

SDT ARK ECHO



SDT ARK-ECHO

Digital Repeater On Channel with Superior Echo cancellation
for mutistandard

From 15W rms up to 125W rms



DVB-T

DVB-T2

DVB-H

ATSC

a-t-s-c
MOBILE DTV

ISDB-T

DTMB



ARK-ECHO – Digital Repeater On Channel with Superior Echo cancellation up to 5W rms



> SDT 500 ARK ECHO

Descriptions

ARK-ECHO is a cutting-edge product completely designed and developed by Screen Service in an answer to market needs. ARK-ECHO provides a complete digital coverage solution with echo cancellation to make sure the area is not receiving dual signals by canceling system feedback between the transmit and receive antennas. The innovative software defined technology with features provides useful tools to manage your Single Frequency Network.

ARK-ECHO Digital signal processing algorithms offer a superior cancellation; it means that stable operation can be achieved even with a feedback (undesired) signal that is larger than the incoming (desired) signal.

ARK-ECHO offer one of the lowest latency of the industry (less than 10 μ S); a low time delay allows the receiver to deal with two different signals (main transmitter and ARK-ECHO) without allowing them to interfere with each other and degrade reception

The Screen Service's state of the art pre-correction plus the compact size (125W rms ATSC/ATSC-MH in 2RU) is designed to perfectly satisfy the critical need of a Broadcast Network to have full coverage and expanded indoor penetration; all these features makes the ARK-ECHO unique on its class.



DVB T

DVB H

DVB T2

ATSC

at s c
MOBILE DTV

ISDB-T

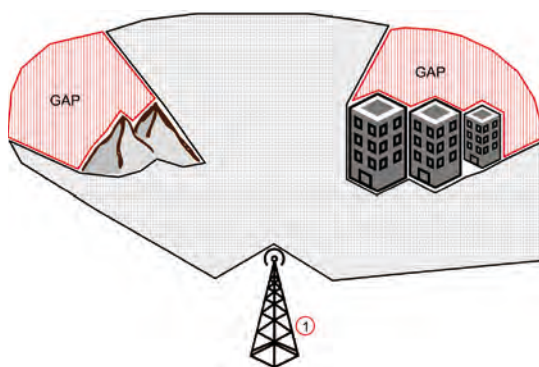
DTMB

Main Features

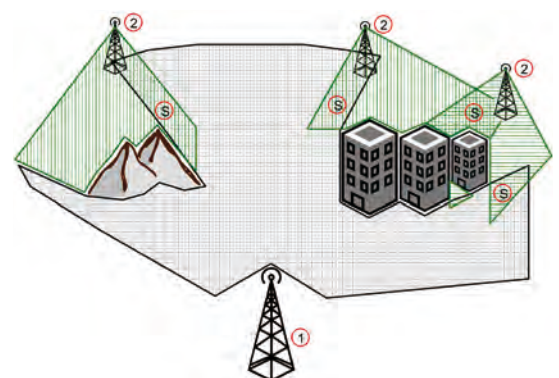
- Multistandard Digital Repeater On Channel
- Heterodyne Repeater
- Superior Echo Cancellation Algorithm
- Perfect for Gap Filler area in SFN Network Deployment
- AGC (Automatic Gain Control) for Power Limit
- Compact Size design 1RU or 2RU up to 125W rms (ATSC/ATSC-MH)
- User friendly JAVA user interface
- Multi-standard Capability (ATSC, ATSC-MH, DVB, ISDB-T, DTMB)
- Advanced O&M feature support
- Remote management capabilities included

How it works?

The ARK-ECHO receive an off-air DTV signal to amplify it; down-convert it to an intermediate frequency (IF) for filtering and equalization; and up-convert it using its fully agile local oscillator on exactly the same frequency with exactly the same data as the received signal.



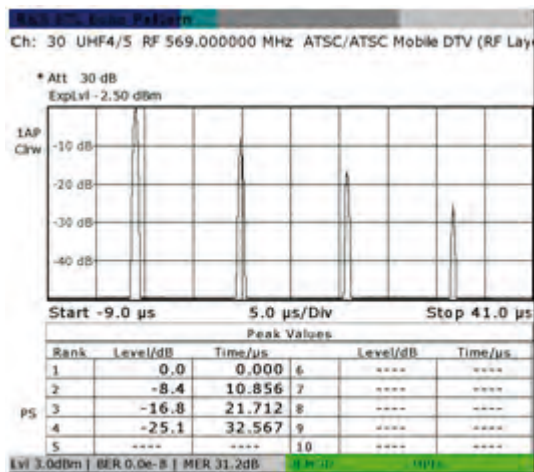
As can be seen gap areas do not receive signal (1) due to natural or artificial obstacles.



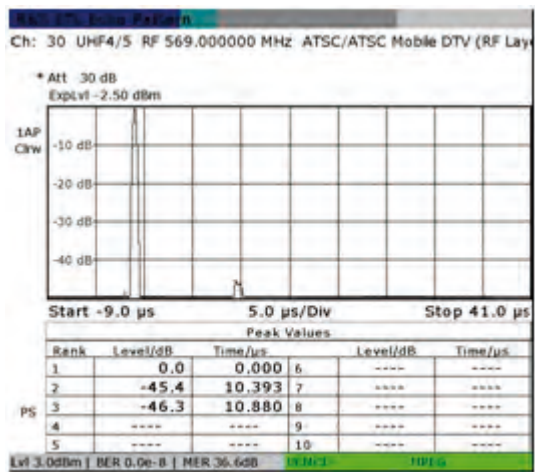
After we place the ARK-ECHO in the strategic positions (2) all the gap areas will be covered by the signal



This self explanatory snapshot shows how effective is the performance of echo cancellation algorithm in the ARK ECHO product.



Without echo suppressor



With echo suppressor

Technical Specifications

Available standards	ATSC, ATSC-MH, DVB, ISDB-T, DTMB
Operating frequency range	UHF Band IV & V: 470 - 860 MHz
IF Frequency	36 MHz +/- 4
IF Bandwidth	6 -7-8 MHz
Time delay	less than 10 us typ.
Echo cancellation window	20 us max (Equipment time delay NOT included)
Cooling	Forced Air
Main supply	110/220 V AC; Monophase
MAX Power consumption	150 VA @ 34 dBm
	200 VA @ 40 dBm
	250 VA @ 46 dBm
	750 VA @ 50 dBm

Dimensions	(W x H x D) 483mm (19") x 1HU (2HU) x 400 mm (19 in x 1HU (2HU) x 15.74 in)
Weight	7Kg (15,43 Lbs) x 1HU or 15Kg (33,06 Lbs) x 2HU

Specifications and characteristics are subject to change without notice.

MODEL-SPECIFIC DATA

Model	Output Band	Working class	Dimensions	Output connector	Cooling	Shoulders @ Fo ± 3.5 MHz	DVB W rms	ISDBT W rms	ATSC W rms	DTMB W rms
SDT500UB_ARK_EO	UHF	AB	1RU	N	Air	-36	12	12	15	12

ARK-ECHO – Digital Repeater On Channel with Superior Echo cancellation up to 125W rms



> SDT 201UB ARK ECHO Compact

Descriptions

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ARK-ECHO offer one of the lowest latency of the industry (less than 10 μ S); a low time delay allows the receiver to deal with two different signals (main transmitter and ARK-ECHO) without allowing them to interfere with each other and degrade reception

The Screen Service's state of the art pre-correction plus the compact size (125W rms ATSC/ATSC-MH in 2RU) is designed to perfectly satisfy the critical need of a Broadcast Network to have full coverage and expanded indoor penetration; all these features makes the ARK-ECHO unique on its class.



DVB T

DVB H

DVB T2

ATSC

ATSC
MOBILE DTV

ISDB-T

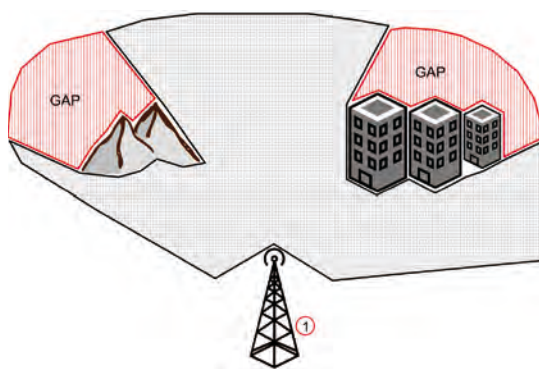
DTMB

Main Features

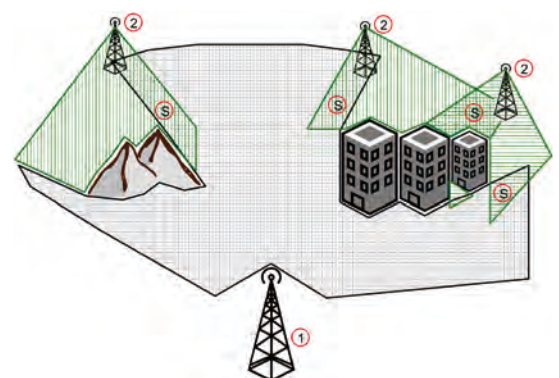
- Multistandard Digital Repeater On Channel
- Heterodyne Repeater
- Superior Echo Cancellation Algorithm
- Perfect for Gap Filler area in SFN Network Deployment
- AGC (Automatic Gain Control) for Power Limit
- Compact Size design 1RU or 2RU up to 125W rms (ATSC/ATSC-MH)
- User friendly JAVA user interface
- Multi-standard Capability (ATSC, ATSC-MH, DVB, ISDB-T, DTMB)
- Advanced O&M feature support
- Remote management capabilities included

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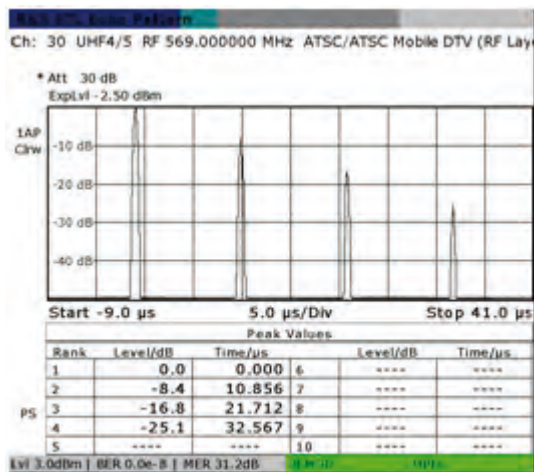
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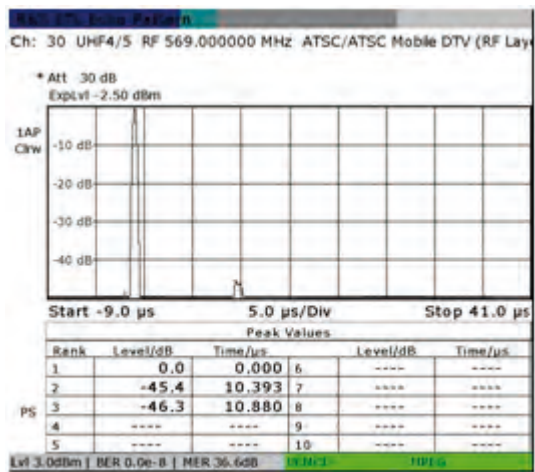
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Without echo suppressor



With echo suppressor

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Operating frequency range	UHF Band IV & V: 470 - 860 MHz
IF Frequency	36 MHz +/- 4
IF Bandwidth	6 -7-8 MHz
Time delay	less than 10 us typ.
Echo cancellation window	20 us max (Equipment time delay NOT included)
Cooling	Forced Air
Main supply	110/220 V AC; Monophase
MAX Power consumption	150 VA @ 34 dBm 200 VA @ 40 dBm 250 VA @ 46 dBm 750 VA @ 50 dBm

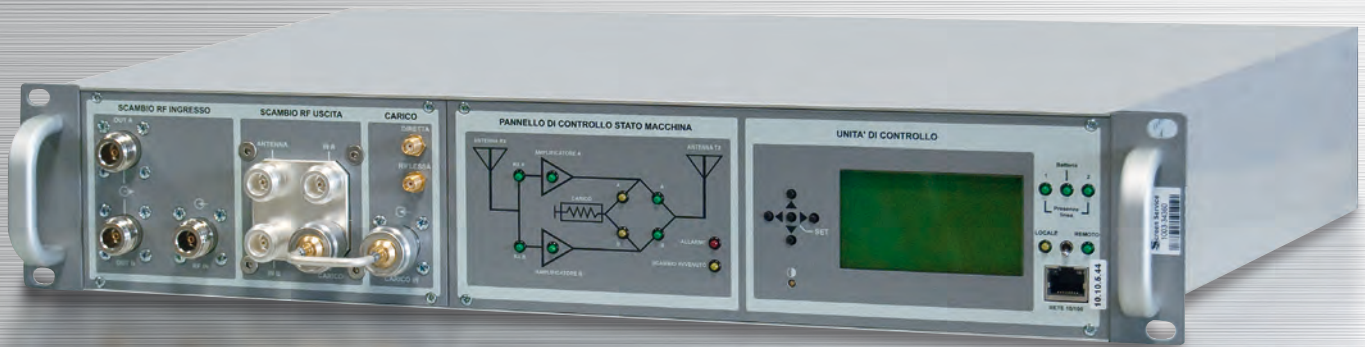
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MODEL-SPECIFIC DATA

Model	Output Band	Working class	Dimensions	Output connector	Cooling	Shoulders @ Fo ± 3.5 MHz	DVB W rms	ISDBT W rms	ATSC W rms	DTMB W rms
SDT201UB_ARK_EO_C	UHF	AB	2RU	N	Air	-36	100	100	125	100

Accessories and Synchronization Systems



Accessories and Synchronization Systems

Automatic Changeover (1+1, N+1)

Single or Dual GPS Receiver

GPS Smart

ASI to IP Converter

ASI distributor



Main Meter



> SCS 300/350

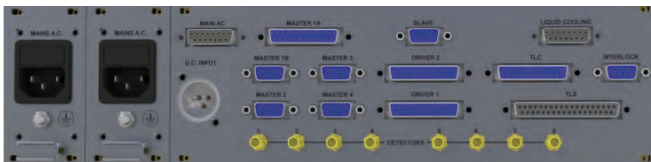
Description

The SCS 300/350 (for dual driver system) Main Meter Unit is designed for complete managing platform for transmitters/ transposers.

- Local and Remote control of all system parameter via SNMP, Web, TLC/TLS
- Controller power out
- Local Transmitter and Transposer managing capabilities;
- Analog and Digital (multimode) management

Watt meter in order to control:

- Reflected power after filter
- Forward power after filter
- Reflected power before filter
- Forward power before filter



Rear view Main Meter SCS300



Automatic Changeover Unit (1+1)



> SCS 500

Description

The SCS 500 performs the switching between two transmitters or transposers in a 1+1 Driver configuration and in a 1+1 with reserve configuration.

SCS 500 change-over detects the presence of the IF or RF signal and in case of absence of the primary signal to switch on the spare one and vice-versa.

The SCS 500 used in transmitter applications switches the Audio/Video signals and IF/RF from one driver to the other one. Some of them, as indicated in the previous table, use an internal coaxial bi-stable and motorized relays (SPINNER or RADIALL) depending on the output power. Some others drive an external high power coaxial, bi-stable and motorized Relays.

The SCS 500 used in transposer applications switches the RF signal from one driver to the other one. Also in this case, some of them, as indicated in the previous table, use an internal coaxial bi-stable and motorized relays (SPINNER or RADIALL) depending on the output power. Some others drive an external high power coaxial, bi-stable and motorized Relays.

The SCS 500 front panel of the transmitter application have two audio inputs: 1 main and 1 spare; four video inputs (video + SDI or ASI): main and spare; one audio output; two video outputs (video + SDI or ASI). Few configurations have a graphic panel (with led) that show the relays status.

The SCS 500 front panel of the transposer application have two RF (N connector) output to the drivers and one input for the signal coming from the antenna. Few configurations have a graphic panel (with led) that show the relays status.

If SCS 500 unit is used with Screen Service Series transmitters and transposers a direct interconnection is made by means of DB25 connectors on the back panels of the equipment. This connection carries alarm and control signals and allows "safety" function to switch-down the transmitters during the switching. If the unit is used with equipment of different brands it is possible to switch-down the driver or the modulator using the two SMA connector located on the rear panel.

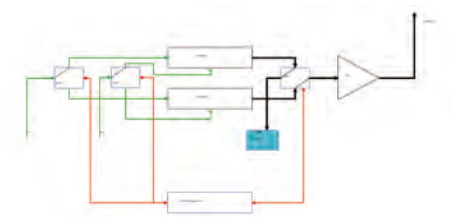
The SCS 500 is designed with a modular approach in a 19" , 2U standard RACK and the modularity refers to the plug-in units equipped with coaxial relays both for TRANSPOSERS and TRANSMITTERS.

The SCS 500 is equipped with two power supplies and a battery. So it can manages the alarms (via SNMP) also in case of failures.

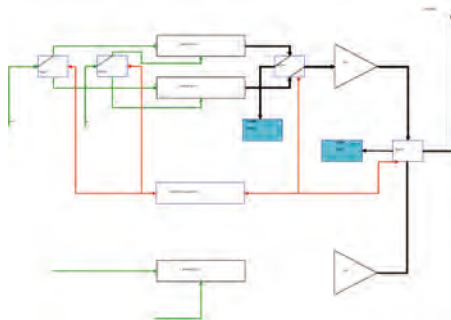
Main Features

The SCS 500 Change Over Unit is designed especially for TV Broadcasting Transmitters, Transposers and Repeaters, operating in 1+1 arrangements. Based on a modular concept, the SCS 500 is capable to handle multi standard both in Digital and Analog. The equipment is based on high performance relays architecture to have a spare function to prevent a total system collapse. This security risk management function will help to eliminate single point failure conditions, thus preventing possible disastrous events granting an higher system MTBF.

- Double power supply;
- Single pole, double trough (double depending on configuration);
- Double pole, double trough;
- Transmitter and Transposer managing capabilities;
- Local and Remote Full Control;
- Analog and Digital management



Internal Relay Configuration Management

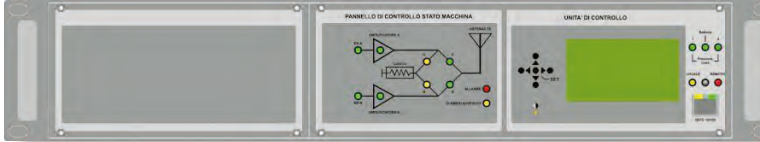


Internal + external Relay Configuration Management

Models and Options

SCS 500

Automatic changeover for transmitter applications with an integrated 1 ways relays. (on request A/V, ASI switching)



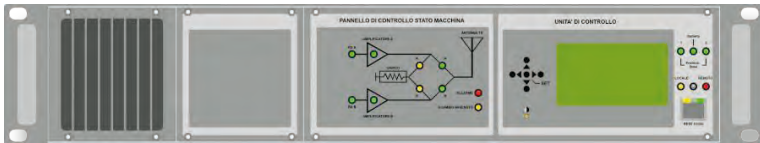
SCS 500M

Automatic changeover for transmitter applications with an integrated 2 ways relays, dummy load and fan.



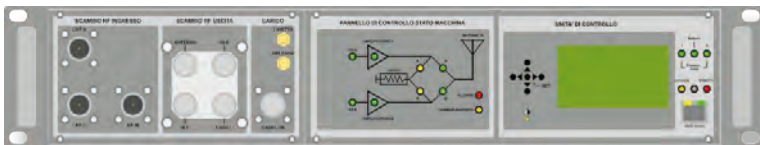
SCS 500RO (X)

Automatic changeover with graphic panel for transmitter applications suitable only for external relays use. Support all kind relays (input solenoid drive, motor drive) Interlock.



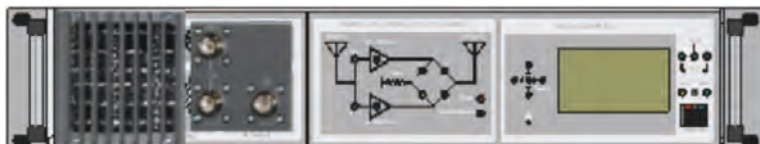
SCS 500RF

Automatic changeover with graphic panel for transposer applications with an integrated 2 ways relays . Like M model with Input/ Output RF Front side



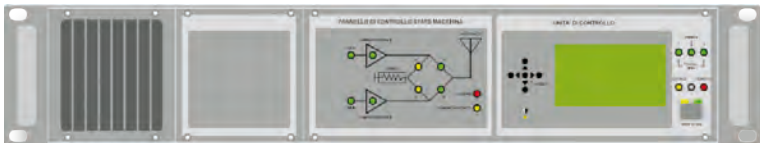
SCS 510MS (500MS)

Automatic changeover with graphic panel for transmitter applications with an integrated 2 ways relays, dummy load and fan and input RF splitter.



SCS 500MR

Automatic changeover with graphic panel for transmitter applications with an integrated 2 ways relays, dummy load and fan.



SCS 500NM: Automatic changeover for transmitter applications suitable only for external relays use. Support all kind relays (input solenoid drive, motor drive) Interlock.



SCS 50012VB: Automatic changeover for transmitter applications with an integrated 1 ways relays. Power supply 12V

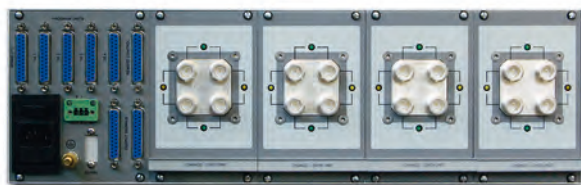


TECHNICAL SPECIFICATIONS	
System Capability	1+1 MAIN & RESERVE
Control Remote	USB front panel
	RS 232 rear panel
	RS 485 rear panel
	GbE front panel
	Parallel rear panel
Control local	Push button front panel
Management	Automatic / Manual
Visualization Status Remote	Applet java
Visualization Status Local	Display / led
Main Supply	AC, double 90 to 264 VAC - DC, single 24 VDC
Power Consumption	< 10 W
Dimension	19", 2U RACK STANDARD, 450 mm D
Weight	5 Kg
Handling RF Power TX	65 W RMS (higher with external relays)
Handling RF Power RX	1 W RMS
Connector TX OUT	N FEMALE
Connector RX IN	N FEMALE (RT version)
Connector ASI IN	BNC FEMALE (TX version)
Impedance	50 Ohm (RF) - 75 Ohm (ASI) - 75 Ohm (Analog Video)
Return Loss	<1.2 :1

Automatic Changeover Unit (N+1)



> SCS 900



REAR VIEW GUESTS COAXIAL RELAYS AND DB25 PORTS

Model and Options

SCS 900: Automatic changeover unit stand alone unit (N+1).

SCS 900X: Automatic changeover for transmitter applications with an external relays use.

SCS 900TA: Automatic changeover for transmitter applications with an integrated 2 ways relays.

SCS 900TA4: Automatic changeover for transmitter applications with an integrated 4 ways relays.

Description

The SCS 900 model is an automatic change-over unit that controls and operates television transmitters and transposers, both analogue and digital, as well as microwave links, with configurations ranging from 1+1 to 8+1.

All dialogues with controlled units take place through an ultimate generation micro-processor.

The System management has been made extremely simple thanks to multiple local or remote interfaces (RS-232, RS-485, parallel contacts, SNMP, USB and LAN).

The user may select either the manual or automatic mode and on/off or switching functions may be activated remotely.

Main Features

- From 1 to 8 programs/channels + one back-up.
- Local/remote control.
- Automatic/manual mode.
- USB, RS-232, RS-485, LAN, SNMP management interface, parallel contacts.
- Management of switching delay.
- Memorization of events and alarms.
- Incorporated Real Time Clock.
- Priority management.
- Threshold levels and number of retries may be adjusted by user.
- Operative frequency: DC to 1 GHz.
- Compact size: 3 RU (19").

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
INPUTS	
Operating frequency range	DC to 1 GHz
Input impedance	50 Ω
Insertion loss	< 0.8 dB
Return loss	< -20 dB
Isolation between channels	> 80 dB
Switch type	D.P. - D.T. microstrip
Input connector	N, female
OUTPUTS	
Operating frequency range	DC to 1 GHz
Max operating power	Up to 200 W p.s. with internal relays
Output impedance	50 Ω
Insertion loss	< 0.2 dB
Return loss	< -26 dB
Switch type	D.P. - D.T. coaxial
Isolation between channels	> 80 dB
Input connector	N, female (other on request)
GENERAL	
Number of programs and/or channels	Up to 8 (Main) + 1 (reserve)
Control	Local and remote
Operations	Automatic or manual
Management interfaces	RE 232, RS 485, LAN, USB, opto-isolated parallel contacts, local push-buttons
Monitoring Interfaces	Web based Java Interface Front panel display
Operating temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Main supply	90 to 264 V AC / 24 V DC
Power consumption	< 10 W
Dimensions	3 or 6 RU (19" rack)
Weight	< 5 kg



SCS120S : GPS Receiver, 10 Output x 1PPS, 10 or 5MHz Outputs stand-alone unit.

SCS120D : Dual Redundant GPS Receiver, 10 Output x 1PPS , 10 or 5MHz Outputs stand alone unit Seamless



SCS 120D



SCS 120S

Description

The systems in these series represent the ideal solution to problems of synchronization for distribution networks of broadcasting signals or in every kind of network that required Frequency and Timing reference. They make possible to obtain a high-precision frequency source wherever there is unavailable GPS signal. The GPS receivers, designed with "Carrier Aided Tracking" technology with 12 parallel channels, are available in single or redundant version with automatic seamless switch-over, which provides a commutation without interruption.

Distributors are available, moreover, for frequency reference signals as well as for timing-reference signals. The discontinuity of the presence of the reference signal does not jeopardize operation of the equipment, thanks to the substantial stability of the oscillator.

The sturdiness of the system in case of reference signal lack was obtained by comparing the local source frequency with the reference signal frequency and correcting the possible drift of the local frequency of the integrated oscillator

The dual GPS Receiver contains two fully redundant GPS receiver boards, each with their own OCXO, GPS module and GPS antenna input. The redundancy is at power supply level as well. Each receiver has an OCXO (oven controlled crystal oscillator) which runs at 10MHz. The accuracy of this OCXO is better than $\pm 0.3\text{Hz}$ (0.3 ppm). When the GPS signal is present and is detected, the OCXO frequency is controlled to match the accuracy of the GPS time reference. The number of cycles of this signal is counted over a period of one second, as given by the 1PPS signal from the GPS module. This way the frequency error of the OCXO is derived. If the GPS module tracks only 3 satellites or less, it becomes impossible to extract the GPS time information. If this happens, the microcontroller stops adjusting the OCXO frequency. The OCXO is left running in open loop, with the last tuning voltage known before the GPS module lost track. When both receivers do not receive the GPS signal, then the frequency accuracy is set by the OCXO accuracy, which is less than 0.3ppm. this function is named Hold Over

GPS RECEIVER

- 12 parallel channels.
- C/A code 1,023 MHz chip rate.
- Carrier Aided Tracking.
- Precision in position: 25 m (SA absent), 100 m (SA spec. UD DoD)
- Suitable for use with active antennas.
- LAN TCP/IP
- Aux TLS relay contact available on the rear panel.
- RS485,RS232 Communication

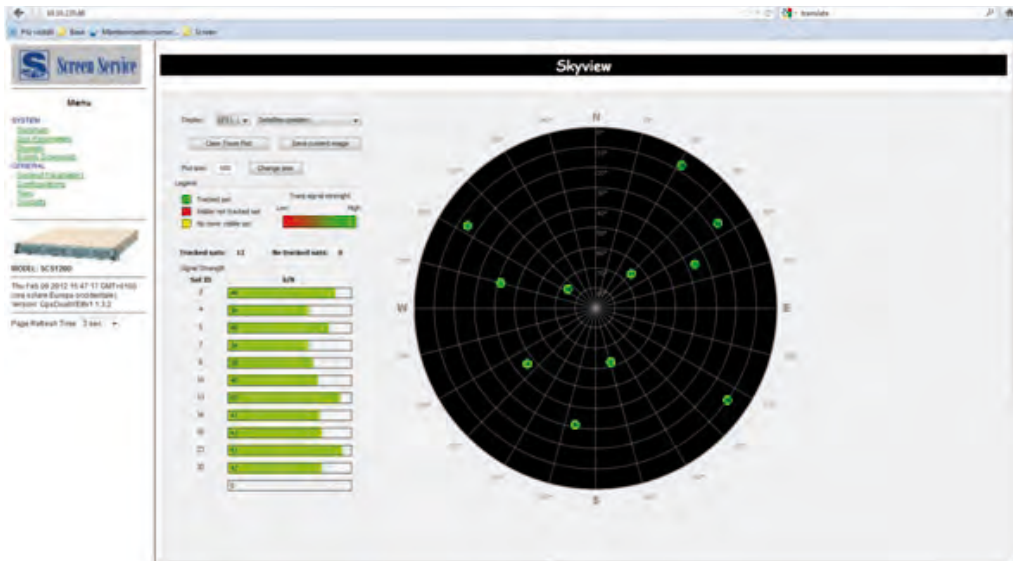


GPS receiver rear view
(version with GPS Input on the front-panel)



GPS receiver rear view





*Skyview

The Gps2 Parameters control panel is divided into two main sections: Alarms & Traps and Measures. The Alarms & Traps section contains a table of configuration options, and the Measures section contains a table of current system data.

Alarms & Traps		
	Alarms	Traps
Locked Alarm	On	Disable
SD Fix Alarm	On	Disable
Disciplining Warning	On	Disable
Serial Link Alarm	On	Disable
PPS Alarm	On	Disable
DOXO Alarm	On	Disable
Holover Alarm	On	Disable
Holover Ready	On	Disable

Measures		
Locked		Locked
Holover Ready		On
Date		13/02/2012
UTC Time		14:18:59
Latitude		45°29'59"
Longitude		10°09'30"
Height [m]		16475
Precision [m]		3
Precision Level		1
Holover Counter		24 h 0 min
Timing Function		Enabled
DNC		32877

*Control Panel

FREQUENCY REFERENCE

Number of outputs	10 x BNC, 50 Ω
Output signal	5 or 10 MHz, sine wave, 1 V p.p
Short term stability	Better than 5x10 ⁻¹² (1sec)
Frequency accuracy	Better than 3x10 ⁻¹² (24hours continuous power up and GPS)
Hold over drift	±5x10 ⁻¹⁰ /day
Phase noise @ 100 Hz	Better then -145 dBc/Hz
Phase noise @ 10 kHz	Better then -155 dBc/Hz
Cold startup	Less then 10 min.

TIMING REFERENCE

Number of outputs	10 x BNC, 50 Ω
Output signal	1 PPS, 5 V TTL, square wave
Timing accuracy	±100 ns peak (24 hours continuous power up and GPS)
Holdover drift	±1 μs (3 hours without GPS) < 8 μs (24 hours without GPS)

GENERAL

GPS antenna input connector	N female, 50 Ω, lightning protection available as option
Switchover function (redundant models only)	Auto
Operating temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Power supply	90 to 264 V AC, 24/48 V DC
Dimensions	1 RU (19" rack)
Weight	5 kg (approx)

OPTIONS

Power supply in redundant configuration
Lightning protection
5 MHz output (2MHz on request)
Rear Input GPS antenna
Kit SCS 118/Mobil Antenna GPS



GPS Receiver, 4 x 1PPS / 4 x 10MHz Outputs – stand-alone unit.



GPS Smart



GPS receiver front view



GPS receiver rear view

Description

GPS SMART with a compact and light modular hardware design to bring you a powerful time & frequency reference system at the lowest cost. Intelligent solution for all your requirements for time synchronization and frequency. The GPS receivers, designed with "Carrier Aided Tracking" technology with 50 parallel channels. Distributors are available, moreover, for frequency reference signals as well as for timing-reference signals. The discontinuity of the presence of the reference signal does not jeopardize operation of the equipment, thanks to the substantial stability of the oscillator.

Main Features

GPS RECEIVER

- 50 parallel channels.
- C/A code 1,023 MHz chip rate.
- Carrier Aided Tracking.
- Precision in position: 25 m (SA absent), 100 m (SA spec. UD DoD)
- Suitable for use with active antennas.
- LAN TCP/IP
- Aux TLS relay contact available on the rear panel.

FREQUENCY REFERENCE

Number of outputs	4 x BNC, 50 Ω (2 rear and 2 front side)
Output signal	10 MHz, sinewave, 1 V p.p.
Short term stability	Better than 5x10 ⁻¹² (1 sec.)
Frequency accuracy	Better than 3x10 ⁻¹² (24 hours continuous power up and GPS)
Holdover drift	±5x10 ⁻¹⁰ /day
Phase noise @ 100 Hz	Better then -145 dBc/Hz
Phase noise @ 10 kHz	Better then -155 dBc/Hz
Cold startup	Less then 10 min.

TIMING REFERENCE

Number of outputs	4 x BNC, 50 Ω (2 rear and 2 front side)
Output signal	1 PPS, 5 V TTL, square wave
Timing accuracy	±100 ns peak (24 hours continuous power up and GPS)
Holdover drift	±1 μs (5 hours without GPS) < 24 μs (24 hours without GPS)

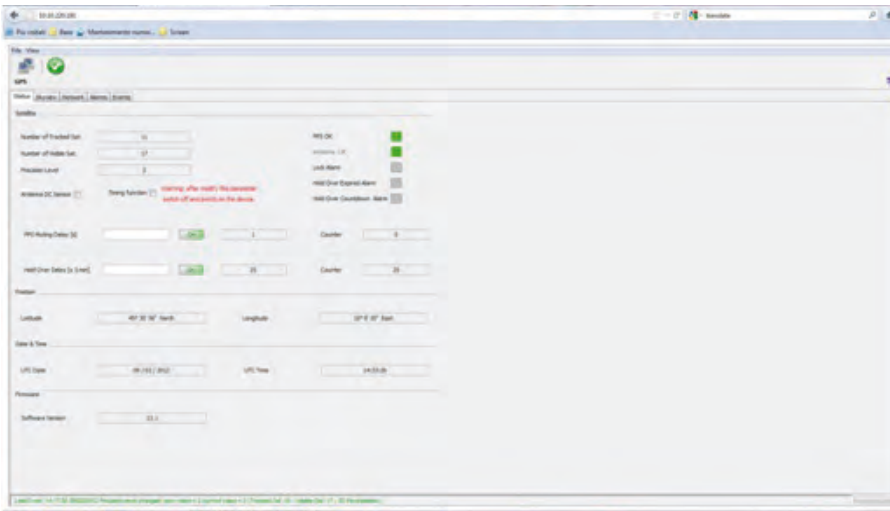
GENERAL

GPS antenna input connector	N female, 50 Ω (rear or front side), lightning protection available as option
Operating temperature	-10°C to +45°C
Maximum relative humidity	90%, non condensing
Power supply	100 to 240 V AC, 50 to 60Hz or 24 V DC
Dimensions	1 RU (19" rack) half unit 484 mm (W) x 350 mm (D) x 45 mm (H)
Weight	2 kg (approx.)

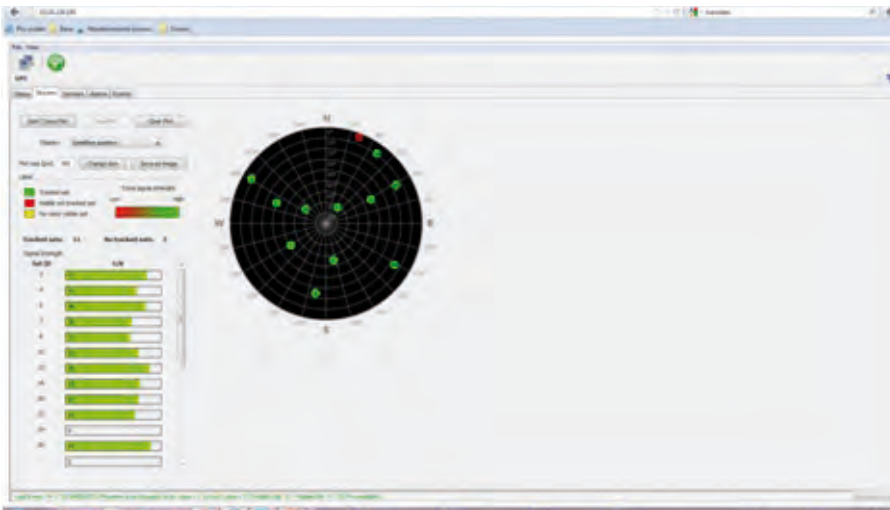
OPTIONS

Lightning protection	
5 MHz output (2MHz on request)	
Kit SCS 118/Mobil Antenna GPS	





*Control Panel



*Skyview

8 channels ASI to IP and IP to ASI Converter



> Redundant ASI - IP



> Portable Version ASI - IP

Description

SMPT E Specification 2022-1: Forward Error Correction for Real-time Video/Audio Transport Over IP Networks
Modern data networks are subject to a variety of impairments, ranging from simple bit errors to groups of contiguous data packets.

The Pro-MPEG COP3/SMPT E 2022 standard has been designed specifically to ensure that high quality video that is used by broadcasters for their most valuable live video feeds are able to be transported over these networks.

COP #3 FEC can protect a video stream from a burst packet loss of up to 255 packets, which is suitable for most private, managed IP networks using QoS techniques such as MPLS, RSVP, and DiffServ. COP #3 FEC is available as the option within user datagram protocol (UDP)/IP network encapsulation, with real-time transport protocol (RTP) encapsulation.

The generation of FEC packets in the COP #3 standards is based upon a matrix defined by the parameters L and D. L represents the number of columns in the matrix, while D represents the number of rows. The standard defines the generation of two types of FEC packet: Column FEC and Row FEC. A FEC packet is generated by XOR of the media packets in a column or a row. Once generated, the Column FEC packets and Row FEC packets are transmitted along with the original media packets on 3 separate UDP ports to a Pro-MPEG COP #3 compliant receiving device.

SMPT E-2022 Network Adapters provide a cost effective and highly reliable solution for transporting digital video content over IP networks (MPEG2-TS over IP also called DVB over IP or ASI over IP)

While Pro-MPEG COP #3 FEC is adequate for most private IP links, it is not robust enough to handle the challenges associated with moving video over highly loss IP networks such as the Public Internet.

Main Features

- It is a portable translator that provides seamless conversion between different MPEG2-TS transmission media.
- ASI->Ethernet, Ethernet->ASI converter, designed for the distribution of MPEG2-TS.
- It is capable to route TS from ASI to Ethernet and for Ethernet to ASI, managing Forward Error Correction data channel as requested by SMPT E 2022 standard.
- Full SMPT E 2022 (Pro MPEG-COP#3) standard compliant.

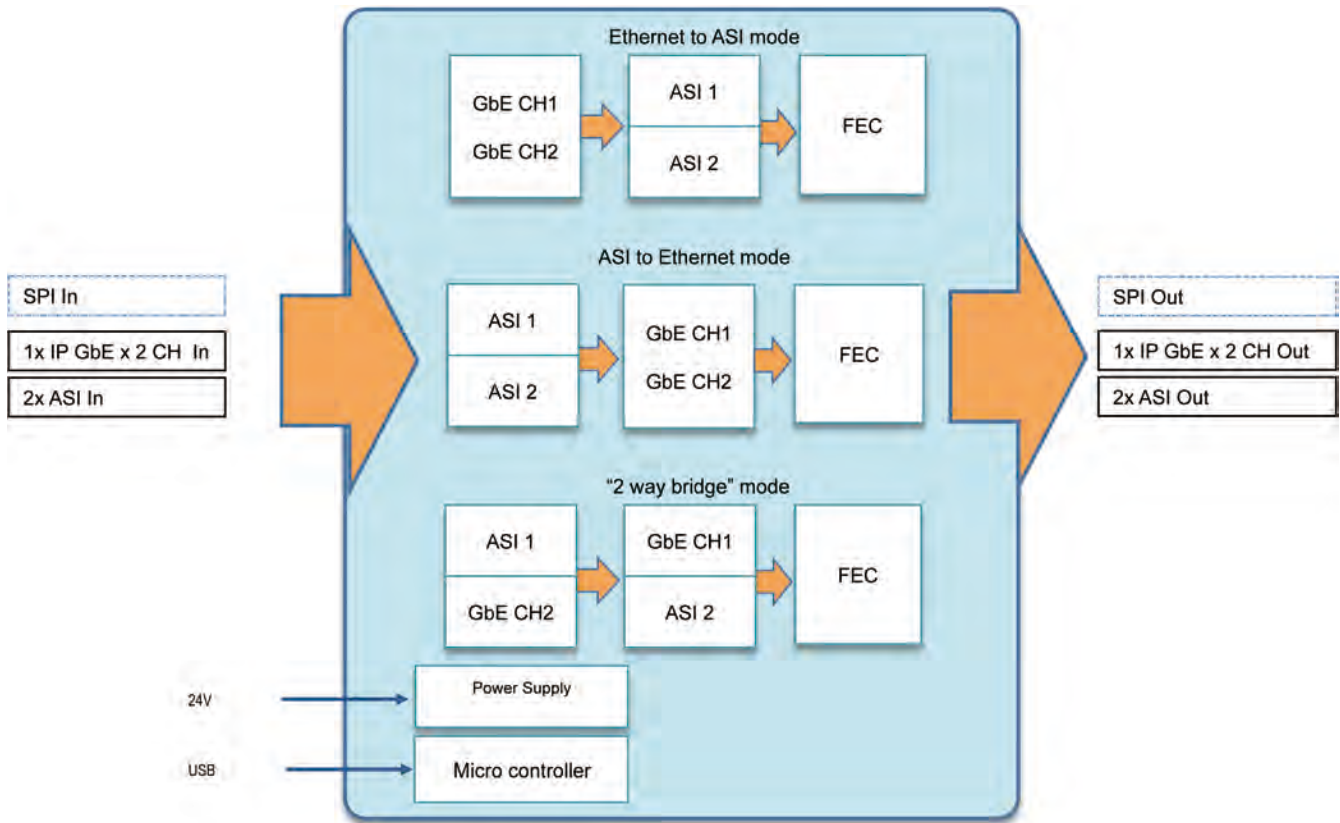
It provides three working modes:

- 1) ASI to Ethernet mode: provides the routing of up to 2 ASI input to 2 Ethernet outputs.
- 2) Ethernet to ASI mode: provides the routing of up to 2 Ethernet input channels to 2 ASI outputs.
- 3) 2 Way Bridge mode: working mode allows to use both function, ASI to GbE and GbE to ASI simultaneously, this working mode use the ASI1 and the GbE2 as input and the GbE1 and the ASI2 as output.

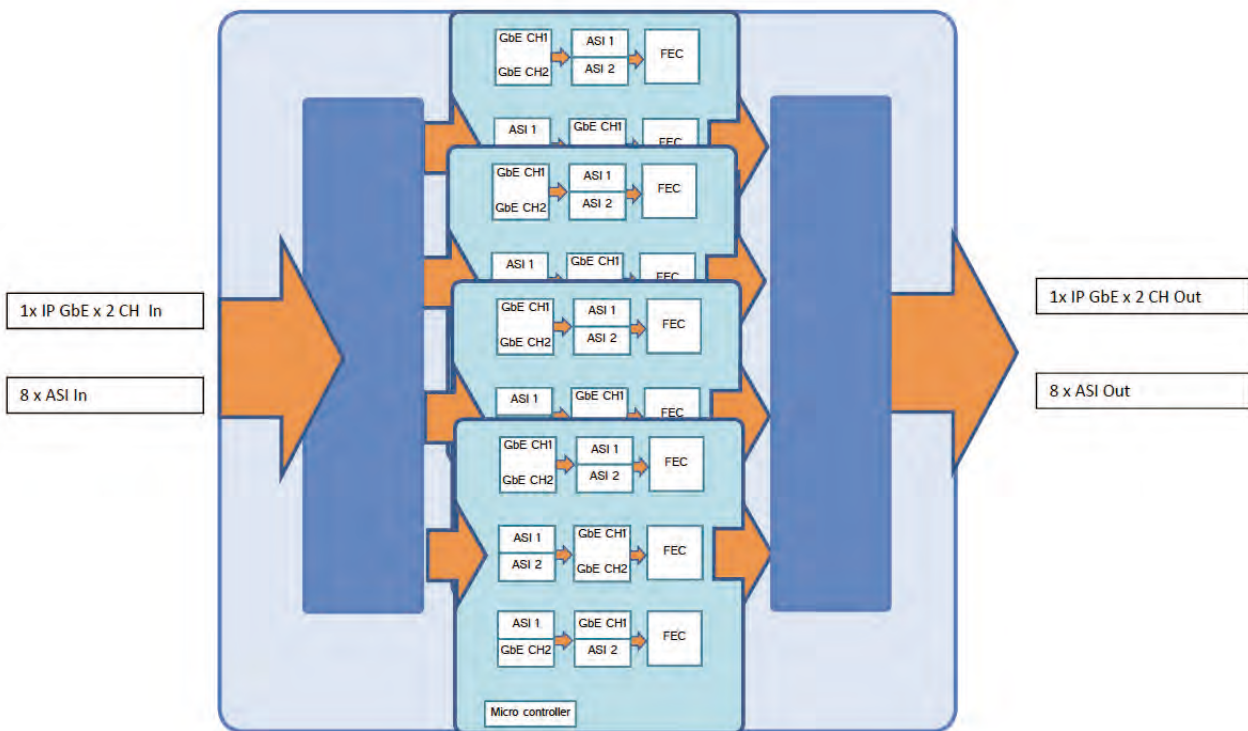
- Fully programmable FEC with several selectable FEC mode:
 - Enable
 - Disable
 - One-dimensional
 - Two-dimensional
- Selectable input buffer size (selectable latency)
- Resynchronization Output Bitrate PCR based
- Device settings and upgrade are managed by the included Graphic User Interface through a USB port.



Block diagram ASI to IP converter 2 ways



Block diagram ASI to IP converter 8 ways



ASI to IP Gateway 0.1

Menu

- Ch 1: ASI to IP
- Ch 2: IP to ASI
- Ch 3: ASI to IP
- Ch 4: ASI to IP
- Ch 5: ASI to IP
- Ch 6: ASI to IP
- Ch 7: ASI to IP
- Ch 8: ASI to IP
- Setup
- Alarm
- Event

ScreenService
IT WORKS.

Board Name

Installer ASI2IP_gateway_0_0_2
Thu Mar 21 16:33:38 2013
IP address 10.70.5.120

Channel 1 ASi to IP <input type="text" value="pippo"/>	Channel 2 IP to ASi <input type="text" value="padova"/>	Channel 3 ASi to IP <input type="text" value="bettola"/>	Channel 4 ASi to IP <input type="text" value="lecce"/>
Channel 5 ASi to IP <input type="text" value="pluto"/>	Channel 6 ASi to IP <input type="text" value="bari"/>	Channel 7 ASi to IP <input type="text" value="torino1"/>	Channel 8 ASi to IP <input type="text" value="torino2"/>

Updating

FPGA
uC

Current alarms:
Alarm Channel 3 Alarm
Alarm Channel 4 Alarm
Alarm Channel 5 Alarm
Alarm Channel 6 Alarm
Alarm Channel 7 Alarm

ASI to IP Gateway 0.1

Menu

- Ch 1: ASI to IP
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- Ch 7: ASI to IP
- Ch 8: ASI to IP
- Setup
- Alarm
- Event

Setup

SNMP

Trap IP 1
Trap IP 2
Trap IP 3
Get
Set
Common

IP Management Settings

IP address
Gateway
Netmask
MAC

Setting Date and Time

Date
Time
UTC Time offset

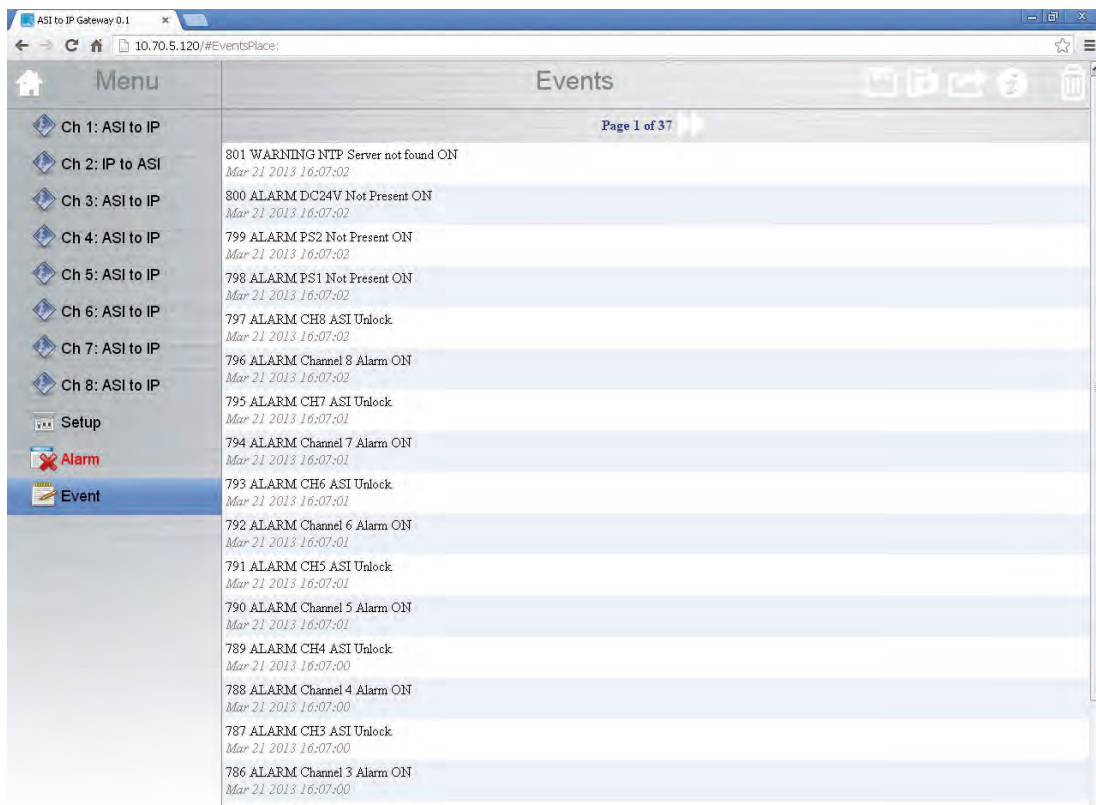
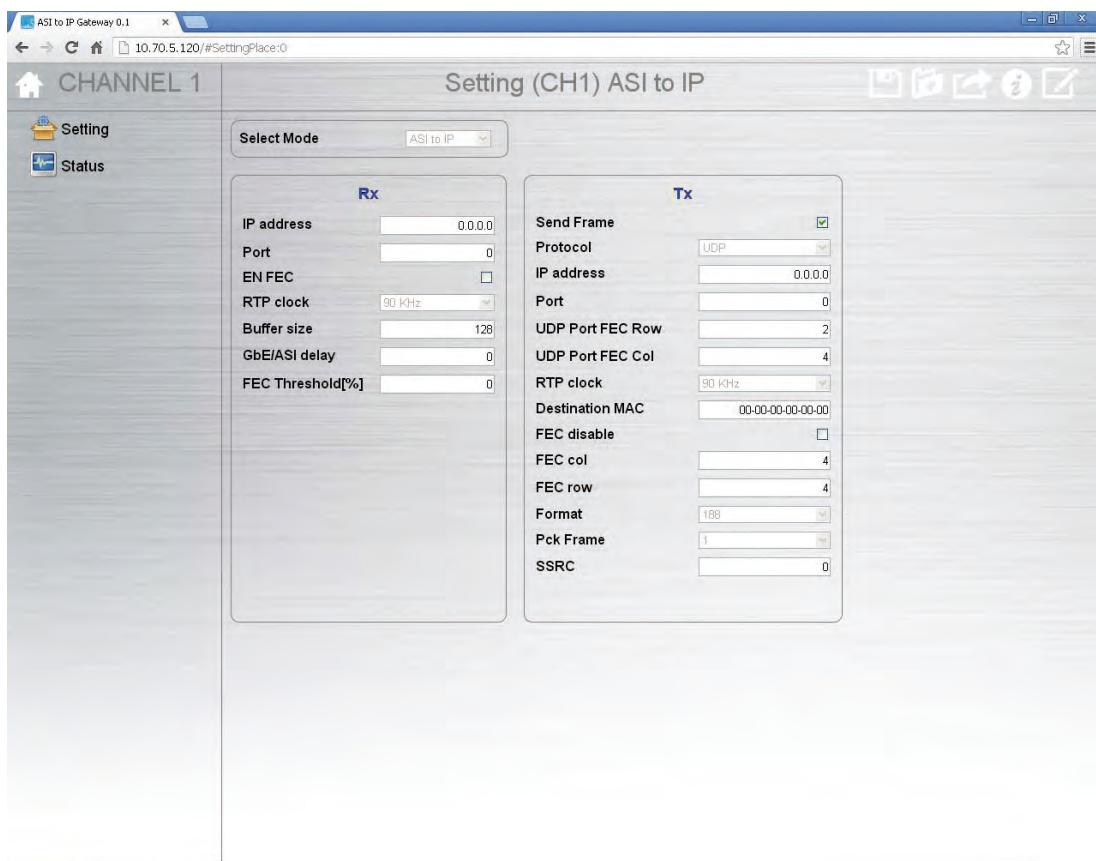
SYSLOG

IP Address

NTP Setting

IP Server Address





Redundant Asi Distributor



XBT 706D

Description

The XBT 706D enables a very flexible and easily manageable distribution of 1+1 Input to 6 + 6 Output SDI/DVB-ASI (270 Mb/s) for different purposes (microwave links back to back propagation, distribution of signal to monitoring and test equipment, general connectivity in the head end, etc.) together with the related clock. The system can be used either in multiple distribution option for up to 12 outputs or as a fully redundant unit for the 1 input to 6 outputs configuration of the XBT 600. To compensate for the signal distortion potentially introduced by long transmission (up to 200 mt.) an automatic line equalizer is present on the ASI input port. Besides that the outgoing signal is muted in case of lacking of the related incoming signal. The equipment has the possibility to mount the redundant power supply as standard base configuration.

Available on request the model XBT 706E with 4 SDI/DVB-ASI (270 Mb/s) input and 6+6+6+6 SDI/DVB-ASI (270 Mb/s) output with double power supply.



Rear View

Main Features Model XBT706D

INPUT

- 2 SDI/DVB-ASI (270 Mb/s) Inputs BNC connector, 75 ohm (also available in 1+1 fully redundant configuration)
- ASI fully comply EN 50083-9
- ASI bit rate 270Mbps
- Return loss >17dB
- Automatic equalization
- Auto re-clocker

OUTPUT

- 6 + 6 SDI/DVB-ASI (270 Mb/s) Outputs BNC connector, 75 ohm
- ASI fully comply EN 50083-9
- ASI bit rates 270Mbps
- 1 RU (19" rack)

Main Features Model XBT706E

INPUT

- 4 SDI/DVB-ASI (270 Mb/s) Inputs BNC connector, 75 ohm (also available in 1+1 fully redundant configuration)
- ASI fully comply EN 50083-9
- ASI bit rate 270Mbps
- Return loss >17dB
- Automatic equalization
- Auto re-clocker

OUTPUT

- 6 + 6 + 6 + 6 SDI/DVB-ASI (270 Mb/s) Outputs BNC connector, 75 ohm
- ASI fully comply EN 50083-9
- ASI bit rates 270Mbps
- 1 RU (19" rack)

Options

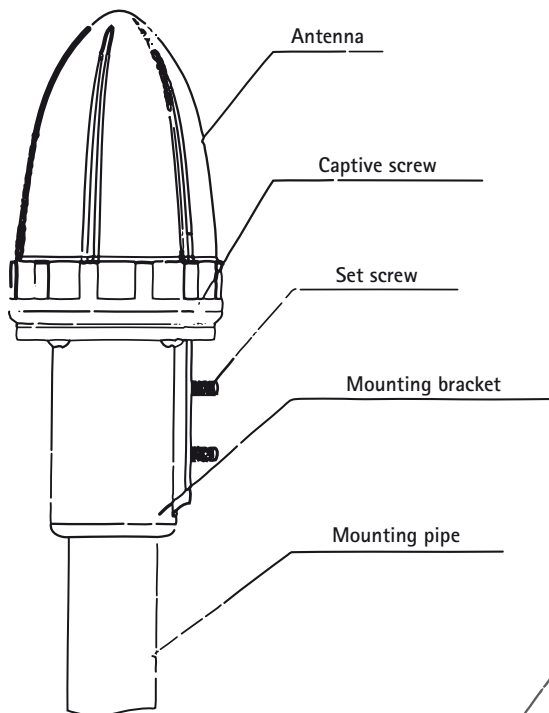
- Double and redundant power supply



GPS Antenna



> SCS 118 MOBI



ELECTRICAL SPECIFICATIONS

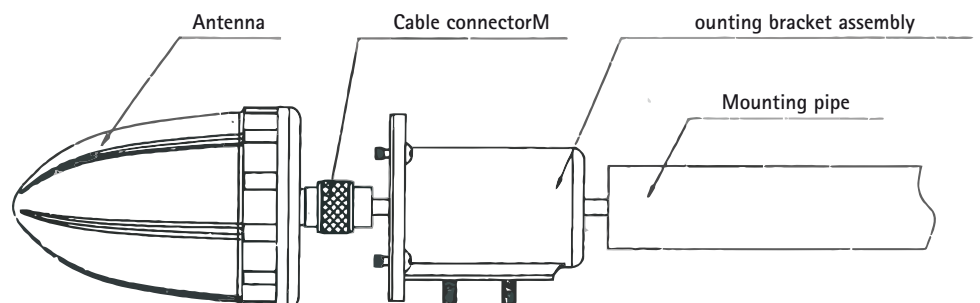
Frequency Range(MHz)	1575.42±10
Polarization	Right hand circula
DC Voltage (V)	4.5 ~ 5.5
DC Current (mA)	≤ 60
Connector	(F) N (F)
Typical Gain of Ceramic Antenna	Better then -145 dBc/Hz
VSWR	Better then -155 dBc/Hz
Input Impedance (Ω)	Less then 10 min.
Amplifier Gain (dB)	26±3
Amplifier Input IP3 (dBm)	≥ -10
Amplifier Noise Figure (dB)	≤ 2.5 (at 26° C) ≤ 3.5 (entire frequency range)
Amplifier Filtering	Typical 3dB bandwidth 20 MHz ≥ 55dB (1575±50 MHz)

MECHANICAL SPECIFICATIONS

Radome material	ASA
Size (mm)	81 x 142.5 (including the connector)
Weight (Kg)	0,28
Operating Temperature (°C)	-40 ~ +75
Reposition Temperature (°C)	-55 ~ +75
Operating Humidity (%)	95
Operating Wind Speed (Km/h)	135
Rated Wind Speed (Km/h)	200
Circumstance	Outdoor

Packing List

- 1 x SCS 118 MOBI GPS Antenna
- 1 x User guide
- 1 x Mounting bracket assembly
- 1 x Allen wrench



Contacts

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