate as per DVB-T standard

FRONT PANEL

- 4 x 20 alpha displays
- Button navigation
- Basic setup and status

REFERENCE INPUTS

10MHz	SMB connector
	1Vpp sine
	50 ohm terminated
	AC coupled
	option "HIZ" available
1 sec PPS	SMB connector
	0.4 VIL
	1.7 VIH
	Dc coupled
	50 ohm terminated
	Option "HIZ" available

REFERENCE OUTPUTS

10MHz	SMB connector
	1Vpp sine
	50 ohm
	DC coupled
1 sec PPS	SMB connector
	0.2 VOL @ 64 mA IOL
	2.2 VOH @ 64 mA IOH
	Dc coupled
	50 ohm capable

REMOTE CONTROL INTERFACES

RS-232	Dedicated DB9 connector
	Data only
	Also available on remote control DB25 connector
	230kbit
Relays	4 relays for alarm/info
	NO & NC contacts at connector
	Available on remote control DB25 connector
	Opto couplers
	4 opto couplers for command
	Internal floating current generator
	Common anode
	2 mA max on current
Functions	Default: 1 relay alarm/ok
	Option "N1": use relay and opto for SSBT N+1 system

SOFTWARE

- Java applet requires Java 6 Version 13 or more recent
- Java applet tested on Safari, Internet Explorer, Mozilla
- Browser will download automatically suitable version of Java if connected to internet
- SNMP is version 1 compliant
- MIB files included in CD

ENC 326

Two channels Multi-standard H.264 encoder tailored for Mobile TV applications

> ENC 326

Enc 326, 2 channels Multi-standard H.264 encoder tailored for Broadcasting Mobile TV services.
Developed for the next generation of digital video and audio end-equipment applications.
The encoder relies on a powerful hardware platform that features a bestin-class acquisition board, advanced pre-processing fi lters, statistical encoding, multiple codec support, multi-stream generation, and superior confi guration and supervision capabilities. As a result, it is the solution of choice for all mobile TV applications.

VIDEO SPECIFICATIONS	
Video Compression and Bit-rate (CBR/VBR)	MPEG-4 AVC BP@L1.3
Video Input Filtering	Horizontal Filter
Aspect Ratios	4:3 and 16:9
SD Resolutions & frame Rates	416 x 240p@29.97/30
	416 x 240p@25
	416 x 240p@24/23.98
	416 x 240p@12.5
	416 x 240p@12/11.98
	320 x 240p@29.97/30
	320 x 240p@25
Up/Down/Cross-Conversion	576i@25 to 416x240p, 320x240p
	480i@29.97/30 to 416x240p, 320x240p

AUDIO SPECIFICATIONS	
Standard Channels	1 stereo pair
Audio Formats	AAC-LC, AAC-HEv1, AAC-HEv2
Operating Modes Mono, stereo	Stereo
Encoding Bit-Rate	AAC-HEv2 16 to 64 Kbps

INPUTS AND OUTPUTS	
INPUT	
Video Inputs	ISMA: up to 2 Serial Digital(SMPTE259M) or CVBS (ITU PAL, NTSC)
Default Audio Inputs	One pair via SDI embedded or Balanced Audio
OUTPUT	ASI (only one A/V channel)
	R Input:75 Ohm
	V Input:800 mVpp (500 to 1200 mVpp)
	Standard: CEI EN 50083-9
	MPEGoverIP (only one A/V channel)

POWER	
Input Voltage Range	90-270 VAC PFC corrected power supply
Current	Nominal power 38 VA

ENVIRONMENTAL	
Cooling	8 fans, temperature controlled air flow front to right side
Operating Temperature	+32° to +122° F 0° to +50° C
Storage Temperature	-4° to +176° F -20° to +80° C
Operating Humidity	< 95% non-condensing
Electromagnetic Compliance	FCC Part 15 Class A CE Mark (EN 55022 Class A and EN 50082-1:1997)
Safety	UL 1950 and cUL C22.2#950 EN 60950 ROHS Directive 2002/95/EC

PHYSICAL	
Dimensions	(W x H x D) 19" x 1.75" x 27" (1-RU) 48.26 cm x 4.45 cm x 68.69 cm
Weight	8,81 lbs. / 4 kg

SYSTEM MANAGEMENT	
Control Management GbE	Standalone web user interface
	N° Inputs: 1 Connector: RJ45
	Standard: IEEE 802.3
RS-232	N° Inputs: 1 Connector: DE-9 female

ATSC MEMBER

ATSC MH

SPEED XBT 668 mobile is the perfect fit to build ATSC SFN network in the most efficient way.

> XBT 668

SPEED Multiplexer mobile is the most flexibleand scalable solution for ATSC Mobile DTV presenting a complete list of features from Preprocessor of the Mobile Stream to aggregation of the legacy ATSC and mobile ATSC MH streams into your Transmitter.

Main Features

- Output transport stream compliant to A110/B for the synchronization of distributed transmission (SFN)
- Input the transport stream carried MH and legacy services
- Integrated GPS receiver
- Output bit rate at exact 19.39 Mbps in 6 Mhz channel.

INPUT TO MULTIPLEXER ARE:	
8 ASI or SSI transport streams	
1 SPI connector for multiplexer extension	
2 RTP clients for RTP/UDP encapsulated Transport Streams on 2 different ports of a single IP address	
Outputs from multiplexer are:	
4 ASI transport streams carrying all the same transport stream out	
1 RTP/UDP Server carrying encapsulated Transport stream	
SPI output for system extension	
AS ANY MULTIPLEXER OF THE XBT FAMILY, IT HAS BUILT-IN:	
Web server to dispatch a Java applet for interactive management	
Java applet tested on most popular browser	
Java applet downloadable for local execution	
SNMP server for remote control	
GPS receiver capable of synchronizing internal time generators	
Internal file system accessible via TCP/IP and TFTP protocols for easy remote upgrade	
Telnet server for access via character based terminals	
Geographical coordinates available	
Battery powered local time clock automatically synchronized to UTC	
8 trap address for automatic alarm/monitoring Physical	
PHYSICAL	
1U rack frame	
Size	
D:	13,62"
Size:	
W:	19,05"
Lbs:	8,81 (kg 4)
H:	1,7"

XBT 167

SPEED ESG Announcement Server

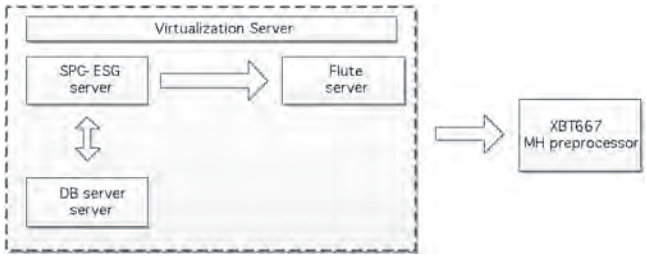
> XBT 167

XBT 167 – SPEED ESG Announcement server is a complete solution for creating, aggregating and delivering advanced Mobile TV services over broadcast and cellular networks.
It provides Content Providers, Commercial Operators, Network Operators and Broadcast Operators with a management platform for Electronic Service Guide (ESG), Interactive and Datacasting services.

The SPC – ESG module is used in ATSC-M/H Broadcasting Systems as Service Platform Coordinator ESG Server.

Main Features

- Fully Compliant to A/153 part 4 (Announcement)
- OMA BCAST Service Guide (Service Guide, ESG, EPG)
- Single management point for ESG related information
- Service Provisioning
- SG Delivery Provisioning
- Metadata Collector
- Interstitial Advertising, icon, URL, description
- Basic and Enanched Interactivity service
- Broadcast delivery server and Datacasting
- Non-Real-Time Content Delivery
- DataBase Storage Server
- Virtual Machine Server



SPC – ESG Module

SPC – ESG Main features are:

- Fully compliant DVB-IP/OMA-BCAST and ATSC-MH complaint
- Create, update e delete of services, service bundles, products, ESG provider.ESG import from local file
- Support multiple formats such as TV anytime, Tribune, XML, DVB-IPDC and OMA-BCAST file input
- Automatic program data ingestion
- Content editing and management
- ESG creation and export
- Export services, service bundles, products and contents to IPDC and BCAST platform.
- SPC SMS and SPC MPAY Interaction
- Logo Channel preview on the Channel Guide
- NTP Client
- Embedded Linux O.S.

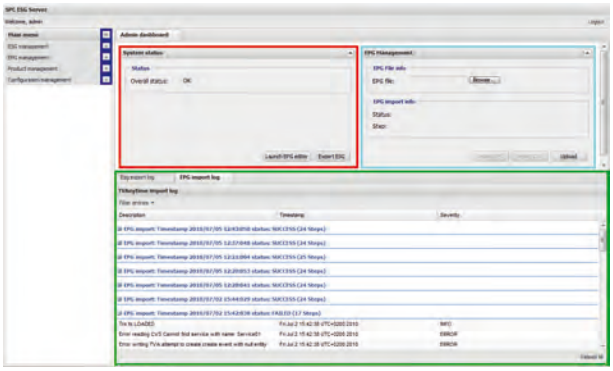
ATSC MEMBER

ATSC MH

SPC - ESG is the powerful Service Guide generator for SPEED ATSC Mobile DTV solution.

SPC - ESG will act as the single management point for the multimedia product packaging and encoding rules:

- Conditional access control lists definition and management
- Subscription bundles definition and management
- Complimentary information ingestion according to major broadcasting standards
- Basic interactivity services inline definition
- Advanced interactivity services definitionin conjunction with leading edge interactive platforms.

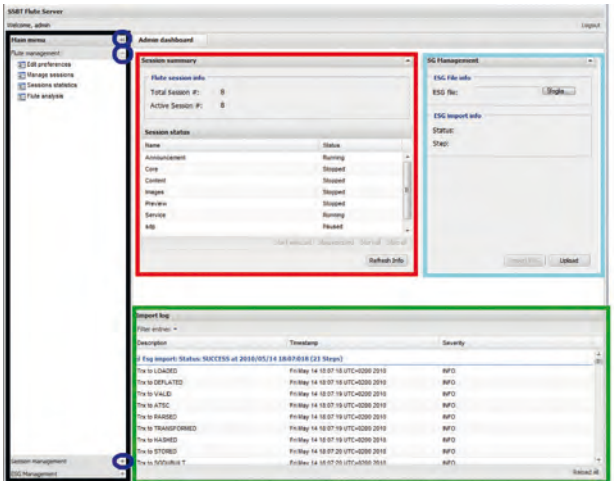


Flute Server module

The Flute Server module finds its field of application in ATSC-M/H Broadcasting Systems as broadcast file delivery Server. The Flute Server can be configured using a Web interface that loads an ESG configuration and that permit sessions management.

The main features of Flute Server are:

- Session Type supported: ATSC-M/H, BCAST, IPDC2006 (in next releases), IPDC 2010 (in next releases)
- ESG import from local file
- Flute sessions managing: create, update and delete
- Session status managing: start, stop
- Sessions parameters editing
- Session Fragmentation criteria selection
- Session Analysis
- Session Statistic
- Flute Carousel Output
- Embedded Linux O.S.
- NTP Client

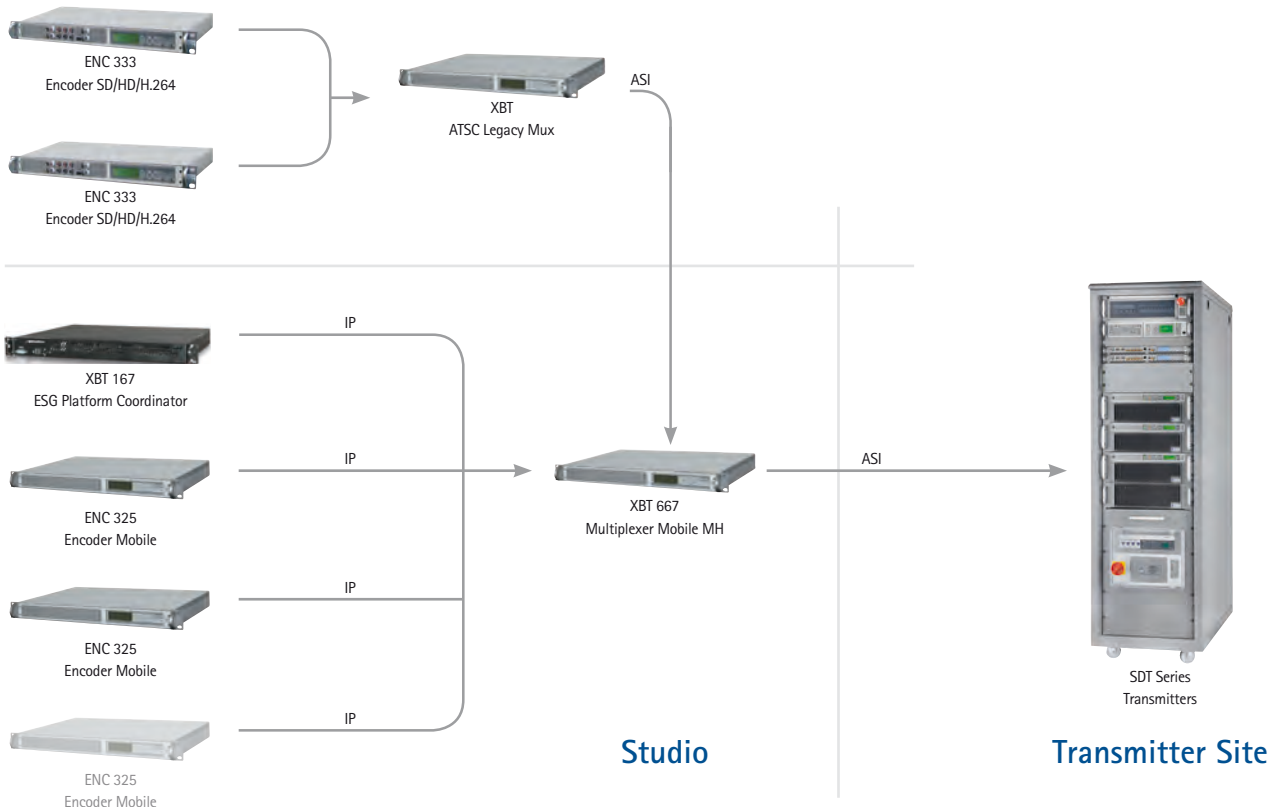


Go Digital with Professional Headend Systems

Screen Service ATSC Legacy solution includes state-of-the-art SDTV MPEG-2/AC-3 encoders, PSIP signaling generator, multiplexer and exciter.
Our standard definition encoder will give your valuable content the right format to please your customers' eyes.

Screen Service will provide you with our efficient PSIP generator to comply with the FCC data in providing Guide TV information to your Transport Stream, automatically ingesting from your PSIP source.

Screen Service Multiplexer is the core element which aggregates your content and data, fitting the ATSC standard specifications and it is ready-to-go for the new generation of broadcasters' revenue ATSC-MH (A/153), perfectly integrated with our SPEED solution.
And with our easy to use plug and play architecture you don't even have to struggle with technical details. It just works and hence boosts your revenue, in the respect of your budget needs. The main feature of the Screen Service headend solution is the maximum flexibility and scalability where the customer requirements will tailor and design the perfect match between business and technology.



ENC 333A

Encoder HD/SD/1SEG, MPEG2/H.264

> ENC 333A

The ENC-333 is a high-definition system designed for real-time audio/video encoding for broadcast applications. This device is able to encode several HD and SD formats, providing high quality video, suitable for broadcast transmission. The video encoding technique, H.264 and MPEG-2, guarantees low output bit-rate with a flexible range that goes from 2 up to 25 Mbps. The audio stream is coded with high efficiency and quality, using: MPEG-1 Layer II, AAC-HE and AAC-LC or Dolby Digital Pro. ENC-333 encodes in SD or HD resolution the video input signal that it come from one of the inputs: SDI, HDMI, and Analog Video (Y, Cb, Cr), according to the coding standards, H.264 and MPEG-2. The ENC-333 includes not only video processing, but also stereo audio encoding in MPEG-1 Layer II (MP3), AAC HEv1, HEv2 and LC formats, Dolby Digital Professional. Video and audio elementary streams are multiplexed in an MPEG-2 Transport stream for output over an ASI link. A separate ASI input provides support for an external PSIP/SI data generator. Next to PAT and PMT, PSIP support includes MGT, TVCT and CVCT, while SI support includes NIT, SDT, CAT and TDT.

VIDEO SPECIFICATIONS	
Video Compression and Bit-rate (CBR/VBR)	MPEG-2 MP@ML 2 to 25 Mbps
	MPEG-2 MP@HL 4 to 25 Mbp
	MPEG-4 AVC MP@L3.0 0.5 to 25 Mbps
	MPEG-4 AVC HP@L4.1 4 to 25 Mbps
	MPEG-4 AVC BP@L1.2, L1.3 0.1 to 1 Mbps
Video Processing	LookAhead multi-pass processing
	Scene-cut, fade/dissolve and skin tone detection
	Dynamic GOP management with adaptive I-picture and B-picture placement
	Automatic input format (1080i/p, 720p) detection and switching (SDI only)
	Inverse telecine
Video Input Filtering	Motion compensated temporal fi lter (MCTF)
	Horizontal fi lter
	Input deblocking filter
Aspect Ratios	4:3 and 16:9
	AFD and WSS control
SD Resolutions and Frame Rates	576i@25, 480i@29.97 480i@30 x 720, 704, 640, 544, 528, 480, 352 pixels
HD Resolutions and Frame Rates	720p@23.97p, 24p, 25p, 29.97p, 30p, 50p, 59.94p 60p x 1280, 960, 640 pixels
	1080i@25, 29.97, 30 x 1920, 1440, 1280, 960 pixel
	1080p@23.97p, 24p, 25p, 29.97p, 30p x 1920, 1440, 1280, 960 pixel
Multiscreen Resolutions and Frame Rates	Built-in PIP (not enabled)
SD Resolutions & frame Rates	416x240p@25, 29.97 & 30
	352x288p@25
	320x240p@14.985, 15, 25, 29.97 & 30
	320x180p@14.985, 15, 25, 29.97 & 30
	176x144p@25
HD Resolutions & frame Rates	576x720i/p@25
	480x720i/p@29.97 & 30
	416x240p@25, 29.97 & 30
	352x288p@25
	320x240p@14.985, 15, 25, 29.97 & 30
	320x180p@14.985, 15, 25, 29.97 & 30
	176x144p@25

Up Down Cross-Conversion	1080i@25 to 576i@25 (HD to SD) 1080i@29.97 & 30 to 480i@29.97 & 30 (HD to SD) 1080i/p@25 to 352x288p, 416x240p, 320x240p, 328x180p @25 (HD to LD) 1080i/p@29.97 & 30 to 416x240p, 320x240p, 328x180p @14.985, 29.97 & 30 (HD to SD) 576i@25 to 352x288p, 416x240p, 320x240p, 328x180p @25 (SD to LD) 480i@29.97 & 30 to 416x240p, 320x240p, 328x180p @14.985, 29.97 & 30 (SD to LD)

ANCILLARY DATA SPECIFICATIONS	
Closed Captioning	EIA608B field 1, 2, 1&2
	EIA708B
Ancillary Data and VBI	WSS, Video Index (SMPTE RP186), AFD/BAR data (SMPTE RP2016 1-3), AFS/BAR

AUDIO SPECIFICATIONS	
Standard Channels	1 x Stereo Pair (capable of up to 2 stereo pair in HD in version 3.0 and above)
Audio Formats	Consumer (AC3-CE, 2.0) native encoding
	Dolby Digital Surrond (AC3 5.1), 2 x AAC (LC/HEv1/HEv2) Surround (5.1), 2 x MPEG1-LII, pass-trought
Operating Modes Mono, stereo	Mono, Stereo
Encoding Bit-Rate	MPEG1 Audio Layer II 192 to 384 kbps
	Dolby Digital (AC-3) 56 to 448 kbps
	AAC-LC 32 to 384 kbps
	AAC-HEv1 32 to 192 kbps
	AAC-HEv2 32 to 96 kbps

INPUTS AND OUTPUTS	
INPUT	
Video Inputs	1 x Serial Digital (SMPTE 259M SD-SDI, SMPTE 292M HD-SDI), 1 x Component (YUV), 1 x HD-MIv1.3, 1 x CVBS (PAL, NTSC)
Default Audio Inputs	2 x SDI embedded, 2 x AES/EBU (AES3 75Ohm), 2 x HDMI, spidif, 2 x Stere Balanced Analog Audio
OUTPUT	
ASI	ASI
	R Input: 75Ohm
	V Input: 800mVpp (500 to 1200 mVpp)
	Standard: CEI EN 50083-9
	(Not active for Dolby Digital Audio)
ASI over IP	Standard: SMPTE 2022 (FEC included)

SYSTEM MANAGEMENT	
Control Management GbE	Standalone web user interface
	N° Inputs: 1 Connector: RJ45
	Standard: IEEE 802.3
RS-232	N° Inputs: 1 Connector: DE-9 female

ENVIRONMENTAL	
Cooling	8 fans, temperature controlled air flow front to right side
Operating Temperature	+32° to +122° F 0° to +50° C
Storage Temperature	-4° to +176° F -20° to +80° C
Operating Humidity	< 95% non-condensing
Electromagnetic Compliance	FCC Part 15 Class A CE Mark (EN 55022 Class A and EN 50082-1:1997)
Safety	UL 1950 and cUL C22.2#950 EN 60950 ROHS Directive 2002/95/EC

PHYSICAL	
Dimensions	(W x H x D) 19" x 1.75" x 27" (1-RU) 48.26 cm x 4.45 cm x 68.69 cm
Weight	8,81 lbs. / 4 kg

ENC 334

Four Channel SD-Encoder MPEG2/H.264

> ENC 334

ENC 334 is the compact solution for your digital television head end. It provides up to 4 SD channel encoding capacity in order to quickly create a new line up or easily transcode existing analog channel line ups to new digital ones for either DVB-T, DVB-S, ATSC delivery. ENC 334 provides not only video processing, but also stereo audio encoding in MPEG-1, Layer II (MP3) and AAC (HE and LC) formats for each video channel. Video and audio elementary streams are multiplexed in an MPEG-2 Transport Stream for output over an ASI link. A separate ASI input provides support for an external PSIP/SI table data generator.

VIDEO SPECIFICATIONS	
Video Compression and Bit-rate (CBR/VBR)	MPEG-2 MP@ML 2 to 25 Mbps
	MPEG-4 AVC MP@L3.0 0.5 to 25 Mbps
	MPEG-4 AVC BP@L1.2, L1.3 0.1 to 1 Mbps
Video Processing	LookAhead multi-pass processing
	Scene-cut, fade/dissolve and skin tone detection
	Dynamic GOP management with adaptive I-picture and B-picture placement
	Automatic input format (1080i/p, 720p) detection and switching (SDI only)
	Inverse telecine
Video Input Filtering	Motion compensated temporal fi lter (MCTF)
	Horizontal fi lter
	Input deblocking filter
Aspect Ratios	4:3 and 16:9
	AFD and WSS control
SD Resolutions and Frame Rates	576i@25, 480i@29.97 480i@30 x 720, 704, 640, 544, 528, 480, 352 pixels
Multiscreen Resolutions and Frame Rates	Built-in PIP (not enabled)
SD Resolutions & frame Rates	416x240p@25, 29.97 & 30
	352x288p@25
	320x240p@14.985, 15, 25, 29.97 & 30
	320x180p@14.985, 15, 25, 29.97 & 30
	176x144p@25
Up/Down/Cross-Conversion	576i@25 to 352x288p, 416x240p, 320x240p, 328x180p @25 (SD to LD)
	480i@29.97 & 30 to 416x240p, 320x240p, 328x180p @14.985, 29.97 & 30 (SD to LD)
Up/Down/Cross-Conversion	1080i@25 to 576i@25 (HD to SD) 1080i@29.97 & 30 to 480i@29.97 & 30 (HD to SD) 1080i/p@25 to 352x288p, 416x240p, 320x240p, 328x180p @25 (HD to LD) 1080i/p@29.97 & 30 to 416x240p, 320x240p, 328x180p @14.985, 29.97 & 30 (HD to SD) 576i@25 to 352x288p, 416x240p, 320x240p, 328x180p @25 (SD to LD) 480i@29.97 & 30 to 416x240p, 320x240p, 328x180p @14.985, 29.97 & 30 (SD to LD)

ANCILLARY DATA SPECIFICATIONS	
Closed Captioning	EIA608B field 1, 2, 1&2
	EIA708B
Ancillary Data and VBI	AFS/BAR, WSS

PHYSICAL	
Dimensions	(W x H x D) 19" x 1.75" x 27" (1-RU) 48.26 cm x 4.45 cm x 68.69 cm
Weight	8,81 lbs. / 4 kg

AUDIO SPECIFICATIONS	
Standard Channels	1 stereo pair
Audio Formats	MPEG-1 Layer II, AAC-LC, AAC-HEv1, AAC-HEv2 native encoding
	Dolby Digital Pro (AC3 2.0 & 5.1), AAC-LC/ HEv1&2 Surround (5.1) pass-trought
Operating Modes Mono, stereo	Mono, Stereo
Encoding Bit-Rate	MPEG Audio Layer II 192 to 384 kbps
	AAC-LC 32 to 384 kbps
	AAC-HEv1 32 to 192 kbps
	AAC-HEv2 32 to 96 kbps

INPUTS AND OUTPUTS	
INPUT	
Video Inputs	four Composite (CVBS), Component(YUV) inputs
Default Audio Inputs	four stereo analog audio inputs
OUTPUT	ASI
	R Input:75 Ohm
	V Input:800 mVpp (500 to 1200 mVpp)
	Standard: CEI EN 50083-9

SYSTEM MANAGEMENT	
Control Management GbE	Standalone web user interface
	N° Inputs: 1 Connector: RJ45
	Standard: IEEE 802.3
RS-232	N° Inputs: 1 Connector: DE-9 female

ENVIRONMENTAL	
Cooling	8 fans, temperature controlled air flow front to right side
Operating Temperature	+32° to +122° F 0° to +50° C
Storage Temperature	-4° to +176° F -20° to +80° C
Operating Humidity	< 95% non-condensing
Electromagnetic Compliance	FCC Part 15 Class A CE Mark (EN 55022 Class A and EN 50082-1:1997)
Safety	UL 1950 and cUL C22.2#950 EN 60950 ROHS Directive 2002/95/EC

PRO RX S2

Professional Satellite Receiver

PRO RX S2

PRO RX S2 In 1+1 configuration

Description

The The PRO RX S2 is a DVB-S/S2 receiver with up to three ASI outputs designed for the primary distribution of mobile and/or terrestrial television over satellite. Operating in compliance with the DVB-S2 standard, the PRO RX S2 is capable of demodulating multiple MPEG transport stream in multi-stream mode: once received the input multi-stream, the transport streams are separated again based on their DVB-S2 Input Stream Identifier (ISI), then the desired services are descrambled by a CAM (Smart Card – common interface) modules with commonly adopted CAS in the market. With ASI and IP interfaces for input and output, PRO_RX_SAT 2 can be integrated into any head end systems for content delivery and re-distribution. (Professional Satellite Receiver, DVB S2 Professional Receiver).

Main Features

RF Input
Connector used as input to the systems
- N° input: 1 for each receiver board
- Connector type: LNB (female)
- R input: 75 Ω
- V input: 1.75 V
- Frequency: 950 to 2150 MHz
- DVB-S (ETSI EN 300 421)
- DVB-S2 (ETSI EN 302 307)

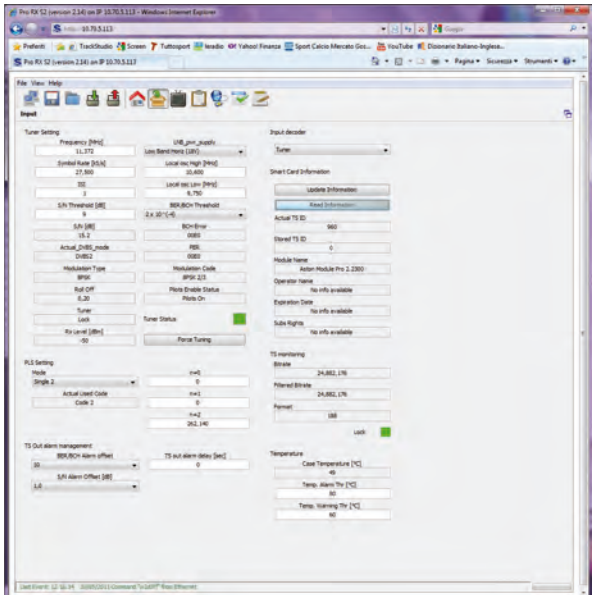
1 x Common Interface (for each receiver)
Connector used as input CAM
- Connector type: PCMCIA
- DVB-CI EN 50221-1997

1 x FastEthernet (Management)
- Connector: RJ45
- Standard supported: IEEE 802.3

3 x ASI Output (same content) / 6 x ASI Output (1+1 or 2+0 configuration)
- TS Descrambled (TSD)
- Connector type: BNC
- Input: 75 ohm, 800 mVpp (500 to 1200mVpp)
- MPEG-2 TS ISO/IEC 13818-1
- CEI EN 50083-9,

Management of the devices is made through:
- Java GUI on Ethernet connection.
- SNMP agent.

Power Supply
- Dual Power Supply (only in 1+1 or 2+0 configuration)
- 110/220V AC Auto Switching
- 48V DC (Option on Request)



JAVA INTERFACE

SATELLITE RECEIVER DESCRIPTION

Tuner	
Frequency range	950 to 2150 MHz
Supported Standard	DVB-S EN 300 421 v1.1.2: Digital Video Broadcasting (DVB); Framing structure, channelcoding and modulation for 11/12 GHz satellite services
	DVB-S2 EN 302 307 v1.1.2: Digital Video Broadcasting (DVB); Second generation framingstructure, channel coding and modulation systems for
	Broadcasting, Interactive Services, News Gathering and other broadband
	Satellite applications
Input Sat RF	
Tuning Setting	Frequency
	Symbol Rate
	ISI
	S/N Threshold
	LNB_pwr_supply
	Local osc Low
	BER/BCH Threshold
	Force Tuning
Monitoring	Actual_DVBS_mode
	Modulation Code
	Modulation Type
	Pilots Enable Status
	Rx Level [dBm]
	S/N [dB]
	Tuner Lock Flag
	Error Values

DVB-S Demodulator Features	
Setting Demodulator	QPSK
	FEC: 1/2, 2/3, 3/4, 5/6, 7/8
	Broadcast operating range 45 MSymbols/s
	CCM
Automatic configurations monitoring	Modulation type
	Filter roll-off
	Pilot presence (on/off)
	Long frames only
	Forward error correction
	Viterbi and Reed-Solomon dual decoder
	Error monitoring
Demodulator Features DVB- S2	
Setting Demodulator	FEC QPSK: 1/4, 1/3, 2/5, 1/2, 3/5, 2/3,3/4, 4/5, 5/6, 8/9, 9/10
	B. FEC 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9,9/10
	FEC 16APSK: 2/3, 3/4, 4/5, 5/6, 8/9,9/10
	FEC 32APSK: 3/4, 4/5, 5/6, 8/9, 9/10
	FECFRAME: both normal and short
	Broadcast operating range from 1 to 67 MSymb/s
	CCM, VCM and ACM
Automatic configurations monitoring	Modulation type
	Filter roll-off
	Pilot presence (on/off)
	Long frames only
	Forward error correction
	LDPC + BCH dual decoder
	Error monitoring

Physical layer scrambling	
Adjustable parameters	Mode
	First Physical Layer Scrambling sequence
	Second Physical Layer Scrambling sequence
	Third Physical Layer Scrambling sequence
Monitoring	Actual Used Code
DVB descrambler	DVB
	TSD (TS Descrambled) output interface
	Descrambler - max 12 Services
	Encryption systems supported: all mayors CA suppliers
	CAM supported: all mayors CA suppliers
Cam Reader	Smart Card Information
	Read Information
	Actual TS ID
	Stored TS ID
	Module Name
	Operator Name
	Expiration Date
	Subs Rights
Services Informations	Scrambled and not scrambled services
	Information
	Service Name
	Service ID
	Video PID
	Audio PID
	PCR PID
	TTX PID
TS Out	Output TS Monitoring
	Bitrate
	Filtered Bitrate
	Format
	Lock
	BB Frame and T2 MI out supported

ALARM MANAGMENT

Tuner unlocked	
CAM presence	
Smart Card presence	
Rights Absence	
TS Id changed	
Decrypt error	
Hardware	
Temperature High	
Temperature Warning	
S/N Alarm	
BER/PER Alarm	
PS1 Voltage low	
PS2 Voltage low	
32 bit alarms available	
Alarm Matrix Managment	Alarm notification
	Alarm notification via Java GUI
	LED alarm on the front panel
	Enable logging event alarm
	SNMP trap
	Disable Mask TS out for alarm
Event Log	SNMP v1

PRO RX S2 with Decoder

Professional Satellite Receiver with Decoder

PRO RX S2 with Decoder

Description

The The PRO RX S2 is a DVB-S/S2 receiver with up to three ASI outputs designed for the primary distribution of mobile and/or terrestrial television over satellite. Operating in compliance with the DVB-S2 standard, the PRO RX S2 is capable of demodulating multiple MPEG transport stream in multi-stream mode: once received the input multi-stream, the transport streams are separated again based on their DVB-S2 Input Stream Identifier (ISI), then the desired services are descrambled by a CAM (Smart Card – common interface) modules with commonly adopted CAS in the market. With ASI and IP interfaces for input and output, PRO_RX_SAT 2 can be integrated into any head end systems for content delivery and re-distribution. (Professional Satellite Receiver, DVB S2 Professional Receiver).

Audio and Video services are decoded and available on several interface.

Main Features

RF Input
Connector used as input to the systems
- N° input: 1 for each receiver board
- Connector type: LNB (female)
- R input: 75 Ω
- V input: 1.75 V
- Frequency: 950 to 2150 MHz
- DVB-S (ETSI EN 300 421)
- DVB-S2 (ETSI EN 302 307)

1 x Common Interface (for each receiver)
Connector used as input CAM
- Connector type: PCMCIA
- DVB-CI EN 50221-1997
- BISS descrambling - up to full TS
- CA Methods : MultiCrypt, SimulCrypt

1 x FastEthernet (Management)
- Connector: RJ45
- Standard supported: IEEE 802.3

3 x ASI Output (same content)
- TS Descrambled (TSD)
- Connector type: BNC
- Input: 75 ohm, 800 mVpp (500 to 1200mVpp)
- MPEG-2 TS ISO/IEC 13818-1
- CEI EN 50083-9,

Management of the devices is made through:
- Java GUI on Ethernet connection.
- SNMP agent.

Power Supply
- Dual Power Supply (only in 1+1 or 2+0 configuration)
- 110/220V AC Auto Switching
- 48V DC (Option on Request)

Audio/Video decoder section description:

Video standard supported:
- H.264/AVC: Level 4.1 high profile video decoder
- MPEG-2: MP@HL

HD video resolution supported:
- 1920x1080i30
- 1920x1080i25
- 1280x720p60
- 1280x720p50

SD video resolution supported:
- 720x576i25 compliant PAL-BG
- 720x576i29 compliant PAL-M
- 720x480i compliant NTSC

Audio standard supported:
- MPEG-2, layer I
- MPEG-2, layer II

Decoder Output:
1 x SDI-SD Output
- Connector: BNC
- Input: 75 Ohm, 800mVpp (500 to 1200 mVpp)
- Standard: SMPTE 259M,292M

1 x RGB-SD (R,G,B) Outputs
- Connector: RCA

1 x CVBS-SD Output
- Composite Video Blanking Sync
- Connector: RCA

1x HDMI-HD/SD Output
- Connectors: HDMI Type A

1 x YUV-HD (Y,U,V) Outputs
- Connector: XLR

1 x YPbPr (Y, U, V) (HD)
- Connector: RCA

1 x Audio out (Left e Right)
- Connector: mini XLR

SATELLITE RECEIVER DESCRIPTION

Tuner	
Frequency range	950 to 2150 MHz
Supported Standard	DVB-S EN 300 421 v1.1.2: Digital Video Broadcasting (DVB); Framing structure, channelcoding and modulation for 11/12 GHz satellite services
	DVB-S2 EN 302 307 v1.1.2: Digital Video Broadcasting (DVB); Second generation framingstructure, channel coding and modulation systems for
	Broadcasting, Interactive Services, News Gathering and other broadband
	Satellite applications
Input Sat RF	
Tuning Setting	Frequency
	Symbol Rate
	ISI
	S/N Threshold
	LNB_pwr_supply
	Local osc Low
	BER/BCH Threshold
	Force Tuning
Monitoring	Actual_DVBS_mode
	Modulation Code
	Modulation Type
	Pilots Enable Status
	Rx Level [dBm]
	S/N [dB]
	Tuner Lock Flag
	Error Values

DVB-S Demodulator Features	
Setting Demodulator	QPSK
	FEC: 1/2, 2/3, 3/4, 5/6, 7/8
	Broadcast operating range 45 MSymbols/s
	CCM
Automatic configurations monitoring	Modulation type
	Filter roll-off
	Pilot presence (on/off)
	Long frames only
	Forward error correction
	Viterbi and Reed-Solomon dual decoder
	Error monitoring
Demodulator Features DVB- S2	
Setting Demodulator	FEC QPSK: 1/4, 1/3, 2/5, 1/2, 3/5, 2/3,3/4, 4/5, 5/6, 8/9, 9/10
	B. FEC 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9,9/10
	FEC 16APSK: 2/3, 3/4, 4/5, 5/6, 8/9,9/10
	FEC 32APSK: 3/4, 4/5, 5/6, 8/9, 9/10
	FECFRAME: both normal and short
	Broadcast operating range from 1 to 67 MSymb/s
	CCM, VCM and ACM
Automatic configurations monitoring	Modulation type
	Filter roll-off
	Pilot presence (on/off)
	Long frames only
	Forward error correction
	LDPC + BCH dual decoder
	Error monitoring

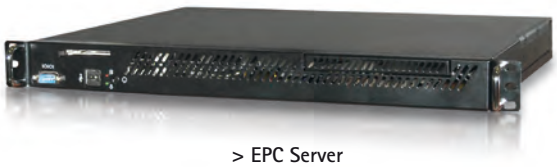
Physical layer scrambling	
Adjustable parameters	Mode
	First Physical Layer Scrambling sequence
	Second Physical Layer Scrambling sequence
	Third Physical Layer Scrambling sequence
Monitoring	Actual Used Code
DVB descrambler	DVB
	TSD (TS Descrambled) output interface
	Descrambler - max 12 Services
	Encryption systems supported: all mayors CA suppliers
	CAM supported: all mayors CA suppliers
Cam Reader	Smart Card Information
	Read Information
	Actual TS ID
	Stored TS ID
	Module Name
	Operator Name
	Expiration Date
	Subs Rights
Services Informations	Scrambled and not scrambled services
	Information
	Service Name
	Service ID
	Video PID
	Audio PID
	PCR PID
	TTX PID
TS Out	Output TS Monitoring
	Bitrate
	Filtered Bitrate
	Format
	Lock
	BB Frame and T2 MI out supported

ALARM MANAGMENT

Tuner unlocked	
CAM presence	
Smart Card presence	
Rights Absence	
TS Id changed	
Decrypt error	
Hardware	
Temperature High	
Temperature Warning	
S/N Alarm	
BER/PER Alarm	
PS1 Voltage low	
PS2 Voltage low	
32 bit alarms available	
Alarm Matrix Managment	Alarm notification
	Alarm notification via Java GUI
	LED alarm on the front panel
	Enable logging event alarm
	SNMP trap
	Disable Mask TS out for alarm
Event Log	SNMP v1

Service Platform Coordinator

SPC Headend Central Manager



> EPC Server

Description

The SPC server can manage the DVB headend and generate an EPG for every kind of architecture, including small or large headends.

SPC Server with XBT 525, when combined are the complete solution for the DVB-T Headend Management.

Main Features

SPC has 2 main features:

1) EPG Generation

SPC supports different inputs for the EPG generation: such as XML files or Plain Text Files. Content provisioning can be made manually or via file transfer protocol (FTP) based using periodic transfers. SPC comes with a full-featured EPG editor.

- EPG Server standalone
- Integrated with every multiplexer
- Ethernet output
- SI/PSI generation (PAT, PMT, NIT, SDT, TDT, TOT, EIT P/F and EIT Schedule)
- NTP enabled

2) Multiplexer Management Platform (with XBT525)

SPC allows to easily configure one or more XBT525 multiplexer. SPC includes automatic device discovering and inventory management, an automatic PID filtering, complete MUX management and SI/PSI signalling/generation. SPC is also equipped with an alarm device monitoring.

- Integrated with XBT525
- Full XBT525 management, monitoring and trending
- ASI/Ethernet output
- SI/PSI generation (PAT, PMT, NIT, SDT, TDT, TOT, EIT P/F and EIT Schedule)
- PID filtering and remapping
- NTP enabled

SPC Versions features

- EPG Server standalone
- Integrated with every multiplexer
- Ethernet output
- SI/PSI generation (PAT, PMT, NIT, SDT, TDT, TOT, EIT P/F and EIT Schedule)
- NTP enabled
- EPG Server Management platform
- Integrated with XBT525
- Full XBT525 management, monitoring and trending
- ASI/Ethernet output
- SI/PSI generation (PAT, PMT, NIT, SDT, TDT, TOT, EIT P/F and EIT Schedule)
- PID filtering and remapping
- NTP enabled

Overall key features

- Easy interfacing with program guide content providers
- Real-time EPG updates
- Flexible and scalable hardware/software architecture
- Superior management of PSI tables including EIT P/F and schedule
- XML-enabled to facilitate connectivity
- User-rights management
- Ethernet and/or ASI output capabilities
- User-friendly graphical user interface (Web/HTML) for easy configuration and supervision

EPG Related features

- DVB-SI (ETS 300 468) standard compliant
- SI tables support (PAT, PMT, NIT, SDT, TDT, TOT,EIT P/F, and Schedule)
- SI tables modification and filtering
- EIT P/F transition using the server clock
- Multi-language support
- User-rights management
- NTP client
- Web configuration and supervision

I/O specifications

Input

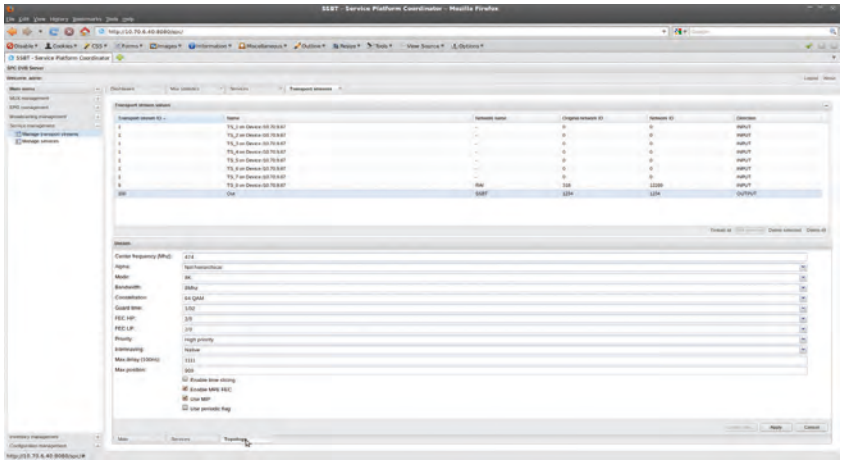
- XML files
- CVS files
- FTP file transfer
- Periodic file transfer
- Interactive editing

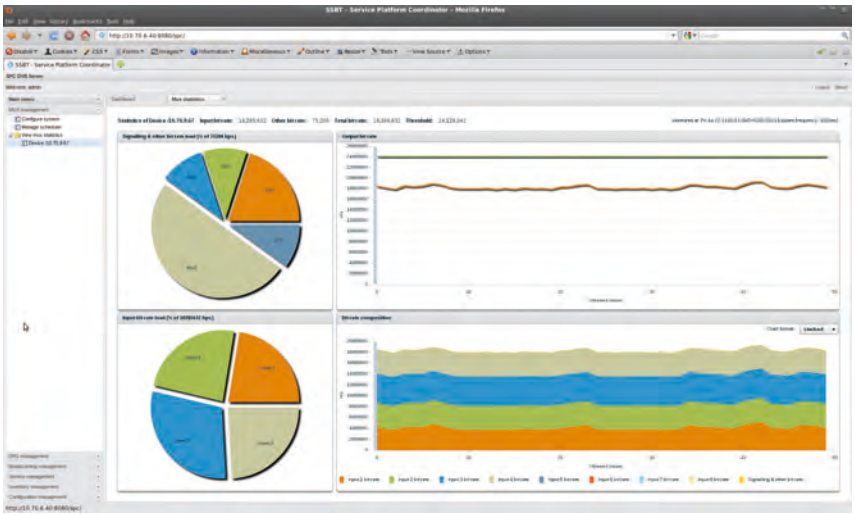
Output

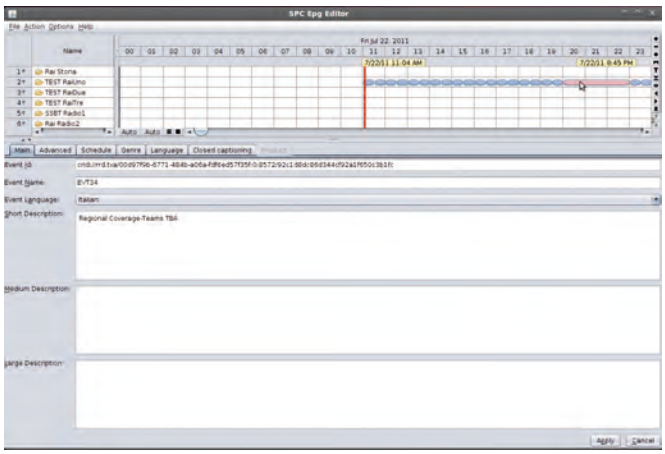
- ASI output interface (with XBT525)
- Ethernet output (both version)

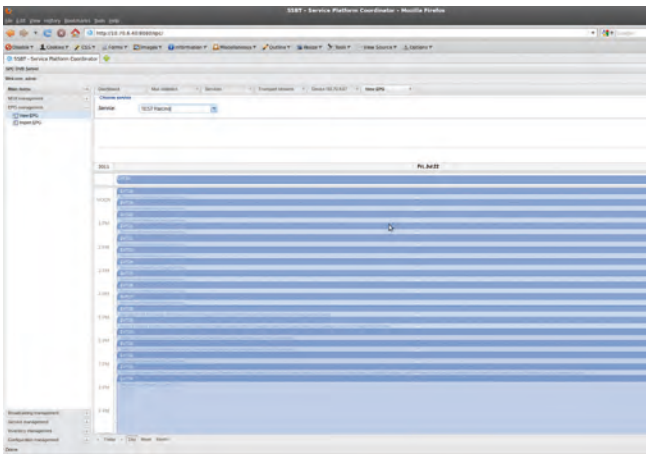
Multiplexer Management

- Full Multiplexer management
- Multiple device management
- High Availability configuration
- Automated device discovering
- Master/slave management
- Automated PID Filtering management
- PID remapping management
- Ethernet and ASI SI/PSI signaling
- Device alarm monitoring and correlation
- Output bandwidth monitoring









Service Platform GUI Screenshots

SDT ARK-6 Series

The Multiple Configuration Flexible Hardware Platform

The SDT ARK-6 is a Universal Driver with Multiple Front-End Boards

SDT ARK-6 SERIES. All configurations

Available configurations: Satellite Receiver w DEC w/o CAM, Regenerative Trasmitter, Analog A/V Input, Transmitter only.

AUTOMATIC DIGITAL/ANALOG	HETERODYNE TRANSPOSER	REGENERATIVE TRANSMITTER	TRANSMITTER	SAT RX w DEC with CAM	SAT RX
	RF > IF > RF	RF > ASI > MOD > RF	ASI > MOD > RF	SAT > DEC > TS > RF	SAT > TS > RF

ATV ATSC atsc MOBILE DTV DVB T DVB T2 DVB H ISDB-T DTMB

Specifications		
Frequency range	UHF (Band IV/V)	470 to 862 MHz, in 1 Hz Step
	VHF (Band III)	170 to 255 MHz, in 1 Hz Step
Available standards (all standars are full compliant)	Digital TV	DVB-T, DVB-T2, DVB-H, ISDB-Tb, ATSC, ATSC Mobile DTV,DTMB
	Digital Audio Broadcasting	DAB,DAB+,T-DMB
	Analog TV	B/G, D/K, M, M1, N, I, I1
Power Supply	AC Line Voltage	380 to 415 (3 phases), 208 to 240 Delta or Star ; 47 Hz to 63 Hz To be specify at order
	AC Line variations	+/- 15%
	Power factor	≥ 0,98
Environmental Conditions	Altitude	2500 m above sea level (> 2500 m on request)
	Operating temperature range	-10 °C to +45 °C at sea level, upper limit derated of 2 °C per 300 m Above Mean Sea Level
	Relative humidity	95 %, not-condensing
	Cooling method	Forced Air / liquid with external heat exchanger with redounded fan
RF output	Output power variation range	+0,5 to -10 dB
	RF load impedance	50 Ohm
	VSWR	Power reduction after exceeding the set value or switch off after three attempts
	RF Output connector	See Specific Data Sheet
Transmitter size	Rack Unit	See Model Specific Data Sheet
	Weight	
	Dimension	
Synchronization	Reference frequency	10 MHz, 0.1 V to 5 V (Vpp) or TTL, BNC
	Reference pulse	1pps (1 Hz, TTL, BNC)
Operations Control and Monitoring	Remote	Web based Java Interface
		SNMP
		Telnet access via ethernet
	Local	Extensive front panel control
		Local terminal on RS232
Compliance and Conformity	RoHS	2002/95/EC
	R&TTE	1999/5/EC
	Safety	EN 60215
	EMC	EN 301-4891-1
	FCC	Part 73
	WEEE	2002/96/EC
	Manufacturing	ISO 9001:2008
Specifications are subject to change without notice		

Models Selection Guide

Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	Shoulders @ Fo ± 3.5 MHz	Digital output power (rms) without Filter ATSC	Nominal analog output power (p.s.) ATV
SDT 000UA ARK-6-HE	UHF	A	1 RU (19" rack), 400 mm			N	Air	-	-37	1mW	1mW
SDT 200UA ARK-6	UHF	A	1 RU (19" rack), 400 mm	1		N	Air	-	-36	2,5 W	80 W
SDT 200TB ARK-6	VHF (III)	AB	1 RU (19" rack), 400 mm	1		N	Air	-	-36	2,5 W	80 W
SDT 500UB ARK-6	UHF	AB	1 RU (19" rack), 400 mm	1	SCA500UB	N	Air	-	-36	12 W	50 W
SDT 500TB ARK-6	VHF (III)	AB	1 RU (19" rack), 400 mm	1	SCA500TB	N	Air	-	-36	12 W	50 W
SDT 201UB ARK-6 HE C	UHF	AB	2 RU (19" rack), 400 mm	1		7/16"	Air	-	-39	150 W	400 W
SDT 201UB ARK-6 C	VHF (III)	AB	2 RU (19" rack), 400 mm	1		7/16"	Air	-	-36	80 W	250 W
SDT 201UB ARK-6 HE	UHF	AB	1 +3 RU	1		7/16"	Air	-	-39	150 W	450 W
SDT 201UB ARK-6	UHF	AB	1 +3 RU	1		7/16"	Air	-	-36	80 W	250 W
SDT 201TB ARK-6	VHF (III)	AB	1 +3 RU	1		7/16"	Air		-36	80 W	250 W
SDT 501UB ARK-6 HE C	UHF	AB	3 RU	1		7/16"	Air	-	-39	300 W	800 W
SDT 501UB ARK-6 C	UHF	AB	3 RU	1		7/16"	Air	-	-36	150 W	700 W
SDT 501TB ARK-6 C	VHF (III)	AB	3 RU	1		7/16"	Air	-	-36	150 W	700 W
SDT 501UB ARK-6 HE	UHF	AB	15 RU (4+1)	1	SCA501	7/16"	Air	-	-39	350 W	1000 W
SDT 501UB ARK-6	UHF	AB	15 RU (4+1)	1	SCA501	7/16"	Air	-	-36	150 W	700 W
SDT 501TB ARK-6	VHF (III)	AB	15 RU (4+1)	1	SCA501	7/16"	Air	-	-36	150 W	700 W
SDT 102UB ARK-6 HE	UHF	AB	1+5 RU	1	SCA102HE	7/16"	Air		-39	700 W	2000 W
SDT 102UM ARK-6 HE	UHF	AB	30 RU	2	SDT501HE	7/16"	Air		-39	700 W	2000 W
SDT 102UB ARK-6	UHF	AB	1+5 RU	1	SCA102UB	7/16"	Air		-36	300 W	1400 W
SDT 102UM ARK-6	UHF	AB	30RU	2	SCA501UB	7/16"	Air		-36	300 W	1400 W
SDT 102TB ARK-6	VHF (III)	AB	1+5 RU	1	SCA102TB	7/16"	Air		-36	300 W	1400 W
SDT 102TM ARK-6	VHF (III)	AB	30 RU	2	SCA501TB	7/16"	Air		-36	300 W	1400 W
SDT 202UB ARK-6 HE	UHF	AB	1+5 RU	1	SCA202HE	7/8"	Air		-39	1300 W	3000 W
SDT 202UM ARK-6 HE	UHF	AB	30 RU	2	SCA202HE	7/8"	Air		-39	1300 W	3000 W
SDT 202UB ARK-6	UHF	AB	1+5 RU	1	SCA202UB	7/8"	Air		-36	700 W	2800 W
SDT 202UM ARK-6	UHF	AB	30RU	2	SCA202UB	7/8"	Air		-36	700 W	2800 W
SDT 202TB ARK-6	VHF (III)	AB	1+5 RU	1	SCA202TB	7/8"	Air		-36	700 W	2800 W
SDT 202TM ARK-6	VHF (III)	AB	30 RU	2	SCA202TB	7/8"	Air		-36	700 W	2800 W
SDT 502UB ARK-6 HE	UHF	AB	30 RU	2	SCA202HE	1+5/8"	Air	1	-39	2600 W	6000 W
SDT 502UM ARK-6 HE	UHF	AB	40 RU	4	SCA102HE	1+5/8"	Air	1	-39	2600 W	6000 W
SDT 502UB-W ARK-6 HE	UHF	AB	40 RU	2	SCA202HE-W	1+5/8"	Liquid	1	-39	2600 W	6000 W
SDT502UB ARK-6	UHF	AB	30 RU	2	SCA202UB	1+5/8"	Air	1	-36	1300 W	5000 W
SDT502UB-W ARK-6	UHF	AB	40 RU	2	SCA202UB-W	1+5/8"	Liquid	1	-36	1300 W	5000 W
SDT 502UM ARK-6	UHF	AB	40 RU	4	SCA102UB	1+5/8"	Air	1	-36	1300 W	5000 W
SDT 502TB ARK-6	VHF (III)	AB	30 RU	2	SCA202TB	1+5/8"	Air	1	-36	1300 W	5000 W
SDT 502TB-W ARK-6	VHF (III)	AB	40 RU	2	SCA202TB-W	1+5/8"	Liquid	1	-36	1300 W	5000 W
SDT 502TM ARK-6	VHF (III)	AB	40 RU	4	SCA102TB	1+5/8"	Air	1	-36	1300 W	5000 W
SDT 532UB-W ARK-6 HE	UHF	AB	40 RU	3	SCA202HE-W	1+5/8"	Liquid	1	-39	3900 W	9000 W
SDT 532UB-W ARK-6	UHF	AB	40 RU	3	SCA202UB-W	1+5/8"	Liquid	1	-36	2000 W	7500 W
SDT 532TB-W ARK-6	VHF (III)	AB	40 RU	3	SCA202TB-W	1+5/8"	Liquid	1	-36	2000 W	7500 W
SDT 103UM ARK-6 HE	UHF	AB	40 RU	4	SCA202HE	3+1/8"	Air	1	-39	5200 W	12000 W
SDT 103UM-W ARK-6 HE	UHF	AB	40 RU	4	SCA202HE	3+1/8"	Liquid	1	-39	5200 W	12000 W
SDT 103UM ARK-6	UHF	AB	40 RU	4	SCA202UB	3+1/8"	Air	1	-36	2600 W	10000 W
SDT 103UM-W ARK-6	UHF	AB	40 RU	4	SCA202UB-W	3+1/8"	Liquid	1	-36	2600 W	10000 W
SDT 103TM ARK-6	VHF (III)	AB	40 RU	4	SCA202TB	3+1/8"	Air	1	-36	2600 W	10000 W
SDT 103TM-W ARK-6	VHF (III)	AB	40 RU	4	SCA202TB-W	3+1/8"	Liquid	1	-36	2600 W	10000 W
SDT 123UM-W ARK-6	UHF	AB	40 RU	5	SCA202UB-W	3+1/8"	Liquid	1	-36	3200 W	12500 W
SDT 123TM-W ARK-6	VHF (III)	AB	40 RU	5	SCA202TB-W	3+1/8"	Liquid	1	-36	3200 W	12500 W
SDT 133UM-W ARK-6 HE	UHF	AB	2 x 40 RU	6	SCA202HE-W	3+1/8"	Liquid	1	-39	7800 W	18000 W
SDT 133UM-W ARK-6	UHF	AB	2 x 40 RU	6	SCA202UB-W	3+1/8"	Liquid	1	-36	6000 W	16000 W
SDT 133TM-W ARK-6	VHF (III)	AB	2 x 40 RU	6	SCA202TB-W	3+1/8"	Liquid	1	-36	6000 W	16000 W
SDT 203UM ARK-6 HE	UHF	AB	2 x 40 RU	8	SCA202HE	3+1/8"	Air	2	-39	10000 W	24000 W
SDT 203UM-W ARK-6 HE	UHF	AB	2 x 40 RU	8	SCA202HE	3+1/8"	Liquid	2	-39	10000 W	24000 W
SDT 203UM ARK-6	UHF	AB	2 x 40 RU	8	SCA202UB	3+1/8"	Air	2	-36	5000 W	20000 W
SDT 203UM-W ARK-6	UHF	AB	2 x 40 RU	8	SCA202UB-W	3+1/8"	Liquid	2	-36	5000 W	20000 W
SDT 203TM ARK-6	VHF (III)	AB	2 x 40 RU	8	SCA202TB	3+1/8"	Air	2	-36	5000 W	20000 W
SDT 203TM-W ARK-6	VHF (III)	AB	2 x 40 RU	8	SCA202TB-W	3+1/8"	Liquid	2	-36	5000 W	20000 W
SDT 303UM-W ARK-6 HE	UHF	AB	3 X 40 RU	12	SCA202HE-W	4+1/2"	Liquid	4	-39	15000 W	36000 W
SDT 303UM-W ARK-6	UHF	AB	3 X 40 RU	12	SCA202UB-W	4+1/2"	Liquid	4	-36	7800 W	32000 W
SDT 303TM-W ARK-6	VHF (III)	AB	3 X 40 RU	12	SCA202TB-W	4+1/2"	Liquid	4	-36	7800 W	32000 W
SDT 403UM-W ARK-6 HE	UHF	AB	4 X 40 RU	16	SCA202HE-W	4+1/2"	Liquid	4	-39	20000 W	48000 W
SDT 403UM-W ARK-6	UHF	AB	4 X 40 RU	16	SCA202UB-W	4+1/2"	Liquid	4	-36	10000 W	40000 W
SDT 403TM-W ARK-6	VHF (III)	AB	4 X 40 RU	16	SCA202TB-W	4+1/2"	Liquid	4	-36	10000 W	40000 W
SDT 603UM-W ARK-6 HE	UHF	AB	6 X 40 RU	24	SCA202HE-W	6+1/8"	Liquid	6	-39	30000 W	72000 W
SDT 603UM-W ARK-6	UHF	AB	6 X 40 RU	24	SCA202UB-W	6+1/8"	Liquid	6	-36	15000 W	64000 W
SDT 603TM-W ARK-6	VHF (III)	AB	6 X 40 RU	24	SCA202TB-W	6+1/8"	Liquid	6	-36	15000 W	64000 W

Specifications and characteristics are subject to change without notice.

SDT ARK-6 SERIES

The Universal DRIVER can be customised in 5 different configurations. All, always and easily upgradable to new features.

The New SDT ARK-6 Series is the result of years of research and represents the state of the art of the worldwide transmitter technology.
We call it UNIVERSAL DRIVER because of its incredible capability to be all configurations with one hardware and uploading a proper software package.
It is perfect for both international broadcasters which have business in several countries – to increase manageability of investment through reduction of transmitter types - and national broadcasters, due for its versatility in operation modes and configuration. In fact it can be used as a transmitter, an heterodyne transposer, a regenerative transmitter, all in a single hardware.
ARK-6 UNIVERSAL DRIVER is resilient to future evolutions of technology and standardization: this DRIVER guarantees a perfect upgrade path for new modulation schemes that the researchers will delivery.
Besides ARK-6 UNIVERSAL DRIVER already implements DVB-T/T2, ATSC/MH, ISDB-T, DTMB, ATV modulations.
The SDT ARK-6 allows selection of transmission modes in various ways: remotely, using a dry contact; via SNMP commands; via TCP/IP, using the Web graphic interface; or even via a dedicated command inserted into the transport stream.
Functional interfaces are available for total remote control of the apparatus by means of serial protocols or TCP/IP ports. Thanks to the internal Web server the apparatus can be easily monitored and configured and updated using a LAN connection and a standard Web browser. More over, the built-in SNMP agent allows full automated remote control.

HARDWARE OPTIONS

	DVBT	DVBT2	ITU	ISDB-T	ATSC
NO	DVB-T TX	DVB-T2 TX	ITU.470 TX (all video standard)	ISDB-T TX	ATSC TX
DVB-S2	DVB-T TX with DVB-S2 RX input	DVB-T2 TX with DVB-S2 RX input	X	ISDB-T TX with DVB-S2 RX input	ATSC TX with DVBS2 RX input
DVBS2 + CAM	DVB-T TX with DVB-S2 RX input (with CAM)	DVB-T2 TX with DVB-S2 RX input (with CAM)	ITU.470 TX With decoded DVB-S2 RX input	ISDB-T TX with DVB-S2 RX input (with CAM)	ATSC TX with DVBS2 RX input (with CAM)
FE T/T2	Regenerative DVB-T TX - DVB-T repeater	Regenerative DVB-T2 TX - DVB-T repeater	X	X	X
Digitalizer	X	X	ITU.470 TX with A/V analog Input	X	X
FE ISDBT	X	X	X	Regenerative ISDB-T TX - ISDB-T repeater	X
FE ATSC	X	X		X	Regenerative ATSC TX - ATSC repeater

Specifications

Front View. Transmitter with Satellite Receiver

1. DVB-S2 Input Configuration - Satellite Input Specifications

- N. SAT Inputs: 1
- Demodulator: STV-0900AAB
- Connector type: F Female
- Input impedance: 75 ohm
- Input level: -81 dB up to -17 dB
- Supported symbol rates: 1 to 45 Msymb/s (DVB-S) / 1 to 67.5 (DVB-S2 depending on modulation scheme).
- DiSEqC: 2.0
- TS interface: broadcast reception and ISI filtering supported.
- Supported standards: ETSI EN 302 307 V1.1.1 (DVB-S2)
- DVB-T/T2 available

Front View. Transmitter with Satellite Receiver with DEC and CAM

2. DVB-S2 Input with DEC and CAM Configuration - Satellite and CAM Specifications

- N. GPS Inputs: 1
- Demodulator: STV-0900AAB
- Connector type: F Female
- Input impedance: 75 ohm
- Input level: -81 dB up to -17 dB
- Supported symbol rates: 1 to 45 Msymb/s (DVB-S) / 1 to 67.5 (DVB-S2 depending on modulation scheme).
- DiSEqC: 2.0
- TS interface: broadcast reception and ISI filtering supported.
- Common Interface:
- N° card slots: 1
- Type: PCMCIA
- Supported CAM:
- Supported standards: ETSI EN 302 307 V1.1.1 (DVB-S2)
- DVB-T/T2, ITU available

Front View. Transposer and Regenerative Transmitter

3. DVB-T/T2 Transposer and Regenerative Transmitter Configuration - Terrestrial RF IN Specifications

- N. RF Inputs: 1
- Demodulator: Sony CX02820R
- Connector type: N Female
- Input impedance: 50 ohm
- Input level: -81 dB up to -17 dB
- Supported standards: DVB-T/H, DVB-T2
- DVB-T/T2 available

Specifications

Front View. Transmitter Only Version

4. DVB-T/T2 Configuration

- Inputs: 4 ASI and 2 TSoIP channels
- Outpus: 1 RF, 1 RF Monitor
  2 ASI and 2 TSoIP channels for inputs bypass
- Synchronization: External or GPS
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1 PPS)
- Output clock: 1 PPS and 10 MHz
- Test modes: CW, Force Null Packets and PRBS
- Management: Embedded SNMP v1 server
- Embedded Web server
- GbE Ports: GbE 1: 10/100/1000 Base T Management port
- GbE 2: 10/100/1000 Base T Data port
- Redundancy: Input autoswitch algorithm supported
- Security: Authentication for GUI access supported
- Configuration: Automatic loading of preset configurations supported.
- Automatic retriving of configuration data from the RF input supported.
- DVB-T/T2 available

Front View. Transmitter with Analog A/V Inputs

5. Digitizer with Analog A/V Inputs Configuration - A/V Specifications

- N. CVBS inputs: 2
- Video digitizer: Texas Instruments TVP5146
- Connector type: BNC
- Input impedance: 75 ohm
- Supported video standards: PAL B,D,G,H,I,M,N, NTSC
- Analog audio input
- N°Inputs: 2 L/R couples
- Connector type: XLR3 (Cannon f)
- Input impedance: 600 Ohm balanced
- Input Level: +6dBm +/- 6 dB
- Supported standards: EIA RF-297-A
- ITU available
- Inputs: 4 SDI, 2 CVBS and 2 L/R
- Supported Composite Standards: NTSC CVBS, PAL (B, D, G, H, I, M, N) CVBS
- Supported SDI Standard: SMPTE 259M-C – Component 4:2:2, 270Mb/s for 525 and 625 lines, 13.5 MHz sampling, 4x3 and 16x9 aspect ratios.
- Outputs: 1 RF, 1 RF Monitor
- 2 SDI for inputs bypass
- Synchronization: External or GPS
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1 PPS)
- Output clock: 1 PPS and 10 MHz
- Test modes: CW, CW AV, Mute Audio Carrier, Mute Audio, Audio Test Tone, Video In, SMPTE Bars, Horizontal Bars, Red Field, ITS0, ITS1, ITS2, ITS3 and ITS4.
- Management: Embedded SNMP v1 server
- Embedded Web server
- GbE Ports: GbE 1: 10/100/1000 Base T Management port
- Redundancy: Input autoswitch algorithm supported
- Security: Authentication for GUI access supported.

Specifications

Hardware Specifications

TYPE:	DESCRIPTION AND NUMBER:
ASI/SSI/SDI Input	Connectors used as ASI, SMPTE-310 or SDI: N° Inputs: 4 Connector type: BNC Input impedance: 75 ohm Input voltage: 800 mVpp (500 to 1200mVpp) Supported standards: CEI EN 50083-9 SMPTE 310 SMPTE 259M
PS RF Input	N° Inputs: 1 Sensitivity: -185dBW Connectors: TNC
10 MHz Input	N° Inputs: 1 Connector: BNC Input impedance: 50 ohm Input voltage: 2 Vpp
1PPS Input	N° Inputs: 1 Connector: BNC Input impedance: 50 ohm Input voltage: TTL (min 1,7V) Pulse width: 100us
ASI Output Monitor	Connectors used for monitoring purposes: N° outputs: 2 Connector type: BNC Input impedance: 75 ohm Input voltage: 800 mVpp (500 to 1200mVpp) Supported standards: CEI EN 50083-9
10 MHz Output	N° outputs: 1 Connector: SMB Output impedance: 50 ohm Output voltage: 2 Vpp
1PPS Output	N° Outputs: 1 Connector: SMB Z load: 50 ohm Output voltage: TTL (min 2,4V) Pulse width: 100us
Gigabit Ethernet	N° connectors: 2 Connector: RJ45 Supported standards: IEEE 802.3
Relays	N° outputs: 4 Connectors: SUB-D 25p Female Max voltage: 125VAC / 60VDC @ 0,3A – 30VDC @ 1A
Opto	N° inputs: 4 Connectors: SUB-D 25p Female Max current: -5 mA
RF Front-End input	Please refer to various configurations for a complete description of all the available Front-end modules
RF Measure board inputs	N° Inputs: 1 Connector type: Input impedance: 50 ohm Input level: -40 dB up to -8.5 dB Supported standards: DVB-T/H ISDB-T ATSC DVB-T2
DB9 – RS232	N° inputs: 1 Speed: up to 230400 bps 8-bit data No parity bits 1 stop bit
DB9 – RS485 CAM BUS	N° inputs: 1
DB15 - TLC	N° inputs: 1
DB25 - TLS	N° inputs: 1

SDT 200 ARK-6

Heterodyne Transposer, Regenerative Transmitter, Transmitter 20W ps/2,5W rms

> SDT 200 ARK-6

Description

The New SDT ARK-6 Series is the result of years of research and represents the state of the art of the worldwide transmitter technology.
We call it UNIVERSAL DRIVER because of its incredible capability to be all configurations with one hardware and uploading a proper software package.
It is perfect for both international broadcasters which have business in several countries – to increase manageability of investment through reduction of transmitter types - and national broadcasters, due for its versatility in operation modes and configuration. In fact it can be used as a transmitter, a heterodyne transposer, a regenerative transmitter, all in a single hardware.
ARK-6 UNIVERSAL DRIVER is resilient to future evolutions of technology and standardization: this DRIVER guarantees a perfect upgrade path for new modulation schemes that the researchers will delivery.
Besides ARK-6 UNIVERSAL DRIVER already implements DVB-T/T2, ATSC/MH, ISDB-T, DTMB, ATV modulations.
The SDT ARK-6 allows selection of transmission modes in various ways: remotely, using a dry contact; via SNMP commands; via TCP/IP, using the Web graphic interface; or even via a dedicated command inserted into the transport stream.
Functional interfaces are available for total remote control of the apparatus by means of serial protocols or TCP/IP ports. Thanks to the internal Web server the apparatus can be easily monitored and configured and updated using a LAN connection and a standard Web browser. More over, the built-in SNMP agent allows full automated remote control.

Main Features

- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
  - > Support 4 ASI input
  - > Support 4 SSI input
  - > Support 2 ASI Output
  - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- “ONE-CLICK” Linear and non-linear ADAPTIVE digital pre-correction circuits, when operated as transmitter
- Linear and non-linear digital pre-correction circuits, when operated as repeater
- One RF input to operate the ARK-6 in rebroadcasting mode.
- Support the Editing of Virtual Channel Table in Translator mode
- Internal GPS receiver
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1 PPS)
- Output clock: 1 PPS and 10 MHz
- Compliant to ATSC A/53 and A/65 standard
- Compliant to A/153 ATSC-MH standard
- Bit rate adaptation plus PCR re-stamping
- Embedded HTTP server
- RF main and monitoring outputs
- Supports a measure board for the monitoring of the modulated signal: SNR, BER, SER e LOCK
- Amber switching implemented as a search for valid input when the priority one is not locked.
- Test modes: CW, Force Null Packets and PRBS
- Redundancy: Input auto-switch algorithm supported
- Option A/110b compliant for SFN transmission
- Option: A/110b Compliant for STL with ATSC-MH transmission

AUTOMATIC DIGITAL/ANALOG

HETERODYNE TRANSPOSER
RF > IF > RF

REGENERATIVE TRANSMITTER
RF > ASI > MOD > RF

TRANSMITTER
ASI > MOD > RF

SAT RX w DEC with CAM
SAT > DEC > TS > RF

SAT RX
SAT > TS > RF

ATV

ATSC

atsc MOBILE DTV

Option Features

- Based on Software Defined Technology (SWDT), ARK6 T2 Modulator allows the definition of different operative modes on the same hardware platform.

SDT SERIES ARK-6 ATSC + ATV

The New SDT ARK-6 SERIES is available in different hardware configurations.

Front View. Transposer and Transmitter Version

Front View. Version with Analog Audio/Video Input

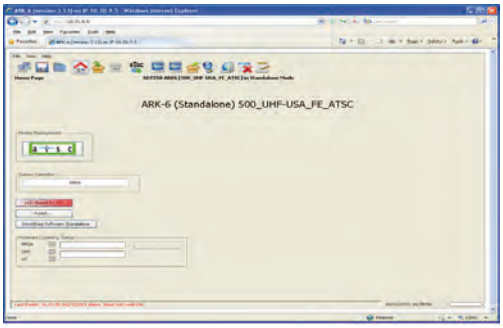
Front View. Transmitter with DVB-S2 Receiver Version

Front View. Transmitter with DVB-S2 Receiver Version with CAM

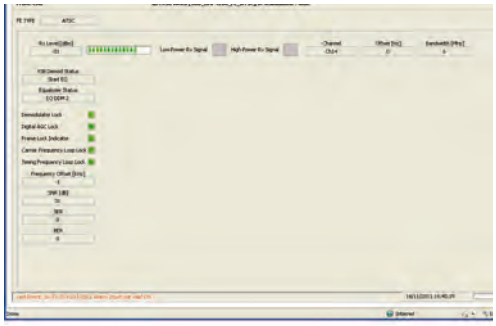
Front View. Transmitter Version

General Specifications	
Cooling System	Forced air/liquid cooling
Local control and monitoring	Extensive front panel control Local terminal on RS-232
Remote control and monitoring	Web based Java Interface Telnet access via Ethernet SNMP
Operating Temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Maximum operating altitude	2500 m a.s.l. (> 2500 m on request)
Mains power supply	90-260 V AC

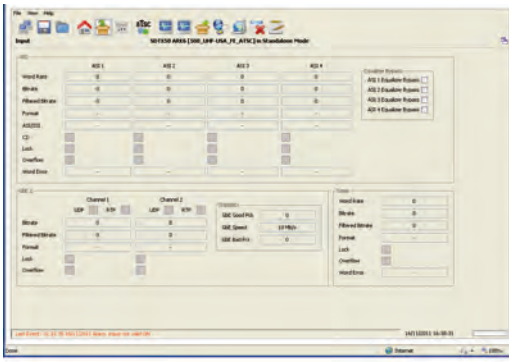
MODEL SPECIFIC DATA											
Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	**Shoulders @ Fo ± 3.5 MHz**	**Digital output power (rms) without Filter ATSC**	**Nominal analog output power (p.s.) NTSC**
SDT 200UA ARK-6	UHF	A	1 RU (19" rack), 400 mm	1		N	Air	-	-36	2,5 W	80 W
SDT 200TB ARK-6	VHF (III)	AB	1 RU (19" rack), 400 mm	1		N	Air	-	-36	2,5 W	80 W
Specifications and characteristics are subject to change without notice.											



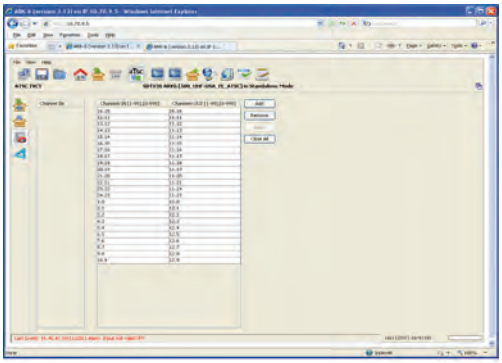
GUI, Home page



GUI, Front end



GUI, Input page.



GUI, TVCT

SDT 500 ARK-6

Heterodyne Transposer, Regenerative Transmitter, Transmitter 50W ps/12W rms

> SDT 500 ARK-6

Description

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ARK-6 UNIVERSAL DRIVER is resilient to future evolutions of technology and standardization: this DRIVER guarantees a perfect upgrade path for new modulation schemes that the researchers will delivery.
Besides ARK-6 UNIVERSAL DRIVER already implements DVB-T/T2, ATSC/MH, ISDB-T, DTMB, ATV modulations.
The SDT ARK-6 allows selection of transmission modes in various ways: remotely, using a dry contact; via SNMP commands; via TCP/IP, using the Web graphic interface; or even via a dedicated command inserted into the transport stream.
Functional interfaces are available for total remote control of the apparatus by means of serial protocols or TCP/IP ports. Thanks to the internal Web server the apparatus can be easily monitored and configured and updated using a LAN connection and a standard Web browser. More over, the built-in SNMP agent allows full automated remote control.

Main Features

- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
  - > Support 4 ASI input
  - > Support 4 SSI input
  - > Support 2 ASI Output
  - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- “ONE-CLICK” Linear and non-linear ADAPTIVE digital pre-correction circuits, when operated as transmitter
- Linear and non-linear digital pre-correction circuits, when operated as repeater
- One RF input to operate the ARK-6 in rebroadcasting mode.
- Support the Editing of Virtual Channel Table in Translator mode
- Internal GPS receiver
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1 PPS)
- Output clock: 1 PPS and 10 MHz
- Compliant to ATSC A/53 and A/65 standard
- Compliant to A/153 ATSC-MH standard
- Bit rate adaptation plus PCR re-stamping
- Embedded HTTP server
- RF main and monitoring outputs
- Supports a measure board for the monitoring of the modulated signal: SNR, BER, SER e LOCK
- Amber switching implemented as a search for valid input when the priority one is not locked.
- Test modes: CW, Force Null Packets and PRBS
- Redundancy: Input auto-switch algorithm supported
- Option A/110b compliant for SFN transmission
- Option: A/110b Compliant for STL with ATSC-MH transmission

AUTOMATIC DIGITAL/ANALOG

HETERODYNE TRANSPOSER
RF > IF > RF

REGENERATIVE TRANSMITTER
RF > ASI > MOD > RF

TRANSMITTER
ASI > MOD > RF

SAT RX w DEC with CAM
SAT > DEC > TS > RF

SAT RX
SAT > TS > RF

ATV

ATSC

atsc MOBILE DTV

Option Features
- Based on Software Defined Technology (SWDT), ARK6 T2 Modulator allows the definition of different operative modes on the same hardware platform.

SDT SERIES ARK-6 ATSC + ATV

The New SDT ARK-6 SERIES is available in different hardware configurations.

Front View. Transposer and Transmitter Version

Front View. Version with Analog Audio/Video Input

Front View. Transmitter with DVB-S2 Receiver Version

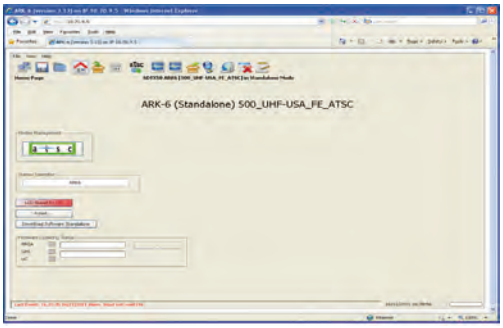
Front View. Transmitter with DVB-S2 Receiver Version with CAM

Front View. Transmitter Version

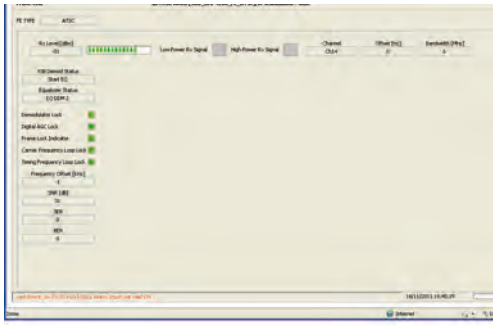
General Specifications	
Cooling System	Forced air/liquid cooling
Local control and monitoring	Extensive front panel control Local terminal on RS-232
Remote control and monitoring	Web based Java Interface Telnet access via Ethernet SNMP
Operating Temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Maximum operating altitude	2500 m a.s.l. (> 2500 m on request)
Mains power supply	90-260 V AC

MODEL SPECIFIC DATA											
Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	**Shoulders @ Fo ± 3.5 MHz**	**Digital output power (rms) without Filter ATSC**	**Nominal analog output power (p.s.) NTSC**
SDT 500UB ARK-6	UHF	AB	1 RU (19" rack), 400 mm	1	SCA500UB	N	Air	-	-36	12 W	50 W
SDT 500TB ARK-6	VHF (III)	AB	1 RU (19" rack), 400 mm	1	SCA500TB	N	Air	-	-36	12 W	50 W

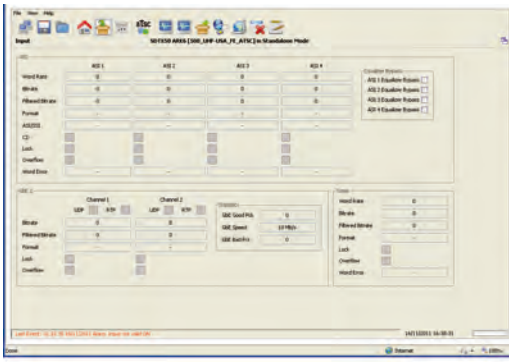
Specifications and characteristics are subject to change without notice.



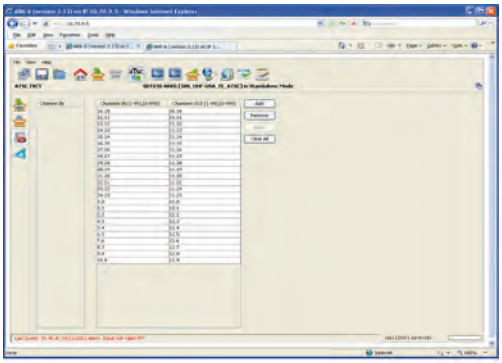
GUI, Home page



GUI, Front end



GUI, Input page.



GUI, TVCT

SDT 101 ARK-6

Heterodyne Transposer, Regenerative Transmitter, Transmitter
90W ps/50W rms

> SDT 101 ARK-6

Description

The New SDT ARK-6 Series is the result of years of research and represents the state of the art of the worldwide transmitter technology.
We call it UNIVERSAL DRIVER because of its incredible capability to be all configurations with one hardware and uploading a proper software package.
It is perfect for both international broadcasters which have business in several countries – to increase manageability of investment through reduction of transmitter types - and national broadcasters, due for its versatility in operation modes and configuration. In fact it can be used as a transmitter, a heterodyne transposer, a regenerative transmitter, all in a single hardware.
ARK-6 UNIVERSAL DRIVER is resilient to future evolutions of technology and standardization: this DRIVER guarantees a perfect upgrade path for new modulation schemes that the researchers will delivery.
Besides ARK-6 UNIVERSAL DRIVER already implements DVB-T/T2, ATSC/MH, ISDB-T, DTMB, ATV modulations.
The SDT ARK-6 allows selection of transmission modes in various ways: remotely, using a dry contact; via SNMP commands; via TCP/IP, using the Web graphic interface; or even via a dedicated command inserted into the transport stream.
Functional interfaces are available for total remote control of the apparatus by means of serial protocols or TCP/IP ports. Thanks to the internal Web server the apparatus can be easily monitored and configured and updated using a LAN connection and a standard Web browser. More over, the built-in SNMP agent allows full automated remote control.

Main Features

- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
  - > Support 4 ASI input
  - > Support 4 SSI input
  - > Support 2 ASI Output
  - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- “ONE-CLICK” Linear and non-linear ADAPTIVE digital pre-correction circuits, when operated as transmitter
- Linear and non-linear digital pre-correction circuits, when operated as repeater
- One RF input to operate the ARK-6 in rebroadcasting mode.
- Support the Editing of Virtual Channel Table in Translator mode
- Internal GPS receiver
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1 PPS)
- Output clock: 1 PPS and 10 MHz
- Compliant to ATSC A/53 and A/65 standard
- Compliant to A/153 ATSC-MH standard
- Bit rate adaptation plus PCR re-stamping
- Embedded HTTP server
- RF main and monitoring outputs
- Supports a measure board for the monitoring of the modulated signal: SNR, BER, SER e LOCK
- Amber switching implemented as a search for valid input when the priority one is not locked.
- Test modes: CW, Force Null Packets and PRBS
- Redundancy: Input auto-switch algorithm supported
- Option A/110b compliant for SFN transmission
- Option: A/110b Compliant for STL with ATSC-MH transmission

AUTOMATIC DIGITAL/ANALOG

HETERODYNE TRANSPOSER
RF > IF > RF

REGENERATIVE TRANSMITTER
RF > ASI > MOD > RF

TRANSMITTER
ASI > MOD > RF

SAT RX w DEC with CAM
SAT > DEC > TS > RF

SAT RX
SAT > TS > RF

ATV

ATSC

atsc MOBILE DTV

Option Features

- Based on Software Defined Technology (SWDT), ARK6 T2 Modulator allows the definition of different operative modes on the same hardware platform.

ScreenService

SDT SERIES ARK-6 ATSC + ATV

The New SDT ARK-6 SERIES is available in different hardware configurations.

Front View. Transposer and Transmitter Version

Front View. Version with Analog Audio/Video Input

Front View. Transmitter with DVB-S2 Receiver Version

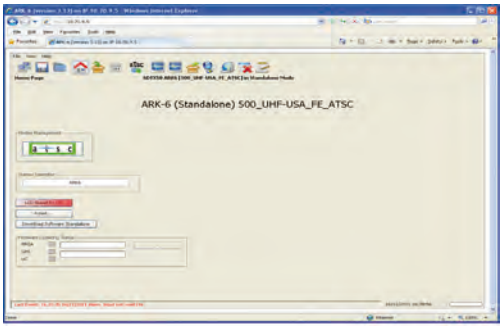
Front View. Transmitter with DVB-S2 Receiver Version with CAM

Front View. Transmitter Version

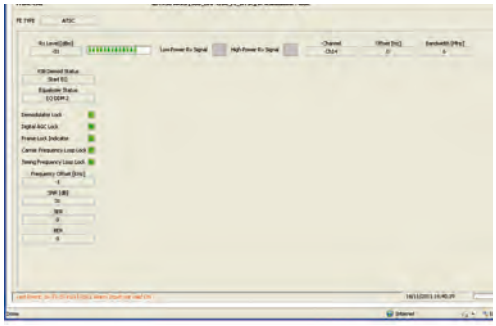
General Specifications	
Cooling System	Forced air/liquid cooling
Local control and monitoring	Extensive front panel control Local terminal on RS-232
Remote control and monitoring	Web based Java Interface Telnet access via Ethernet SNMP
Operating Temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Maximum operating altitude	2500 m a.s.l. (> 2500 m on request)
Mains power supply	90-260 V AC

MODEL SPECIFIC DATA											
Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	**Shoulders @ Fo ± 3.5 MHz**	**Digital output power (rms) without Filter ATSC**	**Nominal analog output power (p.s.) NTSC**
SDT 101UB ARK-6	UHF	AB	1 RU (19" rack), 400 mm	1	SCA101UB	7/16"	Air	-	-36	50 W	90 W
SDT 101TB ARK-6	VHF (III)	AB	1 RU (19" rack), 400 mm	1	SCA101TB	7/16"	Air	-	-36	50 W	90 W

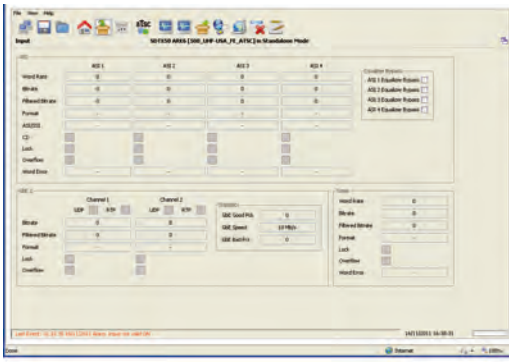
Specifications and characteristics are subject to change without notice.



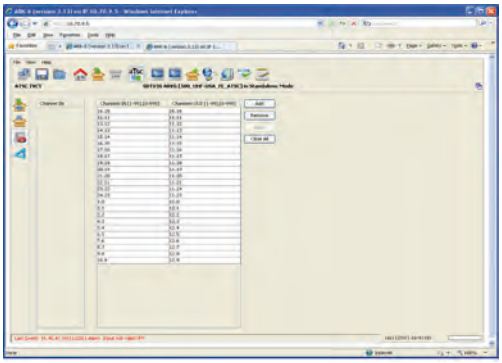
GUI, Home page



GUI, Front end



GUI, Input page.



GUI, TVCT

SDT 201 ARK-6

Heterodyne Transposer, Regenerative Transmitter, Transmitter, up to 400W ps/150W rms

> SDT 201 ARK-6

Description

The New SDT ARK-6 Series is the result of years of research and represents the state of the art of the worldwide transmitter technology.
We call it UNIVERSAL DRIVER because of its incredible capability to be all configurations with one hardware and uploading a proper software package.
It is perfect for both international broadcasters which have business in several countries – to increase manageability of investment through reduction of transmitter types - and national broadcasters, due for its versatility in operation modes and configuration. In fact it can be used as a transmitter, a heterodyne transposer, a regenerative transmitter, all in a single hardware.
ARK-6 UNIVERSAL DRIVER is resilient to future evolutions of technology and standardization: this DRIVER guarantees a perfect upgrade path for new modulation schemes that the researchers will delivery.
Besides ARK-6 UNIVERSAL DRIVER already implements DVB-T/T2, ATSC/MH, ISDB-T, DTMB, ATV modulations.
The SDT ARK-6 allows selection of transmission modes in various ways: remotely, using a dry contact; via SNMP commands; via TCP/IP, using the Web graphic interface; or even via a dedicated command inserted into the transport stream.
Functional interfaces are available for total remote control of the apparatus by means of serial protocols or TCP/IP ports. Thanks to the internal Web server the apparatus can be easily monitored and configured and updated using a LAN connection and a standard Web browser. More over, the built-in SNMP agent allows full automated remote control.

Main Features

- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
  - > Support 4 ASI input
  - > Support 4 SSI input
  - > Support 2 ASI Output
  - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- “ONE-CLICK” Linear and non-linear ADAPTIVE digital pre-correction circuits, when operated as transmitter
- Linear and non-linear digital pre-correction circuits, when operated as repeater
- One RF input to operate the ARK-6 in rebroadcasting mode.
- Support the Editing of Virtual Channel Table in Translator mode
- Internal GPS receiver
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1 PPS)
- Output clock: 1 PPS and 10 MHz
- Compliant to ATSC A/53 and A/65 standard
- Compliant to A/153 ATSC-MH standard
- Bit rate adaptation plus PCR re-stamping
- Embedded HTTP server
- RF main and monitoring outputs
- Supports a measure board for the monitoring of the modulated signal: SNR, BER, SER e LOCK
- Amber switching implemented as a search for valid input when the priority one is not locked.
- Test modes: CW, Force Null Packets and PRBS
- Redundancy: Input auto-switch algorithm supported
- Option A/110b compliant for SFN transmission
- Option: A/110b Compliant for STL with ATSC-MH transmission

AUTOMATIC DIGITAL/ANALOG

HETERODYNE TRANSPOSER
RF > IF > RF

REGENERATIVE TRANSMITTER
RF > ASI > MOD > RF

TRANSMITTER
ASI > MOD > RF

SAT RX w DEC with CAM
SAT > DEC > TS > RF

SAT RX
SAT > TS > RF

ATV

ATSC

atsc MOBILE DTV

Option Features

- Based on Software Defined Technology (SWDT), ARK6 T2 Modulator allows the definition of different operative modes on the same hardware platform.

ScreenService

SDT SERIES ARK-6 ATSC + ATV

The New SDT ARK-6 SERIES is available in different hardware configurations.

Front View. Transposer and Transmitter Version

Front View. Version with Analog Audio/Video Input

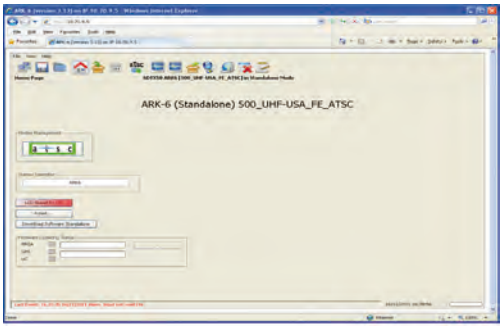
Front View. Transmitter with DVB-S2 Receiver Version

Front View. Transmitter with DVB-S2 Receiver Version with CAM

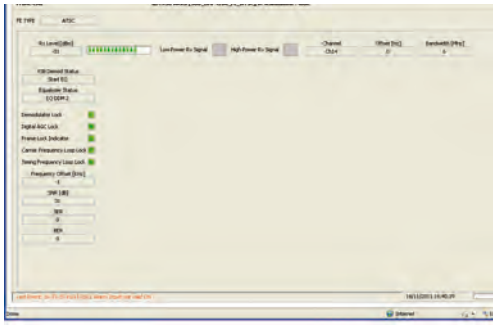
Front View. Transmitter Version

General Specifications	
Cooling System	Forced air/liquid cooling
Local control and monitoring	Extensive front panel control Local terminal on RS-232
Remote control and monitoring	Web based Java Interface Telnet access via Ethernet SNMP
Operating Temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Maximum operating altitude	2500 m a.s.l. (> 2500 m on request)
Mains power supply	90-260 V AC

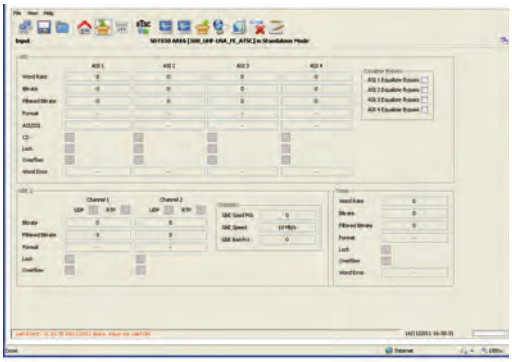
MODEL SPECIFIC DATA											
Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	**Shoulders @ Fo ± 3.5 MHz**	**Digital output power (rms) without Filter ATSC**	**Nominal analog output power (p.s.) NTSC**
SDT 201UB ARK-6 HE C	UHF	AB	1 RU (19" rack), 400 mm	1		7/16"	Air	-	-39	150 W	400 W
SDT 201TB ARK-6 C	VHF (III)	AB	1 RU (19" rack), 400 mm	1		7/16"	Air	-	-36	80 W	250 W
Specifications and characteristics are subject to change without notice.											



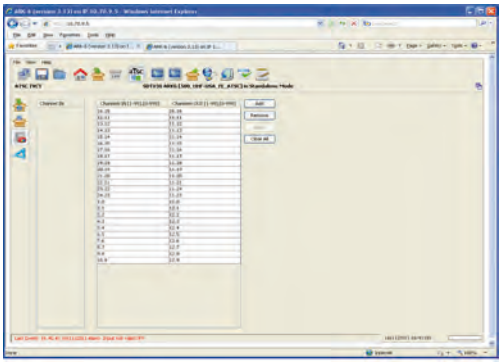
GUI, Home page



GUI, Front end



GUI, Input page.



GUI, TVCT

Heterodyne Transposer, Regenerative Transmitter, Transmitter up to 450W ps/150W rms

> SDT 201 ARK-6 NC

Description

The New SDT ARK-6 Series is the result of years of research and represents the state of the art of the worldwide transmitter technology.
We call it UNIVERSAL DRIVER because of its incredible capability to be all configurations with one hardware and uploading a proper software package.
It is perfect for both international broadcasters which have business in several countries – to increase manageability of investment through reduction of transmitter types - and national broadcasters, due for its versatility in operation modes and configuration. In fact it can be used as a transmitter, a heterodyne transposer, a regenerative transmitter, all in a single hardware.
ARK-6 UNIVERSAL DRIVER is resilient to future evolutions of technology and standardization: this DRIVER guarantees a perfect upgrade path for new modulation schemes that the researchers will delivery.
Besides ARK-6 UNIVERSAL DRIVER already implements DVB-T/T2, ATSC/MH, ISDB-T, DTMB, ATV modulations.
The SDT ARK-6 allows selection of transmission modes in various ways: remotely, using a dry contact; via SNMP commands; via TCP/IP, using the Web graphic interface; or even via a dedicated command inserted into the transport stream.
Functional interfaces are available for total remote control of the apparatus by means of serial protocols or TCP/IP ports. Thanks to the internal Web server the apparatus can be easily monitored and configured and updated using a LAN connection and a standard Web browser. More over, the built-in SNMP agent allows full automated remote control.

Main Features

- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
  - > Support 4 ASI input
  - > Support 4 SSI input
  - > Support 2 ASI Output
  - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- “ONE-CLICK” Linear and non-linear ADAPTIVE digital pre-correction circuits, when operated as transmitter
- Linear and non-linear digital pre-correction circuits, when operated as repeater
- One RF input to operate the ARK-6 in rebroadcasting mode.
- Support the Editing of Virtual Channel Table in Translator mode
- Internal GPS receiver
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1 PPS)
- Output clock: 1 PPS and 10 MHz
- Compliant to ATSC A/53 and A/65 standard
- Compliant to A/153 ATSC-MH standard
- Bit rate adaptation plus PCR re-stamping
- Embedded HTTP server
- RF main and monitoring outputs
- Supports a measure board for the monitoring of the modulated signal: SNR, BER, SER e LOCK
- Amber switching implemented as a search for valid input when the priority one is not locked.
- Test modes: CW, Force Null Packets and PRBS
- Redundancy: Input auto-switch algorithm supported
- Option A/110b compliant for SFN transmission
- Option: A/110b Compliant for STL with ATSC-MH transmission

AUTOMATIC DIGITAL/ANALOG

HETERODYNE TRANSPOSER
RF > IF > RF

REGENERATIVE TRANSMITTER
RF > ASI > MOD > RF

TRANSMITTER
ASI > MOD > RF

SAT RX w DEC with CAM
SAT > DEC > TS > RF

SAT RX
SAT > TS > RF

ATV

ATSC

atsc MOBILE DTV

Option Features
- Based on Software Defined Technology (SWDT), ARK6 T2 Modulator allows the definition of different operative modes on the same hardware platform.

SDT 201 ARK-6 NC

The New SDT ARK-6 SERIES is available in different hardware configurations.

Front View. Transposer and Transmitter Version

Front View. Version with Analog Audio/Video Input

Front View. Transmitter with DVB-S2 Receiver Version

Front View. Transmitter with DVB-S2 Receiver Version with CAM

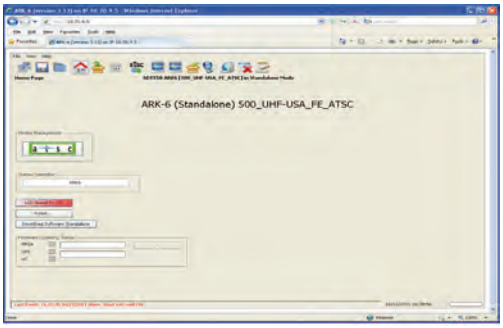
Front View. Transmitter Version

General Specifications	
Cooling System	Forced air/liquid cooling
Local control and monitoring	Extensive front panel control Local terminal on RS-232
Remote control and monitoring	Web based Java Interface Telnet access via Ethernet SNMP
Operating Temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Maximum operating altitude	2500 m a.s.l. (> 2500 m on request)
Mains power supply	90-260 V AC

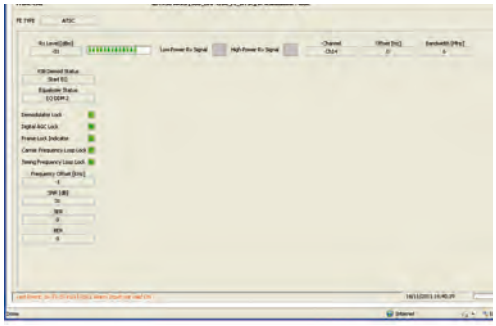
MODEL SPECIFIC DATA

Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	**Shoulders @ Fo ± 3.5 MHz**	**Digital output power (rms) without Filter ATSC**	**Nominal analog output power (p.s.) NTSC**
SDT 201UB ARK-6 HE	UHF	AB	1 +3 RU	1	SCA201	7/16"	Air	-	-39	150 W	450 W
SDT 201UB ARK-6	UHF	AB	1+3 RU	1	SCA201	7/16"	Air	-	-36	80 W	250 W
SDT 201TB ARK-6	VHF (III)	AB	1+3 RU	1	SCA201	7/16"	Air		-36	80 W	250 W

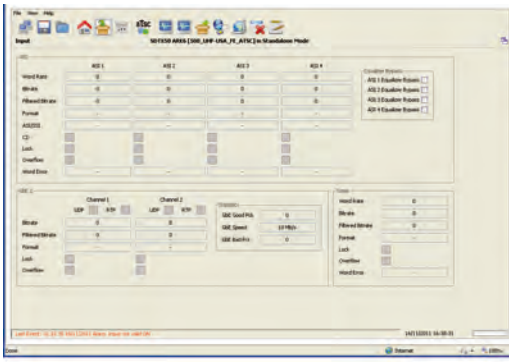
Specifications and characteristics are subject to change without notice.



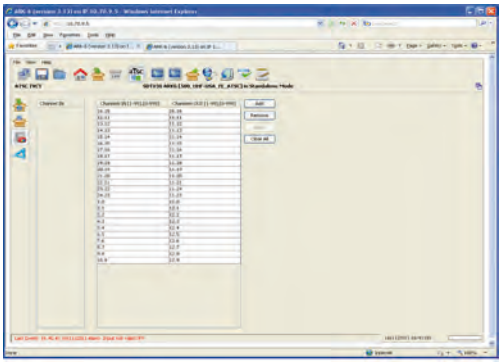
GUI, Home page



GUI, Front end



GUI, Input page.



GUI, TVCT

SDT 501 ARK-6 Compact

Heterodyne Transposer, Regenerative Transmitter, Transmitter up to 800W ps/300W rms

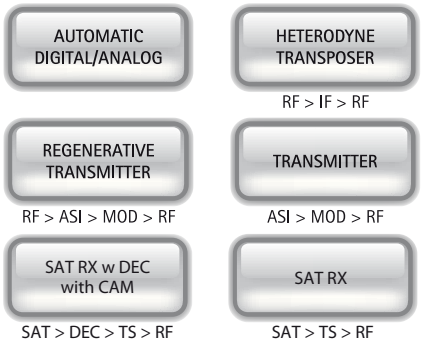
> SDT 501 ARK-6

Description

The New SDT ARK-6 Series is the result of years of research and represents the state of the art of the worldwide transmitter technology.
We call it UNIVERSAL DRIVER because of its incredible capability to be all configurations with one hardware and uploading a proper software package.
It is perfect for both international broadcasters which have business in several countries – to increase manageability of investment through reduction of transmitter types - and national broadcasters, due for its versatility in operation modes and configuration. In fact it can be used as a transmitter, a heterodyne transposer, a regenerative transmitter, all in a single hardware.
ARK-6 UNIVERSAL DRIVER is resilient to future evolutions of technology and standardization: this DRIVER guarantees a perfect upgrade path for new modulation schemes that the researchers will delivery.
Besides ARK-6 UNIVERSAL DRIVER already implements DVB-T/T2, ATSC/MH, ISDB-T, DTMB, ATV modulations.
The SDT ARK-6 allows selection of transmission modes in various ways: remotely, using a dry contact; via SNMP commands; via TCP/IP, using the Web graphic interface; or even via a dedicated command inserted into the transport stream.
Functional interfaces are available for total remote control of the apparatus by means of serial protocols or TCP/IP ports. Thanks to the internal Web server the apparatus can be easily monitored and configured and updated using a LAN connection and a standard Web browser. More over, the built-in SNMP agent allows full automated remote control.

Main Features

- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
  - > Support 4 ASI input
  - > Support 4 SSI input
  - > Support 2 ASI Output
  - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- “ONE-CLICK” Linear and non-linear ADAPTIVE digital pre-correction circuits, when operated as transmitter
- Linear and non-linear digital pre-correction circuits, when operated as repeater
- One RF input to operate the ARK-6 in rebroadcasting mode.
- Support the Editing of Virtual Channel Table in Translator mode
- Internal GPS receiver
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1 PPS)
- Output clock: 1 PPS and 10 MHz
- Compliant to ATSC A/53 and A/65 standard
- Compliant to A/153 ATSC-MH standard
- Bit rate adaptation plus PCR re-stamping
- Embedded HTTP server
- RF main and monitoring outputs
- Supports a measure board for the monitoring of the modulated signal: SNR, BER, SER e LOCK
- Amber switching implemented as a search for valid input when the priority one is not locked.
- Test modes: CW, Force Null Packets and PRBS
- Redundancy: Input auto-switch algorithm supported
- Option A/110b compliant for SFN transmission
- Option: A/110b Compliant for STL with ATSC-MH transmission



ATV ATSC atsc MOBILE DTV

Option Features

- Based on Software Defined Technology (SWDT), ARK6 T2 Modulator allows the definition of different operative modes on the same hardware platform.

SDT SERIES ARK-6 ATSC + ATV

The New SDT ARK-6 SERIES is available in different hardware configurations.

Front View. Transposer and Transmitter Version

Front View. Version with Analog Audio/Video Input

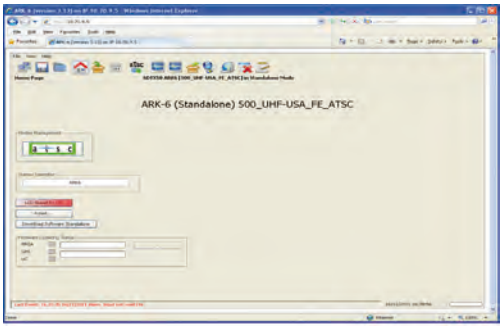
Front View. Transmitter with DVB-S2 Receiver Version

Front View. Transmitter with DVB-S2 Receiver Version with CAM

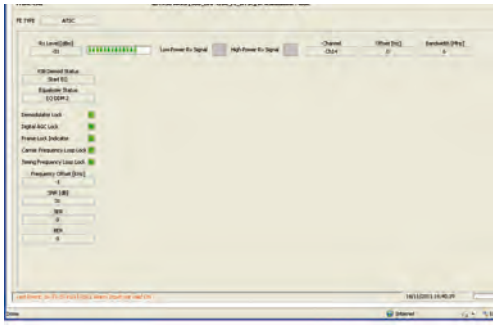
Front View. Transmitter Version

General Specifications	
Cooling System	Forced air/liquid cooling
Local control and monitoring	Extensive front panel control Local terminal on RS-232
Remote control and monitoring	Web based Java Interface Telnet access via Ethernet SNMP
Operating Temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Maximum operating altitude	2500 m a.s.l. (> 2500 m on request)
Mains power supply	90-260 V AC

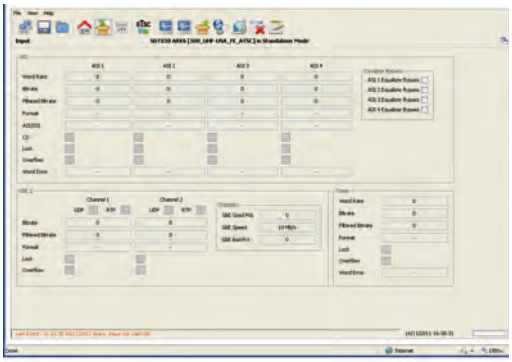
MODEL SPECIFIC DATA											
Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	**Shoulders @ Fo ± 3.5 MHz**	**Digital output power (rms) without Filter ATSC**	**Nominal analog output power (p.s.) NTSC**
SDT 501UB ARK-6 HE C	UHF	AB	3 RU (19" rack), 400 mm	1		7/16"	Air	-	-39	300 W	800 W
SDT 501UB ARK-6 C	UHF	AB	3 RU (19" rack), 400 mm	1		7/16"	Air	-	-36	150 W	700 W
SDT 501TB ARK-6 C	VHF (III)	AB	3 RU (19" rack), 400 mm	1		7/16"	Air	-	-36	150 W	700 W
Specifications and characteristics are subject to change without notice.											



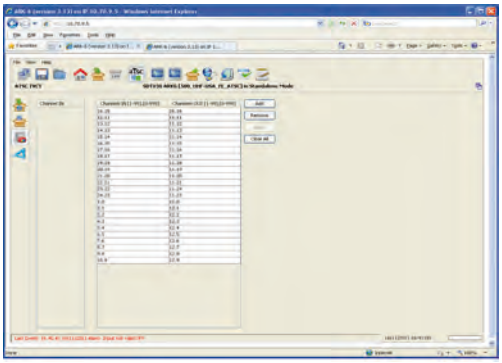
GUI, Home page



GUI, Front end



GUI, Input page.



GUI, TVCT

SDT 501 ARK-6

Heterodyne Transposer, Regenerative Transmitter, Transmitter up to 1000W ps/350W rms

> SDT 501 ARK-6

Description

The New SDT ARK-6 Series is the result of years of research and represents the state of the art of the worldwide transmitter technology.
We call it UNIVERSAL DRIVER because of its incredible capability to be all configurations with one hardware and uploading a proper software package.
It is perfect for both international broadcasters which have business in several countries – to increase manageability of investment through reduction of transmitter types - and national broadcasters, due for its versatility in operation modes and configuration. In fact it can be used as a transmitter, a heterodyne transposer, a regenerative transmitter, all in a single hardware.
ARK-6 UNIVERSAL DRIVER is resilient to future evolutions of technology and standardization: this DRIVER guarantees a perfect upgrade path for new modulation schemes that the researchers will delivery.
Besides ARK-6 UNIVERSAL DRIVER already implements DVB-T/T2, ATSC/MH, ISDB-T, DTMB, ATV modulations.
The SDT ARK-6 allows selection of transmission modes in various ways: remotely, using a dry contact; via SNMP commands; via TCP/IP, using the Web graphic interface; or even via a dedicated command inserted into the transport stream.
Functional interfaces are available for total remote control of the apparatus by means of serial protocols or TCP/IP ports. Thanks to the internal Web server the apparatus can be easily monitored and configured and updated using a LAN connection and a standard Web browser. More over, the built-in SNMP agent allows full automated remote control.

Main Features

- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
  - > Support 4 ASI input
  - > Support 4 SSI input
  - > Support 2 ASI Output
  - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- “ONE-CLICK” Linear and non-linear ADAPTIVE digital pre-correction circuits, when operated as transmitter
- Linear and non-linear digital pre-correction circuits, when operated as repeater
- One RF input to operate the ARK-6 in rebroadcasting mode.
- Support the Editing of Virtual Channel Table in Translator mode
- Internal GPS receiver
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1 PPS)
- Output clock: 1 PPS and 10 MHz
- Compliant to ATSC A/53 and A/65 standard
- Compliant to A/153 ATSC-MH standard
- Bit rate adaptation plus PCR re-stamping
- Embedded HTTP server
- RF main and monitoring outputs
- Supports a measure board for the monitoring of the modulated signal: SNR, BER, SER e LOCK
- Amber switching implemented as a search for valid input when the priority one is not locked.
- Test modes: CW, Force Null Packets and PRBS
- Redundancy: Input auto-switch algorithm supported
- Option A/110b compliant for SFN transmission
- Option: A/110b Compliant for STL with ATSC-MH transmission

AUTOMATIC DIGITAL/ANALOG

HETERODYNE TRANSPOSER
RF > IF > RF

REGENERATIVE TRANSMITTER
RF > ASI > MOD > RF

TRANSMITTER
ASI > MOD > RF

SAT RX w DEC with CAM
SAT > DEC > TS > RF

SAT RX
SAT > TS > RF

ATV

ATSC

atsc MOBILE DTV

Option Features

- Based on Software Defined Technology (SWDT), ARK6 T2 Modulator allows the definition of different operative modes on the same hardware platform.

ScreenService

SDT SERIES ARK-6 ATSC + ATV

The New SDT ARK-6 SERIES is available in different hardware configurations.

Front View. Transposer and Transmitter Version

Front View. Version with Analog Audio/Video Input

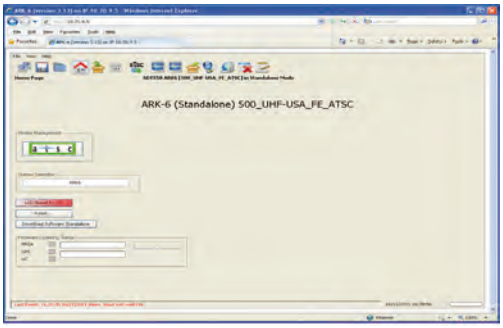
Front View. Transmitter with DVB-S2 Receiver Version

Front View. Transmitter with DVB-S2 Receiver Version with CAM

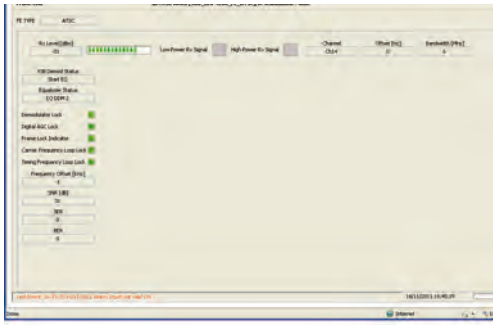
Front View. Transmitter Version

General Specifications	
Cooling System	Forced air/liquid cooling
Local control and monitoring	Extensive front panel control Local terminal on RS-232
Remote control and monitoring	Web based Java Interface Telnet access via Ethernet SNMP
Operating Temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Maximum operating altitude	2500 m a.s.l. (> 2500 m on request)
Mains power supply	90-260 V AC

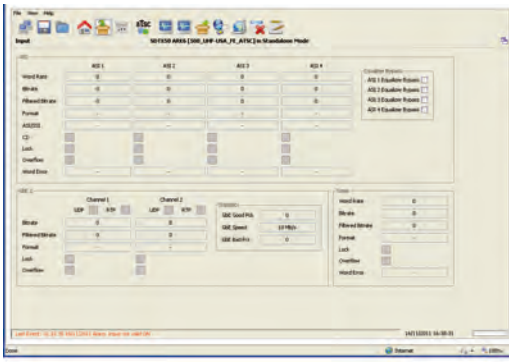
MODEL SPECIFIC DATA											
Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	**Shoulders @ Fo ± 3.5 MHz**	**Digital output power (rms) without Filter ATSC**	**Nominal analog output power (p.s.) NTSC**
SDT 501UB ARK-6 HE	UHF	AB	15 RU (4+1)	1	SCA501	7/16"	Air	-	-39	350 W	1000 W
SDT 501UB ARK-6	UHF	AB	15 RU (4+1)	1	SCA501	7/16"	Air	-	-36	150 W	700 W
SDT 501TB ARK-6	VHF (III)	AB	15 RU (4+1)	1	SCA501	7/16"	Air	-	-36	150 W	700 W
Specifications and characteristics are subject to change without notice.											



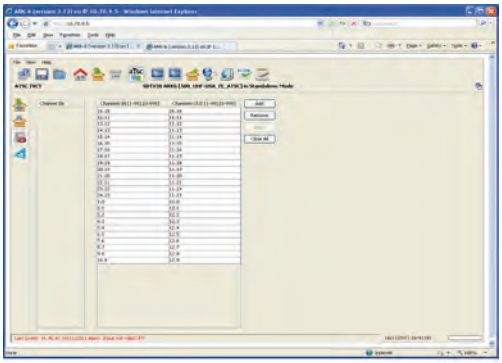
GUI, Home page



GUI, Front end



GUI, Input page.



GUI, TVCT

SDT 102 ARK-6

Heterodyne Transposer, Regenerative Transmitter, Transmitter up to 2000W ps/700W rms

> SDT 102 ARK-6

Description

The New SDT ARK-6 Series is the result of years of research and represents the state of the art of the worldwide transmitter technology.
We call it UNIVERSAL DRIVER because of its incredible capability to be all configurations with one hardware and uploading a proper software package.
It is perfect for both international broadcasters which have business in several countries – to increase manageability of investment through reduction of transmitter types - and national broadcasters, due for its versatility in operation modes and configuration. In fact it can be used as a transmitter, a heterodyne transposer, a regenerative transmitter, all in a single hardware.
ARK-6 UNIVERSAL DRIVER is resilient to future evolutions of technology and standardization: this DRIVER guarantees a perfect upgrade path for new modulation schemes that the researchers will delivery.
Besides ARK-6 UNIVERSAL DRIVER already implements DVB-T/T2, ATSC/MH, ISDB-T, DTMB, ATV modulations.
The SDT ARK-6 allows selection of transmission modes in various ways: remotely, using a dry contact; via SNMP commands; via TCP/IP, using the Web graphic interface; or even via a dedicated command inserted into the transport stream.
Functional interfaces are available for total remote control of the apparatus by means of serial protocols or TCP/IP ports. Thanks to the internal Web server the apparatus can be easily monitored and configured and updated using a LAN connection and a standard Web browser. More over, the built-in SNMP agent allows full automated remote control.

Main Features

- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
  - > Support 4 ASI input
  - > Support 4 SSI input
  - > Support 2 ASI Output
  - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- “ONE-CLICK” Linear and non-linear ADAPTIVE digital pre-correction circuits, when operated as transmitter
- Linear and non-linear digital pre-correction circuits, when operated as repeater
- One RF input to operate the ARK-6 in rebroadcasting mode.
- Support the Editing of Virtual Channel Table in Translator mode
- Internal GPS receiver
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1 PPS)
- Output clock: 1 PPS and 10 MHz
- Compliant to ATSC A/53 and A/65 standard
- Compliant to A/153 ATSC-MH standard
- Bit rate adaptation plus PCR re-stamping
- Embedded HTTP server
- RF main and monitoring outputs
- Supports a measure board for the monitoring of the modulated signal: SNR, BER, SER e LOCK
- Amber switching implemented as a search for valid input when the priority one is not locked.
- Test modes: CW, Force Null Packets and PRBS
- Redundancy: Input auto-switch algorithm supported
- Option A/110b compliant for SFN transmission
- Option: A/110b Compliant for STL with ATSC-MH transmission

AUTOMATIC DIGITAL/ANALOG

HETERODYNE TRANSPOSER
RF > IF > RF

REGENERATIVE TRANSMITTER
RF > ASI > MOD > RF

TRANSMITTER
ASI > MOD > RF

SAT RX w DEC with CAM
SAT > DEC > TS > RF

SAT RX
SAT > TS > RF

ATV

ATSC

atsc MOBILE DTV

Option Features

- Based on Software Defined Technology (SWDT), ARK6 T2 Modulator allows the definition of different operative modes on the same hardware platform.

SDT SERIES ARK-6 ATSC + ATV

The New SDT ARK-6 SERIES is available in different hardware configurations.

Front View. Transposer and Transmitter Version

Front View. Version with Analog Audio/Video Input

Front View. Transmitter with DVB-S2 Receiver Version

Front View. Transmitter with DVB-S2 Receiver Version with CAM

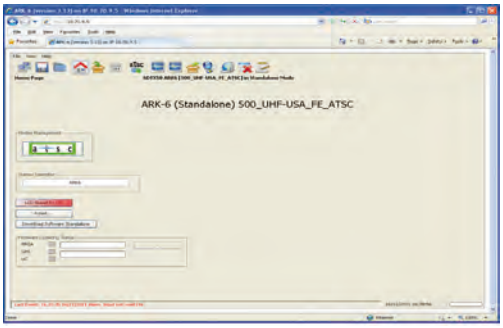
Front View. Transmitter Version

General Specifications	
Cooling System	Forced air/liquid cooling
Local control and monitoring	Extensive front panel control Local terminal on RS-232
Remote control and monitoring	Web based Java Interface Telnet access via Ethernet SNMP
Operating Temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Maximum operating altitude	2500 m a.s.l. (> 2500 m on request)
Mains power supply	90-260 V AC

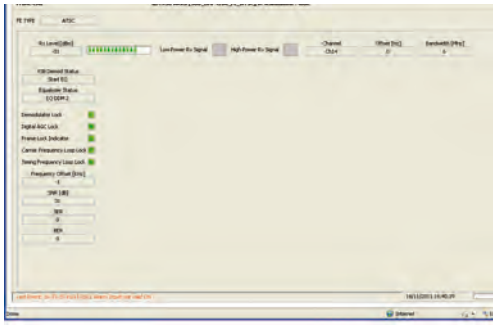
MODEL SPECIFIC DATA

Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	**Shoulders @ Fo ± 3.5 MHz**	**Digital output power (rms) without Filter ATSC**	**Nominal analog output power (p.s.) NTSC**
SDT 102UB ARK-6 HE	UHF	AB	1+5 RU	1	SCA102HE	7/16"	Air		-39	700 W	2000 W
SDT 102UM ARK-6 HE	UHF	AB	30 RU	2	SDT501HE	7/16"	Air		-39	700 W	2000 W
SDT 102UB ARK-6	UHF	AB	1+5 RU	1	SCA102UB	7/16"	Air		-36	300 W	1400 W
SDT 102UM ARK-6	UHF	AB	30RU	2	SCA501UB	7/16"	Air		-36	300 W	1400 W
SDT 102TB ARK-6	VHF (III)	AB	1+5 RU	1	SCA102TB	7/16"	Air		-36	300 W	1400 W
SDT 102TM ARK-6	VHF (III)	AB	30 RU	2	SCA501TB	7/16"	Air		-36	300 W	1400 W

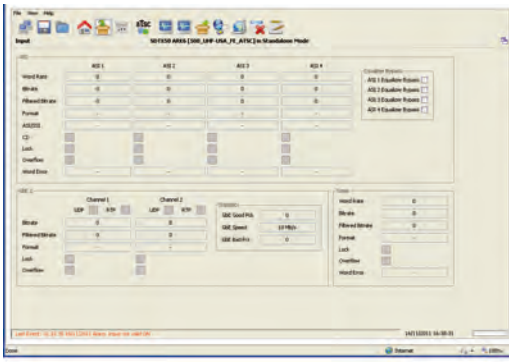
Specifications and characteristics are subject to change without notice.



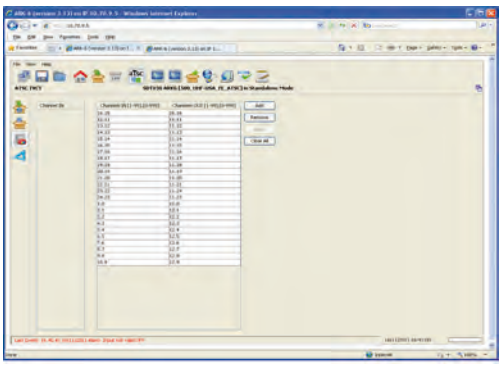
GUI, Home page



GUI, Front end



GUI, Input page.



GUI, TVCT

SDT 202 ARK-6

Heterodyne Transposer, Regenerative Transmitter, Transmitter up to 3000W ps/1300W rms

> SDT 202 ARK-6

Description

The New SDT ARK-6 Series is the result of years of research and represents the state of the art of the worldwide transmitter technology.
We call it UNIVERSAL DRIVER because of its incredible capability to be all configurations with one hardware and uploading a proper software package.
It is perfect for both international broadcasters which have business in several countries – to increase manageability of investment through reduction of transmitter types - and national broadcasters, due for its versatility in operation modes and configuration. In fact it can be used as a transmitter, a heterodyne transposer, a regenerative transmitter, all in a single hardware.
ARK-6 UNIVERSAL DRIVER is resilient to future evolutions of technology and standardization: this DRIVER guarantees a perfect upgrade path for new modulation schemes that the researchers will delivery.
Besides ARK-6 UNIVERSAL DRIVER already implements DVB-T/T2, ATSC/MH, ISDB-T, DTMB, ATV modulations.
The SDT ARK-6 allows selection of transmission modes in various ways: remotely, using a dry contact; via SNMP commands; via TCP/IP, using the Web graphic interface; or even via a dedicated command inserted into the transport stream.
Functional interfaces are available for total remote control of the apparatus by means of serial protocols or TCP/IP ports. Thanks to the internal Web server the apparatus can be easily monitored and configured and updated using a LAN connection and a standard Web browser. More over, the built-in SNMP agent allows full automated remote control.

Main Features

- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
  - > Support 4 ASI input
  - > Support 4 SSI input
  - > Support 2 ASI Output
  - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- “ONE-CLICK” Linear and non-linear ADAPTIVE digital pre-correction circuits, when operated as transmitter
- Linear and non-linear digital pre-correction circuits, when operated as repeater
- One RF input to operate the ARK-6 in rebroadcasting mode.
- Support the Editing of Virtual Channel Table in Translator mode
- Internal GPS receiver
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1 PPS)
- Output clock: 1 PPS and 10 MHz
- Compliant to ATSC A/53 and A/65 standard
- Compliant to A/153 ATSC-MH standard
- Bit rate adaptation plus PCR re-stamping
- Embedded HTTP server
- RF main and monitoring outputs
- Supports a measure board for the monitoring of the modulated signal: SNR, BER, SER e LOCK
- Amber switching implemented as a search for valid input when the priority one is not locked.
- Test modes: CW, Force Null Packets and PRBS
- Redundancy: Input auto-switch algorithm supported
- Option A/110b compliant for SFN transmission
- Option: A/110b Compliant for STL with ATSC-MH transmission

AUTOMATIC DIGITAL/ANALOG

HETERODYNE TRANSPOSER
RF > IF > RF

REGENERATIVE TRANSMITTER
RF > ASI > MOD > RF

TRANSMITTER
ASI > MOD > RF

SAT RX w DEC with CAM
SAT > DEC > TS > RF

SAT RX
SAT > TS > RF

ATV

ATSC

atsc MOBILE DTV

Option Features

- Based on Software Defined Technology (SWDT), ARK6 T2 Modulator allows the definition of different operative modes on the same hardware platform.

SDT SERIES ARK-6 ATSC + ATV

The New SDT ARK-6 SERIES is available in different hardware configurations.

Front View. Transposer and Transmitter Version

Front View. Version with Analog Audio/Video Input

Front View. Transmitter with DVB-S2 Receiver Version

Front View. Transmitter with DVB-S2 Receiver Version with CAM

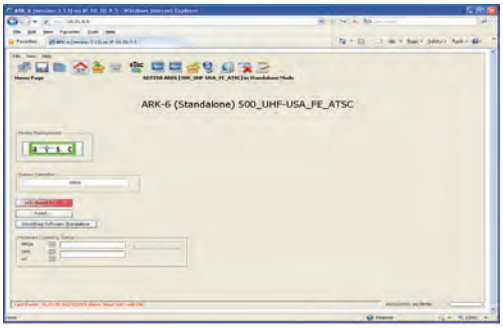
Front View. Transmitter Version

General Specifications	
Cooling System	Forced air/liquid cooling
Local control and monitoring	Extensive front panel control Local terminal on RS-232
Remote control and monitoring	Web based Java Interface Telnet access via Ethernet SNMP
Operating Temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Maximum operating altitude	2500 m a.s.l. (> 2500 m on request)
Mains power supply	90-260 V AC

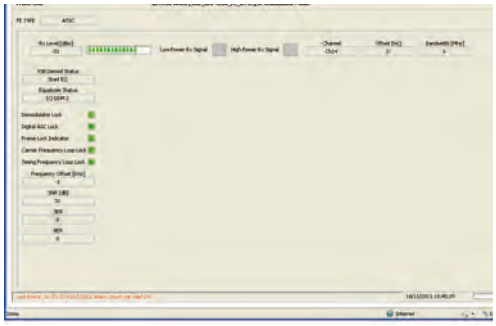
MODEL SPECIFIC DATA

Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	**Shoulders @ Fo ± 3.5 MHz**	**Digital output power (rms) without Filter ATSC**	**Nominal analog output power (p.s.) NTSC**
SDT 202UB ARK-6 HE	UHF	AB	1+5 RU	1	SCA202HE	7/8"	Air		-39	1300 W	3000 W
SDT 202UM ARK-6 HE	UHF	AB	30 RU	2	SCA202HE	7/8"	Air		-39	1300 W	3000 W
SDT 202UB ARK-6	UHF	AB	1+5 RU	1	SCA202UB	7/8"	Air		-36	700 W	2800 W
SDT 202UM ARK-6	UHF	AB	30RU	2	SCA202UB	7/8"	Air		-36	700 W	2800 W
SDT 202TB ARK-6	VHF (III)	AB	1+5 RU	1	SCA202TB	7/8"	Air		-36	700 W	2800 W
SDT 202TM ARK-6	VHF (III)	AB	30 RU	2	SCA202TB	7/8"	Air		-36	700 W	2800 W

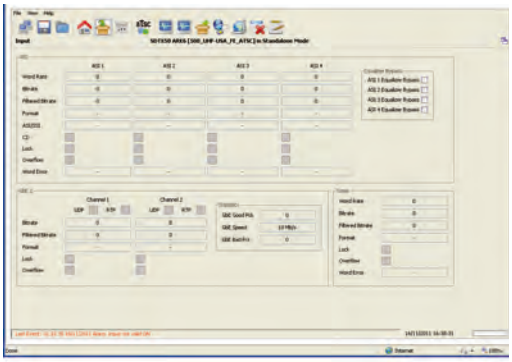
Specifications and characteristics are subject to change without notice.



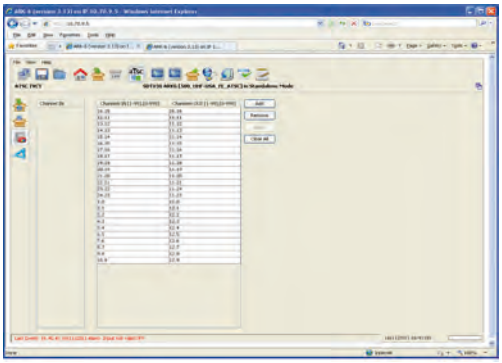
GUI, Home page



GUI, Front end



GUI, Input page.



GUI, TVCT

SDT 502 ARK-6

Heterodyne Transposer, Regenerative Transmitter, Transmitter up to 6000W ps/2600W rms

> SDT 502 ARK-6
Version with
Dual Driver Option

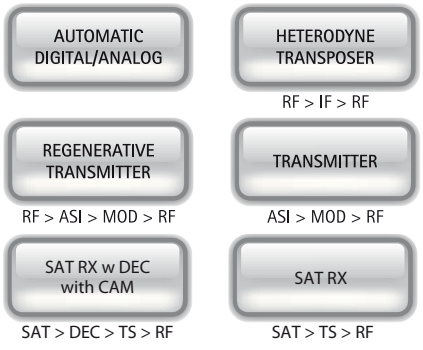
> SDT 502 ARK-6
Liquid Cooled - Version
with Dual Driver Option

Description

The New SDT ARK-6 Series is the result of years of research and represents the state of the art of the worldwide transmitter technology.
We call it UNIVERSAL DRIVER because of its incredible capability to be all configurations with one hardware and uploading a proper software package.
It is perfect for both international broadcasters which have business in several countries – to increase manageability of investment through reduction of transmitter types - and national broadcasters, due for its versatility in operation modes and configuration. In fact it can be used as a transmitter, a heterodyne transposer, a regenerative transmitter, all in a single hardware.
ARK-6 UNIVERSAL DRIVER is resilient to future evolutions of technology and standardization: this DRIVER guarantees a perfect upgrade path for new modulation schemes that the researchers will delivery.
Besides ARK-6 UNIVERSAL DRIVER already implements DVB-T/T2, ATSC/MH, ISDB-T, DTMB, ATV modulations.
The SDT ARK-6 allows selection of transmission modes in various ways: remotely, using a dry contact; via SNMP commands; via TCP/IP, using the Web graphic interface; or even via a dedicated command inserted into the transport stream.
Functional interfaces are available for total remote control of the apparatus by means of serial protocols or TCP/IP ports. Thanks to the internal Web server the apparatus can be easily monitored and configured and updated using a LAN connection and a standard Web browser. More over, the built-in SNMP agent allows full automated remote control.

Main Features

- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
  - > Support 4 ASI input
  - > Support 4 SSI input
  - > Support 2 ASI Output
  - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- “ONE-CLICK” Linear and non-linear ADAPTIVE digital pre-correction circuits, when operated as transmitter
- Linear and non-linear digital pre-correction circuits, when operated as repeater
- One RF input to operate the ARK-6 in rebroadcasting mode.
- Support the Editing of Virtual Channel Table in Translator mode
- Internal GPS receiver
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1 PPS)
- Output clock: 1 PPS and 10 MHz
- Compliant to ATSC A/53 and A/65 standard
- Compliant to A/153 ATSC-MH standard
- Bit rate adaptation plus PCR re-stamping
- Embedded HTTP server
- RF main and monitoring outputs
- Supports a measure board for the monitoring of the modulated signal: SNR, BER, SER e LOCK
- Amber switching implemented as a search for valid input when the priority one is not locked.
- Test modes: CW, Force Null Packets and PRBS
- Redundancy: Input auto-switch algorithm supported
- Option A/110b compliant for SFN transmission
- Option: A/110b Compliant for STL with ATSC-MH transmission



ATV ATSC atsc MOBILE DTV

Option Features

- Based on Software Defined Technology (SWDT), ARK6 T2 Modulator allows the definition of different operative modes on the same hardware platform.

SDT SERIES ARK-6 ATSC + ATV

The New SDT ARK-6 SERIES is available in different hardware configurations.

Front View. Transposer and Transmitter Version

Front View. Version with Analog Audio/Video Input

Front View. Transmitter with DVB-S2 Receiver Version

Front View. Transmitter with DVB-S2 Receiver Version with CAM

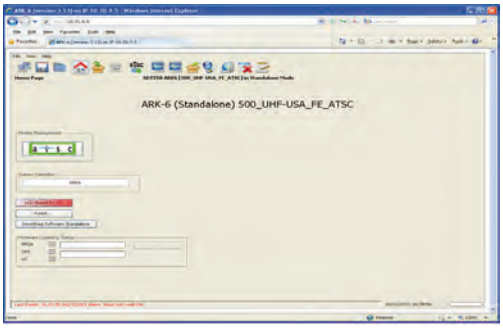
Front View. Transmitter Version

General Specifications	
Cooling System	Forced air/liquid cooling
Local control and monitoring	Extensive front panel control Local terminal on RS-232
Remote control and monitoring	Web based Java Interface Telnet access via Ethernet SNMP
Operating Temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Maximum operating altitude	2500 m a.s.l. (> 2500 m on request)
Mains power supply	90-260 V AC

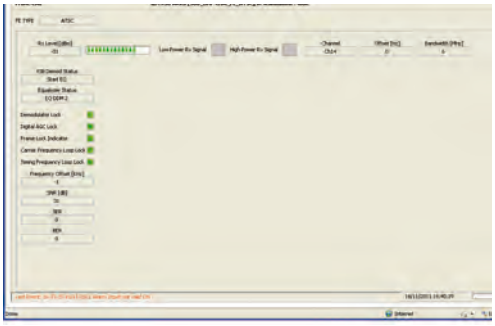
MODEL SPECIFIC DATA

Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	**Shoulders @ Fo ± 3.5 MHz**	**Digital output power (rms) without Filter ATSC**	**Nominal analog output power (p.s.) NTSC**
SDT 502UB ARK-6 HE	UHF	AB	30 RU	2	SCA202HE	1+5/8"	Air	1	-39	2600 W	6000 W
SDT 502UM ARK-6 HE	UHF	AB	40 RU	4	SCA102HE	1+5/8"	Air	1	-39	2600 W	6000 W
SDT 502UB-W ARK-6 HE	UHF	AB	40 RU	2	SCA202HE-W	1+5/8"	Liquid	1	-39	2600 W	6000 W
SDT502UB ARK-6	UHF	AB	30 RU	2	SCA202UB	1+5/8"	Air	1	-36	1300 W	5000 W
SDT502UB-W ARK-6	UHF	AB	40 RU	2	SCA202UB-W	1+5/8"	Liquid	1	-36	1300 W	5000 W
SDT 502UM ARK-6	UHF	AB	40 RU	4	SCA102UB	1+5/8"	Air	1	-36	1300 W	5000 W
SDT 502TB ARK-6	VHF (III)	AB	30 RU	2	SCA202TB	1+5/8"	Air	1	-36	1300 W	5000 W
SDT 502TB-W ARK-6	VHF (III)	AB	40 RU	2	SCA202TB-W	1+5/8"	Liquid	1	-36	1300 W	5000 W
SDT 502TM ARK-6	VHF (III)	AB	40 RU	4	SCA102TB	1+5/8"	Air	1	-36	1300 W	5000 W

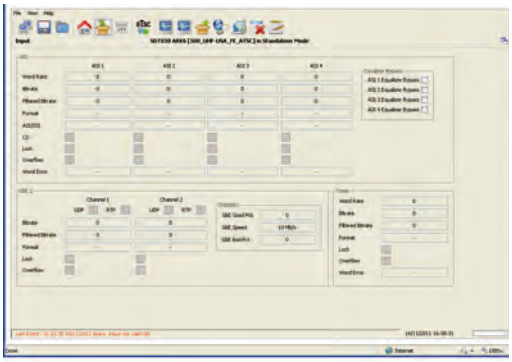
Specifications and characteristics are subject to change without notice.



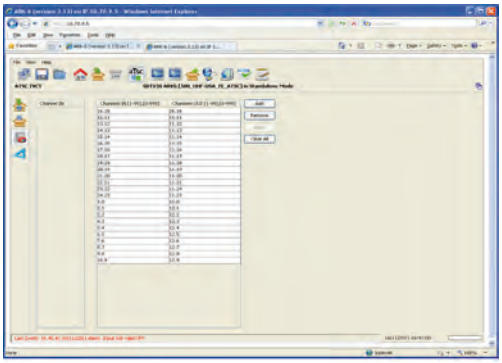
GUI, Home page



GUI, Front end



GUI, Input page.



GUI, TVCT

SDT 532 ARK-6

Heterodyne Transposer, Regenerative Transmitter, Transmitter up to 9000W ps/3900W rms

> SDT 532 ARK-6
Liquid Cooled Version with
Dual Driver Option

Description

The New SDT ARK-6 Series is the result of years of research and represents the state of the art of the worldwide transmitter technology.
We call it UNIVERSAL DRIVER because of its incredible capability to be all configurations with one hardware and uploading a proper software package.
It is perfect for both international broadcasters which have business in several countries – to increase manageability of investment through reduction of transmitter types - and national broadcasters, due for its versatility in operation modes and configuration. In fact it can be used as a transmitter, a heterodyne transposer, a regenerative transmitter, all in a single hardware.
ARK-6 UNIVERSAL DRIVER is resilient to future evolutions of technology and standardization: this DRIVER guarantees a perfect upgrade path for new modulation schemes that the researchers will delivery.
Besides ARK-6 UNIVERSAL DRIVER already implements DVB-T/T2, ATSC/MH, ISDB-T, DTMB, ATV modulations.
The SDT ARK-6 allows selection of transmission modes in various ways: remotely, using a dry contact; via SNMP commands; via TCP/IP, using the Web graphic interface; or even via a dedicated command inserted into the transport stream.
Functional interfaces are available for total remote control of the apparatus by means of serial protocols or TCP/IP ports. Thanks to the internal Web server the apparatus can be easily monitored and configured and updated using a LAN connection and a standard Web browser. More over, the built-in SNMP agent allows full automated remote control.

Main Features

- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
  - > Support 4 ASI input
  - > Support 4 SSI input
  - > Support 2 ASI Output
  - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- “ONE-CLICK” Linear and non-linear ADAPTIVE digital pre-correction circuits, when operated as transmitter
- Linear and non-linear digital pre-correction circuits, when operated as repeater
- One RF input to operate the ARK-6 in rebroadcasting mode.
- Support the Editing of Virtual Channel Table in Translator mode
- Internal GPS receiver
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1 PPS)
- Output clock: 1 PPS and 10 MHz
- Compliant to ATSC A/53 and A/65 standard
- Compliant to A/153 ATSC-MH standard
- Bit rate adaptation plus PCR re-stamping
- Embedded HTTP server
- RF main and monitoring outputs
- Supports a measure board for the monitoring of the modulated signal: SNR, BER, SER e LOCK
- Amber switching implemented as a search for valid input when the priority one is not locked.
- Test modes: CW, Force Null Packets and PRBS
- Redundancy: Input auto-switch algorithm supported
- Option A/110b compliant for SFN transmission
- Option: A/110b Compliant for STL with ATSC-MH transmission

AUTOMATIC DIGITAL/ANALOG

HETERODYNE TRANSPOSER
RF > IF > RF

REGENERATIVE TRANSMITTER
RF > ASI > MOD > RF

TRANSMITTER
ASI > MOD > RF

SAT RX w DEC with CAM
SAT > DEC > TS > RF

SAT RX
SAT > TS > RF

ATV

ATSC

atsc MOBILE DTV

Option Features
- Based on Software Defined Technology (SWDT), ARK6 T2 Modulator allows the definition of different operative modes on the same hardware platform.

SDT SERIES ARK-6 ATSC + ATV

The New SDT ARK-6 SERIES is available in different hardware configurations.

Front View. Transposer and Transmitter Version

Front View. Version with Analog Audio/Video Input

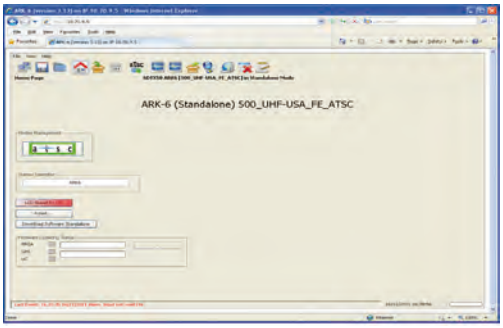
Front View. Transmitter with DVB-S2 Receiver Version

Front View. Transmitter with DVB-S2 Receiver Version with CAM

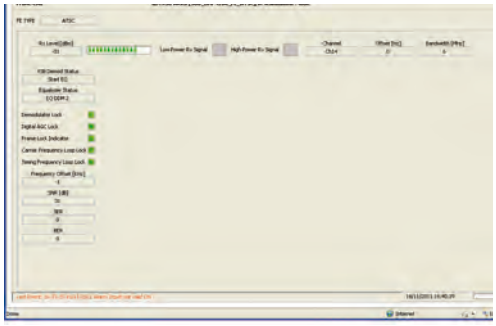
Front View. Transmitter Version

General Specifications	
Cooling System	Forced air/liquid cooling
Local control and monitoring	Extensive front panel control Local terminal on RS-232
Remote control and monitoring	Web based Java Interface Telnet access via Ethernet SNMP
Operating Temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Maximum operating altitude	2500 m a.s.l. (> 2500 m on request)
Mains power supply	90-260 V AC

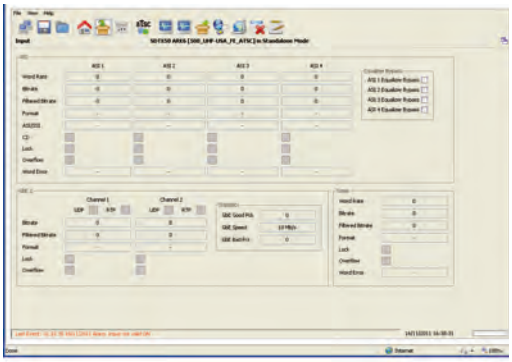
MODEL SPECIFIC DATA											
Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	**Shoulders @ Fo ± 3.5 MHz**	**Digital output power (rms) without Filter ATSC**	**Nominal analog output power (p.s.) NTSC**
SDT 532UB-W ARK-6 HE	UHF	AB	40 RU	3	SCA202HE-W	1+5/8"	Liquid	1	-39	3900 W	9000 W
SDT 532UB-W ARK-6	UHF	AB	40 RU	3	SCA202UB-W	1+5/8"	Liquid	1	-36	2000 W	7500 W
SDT 532TB-W ARK-6	VHF (III)	AB	40 RU	3	SCA202TB-W	1+5/8"	Liquid	1	-36	2000 W	7500 W
Specifications and characteristics are subject to change without notice.											



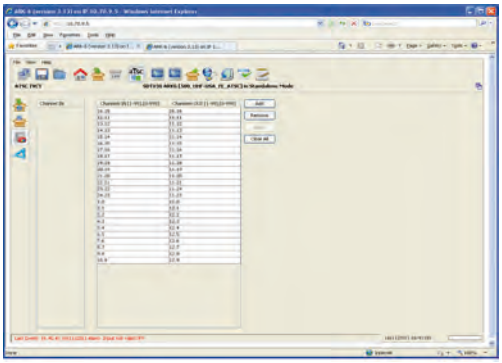
GUI, Home page



GUI, Front end



GUI, Input page.



GUI, TVCT

SDT 103 ARK-6

Heterodyne Transposer, Regenerative Transmitter, Transmitter up to 12000W ps/5200W rms

> SDT 103 ARK-6

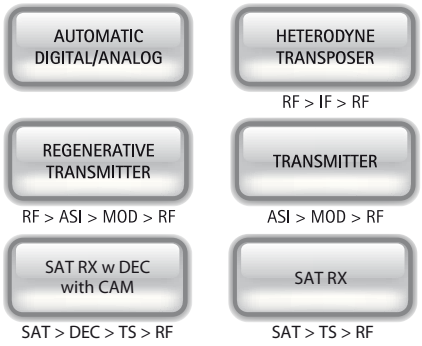
> SDT 103 W ARK-6
Liquid Cooled Version with Dual Driver Option

Description

The New SDT ARK-6 Series is the result of years of research and represents the state of the art of the worldwide transmitter technology.
We call it UNIVERSAL DRIVER because of its incredible capability to be all configurations with one hardware and uploading a proper software package.
It is perfect for both international broadcasters which have business in several countries – to increase manageability of investment through reduction of transmitter types - and national broadcasters, due for its versatility in operation modes and configuration. In fact it can be used as a transmitter, a heterodyne transposer, a regenerative transmitter, all in a single hardware.
ARK-6 UNIVERSAL DRIVER is resilient to future evolutions of technology and standardization: this DRIVER guarantees a perfect upgrade path for new modulation schemes that the researchers will delivery.
Besides ARK-6 UNIVERSAL DRIVER already implements DVB-T/T2, ATSC/MH, ISDB-T, DTMB, ATV modulations.
The SDT ARK-6 allows selection of transmission modes in various ways: remotely, using a dry contact; via SNMP commands; via TCP/IP, using the Web graphic interface; or even via a dedicated command inserted into the transport stream.
Functional interfaces are available for total remote control of the apparatus by means of serial protocols or TCP/IP ports. Thanks to the internal Web server the apparatus can be easily monitored and configured and updated using a LAN connection and a standard Web browser. More over, the built-in SNMP agent allows full automated remote control.

Main Features

- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
  - > Support 4 ASI input
  - > Support 4 SSI input
  - > Support 2 ASI Output
  - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- “ONE-CLICK” Linear and non-linear ADAPTIVE digital pre-correction circuits, when operated as transmitter
- Linear and non-linear digital pre-correction circuits, when operated as repeater
- One RF input to operate the ARK-6 in rebroadcasting mode.
- Support the Editing of Virtual Channel Table in Translator mode
- Internal GPS receiver
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1 PPS)
- Output clock: 1 PPS and 10 MHz
- Compliant to ATSC A/53 and A/65 standard
- Compliant to A/153 ATSC-MH standard
- Bit rate adaptation plus PCR re-stamping
- Embedded HTTP server
- RF main and monitoring outputs
- Supports a measure board for the monitoring of the modulated signal: SNR, BER, SER e LOCK
- Amber switching implemented as a search for valid input when the priority one is not locked.
- Test modes: CW, Force Null Packets and PRBS
- Redundancy: Input auto-switch algorithm supported
- Option A/110b compliant for SFN transmission
- Option: A/110b Compliant for STL with ATSC-MH transmission



ATV ATSC atsc MOBILE DTV

Option Features

- Based on Software Defined Technology (SWDT), ARK6 T2 Modulator allows the definition of different operative modes on the same hardware platform.

SDT SERIES ARK-6 ATSC + ATV

The New SDT ARK-6 SERIES is available in different hardware configurations.

Front View. Transposer and Transmitter Version

Front View. Version with Analog Audio/Video Input

Front View. Transmitter with DVB-S2 Receiver Version

Front View. Transmitter with DVB-S2 Receiver Version with CAM

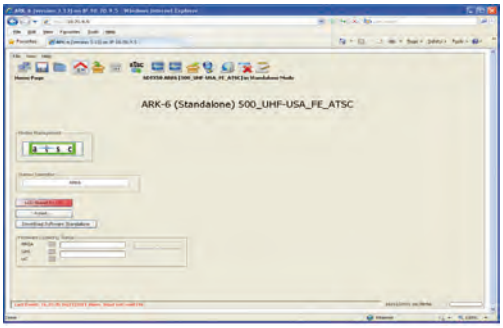
Front View. Transmitter Version

General Specifications	
Cooling System	Forced air/liquid cooling
Local control and monitoring	Extensive front panel control Local terminal on RS-232
Remote control and monitoring	Web based Java Interface Telnet access via Ethernet SNMP
Operating Temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Maximum operating altitude	2500 m a.s.l. (> 2500 m on request)
Mains power supply	90-260 V AC

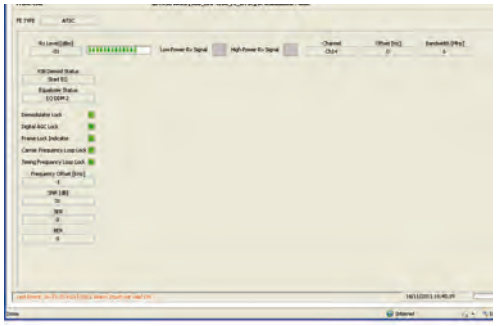
MODEL SPECIFIC DATA

Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	**Shoulders @ Fo ± 3.5 MHz**	**Digital output power (rms) without Filter ATSC**	**Nominal analog output power (p.s.) NTSC**
SDT 103UM ARK-6 HE	UHF	AB	40 RU	4	SCA202HE	3+1/8"	Air	1	-39	5200 W	12000 W
SDT 103UM-W ARK-6 HE	UHF	AB	40 RU	4	SCA202HE	3+1/8"	Liquid	1	-39	5200 W	12000 W
SDT 103UM ARK-6	UHF	AB	40 RU	4	SCA202UB	3+1/8"	Air	1	-36	2600 W	10000 W
SDT 103UM-W ARK-6	UHF	AB	40 RU	4	SCA202UB-W	3+1/8"	Liquid	1	-36	2600 W	10000 W
SDT 103TM ARK-6	VHF (III)	AB	40 RU	4	SCA202TB	3+1/8"	Air	1	-36	2600 W	10000 W
SDT 103TM-W ARK-6	VHF (III)	AB	40 RU	4	SCA202TB-W	3+1/8"	Liquid	1	-36	2600 W	10000 W

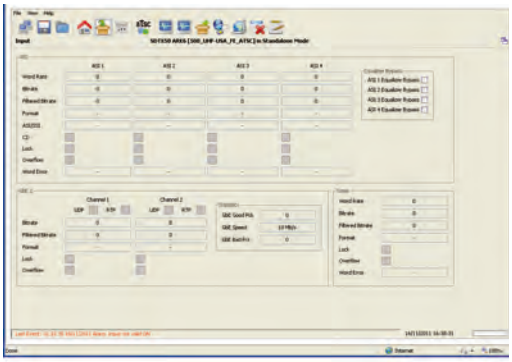
Specifications and characteristics are subject to change without notice.



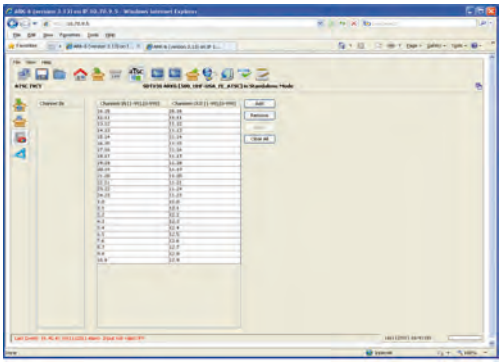
GUI, Home page



GUI, Front end



GUI, Input page.



GUI, TVCT

SDT 123 ARK-6

Heterodyne Transposer, Regenerative Transmitter, Transmitter up to 12500W ps/3200W rms

> SDT 123UM-W ARK-6
Liquid Cooled Version With Dual Driver

AUTOMATIC DIGITAL/ANALOG

HETERODYNE TRANSPOSER
RF > IF > RF

REGENERATIVE TRANSMITTER
RF > ASI > MOD > RF

TRANSMITTER
ASI > MOD > RF

SAT RX w DEC with CAM
SAT > DEC > TS > RF

SAT RX
SAT > TS > RF

ATV

ATSC

atsc MOBILE DTV

Description

The New SDT ARK-6 Series is the result of years of research and represents the state of the art of the worldwide transmitter technology.
We call it UNIVERSAL DRIVER because of its incredible capability to be all configurations with one hardware and uploading a proper software package.
It is perfect for both international broadcasters which have business in several countries – to increase manageability of investment through reduction of transmitter types - and national broadcasters, due for its versatility in operation modes and configuration. In fact it can be used as a transmitter, a heterodyne transposer, a regenerative transmitter, all in a single hardware.
ARK-6 UNIVERSAL DRIVER is resilient to future evolutions of technology and standardization: this DRIVER guarantees a perfect upgrade path for new modulation schemes that the researchers will delivery.
Besides ARK-6 UNIVERSAL DRIVER already implements DVB-T/T2, ATSC/MH, ISDB-T, DTMB, ATV modulations.
The SDT ARK-6 allows selection of transmission modes in various ways: remotely, using a dry contact; via SNMP commands; via TCP/IP, using the Web graphic interface; or even via a dedicated command inserted into the transport stream.
Functional interfaces are available for total remote control of the apparatus by means of serial protocols or TCP/IP ports. Thanks to the internal Web server the apparatus can be easily monitored and configured and updated using a LAN connection and a standard Web browser. More over, the built-in SNMP agent allows full automated remote control.

Main Features

- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
  - > Support 4 ASI input
  - > Support 4 SSI input
  - > Support 2 ASI Output
  - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- “ONE-CLICK” Linear and non-linear ADAPTIVE digital pre-correction circuits, when operated as transmitter
- Linear and non-linear digital pre-correction circuits, when operated as repeater
- One RF input to operate the ARK-6 in rebroadcasting mode.
- Support the Editing of Virtual Channel Table in Translator mode
- Internal GPS receiver
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1 PPS)
- Output clock: 1 PPS and 10 MHz
- Compliant to ATSC A/53 and A/65 standard
- Compliant to A/153 ATSC-MH standard
- Bit rate adaptation plus PCR re-stamping
- Embedded HTTP server
- RF main and monitoring outputs
- Supports a measure board for the monitoring of the modulated signal: SNR, BER, SER e LOCK
- Amber switching implemented as a search for valid input when the priority one is not locked.
- Test modes: CW, Force Null Packets and PRBS
- Redundancy: Input auto-switch algorithm supported
- Option A/110b compliant for SFN transmission
- Option: A/110b Compliant for STL with ATSC-MH transmission

Option Features

- Based on Software Defined Technology (SWDT), ARK6 T2 Modulator allows the definition of different operative modes on the same hardware platform.

ScreenService

SDT SERIES ARK-6 ATSC + ATV

The New SDT ARK-6 SERIES is available in different hardware configurations.

Front View. Transposer and Transmitter Version

Front View. Version with Analog Audio/Video Input

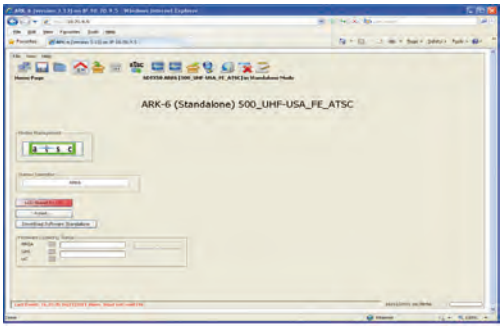
Front View. Transmitter with DVB-S2 Receiver Version

Front View. Transmitter with DVB-S2 Receiver Version with CAM

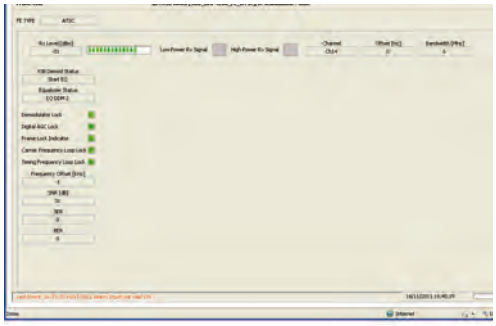
Front View. Transmitter Version

General Specifications	
Cooling System	Forced air/liquid cooling
Local control and monitoring	Extensive front panel control Local terminal on RS-232
Remote control and monitoring	Web based Java Interface Telnet access via Ethernet SNMP
Operating Temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Maximum operating altitude	2500 m a.s.l. (> 2500 m on request)
Mains power supply	90-260 V AC

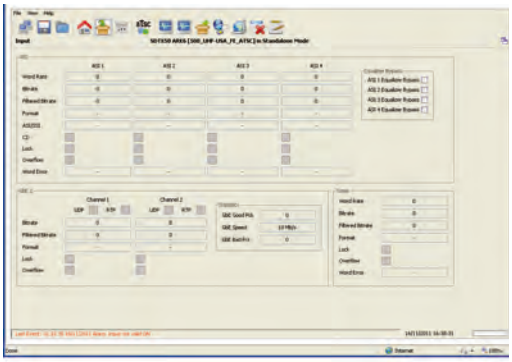
MODEL SPECIFIC DATA											
Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	**Shoulders @ Fo ± 3.5 MHz**	**Digital output power (rms) without Filter ATSC**	**Nominal analog output power (p.s.) NTSC**
SDT 123UM-W ARK-6	UHF	AB	40 RU	5	SCA202UB-W	3+1/8"	Liquid	1	-36	3200 W	12500 W
SDT 123TM-W ARK-6	VHF (III)	AB	40 RU	5	SCA202TB-W	3+1/8"	Liquid	1	-36	3200 W	12500 W
Specifications and characteristics are subject to change without notice.											



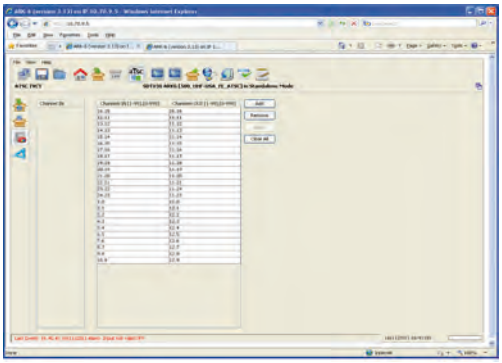
GUI, Home page



GUI, Front end



GUI, Input page.



GUI, TVCT

SDT 133 ARK-6

Heterodyne Transposer, Regenerative Transmitter, Transmitter up to 18000W ps/7800W rms

> SDT 133UM-W ARK-6
Liquid Cooled Version
with Dual Driver Option

Description

The New SDT ARK-6 Series is the result of years of research and represents the state of the art of the worldwide transmitter technology.
We call it UNIVERSAL DRIVER because of its incredible capability to be all configurations with one hardware and uploading a proper software package.
It is perfect for both international broadcasters which have business in several countries – to increase manageability of investment through reduction of transmitter types - and national broadcasters, due for its versatility in operation modes and configuration. In fact it can be used as a transmitter, a heterodyne transposer, a regenerative transmitter, all in a single hardware.
ARK-6 UNIVERSAL DRIVER is resilient to future evolutions of technology and standardization: this DRIVER guarantees a perfect upgrade path for new modulation schemes that the researchers will delivery.
Besides ARK-6 UNIVERSAL DRIVER already implements DVB-T/T2, ATSC/MH, ISDB-T, DTMB, ATV modulations.
The SDT ARK-6 allows selection of transmission modes in various ways: remotely, using a dry contact; via SNMP commands; via TCP/IP, using the Web graphic interface; or even via a dedicated command inserted into the transport stream.
Functional interfaces are available for total remote control of the apparatus by means of serial protocols or TCP/IP ports. Thanks to the internal Web server the apparatus can be easily monitored and configured and updated using a LAN connection and a standard Web browser. More over, the built-in SNMP agent allows full automated remote control.

Main Features

- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
  - > Support 4 ASI input
  - > Support 4 SSI input
  - > Support 2 ASI Output
  - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- “ONE-CLICK” Linear and non-linear ADAPTIVE digital pre-correction circuits, when operated as transmitter
- Linear and non-linear digital pre-correction circuits, when operated as repeater
- One RF input to operate the ARK-6 in rebroadcasting mode.
- Support the Editing of Virtual Channel Table in Translator mode
- Internal GPS receiver
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1 PPS)
- Output clock: 1 PPS and 10 MHz
- Compliant to ATSC A/53 and A/65 standard
- Compliant to A/153 ATSC-MH standard
- Bit rate adaptation plus PCR re-stamping
- Embedded HTTP server
- RF main and monitoring outputs
- Supports a measure board for the monitoring of the modulated signal: SNR, BER, SER e LOCK
- Amber switching implemented as a search for valid input when the priority one is not locked.
- Test modes: CW, Force Null Packets and PRBS
- Redundancy: Input auto-switch algorithm supported
- Option A/110b compliant for SFN transmission
- Option: A/110b Compliant for STL with ATSC-MH transmission

AUTOMATIC DIGITAL/ANALOG

HETERODYNE TRANSPOSER
RF > IF > RF

REGENERATIVE TRANSMITTER
RF > ASI > MOD > RF

TRANSMITTER
ASI > MOD > RF

SAT RX w DEC with CAM
SAT > DEC > TS > RF

SAT RX
SAT > TS > RF

ATV

ATSC

atsc MOBILE DTV

Option Features

- Based on Software Defined Technology (SWDT), ARK6 T2 Modulator allows the definition of different operative modes on the same hardware platform.

ScreenService

SDT SERIES ARK-6 ATSC + ATV

The New SDT ARK-6 SERIES is available in different hardware configurations.

Front View. Transposer and Transmitter Version

Front View. Version with Analog Audio/Video Input

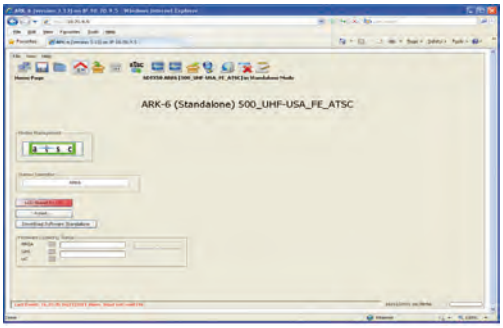
Front View. Transmitter with DVB-S2 Receiver Version

Front View. Transmitter with DVB-S2 Receiver Version with CAM

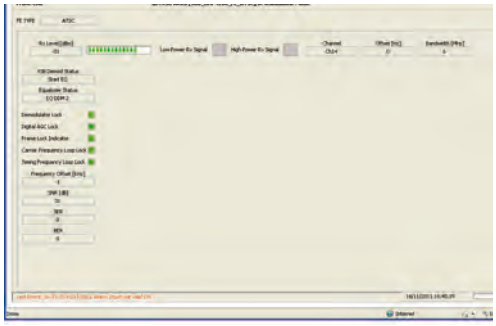
Front View. Transmitter Version

General Specifications	
Cooling System	Forced air/liquid cooling
Local control and monitoring	Extensive front panel control Local terminal on RS-232
Remote control and monitoring	Web based Java Interface Telnet access via Ethernet SNMP
Operating Temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Maximum operating altitude	2500 m a.s.l. (> 2500 m on request)
Mains power supply	90-260 V AC

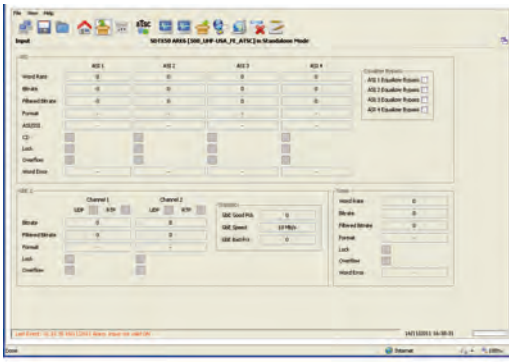
MODEL SPECIFIC DATA											
Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	**Shoulders @ Fo ± 3.5 MHz**	**Digital output power (rms) without Filter ATSC**	**Nominal analog output power (p.s.) NTSC**
SDT 133UM-W ARK-6 HE	UHF	AB	2 x 40 RU	6	SCA202HE-W	3+1/8"	Liquid	1	-39	7800 W	18000 W
SDT 133UM-W ARK-6	UHF	AB	2 x 40 RU	6	SCA202UB-W	3+1/8"	Liquid	1	-36	6000 W	16000 W
SDT 133TM-W ARK-6	VHF (III)	AB	2 x 40 RU	6	SCA202TB-W	3+1/8"	Liquid	1	-36	6000 W	16000 W
Specifications and characteristics are subject to change without notice.											



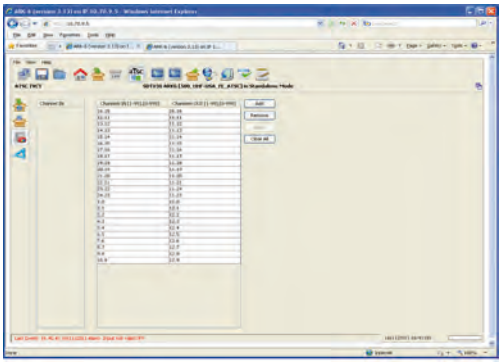
GUI, Home page



GUI, Front end



GUI, Input page.



GUI, TVCT

SDT 203 ARK-6

Heterodyne Transposer, Regenerative Transmitter, Transmitter up to 24000W ps/10000W rms

> SDT 203 ARK-6
With Dual Driver Option

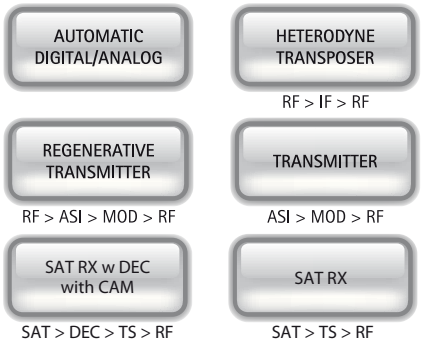
> SDT 203 W ARK-6
Liquid Cooled Version
with Dual Driver Option

Description

The New SDT ARK-6 Series is the result of years of research and represents the state of the art of the worldwide transmitter technology.
We call it UNIVERSAL DRIVER because of its incredible capability to be all configurations with one hardware and uploading a proper software package.
It is perfect for both international broadcasters which have business in several countries – to increase manageability of investment through reduction of transmitter types - and national broadcasters, due for its versatility in operation modes and configuration. In fact it can be used as a transmitter, a heterodyne transposer, a regenerative transmitter, all in a single hardware.
ARK-6 UNIVERSAL DRIVER is resilient to future evolutions of technology and standardization: this DRIVER guarantees a perfect upgrade path for new modulation schemes that the researchers will delivery.
Besides ARK-6 UNIVERSAL DRIVER already implements DVB-T/T2, ATSC/MH, ISDB-T, DTMB, ATV modulations.
The SDT ARK-6 allows selection of transmission modes in various ways: remotely, using a dry contact; via SNMP commands; via TCP/IP, using the Web graphic interface; or even via a dedicated command inserted into the transport stream.
Functional interfaces are available for total remote control of the apparatus by means of serial protocols or TCP/IP ports. Thanks to the internal Web server the apparatus can be easily monitored and configured and updated using a LAN connection and a standard Web browser. More over, the built-in SNMP agent allows full automated remote control.

Main Features

- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
  - > Support 4 ASI input
  - > Support 4 SSI input
  - > Support 2 ASI Output
  - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- “ONE-CLICK” Linear and non-linear ADAPTIVE digital pre-correction circuits, when operated as transmitter
- Linear and non-linear digital pre-correction circuits, when operated as repeater
- One RF input to operate the ARK-6 in rebroadcasting mode.
- Support the Editing of Virtual Channel Table in Translator mode
- Internal GPS receiver
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1 PPS)
- Output clock: 1 PPS and 10 MHz
- Compliant to ATSC A/53 and A/65 standard
- Compliant to A/153 ATSC-MH standard
- Bit rate adaptation plus PCR re-stamping
- Embedded HTTP server
- RF main and monitoring outputs
- Supports a measure board for the monitoring of the modulated signal: SNR, BER, SER e LOCK
- Amber switching implemented as a search for valid input when the priority one is not locked.
- Test modes: CW, Force Null Packets and PRBS
- Redundancy: Input auto-switch algorithm supported
- Option A/110b compliant for SFN transmission
- Option: A/110b Compliant for STL with ATSC-MH transmission



ATV ATSC atsc MOBILE DTV

Option Features

- Based on Software Defined Technology (SWDT), ARK6 T2 Modulator allows the definition of different operative modes on the same hardware platform.

SDT SERIES ARK-6 ATSC + ATV

The New SDT ARK-6 SERIES is available in different hardware configurations.

Front View. Transposer and Transmitter Version

Front View. Version with Analog Audio/Video Input

Front View. Transmitter with DVB-S2 Receiver Version

Front View. Transmitter with DVB-S2 Receiver Version with CAM

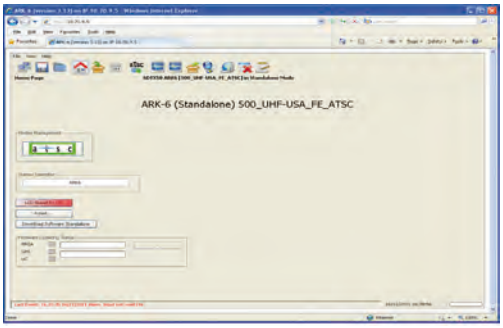
Front View. Transmitter Version

General Specifications	
Cooling System	Forced air/liquid cooling
Local control and monitoring	Extensive front panel control Local terminal on RS-232
Remote control and monitoring	Web based Java Interface Telnet access via Ethernet SNMP
Operating Temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Maximum operating altitude	2500 m a.s.l. (> 2500 m on request)
Mains power supply	90-260 V AC

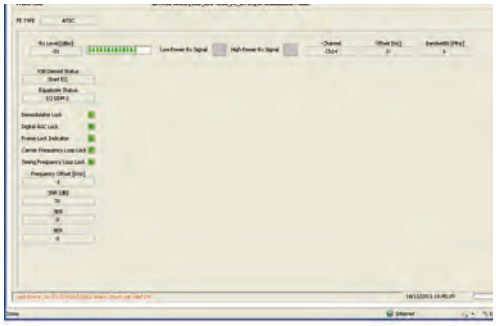
MODEL SPECIFIC DATA

Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	**Shoulders @ Fo ± 3.5 MHz**	**Digital output power (rms) without Filter ATSC**	**Nominal analog output power (p.s.) NTSC**
SDT 203UM ARK-6 HE	UHF	AB	2 x 40 RU	8	SCA202HE	3+1/8"	Air	2	-39	10000 W	24000 W
SDT 203UM-W ARK-6 HE	UHF	AB	2 x 40 RU	8	SCA202HE	3+1/8"	Liquid	2	-39	10000 W	24000 W
SDT 203UM ARK-6	UHF	AB	2 x 40 RU	8	SCA202UB	3+1/8"	Air	2	-36	5000 W	20000 W
SDT 203UM-W ARK-6	UHF	AB	2 x 40 RU	8	SCA202UB-W	3+1/8"	Liquid	2	-36	5000 W	20000 W
SDT 203TM ARK-6	VHF (III)	AB	2 x 40 RU	8	SCA202TB	3+1/8"	Air	2	-36	5000 W	20000 W
SDT 203TM-W ARK-6	VHF (III)	AB	2 x 40 RU	8	SCA202TB-W	3+1/8"	Liquid	2	-36	5000 W	20000 W

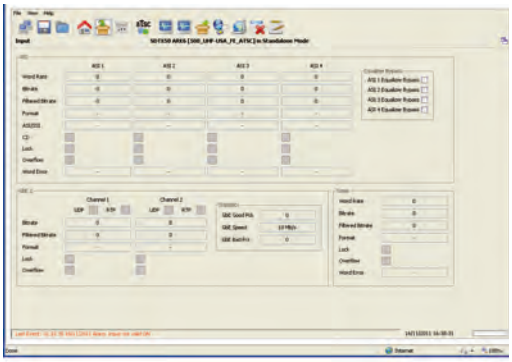
Specifications and characteristics are subject to change without notice.



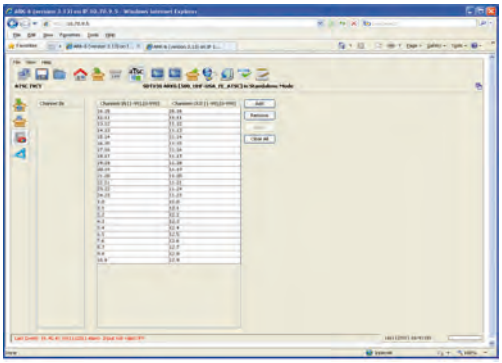
GUI, Home page



GUI, Front end



GUI, Input page.



GUI, TVCT

SDT 303 ARK-6

Heterodyne Transposer, Regenerative Transmitter, Transmitter up to 36000W ps/15000W rms – Liquid Cooled Version

> SDT 303 ARK-6
With Liquid Cooling and Dual Driver Option

Description

The New SDT ARK-6 Series is the result of years of research and represents the state of the art of the worldwide transmitter technology.
We call it UNIVERSAL DRIVER because of its incredible capability to be all configurations with one hardware and uploading a proper software package.
It is perfect for both international broadcasters which have business in several countries – to increase manageability of investment through reduction of transmitter types - and national broadcasters, due for its versatility in operation modes and configuration. In fact it can be used as a transmitter, a heterodyne transposer, a regenerative transmitter, all in a single hardware.
ARK-6 UNIVERSAL DRIVER is resilient to future evolutions of technology and standardization: this DRIVER guarantees a perfect upgrade path for new modulation schemes that the researchers will delivery.
Besides ARK-6 UNIVERSAL DRIVER already implements DVB-T/T2, ATSC/MH, ISDB-T, DTMB, ATV modulations.
The SDT ARK-6 allows selection of transmission modes in various ways: remotely, using a dry contact; via SNMP commands; via TCP/IP, using the Web graphic interface; or even via a dedicated command inserted into the transport stream.
Functional interfaces are available for total remote control of the apparatus by means of serial protocols or TCP/IP ports. Thanks to the internal Web server the apparatus can be easily monitored and configured and updated using a LAN connection and a standard Web browser. More over, the built-in SNMP agent allows full automated remote control.

Main Features

- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
  - > Support 4 ASI input
  - > Support 4 SSI input
  - > Support 2 ASI Output
  - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- “ONE-CLICK” Linear and non-linear ADAPTIVE digital pre-correction circuits, when operated as transmitter
- Linear and non-linear digital pre-correction circuits, when operated as repeater
- One RF input to operate the ARK-6 in rebroadcasting mode.
- Support the Editing of Virtual Channel Table in Translator mode
- Internal GPS receiver
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1 PPS)
- Output clock: 1 PPS and 10 MHz
- Compliant to ATSC A/53 and A/65 standard
- Compliant to A/153 ATSC-MH standard
- Bit rate adaptation plus PCR re-stamping
- Embedded HTTP server
- RF main and monitoring outputs
- Supports a measure board for the monitoring of the modulated signal: SNR, BER, SER e LOCK
- Amber switching implemented as a search for valid input when the priority one is not locked.
- Test modes: CW, Force Null Packets and PRBS
- Redundancy: Input auto-switch algorithm supported
- Option A/110b compliant for SFN transmission
- Option: A/110b Compliant for STL with ATSC-MH transmission

AUTOMATIC DIGITAL/ANALOG

HETERODYNE TRANSPOSER
RF > IF > RF

REGENERATIVE TRANSMITTER
RF > ASI > MOD > RF

TRANSMITTER
ASI > MOD > RF

SAT RX w DEC with CAM
SAT > DEC > TS > RF

SAT RX
SAT > TS > RF

ATV

ATSC

atsc MOBILE DTV

Option Features
- Based on Software Defined Technology (SWDT), ARK6 T2 Modulator allows the definition of different operative modes on the same hardware platform.

SDT SERIES ARK-6 ATSC + ATV

The New SDT ARK-6 SERIES is available in different hardware configurations.

Front View. Transposer and Transmitter Version

Front View. Version with Analog Audio/Video Input

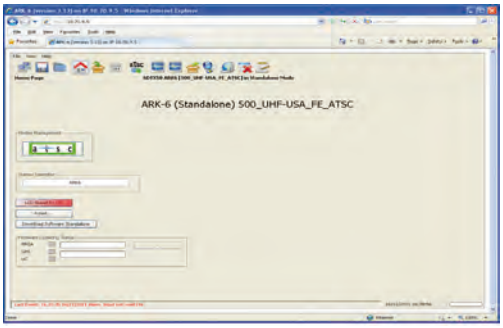
Front View. Transmitter with DVB-S2 Receiver Version

Front View. Transmitter with DVB-S2 Receiver Version with CAM

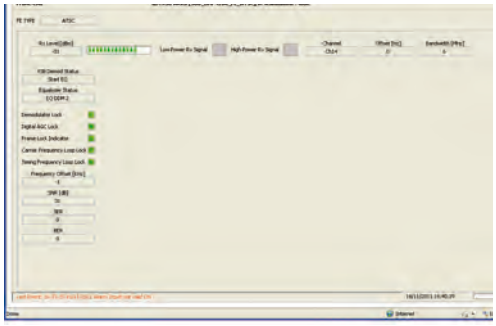
Front View. Transmitter Version

General Specifications	
Cooling System	Forced air/liquid cooling
Local control and monitoring	Extensive front panel control Local terminal on RS-232
Remote control and monitoring	Web based Java Interface Telnet access via Ethernet SNMP
Operating Temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Maximum operating altitude	2500 m a.s.l. (> 2500 m on request)
Mains power supply	90-260 V AC

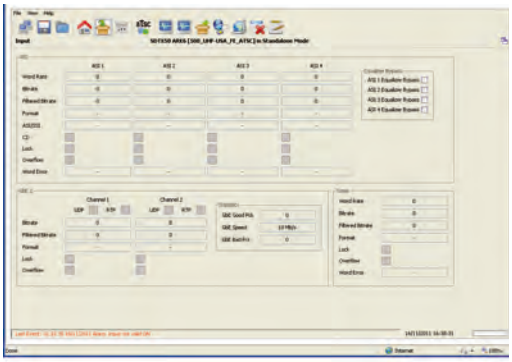
MODEL SPECIFIC DATA											
Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	**Shoulders @ Fo ± 3.5 MHz**	**Digital output power (rms) without Filter ATSC**	**Nominal analog output power (p.s.) NTSC**
SDT 303UM-W ARK-6 HE	UHF	AB	3 X 40 RU	12	SCA202HE-W	4+1/2"	Liquid	4	-39	15000 W	36000 W
SDT 303UM-W ARK-6	UHF	AB	3 X 40 RU	12	SCA202UB-W	4+1/2"	Liquid	4	-36	7800 W	32000 W
SDT 303TM-W ARK-6	VHF (III)	AB	3 X 40 RU	12	SCA202TB-W	4+1/2"	Liquid	4	-36	7800 W	32000 W
Specifications and characteristics are subject to change without notice.											



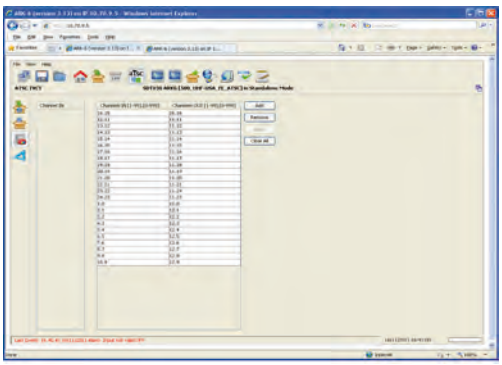
GUI, Home page



GUI, Front end



GUI, Input page.



GUI, TVCT

SDT 403 ARK-6

Heterodyne Transposer, Regenerative Transmitter, Transmitter up to 48000W ps/20000W rms – Liquid Cooled Version

> SDT 403 ARK-6 W
Liquid Cooled - Version with Dual Driver Option

Description

The New SDT ARK-6 Series is the result of years of research and represents the state of the art of the worldwide transmitter technology.
We call it UNIVERSAL DRIVER because of its incredible capability to be all configurations with one hardware and uploading a proper software package.
It is perfect for both international broadcasters which have business in several countries – to increase manageability of investment through reduction of transmitter types - and national broadcasters, due for its versatility in operation modes and configuration. In fact it can be used as a transmitter, a heterodyne transposer, a regenerative transmitter, all in a single hardware.
ARK-6 UNIVERSAL DRIVER is resilient to future evolutions of technology and standardization: this DRIVER guarantees a perfect upgrade path for new modulation schemes that the researchers will delivery.
Besides ARK-6 UNIVERSAL DRIVER already implements DVB-T/T2, ATSC/MH, ISDB-T, DTMB, ATV modulations.
The SDT ARK-6 allows selection of transmission modes in various ways: remotely, using a dry contact; via SNMP commands; via TCP/IP, using the Web graphic interface; or even via a dedicated command inserted into the transport stream.
Functional interfaces are available for total remote control of the apparatus by means of serial protocols or TCP/IP ports. Thanks to the internal Web server the apparatus can be easily monitored and configured and updated using a LAN connection and a standard Web browser. More over, the built-in SNMP agent allows full automated remote control.

Main Features

- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
  - > Support 4 ASI input
  - > Support 4 SSI input
  - > Support 2 ASI Output
  - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- “ONE-CLICK” Linear and non-linear ADAPTIVE digital pre-correction circuits, when operated as transmitter
- Linear and non-linear digital pre-correction circuits, when operated as repeater
- One RF input to operate the ARK-6 in rebroadcasting mode.
- Support the Editing of Virtual Channel Table in Translator mode
- Internal GPS receiver
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1 PPS)
- Output clock: 1 PPS and 10 MHz
- Compliant to ATSC A/53 and A/65 standard
- Compliant to A/153 ATSC-MH standard
- Bit rate adaptation plus PCR re-stamping
- Embedded HTTP server
- RF main and monitoring outputs
- Supports a measure board for the monitoring of the modulated signal: SNR, BER, SER e LOCK
- Amber switching implemented as a search for valid input when the priority one is not locked.
- Test modes: CW, Force Null Packets and PRBS
- Redundancy: Input auto-switch algorithm supported
- Option A/110b compliant for SFN transmission
- Option: A/110b Compliant for STL with ATSC-MH transmission

AUTOMATIC DIGITAL/ANALOG

HETERODYNE TRANSPOSER
RF > IF > RF

REGENERATIVE TRANSMITTER
RF > ASI > MOD > RF

TRANSMITTER
ASI > MOD > RF

SAT RX w DEC with CAM
SAT > DEC > TS > RF

SAT RX
SAT > TS > RF

ATV

ATSC

atsc MOBILE DTV

Option Features
- Based on Software Defined Technology (SWDT), ARK6 T2 Modulator allows the definition of different operative modes on the same hardware platform.

SDT SERIES ARK-6 ATSC + ATV

The New SDT ARK-6 SERIES is available in different hardware configurations.

Front View. Transposer and Transmitter Version

Front View. Version with Analog Audio/Video Input

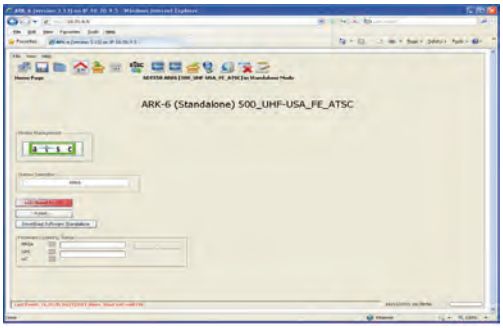
Front View. Transmitter with DVB-S2 Receiver Version

Front View. Transmitter with DVB-S2 Receiver Version with CAM

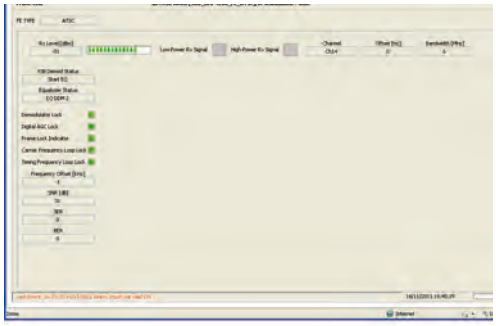
Front View. Transmitter Version

General Specifications	
Cooling System	Forced air/liquid cooling
Local control and monitoring	Extensive front panel control Local terminal on RS-232
Remote control and monitoring	Web based Java Interface Telnet access via Ethernet SNMP
Operating Temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Maximum operating altitude	2500 m a.s.l. (> 2500 m on request)
Mains power supply	90-260 V AC

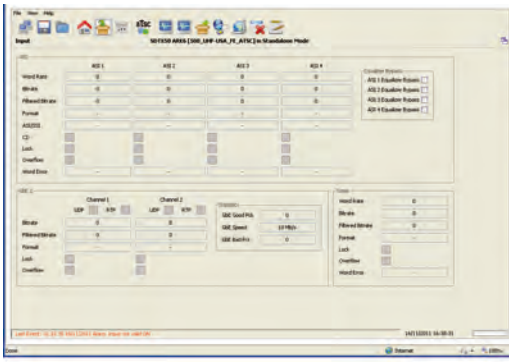
MODEL SPECIFIC DATA											
Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	**Shoulders @ Fo ± 3.5 MHz**	**Digital output power (rms) without Filter ATSC**	**Nominal analog output power (p.s.) NTSC**
SDT 403UM-W ARK-6 HE	UHF	AB	4 X 40 RU	16	SCA202HE-W	4+1/2"	Liquid	4	-39	20000 W	48000 W
SDT 403UM-W ARK-6	UHF	AB	4 X 40 RU	16	SCA202UB-W	4+1/2"	Liquid	4	-36	10000 W	40000 W
SDT 403TM-W ARK-6	VHF (III)	AB	4 X 40 RU	16	SCA202TB-W	4+1/2"	Liquid	4	-36	10000 W	40000 W
Specifications and characteristics are subject to change without notice.											



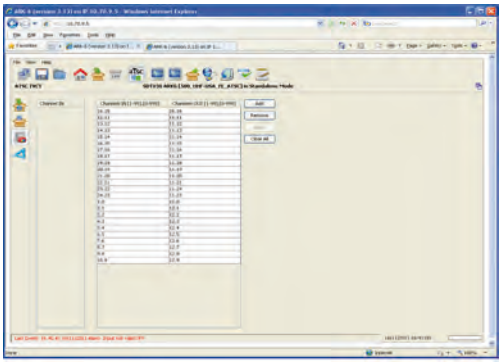
GUI, Home page



GUI, Front end



GUI, Input page.



GUI, TVCT

SDT 603 ARK-6

Heterodyne Transposer, Regenerative Transmitter, Transmitte up to 72000W ps/30000W rms – Liquid Cooled Version

> SDT 603 ARK-6
With Dual Driver Option and Liquid Cooling

Description

The New SDT ARK-6 Series is the result of years of research and represents the state of the art of the worldwide transmitter technology.
We call it UNIVERSAL DRIVER because of its incredible capability to be all configurations with one hardware and uploading a proper software package.
It is perfect for both international broadcasters which have business in several countries – to increase manageability of investment through reduction of transmitter types - and national broadcasters, due for its versatility in operation modes and configuration. In fact it can be used as a transmitter, a heterodyne transposer, a regenerative transmitter, all in a single hardware.
ARK-6 UNIVERSAL DRIVER is resilient to future evolutions of technology and standardization: this DRIVER guarantees a perfect upgrade path for new modulation schemes that the researchers will delivery.
Besides ARK-6 UNIVERSAL DRIVER already implements DVB-T/T2, ATSC/MH, ISDB-T, DTMB, ATV modulations.
The SDT ARK-6 allows selection of transmission modes in various ways: remotely, using a dry contact; via SNMP commands; via TCP/IP, using the Web graphic interface; or even via a dedicated command inserted into the transport stream.
Functional interfaces are available for total remote control of the apparatus by means of serial protocols or TCP/IP ports. Thanks to the internal Web server the apparatus can be easily monitored and configured and updated using a LAN connection and a standard Web browser. More over, the built-in SNMP agent allows full automated remote control.

Main Features

- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
  - > Support 4 ASI input
  - > Support 4 SSI input
  - > Support 2 ASI Output
  - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- “ONE-CLICK” Linear and non-linear ADAPTIVE digital pre-correction circuits, when operated as transmitter
- Linear and non-linear digital pre-correction circuits, when operated as repeater
- One RF input to operate the ARK-6 in rebroadcasting mode.
- Support the Editing of Virtual Channel Table in Translator mode
- Internal GPS receiver
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1 PPS)
- Output clock: 1 PPS and 10 MHz
- Compliant to ATSC A/53 and A/65 standard
- Compliant to A/153 ATSC-MH standard
- Bit rate adaptation plus PCR re-stamping
- Embedded HTTP server
- RF main and monitoring outputs
- Supports a measure board for the monitoring of the modulated signal: SNR, BER, SER e LOCK
- Amber switching implemented as a search for valid input when the priority one is not locked.
- Test modes: CW, Force Null Packets and PRBS
- Redundancy: Input auto-switch algorithm supported
- Option A/110b compliant for SFN transmission
- Option: A/110b Compliant for STL with ATSC-MH transmission

AUTOMATIC DIGITAL/ANALOG

HETERODYNE TRANSPOSER
RF > IF > RF

REGENERATIVE TRANSMITTER
RF > ASI > MOD > RF

TRANSMITTER
ASI > MOD > RF

SAT RX w DEC with CAM
SAT > DEC > TS > RF

SAT RX
SAT > TS > RF

ATV

ATSC

atsc MOBILE DTV

Option Features
- Based on Software Defined Technology (SWDT), ARK6 T2 Modulator allows the definition of different operative modes on the same hardware platform.

SDT SERIES ARK-6 ATSC + ATV

The New SDT ARK-6 SERIES is available in different hardware configurations.

Front View. Transposer and Transmitter Version

Front View. Version with Analog Audio/Video Input

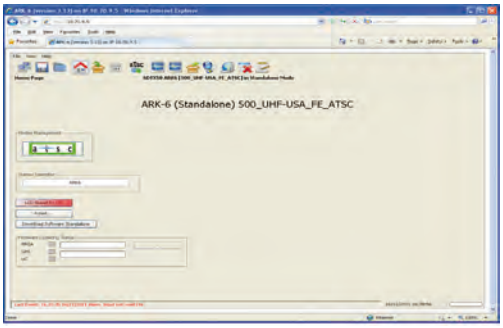
Front View. Transmitter with DVB-S2 Receiver Version

Front View. Transmitter with DVB-S2 Receiver Version with CAM

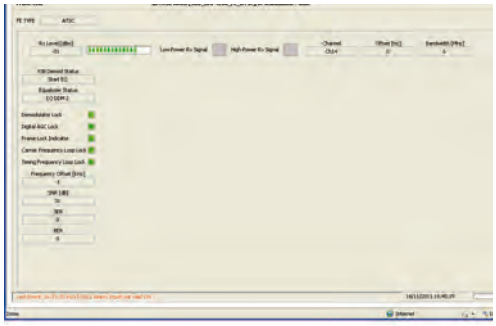
Front View. Transmitter Version

General Specifications	
Cooling System	Forced air/liquid cooling
Local control and monitoring	Extensive front panel control Local terminal on RS-232
Remote control and monitoring	Web based Java Interface Telnet access via Ethernet SNMP
Operating Temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Maximum operating altitude	2500 m a.s.l. (> 2500 m on request)
Mains power supply	90-260 V AC

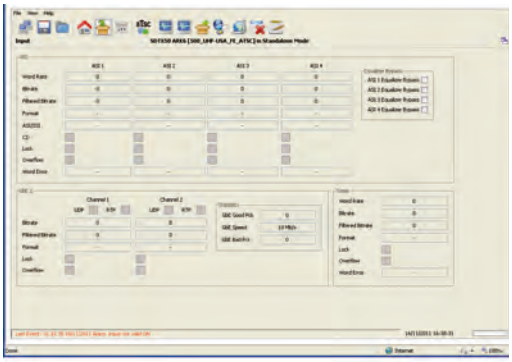
MODEL SPECIFIC DATA											
Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	**Shoulders @ Fo ± 3.5 MHz**	**Digital output power (rms) without Filter ATSC**	**Nominal analog output power (p.s.) NTSC**
SDT 603UM-W ARK-6 HE	UHF	AB	6 X 40 RU	24	SCA202HE-W	6+1/8"	Liquid	6	-39	30000 W	72000 W
SDT 603UM-W ARK-6	UHF	AB	6 X 40 RU	24	SCA202UB-W	6+1/8"	Liquid	6	-36	15000 W	64000 W
SDT 603TM-W ARK-6	VHF (III)	AB	6 X 40 RU	24	SCA202TB-W	6+1/8"	Liquid	6	-36	15000 W	64000 W
Specifications and characteristics are subject to change without notice.											



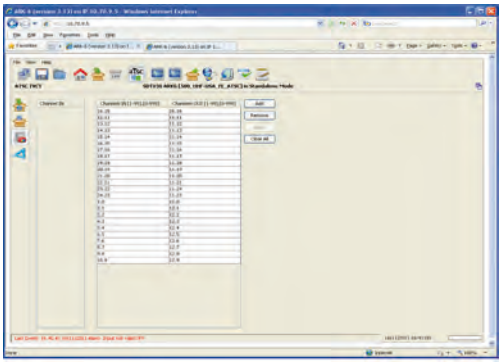
GUI, Home page



GUI, Front end



GUI, Input page.



GUI, TVCT