



SDT ARK-6 ULTRA HE SERIES

This is the way we **draw** the **future**.

When the **SDT ARK-6**

the Universal Driver with on board Multiple Modulation
(Digital: DVB-T/T2, ATSC, ISDB-Tb, DTMB),

meets today

the **ULTRA HE** (High Efficiency) **Amplifier Class**.



High Efficiency = low carbon footprint.





Screen Service

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 Fon-

damenta 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.

Screen Service Broadcasting Technologies S.p.A.

Screen Service
America LLC

Screen Service
do Brasil Ltda.

Skylinks s.r.l.

Tivùitalia S.p.A.

- 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

- Tivùitalia becomes an officially authorized Italian Nationwide Network Operator.

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.



network operator capabilities, installation services, and network planning.

With experience with altimeters and population and twenty years of experience in network planning and coverage, Tivultalia can gather transmission site information and deliver a complete simulation of errors, disturbed signals, losses of power, SFN simulations and delay calculation, Transmitting power simulations and Network optimization.

The Screen Service Group have gathered an impressive range of expertise in the broadcasting industry, giving them the credibility to advise and consult in the worldwide market for digital TV, such prestige is only given to those amongst whom no one is better in their field, confirming their vast and knowledgeable experts are among the best in the industry. Whether anything from starting out, or making the transition to digital, the Screen Service Group offering insight on Mobile TV business opportunities. Screen Service Group combines perspectives to bring you consultants from both the technical and business

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. At RRD, a company within the Screen Service Group, we bring a multi-product multi-platform mindset to us to integrate equipment our broadcasting customer already has into the Screen Service system.

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)



TV Transmitters

- Multi Mode Transmitters and Transposers
- Air and Liquid Cooling
- from 1m W to 40KW
- Analog (PAL, NTSC) and Digital (DVB-T/T2 - ATSC/MH - ISDB-Tb - DAB/T-DMB - DTMB)
- Transposers 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.



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SDT ARK-6 ULTRA HE 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 Trasmmitter, Analog A/V Input, Transmitter only.



The combination of
SDT ARK-6 SERIES

Agile in frequency without factory tuning!

and the

ULTRA HE (*High Efficiency*) **AMPLIFIER CLASS**

AUTOMATIC
DIGITAL/ANALOG

HETERODYNE
TRANSDUCER

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

DVB T

DVB T2

DVB H

ATSC

a t s c
MOBILE DTV

ISDB-T

DTMB



ULTRA HIGH EFFICIENCY

Specifications		
Frequency range	UHF (Band IV/M)	470 to 862 MHz, in 1 Hz Step
	VHF (Band III)	170 to 255 MHz, in 1 Hz Step
Available standards (all standards are full compliant)	Digital TV	DVB-T, DVB-T2, DVB-H, ISDB-Tb, ATSC, ATSC Mobile DTV,DTMB
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
	RE&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.	DVB W rms	ISDBT W rms	ATSC W rms	System Efficiency with 33 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)	System Efficiency with 36 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)
SDT201 UB ARK-6 UHE	UHF	AB+C	1+3 RU	1	SCA201UHE	7/16"	Air		150	150	250	38%	-36	35%	-39
SDT501 UB ARK-6 UHE	UHF	AB+C	4 RU (1+3)	1	SCA501UHE	7/16"	Air		350	350	500	38%	-36	35%	-39
SDT102 UB ARK-6 UHE	UHF	AB+C	1+3 RU	1	SCA102UHE	7/16"	Air		700	700	1000	38%	-36	35%	-39
SDT102 UM ARK-6 UHE	UHF	AB+C	30 RU	2	SCA501UHE	7/16"	Air		700	700	1000	38%	-36	35%	-39
SDT202 UB ARK-6 UHE	UHF	AB+C	1+5 RU	1	SCA202UHE	7/8"	Air		1300	1300	1600	38%	-36	35%	-39
SDT202 UM ARK-6 UHE	UHF	AB+C	30 RU	2	SCA102UHE	7/8"	Air		1300	1300	1600	38%	-36	35%	-39
SDT502 UB ARK-6 UHE	UHF	AB+C	30 RU	2	SCA202UHE	1+5/8"	Air	1	2600	2600	3200	38%	-36	35%	-39
SDT502 UM ARK-6 UHE	UHF	AB+C	40 RU	4	SCA102UHE	1+5/8"	Air	1	2600	2600	3200	38%	-36	35%	-39
SDT502 UB-W ARK-6 UHE	UHF	AB+C	40 RU	2	SCA202UHE-W	1+5/8"	Liquid	1	2600	2600	3600	38%	-36	35%	-39
SDT532 UB-W ARK-6 UHE	UHF	AB+C	40 RU	3	SCA202UHE-W	1+5/8"	Liquid	1	3900	3900	5400	38%	-36	35%	-39
SDT103 UB ARK-6 UHE	UHF	AB+C	40 RU	4	SCA202UHE	3+1/8"	Air	1	5200	5200	6400	38%	-36	35%	-39
SDT103 UM-W ARK-6 UHE	UHF	AB+C	40 RU	4	SCA202UHE-W	3+1/8"	Liquid	1	5200	5200	7200	38%	-36	35%	-39
SDT123 UM-W ARK-6 UHE	UHF	AB+C	40 RU	5	SCA202UB-W	3+1/8"	Liquid	1	6500	6500		38%	-36	35%	-39
SDT133-W UM ARK-6 UHE	UHF	AB+C	2 x 40 RU	6	SCA202UHE-W	3+1/8"	Liquid	1	7800	7800	10500	38%	-36	35%	-39
SDT203 UM ARK-6 UHE	UHF	AB+C	2 x 40 RU	8	SCA202UHE	3+1/8"	Air	2	10000	10000	12800	38%	-36	35%	-39
SDT203 UM-W ARK-6 UHE	UHF	AB+C	2 x 40 RU	8	SCA202UHE-W	3+1/8"	Liquid	2	10000	10000	14000	38%	-36	35%	-39
SDT303 UM-W ARK-6 UHE	UHF	AB+C	4 x 40 RU	12	SCA202UHE-W	4+1/2"	Liquid	4	15000	15000	21000	38%	-36	35%	-39
SDT403 UM-W ARK-6 UHE	UHF	AB+C	4 x 40 RU	16	SCA202UHE-W	4+1/2"	Liquid	4	24000	24000	32000	38%	-36	35%	-39
SDT603 UM-W ARK-6 UHE	UHF	AB+C	6 x 40 RU	24	SCA202UHE-W	6+1/8"	Liquid	6	30000	30000	42000	38%	-36	35%	-39

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.



DVB T **DVB T2** **DVB H** **ATSC** **a t s c** **MOBILE DTV** **ISDB-T** **DTMB**

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.



Front-End	STANDARD					
	ATV	DVB-T/H	DVB-T2	ISDBT	ATSC	DMBT
None	Transmitter	Transmitter	Transmitter	Transmitter	Transmitter	Transmitter
Digitalizer A/V Input option	Transmitter with A/V analog inputs	X	X	X	X	X
DVB-S/S2	X	Transmitter with DVB-S/S2 RF input	Transmitter with DVB-S/S2 RF input	Transmitter with DVB-S/S2 RF input	Transmitter with DVB-S/S2 RF input	Transmitter with DVB-S/S2 RF input
DVB-S/S2 + CAM	X	Transmitter with DVB-S/S2 RF input (with CAM)	Transmitter with DVB-S/S2 RF input (with CAM)	Transmitter with DVB-S/S2 RF input (with CAM)	Transmitter with DVB-S/S2 RF input (with CAM)	Transmitter with DVB-S/S2 RF input (with CAM)
DVB-T/T2	X	Regenerative Transposer / Heterodyne Transposer / GapFiller Echo Canceller	Regenerative Transposer / Heterodyne Transposer / GapFiller Echo Canceller	X	X	X
ISDBT	X	X	X	Regenerative Transposer / Heterodyne Transposer / GapFiller Echo Canceller	X	X
ATSC	X	X	X	X	Regenerative Transposer / Heterodyne Transposer / GapFiller Echo Canceller	X
DTMB	X	X	X	X	X	Regenerative Transposer / Heterodyne Transposer / GapFiller Echo Canceller

SDT ARK-6 - Specifications



1. DVB-S2 Input Configuration – Satellite Input Specifications

- N. SAT Inputs: 1
- 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
- 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
- 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



Front View. Transmitter Only Version

4. DVB-T/T2 Configuration

- Inputs: 4 ASI and 2 TSolP channels
- Output: 1 RF, 1 RF Monitor
2 ASI and 2 TSolP channels for inputs bypass
- Synchronization: External or GPS
- Internal clock: Oven Controlled OCXO oscillator (10 MHz and 1PPS)
- 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 retrieving of configuration data from the RF input supported.
- DVB-T/T2 available

SDT ARK-6 - Specifications



Front View. Transmitter with Analog A/V Inputs

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

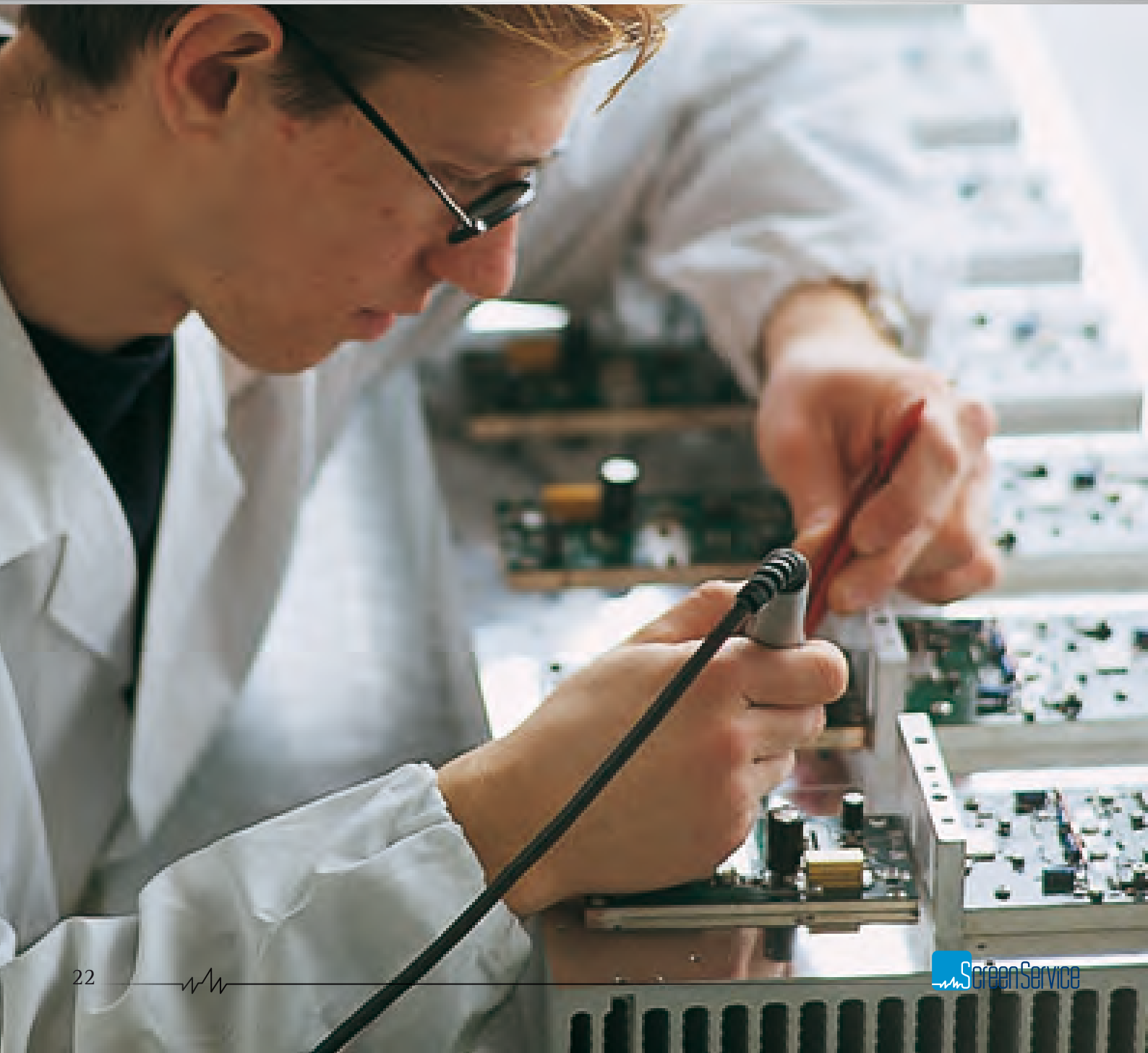
- N. CVBS inputs: 2
- Connector type: BNC
- Input impedance: 75 ohm
- Supported video standards: PAL B,D,G,H,I,M,N, NTSC
- Analog audio input
- N*Inputs: 2 L/R couples
- Connector type: XLR3 (Cannon f)
- Input impedance: 600 Ohm balanced
- Input Level: +6dBm +/- 6 dB
- Supported standards: EIA RF-297-A
- 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 1PPS)
- 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.



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 DTMB
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

Ultra High Efficiency Amplifier CLASS



The SDT ARK-6 ULTRA HE Transmitter Series is the result of the New Technologies R&D Lab study on High Performance Amplifiers and Drivers specifically designed for the professional broadcasters.

Based on established technology but with an innovative circuit topology, the ULTRA HE Series grants System Efficiency up to 43% with a typical value around 38% without decreasing performance in terms of modulation error rate and shoulders and with the well known reliability that always distinguishes the Screen Service products. Low-loss design using state-of-the-art components and three highly efficient power supplies.

This new design combined with new linearization algorithms allows to obtain unusual and stunning performances for broadcast. The new amplifiers as well as having a higher efficiency allow you to have the same power in less space, and reduction of cooling systems dimension.

The Series can be easily tuned on all UHF Band with simple operations on field. The transmitter features a built-in SFN adapter and very advanced SWDT® (Software Defined Transmitters) technology, typical of this series of products, which allows implementing different modulation patterns – either digital or analog – (DVB, ATSC, ISDB-T, DTMB, DAB, DAB+, T-DMB, ATV, etc.) in the same hardware. Moreover, the SWDT® technology allows selecting transmission modes in various ways: remotely, using a clean 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 using a LAN connection and a standard Web browser. Moreover, the built-in SNMP server allows performing all types of automated remote control.

Nevertheless, the High Efficiency reduces the management cost and helps the environment.

[This is the way we imagine the future.](#)

SDT ARK-6 ULTRA HE SERIES

over 35%_{avg}

SYSTEM EFFICIENCY



This is the way we **draw** the **future**.

High Efficiency **reduces** the **management cost** and **helps** the **environment**. 😊





ULTRA HIGH EFFICIENCY SYSTEM

Heterodyne Transposer, Regenerative Transmitter, Transmitter
up to 250W rms ATSC -150W rms DVB, ISDB-Tb, DTMB

max power consumption 714W for ATSC and 428W for DVB-T/T2, ISDB-Tb, DTMB

Main Features (DVB-T/T2)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- T2-MI input over IP or ASI
- Modulated DVB-T2 RF signal input (VHF/UHF) – when operating as repeater
- T2-MI input RF signal (UHF) – specific for SFN gap filler operation
- MFN and SFN operations
- Signal modulation compliant with ETSI EN-302 755 (DVB-T2) standard 1.3.1
 - > ETSI EN 300 744 v16.1
 - > ETSI TS 101 191 v1.4.1
 - > ITU -R BT. 470-7
- Full support of T2 modulation up to 256-QAM including I/Q rotation
- T2-MI compliant with ETSI EN-102 773 (T2-MI) standard
- DVB-T2 transmission on UHF bands
- Full Single-PLP compatibility (including MISO and PAPR reduction)
- Capable to transmit MPLP
- Up to 16 PLP
- Internal GPS receiver
- Bit rate adaptation plus PCR restamping in S-PLP
- Embedded HTTP server
- RF main and monitoring outputs
- 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

Option Features

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

Main Features (ATSC)

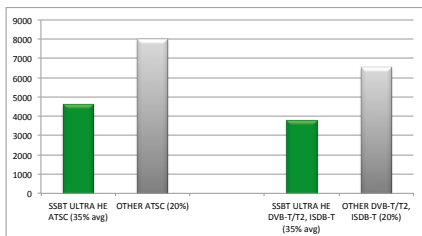
- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
 - > Support 4 ASI input
 - > Support 4 SSI input
 - > Support 2 ASI Output
 - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- "ONE-CLICK" Linear and non-linear ADAPTIVE digital 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





Main Features (ISDB-Tb)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- BTS Input over ASI and over IP
- Modulated ISDB-TB RF signal Input
- MFN and SFN operation
- Signal modulation compliant with
 - ABNT NBR 15601 & ABNT NBR 15608-1 (ISDB-TB)
 - ITU-R BT 470.7 (ITU)
- Emergency flag management (detection and insertion)
- RF main and monitoring outputs
- RF output measuring
- Test Modes
 - CW inserion
 - Null packet insertion - separated for each Layer
 - 2x ASI Test/Monitoring Output
- Internal GPS receiver
- Embedded HTTP server
- RF main and monitoring outputs
- 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



In Cooperation with



Option feature

Remux capabilities:

- BTS generation from input TS/BTS
- Up to two input sources can be used to build each Transmission Layer
- PID filters and remapping
- Internal Carousel Editing, Store and Playing
- IIP (includign SFN information) insertion



> SDT 201 ARK-6

Models Specific Data

Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	DVB W rms	ISDBT W rms	ATSC W rms	System Efficiency with 33 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)	System Efficiency with 36 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)
SDT201 UB ARK-6 UHE	UHF	AB+C	1+3 RU	1	SCA201UHE	7/16"	Air		150	150	250	38%	-36	35%	-39

Specifications and characteristics are subject to change without notice.

ULTRA HIGH EFFICIENCY SYSTEM

Heterodyne Transposer, Regenerative Transmitter, Transmitter
up to 500W rms ATSC - 350W rms DVB, ISDB-Tb DTMB

max power consumption 1450W for ATSC and 1000W for DVB-T/T2, ISDB-Tb, DTMB

Main Features (DVB-T/T2)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- T2-MI input over IP or ASI
- Modulated DVB-T2 RF signal input (VHF/UHF) – when operating as repeater
- T2-MI input RF signal (UHF) – specific for SFN gap filler operation
- MFN and SFN operations
- Signal modulation compliant with ETSI EN-302 755 (DVB-T2) standard 1.3.1
 - > ETSI EN 300 744 v16.1
 - > ETSI TS 101 191 v1.4.1
 - > ITU -R BT. 470-7
- Full support of T2 modulation up to 256-QAM including I/Q rotation
- T2-MI compliant with ETSI EN-102 773 (T2-MI) standard
- DVB-T2 transmission on UHF bands
- Full Single-PLP compatibility (including MISO and PAPR reduction)
- Capable to transmit MPLP
- Up to 16 PLP
- Internal GPS receiver
- Bit rate adaptation plus PCR restamping in S-PLP
- Embedded HTTP server
- RF main and monitoring outputs
- 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

Option Features

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

Main Features (ATSC)

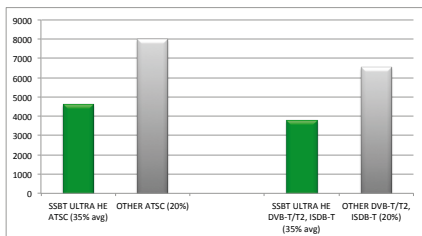
- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
 - > Support 4 ASI input
 - > Support 4 SSI input
 - > Support 2 ASI Output
 - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- "ONE-CLICK" Linear and non-linear ADAPTIVE digital 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





Main Features (ISDB-Tb)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- BTS Input over ASI and over IP
- Modulated ISDB-TB RF signal Input
- MFN and SFN operation
- Signal modulation compliant with
 - ABNT NBR 15601 & ABNT NBR 15608-1 (ISDB-TB)
 - ITU-R BT 470.7 (ITU)
- Emergency flag management (detection and insertion)
- RF main and monitoring outputs
- RF output measuring
- Test Modes
 - CW inserion
 - Null packet insertion - separated for each Layer
 - 2x ASI Test/Monitoring Output
- Internal GPS receiver
- Embedded HTTP server
- RF main and monitoring outputs
- 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



In Cooperation with



Option feature

Remux capabilities:

- BTS generation from input TS/BTS
- Up to two input sources can be used to build each Transmission Layer
- PID filters and remapping
- Internal Carousel Editing, Store and Playing
- IIP (includign SFN information) insertion



> SDT 501 ARK-6

Models Specific Data

Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	DVB W rms	ISDBT W rms	ATSC W rms	System Efficency with 33 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)	System Efficency with 36 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)
SDT501 UB ARK-6 UHE	UHF	AB+C	4 RU (1+3)	1	SCA501UHE	7/16"	Air		350	350	500	38%	-36	35%	-39

Specifications and characteristics are subject to change without notice.



ULTRA HIGH EFFICIENCY SYSTEM

Heterodyne Transposer, Regenerative Transmitter, Transmitter

up to 1000W rms ATSC - 750W rms DVB, ISDB-Tb, DTMB

max power consumption 2850W for ATSC and 2150W for DVB-T/T2, ISDB-Tb, DTMB

Main Features (DVB-T/T2)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- T2-MI input over IP or ASI
- Modulated DVB-T2 RF signal input (VHF/UHF) – when operating as repeater
- T2-MI input RF signal (UHF) – specific for SFN gap filler operation
- MFN and SFN operations
- Signal modulation compliant with ETSI EN-302 755 (DVB-T2) standard 1.3.1
 - > ETSI EN 300 744 v16.1
 - > ETSI TS 101 191 v1.4.1
 - > ITU -R BT. 470-7
- Full support of T2 modulation up to 256-QAM including I/Q rotation
- T2-MI compliant with ETSI EN-102 773 (T2-MI) standard
- DVB-T2 transmission on UHF bands
- Full Single-PLP compatibility (including MISO and PAPR reduction)
- Capable to transmit MPLP
- Up to 16 PLP
- Internal GPS receiver
- Bit rate adaptation plus PCR restamping in S-PLP
- Embedded HTTP server
- RF main and monitoring outputs
- 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

Option Features

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

Main Features (ATSC)

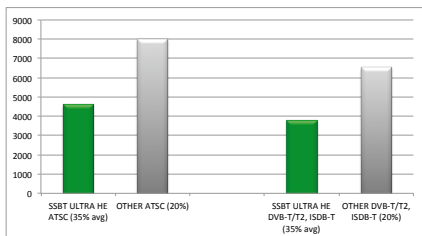
- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
 - > Support 4 ASI input
 - > Support 4 SSI input
 - > Support 2 ASI Output
 - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- "ONE-CLICK" Linear and non-linear ADAPTIVE digital 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





Main Features (ISDB-Tb)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- BTS Input over ASI and over IP
- Modulated ISDB-TB RF signal Input
- MFN and SFN operation
- Signal modulation compliant with
 - ABNT NBR 15601 & ABNT NBR 15608-1 (ISDB-TB)
 - ITU-R BT 470.7 (ITU)
- Emergency flag management (detection and insertion)
- RF main and monitoring outputs
- RF output measuring
- Test Modes
 - CW inserion
 - Null packet insertion - separated for each Layer
 - 2x ASI Test/Monitoring Output
- Internal GPS receiver
- Embedded HTTP server
- RF main and monitoring outputs
- 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



In Cooperation with



Option feature

Remux capabilities:

- BTS generation from input TS/BTS
- Up to two input sources can be used to build each Transmission Layer
- PID filters and remapping
- Internal Carousel Editing, Store and Playing
- IIP (includign SFN information) insertion



> SDT 102 ARK-6

Models Specific Data

Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	DVB W rms	ISDBT W rms	ATSC W rms	System Efficiency with 33 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)	System Efficiency with 36 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)
SDT102 UB ARK-6 UHE	UHF	AB+C	1+3 RU	1	SCA102UHE	7/16"	Air		700	700	1000	38%	-36	35%	-39
SDT102 UM ARK-6 UHE	UHF	AB+C	30 RU	2	SCA501UHE	7/16"	Air		700	700	1000	38%	-36	35%	-39

Specifications and characteristics are subject to change without notice.



ULTRA HIGH EFFICIENCY SYSTEM

Heterodyne Transposer, Regenerative Transmitter, Transmitter

up to 1600W rms ATSC - 1300W rms DVB, ISDB-Tb, DTMB

max power consumption 4580W for ATSC and 3720W for DVB-T/T2, ISDB-Tb, DTMB

Main Features (DVB-T/T2)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- T2-MI input over IP or ASI
- Modulated DVB-T2 RF signal input (VHF/UHF) – when operating as repeater
- T2-MI input RF signal (UHF) – specific for SFN gap filler operation
- MFN and SFN operations
- Signal modulation compliant with ETSI EN-302 755 (DVB-T2) standard 1.3.1
 - > ETSI EN 300 744 v16.1
 - > ETSI TS 101 191 v1.4.1
 - > ITU -R BT. 470-7
- Full support of T2 modulation up to 256-QAM including I/Q rotation
- T2-MI compliant with ETSI EN-102 773 (T2-MI) standard
- DVB-T2 transmission on UHF bands
- Full Single-PLP compatibility (including MISO and PAPR reduction)
- Capable to transmit MPLP
- Up to 16 PLP
- Internal GPS receiver
- Bit rate adaptation plus PCR restamping in S-PLP
- Embedded HTTP server
- RF main and monitoring outputs
- 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

Option Features

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

Main Features (ATSC)

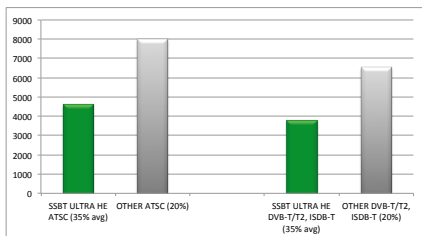
- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
 - > Support 4 ASI input
 - > Support 4 SSI input
 - > Support 2 ASI Output
 - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- "ONE-CLICK" Linear and non-linear ADAPTIVE digital 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





Main Features (ISDB-Tb)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- BTS Input over ASI and over IP
- Modulated ISDB-TB RF signal Input
- MFN and SFN operation
- Signal modulation compliant with
 - ABNT NBR 15601 & ABNT NBR 15608-1 (ISDB-TB)
 - ITU-R BT 470.7 (ITU)
- Emergency flag management (detection and insertion)
- RF main and monitoring outputs
- RF output measuring
- Test Modes
 - CW inserion
 - Null packet insertion - separated for each Layer
 - 2x ASI Test/Monitoring Output
- Internal GPS receiver
- Embedded HTTP server
- RF main and monitoring outputs
- 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



In Cooperation with



Option feature

Remux capabilities:

- BTS generation from input TS/BTS
- Up to two input sources can be used to build each Transmission Layer
- PID filters and remapping
- Internal Carousel Editing, Store and Playing
- IIP (includign SFN information) insertion



> SDT 202 ARK-6

Models Specific Data

Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	DVB W rms	ISDBT W rms	ATSC W rms	System Efficency with 33 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)	System Efficency with 36 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)
SDT202 UB ARK-6 UHE	UHF	AB+C	1+5 RU	1	SCA202UHE	7/8"	Air		1300	1300	1600	38%	-36	35%	-39
SDT202 UM ARK-6 UHE	UHF	AB+C	30 RU	2	SCA102UHE	7/8"	Air		1300	1300	1600	38%	-36	35%	-39

Specifications and characteristics are subject to change without notice.

ULTRA HIGH EFFICIENCY SYSTEM

Heterodyne Transposer, Regenerative Transmitter, Transmitter

up to 3600W rms ATSC - 2600W rms DVB, ISDB-Tb, DTMB

max power consumption 10300W for ATSC and 7500W for DVB-T/T2, ISDB-Tb, DTMB

Main Features (DVB-T/T2)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- T2-MI input over IP or ASI
- Modulated DVB-T2 RF signal input (VHF/UHF) – when operating as repeater
- T2-MI input RF signal (UHF) – specific for SFN gap filler operation
- MFN and SFN operations
- Signal modulation compliant with ETSI EN-302 755 (DVB-T2) standard 1.3.1
 - > ETSI EN 300 744 v16.1
 - > ETSI TS 101 191 v1.4.1
 - > ITU -R BT. 470-7
- Full support of T2 modulation up to 256-QAM including I/Q rotation
- T2-MI compliant with ETSI EN-102 773 (T2-MI) standard
- DVB-T2 transmission on UHF bands
- Full Single-PLP compatibility (including MISO and PAPR reduction)
- Capable to transmit MPLP
- Up to 16 PLP
- Internal GPS receiver
- Bit rate adaptation plus PCR restamping in S-PLP
- Embedded HTTP server
- RF main and monitoring outputs
- 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

Option Features

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

Main Features (ATSC)

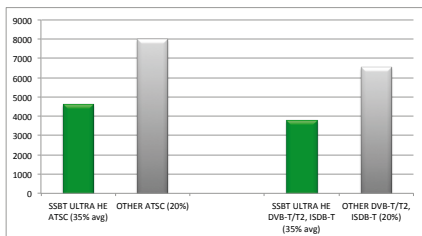
- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
 - > Support 4 ASI input
 - > Support 4 SSI input
 - > Support 2 ASI Output
 - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- "ONE-CLICK" Linear and non-linear ADAPTIVE digital 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





Main Features (ISDB-Tb)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- BTS Input over ASI and over IP
- Modulated ISDB-TB RF signal Input
- MFN and SFN operation
- Signal modulation compliant with
 - ABNT NBR 15601 & ABNT NBR 15608-1 (ISDB-TB)
 - ITU-R BT 470.7 (ITU)
- Emergency flag management (detection and insertion)
- RF main and monitoring outputs
- RF output measuring
- Test Modes
 - CW inserion
 - Null packet insertion - separated for each Layer
 - 2x ASI Test/Monitoring Output
- Internal GPS receiver
- Embedded HTTP server
- RF main and monitoring outputs
- 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



In Cooperation with



Option feature

Remux capabilities:

- BTS generation from input TS/BTS
- Up to two input sources can be used to build each Transmission Layer
- PID filters and remapping
- Internal Carousel Editing, Store and Playing
- IIP (includign SFN information) insertion



> SDT 502 ARK-6
Version with
Dual Driver Option



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

Models Specific Data

Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	DVB W rms	ISDBT W rms	ATSC W rms	System Efficiency with 33 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)	System Efficiency with 36 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)
SDT502 UB ARK-6 UHE	UHF	AB+C	30 RU	2	SCA202UHE	1+5/8"	Air	1	2600	2600	3200	38%	-36	35%	-39
SDT502 UM ARK-6 UHE	UHF	AB+C	40 RU	4	SCA102UHE	1+5/8"	Air	1	2600	2600	3200	38%	-36	35%	-39
SDT502 UB-W ARK-6 UHE	UHF	AB+C	40 RU	2	SCA202UHE-W	1+5/8"	Liquid	1	2600	2600	3600	38%	-36	35%	-39

Specifications and characteristics are subject to change without notice.

ULTRA HIGH EFFICIENCY SYSTEM

Heterodyne Transposer, Regenerative Transmitter, Transmitter

up to 5400W rms ATSC - 3900W rms DVB, ISDB-Tb, DTMB

max power consumption 15500W for ATSC and 11150W for DVB-T/T2, ISDB-Tb, DTMB

Main Features (DVB-T/T2)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- T2-MI input over IP or ASI
- Modulated DVB-T2 RF signal input (VHF/UHF) – when operating as repeater
- T2-MI input RF signal (UHF) – specific for SFN gap filler operation
- MFN and SFN operations
- Signal modulation compliant with ETSI EN-302 755 (DVB-T2) standard 1.3.1
 - > ETSI EN 300 744 v16.1
 - > ETSI TS 101 191 v1.4.1
 - > ITU -R BT. 470-7
- Full support of T2 modulation up to 256-QAM including I/Q rotation
- T2-MI compliant with ETSI EN-102 773 (T2-MI) standard
- DVB-T2 transmission on UHF bands
- Full Single-PLP compatibility (including MISO and PAPR reduction)
- Capable to transmit MPLP
- Up to 16 PLP
- Internal GPS receiver
- Bit rate adaptation plus PCR restamping in S-PLP
- Embedded HTTP server
- RF main and monitoring outputs
- 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

Option Features

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

Main Features (ATSC)

- 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





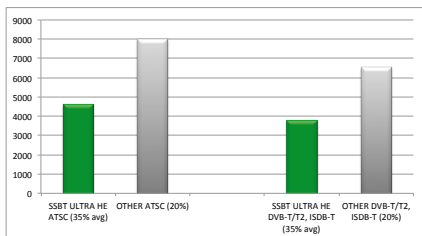
Main Features (ISDB-Tb)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- BTS Input over ASI and over IP
- Modulated ISDB-TB RF signal Input
- MFN and SFN operation
- Signal modulation compliant with
 - ABNT NBR 15601 & ABNT NBR 15608-1 (ISDB-TB)
 - ITU-R BT 470.7 (ITU)
- Emergency flag management (detection and insertion)
- RF main and monitoring outputs
- RF output measuring
- Test Modes
 - CW inserion
 - Null packet insertion - separated for each Layer
 - 2x ASI Test/Monitoring Output
- Internal GPS receiver
- Embedded HTTP server
- RF main and monitoring outputs
- 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

Option feature

Remux capabilities:

- BTS generation from input TS/BTS
- Up to two input sources can be used to build each Transmission Layer
- PID filters and remapping
- Internal Carousel Editing, Store and Playing
- IIP (includign SFN information) insertion



In Cooperation with



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

*Specifications and characteristics are subject to change without notice.

Models Specific Data

Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	DVB W rms	ISDBT W rms	ATSC W rms	System Efficiency with 33 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)	System Efficiency with 36 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)
SDT532 UB-W ARK-6 UHE	UHF	AB+C	40 RU	3	SCA202UHE-W	1+5/8"	Liquid	1	3900	3900	5400	38%	-36	35%	-39

Specifications and characteristics are subject to change without notice.



ULTRA HIGH EFFICIENCY SYSTEM

Heterodyne Transposer, Regenerative Transmitter, Transmitter

up to 7200W rms ATSC- 5200W rms DVB, ISDB-Tb, DTMB

max power consumption 20580W for ATSC and 14900W for DVB-T/T2, ISDB-Tb, DTMB

Main Features (DVB-T/T2)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- T2-MI input over IP or ASI
- Modulated DVB-T2 RF signal input (VHF/UHF) – when operating as repeater
- T2-MI input RF signal (UHF) – specific for SFN gap filler operation
- MFN and SFN operations
- Signal modulation compliant with ETSI EN-302 755 (DVB-T2) standard 1.3.1
 - > ETSI EN 300 744 v16.1
 - > ETSI TS 101 191 v1.4.1
 - > ITU -R BT. 470-7
- Full support of T2 modulation up to 256-QAM including I/Q rotation
- T2-MI compliant with ETSI EN-102 773 (T2-MI) standard
- DVB-T2 transmission on UHF bands
- Full Single-PLP compatibility (including MISO and PAPR reduction)
- Capable to transmit MPLP
- Up to 16 PLP
- Internal GPS receiver
- Bit rate adaptation plus PCR restamping in S-PLP
- Embedded HTTP server
- RF main and monitoring outputs
- 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

Option Features

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

Main Features (ATSC)

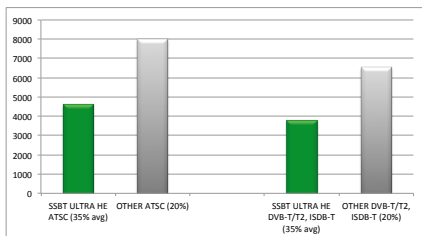
- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
 - > Support 4 ASI input
 - > Support 4 SSI input
 - > Support 2 ASI Output
 - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- "ONE-CLICK" Linear and non-linear ADAPTIVE digital 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





Main Features (ISDB-Tb)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- BTS Input over ASI and over IP
- Modulated ISDB-TB RF signal Input
- MFN and SFN operation
- Signal modulation compliant with
 - ABNT NBR 15601 & ABNT NBR 15608-1 (ISDB-TB)
 - ITU-R BT 470.7 (ITU)
- Emergency flag management (detection and insertion)
- RF main and monitoring outputs
- RF output measuring
- Test Modes
 - CW insertion
 - Null packet insertion - separated for each Layer
 - 2x ASI Test/Monitoring Output
- Internal GPS receiver
- Embedded HTTP server
- RF main and monitoring outputs
- 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



In Cooperation with



Option feature

Remux capabilities:

- BTS generation from input TS/BTS
- Up to two input sources can be used to build each Transmission Layer
- PID filters and remapping
- Internal Carousel Editing, Store and Playing
- IIP (includign SFN information) insertion



> SDT 103 ARK-6



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

Models Specific Data

Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	DVB W rms	ISDBT W rms	ATSC W rms	System Efficiency with 33 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)	System Efficiency with 36 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)
SDT103 UM ARK-6 UHE	UHF	AB+C	40 RU	4	SCA202UHE	3+1/8"	Air	1	5200	5200	6400	38%	-36	35%	-39
SDT103 UM-W ARK-6 UHE	UHF	AB+C	40 RU	4	SCA202UHE-W	3+1/8"	Liquid	1	5200	5200	7200	38%	-36	35%	-39

Specifications and characteristics are subject to change without notice.

ULTRA HIGH EFFICIENCY SYSTEM

Heterodyne Transposer, Regenerative Transmitter, Transmitter

6500W rms DVB, ISDB-Tb, DTMB

max power consumption 18600W for DVB-T/T2, ISDB-Tb, DTMB

Main Features (DVB-T/T2)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- T2-MI input over IP or ASI
- Modulated DVB-T2 RF signal input (VHF/UHF) – when operating as repeater
- T2-MI input RF signal (UHF) – specific for SFN gap filler operation
- MFN and SFN operations
- Signal modulation compliant with ETSI EN-302 755 (DVB-T2) standard 1.3.1
 - > ETSI EN 300 744 v16.1
 - > ETSI TS 101 191 v1.4.1
 - > ITU -R BT. 470-7
- Full support of T2 modulation up to 256-QAM including I/Q rotation
- T2-MI compliant with ETSI EN-102 773 (T2-MI) standard
- DVB-T2 transmission on UHF bands
- Full Single-PLP compatibility (including MISO and PAPR reduction)
- Capable to transmit MPLP
- Up to 16 PLP
- Internal GPS receiver
- Bit rate adaptation plus PCR restamping in S-PLP
- Embedded HTTP server
- RF main and monitoring outputs
- 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

Option Features

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

Main Features (ATSC)

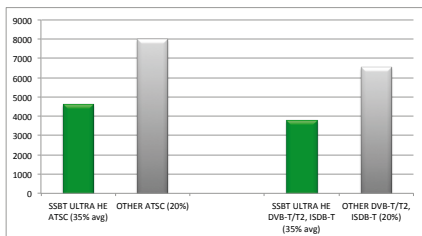
- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
 - > Support 4 ASI input
 - > Support 4 SSI input
 - > Support 2 ASI Output
 - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- "ONE-CLICK" Linear and non-linear ADAPTIVE digital 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





Main Features (ISDB-Tb)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- BTS Input over ASI and over IP
- Modulated ISDB-TB RF signal Input
- MFN and SFN operation
- Signal modulation compliant with
 - ABNT NBR 15601 & ABNT NBR 15608-1 (ISDB-TB)
 - ITU-R BT 470.7 (ITU)
- Emergency flag management (detection and insertion)
- RF main and monitoring outputs
- RF output measuring
- Test Modes
 - CW inserion
 - Null packet insertion - separated for each Layer
 - 2x ASI Test/Monitoring Output
- Internal GPS receiver
- Embedded HTTP server
- RF main and monitoring outputs
- 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



In Cooperation with



Option feature

Remux capabilities:

- BTS generation from input TS/BTS
- Up to two input sources can be used to build each Transmission Layer
- PID filters and remapping
- Internal Carousel Editing, Store and Playing
- IIP (includign SFN information) insertion



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

Models Specific Data

Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	DVB W rms	ISDBT W rms	ATSC W rms	System Efficiency with 33 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)	System Efficiency with 36 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)
SDT123 UM-W ARK-6 UHE	UHF	AB+C	40 RU	5	SCA202UB-W	3+1/8"	Liquid	1	6500	6500		38%	-36	35%	-39

Specifications and characteristics are subject to change without notice.

ULTRA HIGH EFFICIENCY SYSTEM

Heterodyne Transposer, Regenerative Transmitter, Transmitter

up to 10500W rms ATSC - 7800W rms DVB, ISDB-Tb, DTMB

max power consumption 30000W for ATSC and 22300W for DVB-T/T2, ISDB-Tb, DTMB

Main Features (DVB-T/T2)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- T2-MI input over IP or ASI
- Modulated DVB-T2 RF signal input (VHF/UHF) – when operating as repeater
- T2-MI input RF signal (UHF) – specific for SFN gap filler operation
- MFN and SFN operations
- Signal modulation compliant with ETSI EN-302 755 (DVB-T2) standard 1.3.1
 - > ETSI EN 300 744 v16.1
 - > ETSI TS 101 191 v1.4.1
 - > ITU -R BT. 470-7
- Full support of T2 modulation up to 256-QAM including I/Q rotation
- T2-MI compliant with ETSI EN-102 773 (T2-MI) standard
- DVB-T2 transmission on UHF bands
- Full Single-PLP compatibility (including MISO and PAPR reduction)
- Capable to transmit MPLP
- Up to 16 PLP
- Internal GPS receiver
- Bit rate adaptation plus PCR restamping in S-PLP
- Embedded HTTP server
- RF main and monitoring outputs
- 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

Option Features

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

Main Features (ATSC)

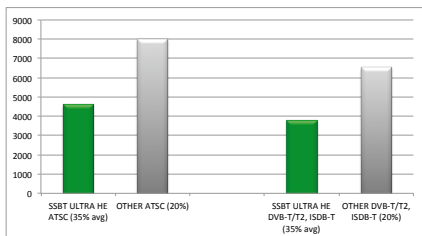
- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
 - > Support 4 ASI input
 - > Support 4 SSI input
 - > Support 2 ASI Output
 - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- "ONE-CLICK" Linear and non-linear ADAPTIVE digital 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





Main Features (ISDB-Tb)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- BTS Input over ASI and over IP
- Modulated ISDB-TB RF signal Input
- MFN and SFN operation
- Signal modulation compliant with
 - ABNT NBR 15601 & ABNT NBR 15608-1 (ISDB-TB)
 - ITU-R BT 470.7 (ITU)
- Emergency flag management (detection and insertion)
- RF main and monitoring outputs
- RF output measuring
- Test Modes
 - CW inserion
 - Null packet insertion - separated for each Layer
 - 2x ASI Test/Monitoring Output
- Internal GPS receiver
- Embedded HTTP server
- RF main and monitoring outputs
- 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



In Cooperation with



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



Models Specific Data

Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	DVB W rms	ISDBT W rms	ATSC W rms	System Efficiency with 33 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)	System Efficiency with 36 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)
SDT133-UM ARK-6 UHE	UHF	AB+C	2 x 40 RU	6	SCA202UHE-W	3+1/8"	Liquid	1	7800	7800	10500	38%	-36	35%	-39

Specifications and characteristics are subject to change without notice.

ULTRA HIGH EFFICIENCY SYSTEM

Heterodyne Transposer, Regenerative Transmitter, Transmitter

up to 14000W rms ATSC - 10000W rms DVB, ISDB-Tb, DTMB

max power consumption 40000W for ATSC and 28600W for DVB-T/T2, ISDB-Tb, DTMB

Main Features (DVB-T/T2)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- T2-MI input over IP or ASI
- Modulated DVB-T2 RF signal input (VHF/UHF) – when operating as repeater
- T2-MI input RF signal (UHF) – specific for SFN gap filler operation
- MFN and SFN operations
- Signal modulation compliant with ETSI EN-302 755 (DVB-T2) standard 1.3.1
 - > ETSI EN 300 744 v16.1
 - > ETSI TS 101 191 v1.4.1
 - > ITU -R BT. 470-7
- Full support of T2 modulation up to 256-QAM including I/Q rotation
- T2-MI compliant with ETSI EN-102 773 (T2-MI) standard
- DVB-T2 transmission on UHF bands
- Full Single-PLP compatibility (including MISO and PAPR reduction)
- Capable to transmit MPLP
- Up to 16 PLP
- Internal GPS receiver
- Bit rate adaptation plus PCR restamping in S-PLP
- Embedded HTTP server
- RF main and monitoring outputs
- 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

Option Features

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

Main Features (ATSC)

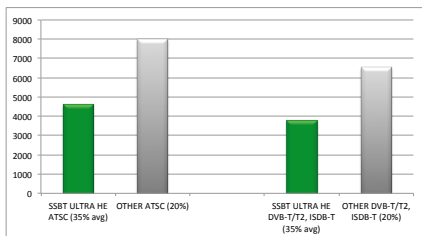
- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
 - > Support 4 ASI input
 - > Support 4 SSI input
 - > Support 2 ASI Output
 - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- "ONE-CLICK" Linear and non-linear ADAPTIVE digital 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





Main Features (ISDB-Tb)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- BTS Input over ASI and over IP
- Modulated ISDB-TB RF signal Input
- MFN and SFN operation
- Signal modulation compliant with
 - ABNT NBR 15601 & ABNT NBR 15608-1 (ISDB-TB)
 - ITU-R BT 470.7 (ITU)
- Emergency flag management (detection and insertion)
- RF main and monitoring outputs
- RF output measuring
- Test Modes
 - CW insertion
 - Null packet insertion - separated for each Layer
 - 2x ASI Test/Monitoring Output
- Internal GPS receiver
- Embedded HTTP server
- RF main and monitoring outputs
- 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



In Cooperation with



Option feature

Remux capabilities:

- BTS generation from input TS/BTS
- Up to two input sources can be used to build each Transmission Layer
- PID filters and remapping
- Internal Carousel Editing, Store and Playing
- IIP (includign SFN information) insertion



> SDT 203 ARK-6
With Dual Driver Option

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

Models Specific Data

Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	DVB W rms	ISDBT W rms	ATSC W rms	System Efficency with 33 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)	System Efficency with 36 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)
SDT203 UM ARK-6 UHE	UHF	AB+C	2 x 40 RU	8	SCA202UHE	3+1/8"	Air	2	10000	10000	12800	38%	-36	35%	-39
SDT203 UM-W ARK-6 UHE	UHF	AB+C	2 x 40 RU	8	SCA202UHE-W	3+1/8"	Liquid	2	10000	10000	14000	38%	-36	35%	-39

Specifications and characteristics are subject to change without notice.

ULTRA HIGH EFFICIENCY SYSTEM

Heterodyne Transposer, Regenerative Transmitter, Transmitter

up to 21000W rms ATSC - 15000W rms DVB, ISDB-Tb, DTMB

max power consumption 60000W for ATSC and 43900W for DVB-T/T2, ISDB-Tb, DTMB

Main Features (DVB-T/T2)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- T2-MI input over IP or ASI
- Modulated DVB-T2 RF signal input (VHF/UHF) – when operating as repeater
- T2-MI input RF signal (UHF) – specific for SFN gap filler operation
- MFN and SFN operations
- Signal modulation compliant with ETSI EN-302 755 (DVB-T2) standard 1.3.1
 - > ETSI EN 300 744 v16.1
 - > ETSI TS 101 191 v1.4.1
 - > ITU -R BT. 470-7
- Full support of T2 modulation up to 256-QAM including I/Q rotation
- T2-MI compliant with ETSI EN-102 773 (T2-MI) standard
- DVB-T2 transmission on UHF bands
- Full Single-PLP compatibility (including MISO and PAPR reduction)
- Capable to transmit MPLP
- Up to 16 PLP
- Internal GPS receiver
- Bit rate adaptation plus PCR restamping in S-PLP
- Embedded HTTP server
- RF main and monitoring outputs
- 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

Option Features

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

Main Features (ATSC)

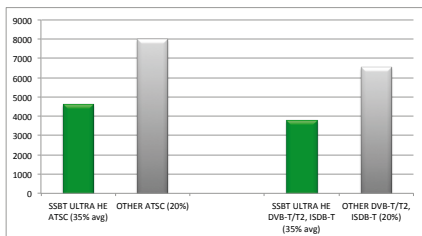
- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
 - > Support 4 ASI input
 - > Support 4 SSI input
 - > Support 2 ASI Output
 - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- "ONE-CLICK" Linear and non-linear ADAPTIVE digital 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





Main Features (ISDB-Tb)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- BTS Input over ASI and over IP
- Modulated ISDB-TB RF signal Input
- MFN and SFN operation
- Signal modulation compliant with
 - ABNT NBR 15601 & ABNT NBR 15608-1 (ISDB-TB)
 - ITU-R BT 470.7 (ITU)
- Emergency flag management (detection and insertion)
- RF main and monitoring outputs
- RF output measuring
- Test Modes
 - CW inserion
 - Null packet insertion - separated for each Layer
 - 2x ASI Test/Monitoring Output
- Internal GPS receiver
- Embedded HTTP server
- RF main and monitoring outputs
- 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



In Cooperation with



Option feature

Remux capabilities:

- BTS generation from input TS/BTS
- Up to two input sources can be used to build each Transmission Layer
- PID filters and remapping
- Internal Carousel Editing, Store and Playing
- IIP (includign SFN information) insertion



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

Models Specific Data

Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	DVB W rms	ISDBT W rms	ATSC W rms	System Efficiency with 33 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)	System Efficiency with 36 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)
SDT303 UM-W ARK-6 UHE	UHF	AB+C	4 x 40 RU	12	SCA202UHE-W	4+1/2"	Liquid	4	15000	15000	21000	38%	-36	35%	-39

Specifications and characteristics are subject to change without notice.

ULTRA HIGH EFFICIENCY SYSTEM

Heterodyne Transposer, Regenerative Transmitter, Transmitter

up to 32KW rms ATSC - 24KW rms DVB, ISDB-Tb, DTMB

max power consumption 91,5KW for ATSC and 68,5KW for DVB-T/T2, ISDB-Tb, DTMB

Main Features (DVB-T/T2)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- T2-MI input over IP or ASI
- Modulated DVB-T2 RF signal input (VHF/UHF) – when operating as repeater
- T2-MI input RF signal (UHF) – specific for SFN gap filler operation
- MFN and SFN operations
- Signal modulation compliant with ETSI EN-302 755 (DVB-T2) standard 1.3.1
 - > ETSI EN 300 744 v16.1
 - > ETSI TS 101 191 v1.4.1
 - > ITU -R BT. 470-7
- Full support of T2 modulation up to 256-QAM including I/Q rotation
- T2-MI compliant with ETSI EN-102 773 (T2-MI) standard
- DVB-T2 transmission on UHF bands
- Full Single-PLP compatibility (including MISO and PAPR reduction)
- Capable to transmit MPLP
- Up to 16 PLP
- Internal GPS receiver
- Bit rate adaptation plus PCR restamping in S-PLP
- Embedded HTTP server
- RF main and monitoring outputs
- 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

Option Features

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

Main Features (ATSC)

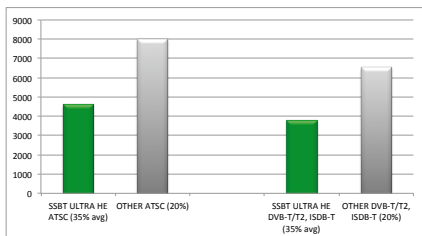
- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
 - > Support 4 ASI input
 - > Support 4 SSI input
 - > Support 2 ASI Output
 - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- "ONE-CLICK" Linear and non-linear ADAPTIVE digital 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





Main Features (ISDB-Tb)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- BTS Input over ASI and over IP
- Modulated ISDB-TB RF signal Input
- MFN and SFN operation
- Signal modulation compliant with
 - ABNT NBR 15601 & ABNT NBR 15608-1 (ISDB-TB)
 - ITU-R BT 470.7 (ITU)
- Emergency flag management (detection and insertion)
- RF main and monitoring outputs
- RF output measuring
- Test Modes
 - CW inserion
 - Null packet insertion - separated for each Layer
 - 2x ASI Test/Monitoring Output
- Internal GPS receiver
- Embedded HTTP server
- RF main and monitoring outputs
- 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



In Cooperation with



Option feature

Remux capabilities:

- BTS generation from input TS/BTS
- Up to two input sources can be used to build each Transmission Layer
- PID filters and remapping
- Internal Carousel Editing, Store and Playing
- IIP (includign SFN information) insertion



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

Models Specific Data

Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	DVB W rms	ISDBT W rms	ATSC W rms	System Efficiency with 33 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)	System Efficiency with 36 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)
SDT403 UM-W ARK-6 UHE	UHF	AB+C	4 x 40 RU	16	SCA202UHE-W	4+1/2"	Liquid	4	24000	24000	32000	38%	-36	35%	-39

Specifications and characteristics are subject to change without notice.

ULTRA HIGH EFFICIENCY SYSTEM

Heterodyne Transposer, Regenerative Transmitter, Transmitter

up to 42000W rms ATSC - 30000W rms DVB, ISDB-Tb, DTMB

max power consumption 120000W for ATSC and 85800W for DVB-T/T2, ISDB-Tb, DTMB

Main Features (DVB-T/T2)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- T2-MI input over IP or ASI
- Modulated DVB-T2 RF signal input (VHF/UHF) – when operating as repeater
- T2-MI input RF signal (UHF) – specific for SFN gap filler operation
- MFN and SFN operations
- Signal modulation compliant with ETSI EN-302 755 (DVB-T2) standard 1.3.1
 - > ETSI EN 300 744 v16.1
 - > ETSI TS 101 191 v1.4.1
 - > ITU -R BT. 470-7
- Full support of T2 modulation up to 256-QAM including I/Q rotation
- T2-MI compliant with ETSI EN-102 773 (T2-MI) standard
- DVB-T2 transmission on UHF bands
- Full Single-PLP compatibility (including MISO and PAPR reduction)
- Capable to transmit MPLP
- Up to 16 PLP
- Internal GPS receiver
- Bit rate adaptation plus PCR restamping in S-PLP
- Embedded HTTP server
- RF main and monitoring outputs
- 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

Option Features

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

Main Features (ATSC)

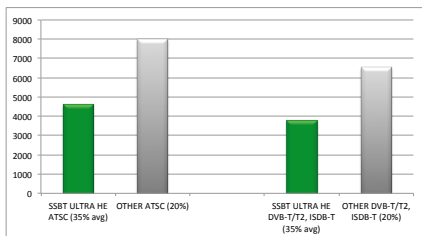
- ASI, MPEG-over-IP, SMPTE310, RF, SSI Input:
 - > Support 4 ASI input
 - > Support 4 SSI input
 - > Support 2 ASI Output
 - > Support 2 MPEG over IP input/output channels on GBE port 2
- Enable/Disable of cable equalizer bypass on input ASI ports
- "ONE-CLICK" Linear and non-linear ADAPTIVE digital 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





Main Features (ISDB-Tb)

- The SDT ARK-6 ULTRA HE grants a System Efficiency more than 35% avg with 36dB of MER and higher than 38% with 33dB of MER.
- UHF Band tunable.
- BTS Input over ASI and over IP
- Modulated ISDB-TB RF signal Input
- MFN and SFN operation
- Signal modulation compliant with
 - ABNT NBR 15601 & ABNT NBR 15608-1 (ISDB-TB)
 - ITU-R BT 470.7 (ITU)
- Emergency flag management (detection and insertion)
- RF main and monitoring outputs
- RF output measuring
- Test Modes
 - CW inserion
 - Null packet insertion - separated for each Layer
 - 2x ASI Test/Monitoring Output
- Internal GPS receiver
- Embedded HTTP server
- RF main and monitoring outputs
- 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



In Cooperation with



Option feature

Remux capabilities:

- BTS generation from input TS/BTS
- Up to two input sources can be used to build each Transmission Layer
- PID filters and remapping
- Internal Carousel Editing, Store and Playing
- IIP (includign SFN information) insertion



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

Models Specific Data

Models	Output Band	Working Class	Dimensions	N. Ampl	kind of Ampl	Output Connector	Cooling	Meter board N.	DVB W rms	ISDBT W rms	ATSC W rms	System Efficiency with 33 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)	System Efficiency with 36 dB Mer	Shoulders (@ Fo ± 3.5 MHz ATSC) or (@ Fo ± 4.3 MHz DVB) or (@ Fo ± 3.3 MHz ISDB-T)
SDT603 UM-W ARK-6 UHE	UHF	AB+C	6 x 40 RU	24	SCA202UHE-W	6+1/8"	Liquid	6	30000	30000	42000	38%	-36	35%	-39

Specifications and characteristics are subject to change without notice.





High Efficiency **reduces** the **management cost** and **helps** the **environment**. ☺



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