

Technical Specification



MTS 1916 IPS CI

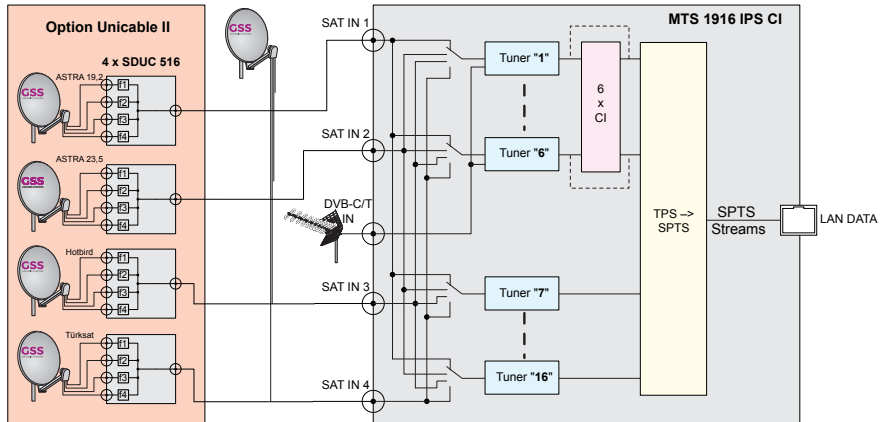
Default access data (HTML + SFTP):
192.168.0.120
User: admin
Password: geheim

DESCRIPTION

The head-end station converts 16 transponders modulated acc. to DVB-S/DVB-S2 standard (up to 32 APSK) into up to 128 SPTS transportstreams. The tuners 1 to 6 can also receive DVB-T / T2 / C as an option. In conjunction with specially programmed Unicable II multi-switches up to 4 satellites can be received.

An integrated MediaPlayer enables the output of a video stream (max. data rate 10MBit/s) in a loop.

BLOCK DIAGRAM



DESIGN TYPE

Version GSS.lamina
 Aluminium housing with stainless steel covers 483 mm x 44.5 mm (1HU) x 490 mm 19" rack
 Weight: 5.5 kg
 Permissible ambient temperature: 0 ... +50 °C
 PSUs: 2 (redundant; can be exchanged individually during operation)
 Active cooling: 3 case fans (can be exchanged individually during operation), 2 PSU fans

FEATURES

IN-/OUTPUTS

SAT IF inputs.....	4 (inputs 1...4)
LNB power supply 14V/18V optionally 14V fix; switchable.....	max. 500 mA
Unicable II operation ¹⁾	max. 4 satellites with 4 levels each
¹⁾ in conjunction with specially programmed Unicable II multi-switches	
DVB-C/T/T2 input.....	1 (input 5)
Antenna supply 5V; switchable.....	max. 500 mA
LAN data output.....	1
LAN control inputs ²⁾	2 (for control and another Lamina)
²⁾ internally connected via an integrated switch	

INPUT SIGNAL PROCESSING

Individual input designation (inputs 1...4).....	adjustable; e.g. satellite/level
Individual input signal name.....	for input lines 1...16
Input lines 1...6	DVB-S/S2/C/T/T2; inputs 1...5 selectable
Display of frequency offset and C/N with reserve	
6 CI slots for CA modules	
Input lines 7...16	DVB-S/S2; inputs 1...4 selectable
Display of frequency offset and C/N with reserve	

CA

6 CI slots for CA modules.....	lines 1...6
TS/ON ID indication.....	lines 1...16

OUTPUT SIGNAL PROCESSING

Maximum over all output data rate (Σ output lines 1...128)	800 MBit/s
Output lines (streams).....	max. 128 + 1 (Mediaplayer)
Output signal form.....	SPTS (Single Programme Transport Stream)
Integrated MediaPlayer for one transport stream format file (max. 10MBit/s).	

SPTS output signals

Protocols.....	UDP or RTP
Transmission of EPG data (Electronic Programme Guide).....	on/off switchable
Display of the current total output data rate.....	Σ output lines 1...128
Display of the current output data rate.....	output lines 1...128
Output lines.....	can be switched off individually
Multicast IP addresses and ports adjustable.....	output lines 1...128
Quick-Setup.....	for output lines 1...128
Generation of a M3U service list ³⁾	for Panasonic-VIERA-TV devices
Generation of a service list ³⁾	for VESTEL TV devices
Generation of a service list ³⁾	for BEWATEC TV devices
SAP (Session Announcement Protocol).....	on/off switchable
IPTV list of all services ³⁾	in form of a *.csv file

³⁾ possible via several connected stations

SYSTEM

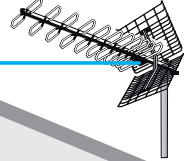
User interface	HTML
Logbook.....	Display of warnings and events
Response times adjustable.....	for input signal and data overflow errors
Notification in case of errors	via mail and to your syslog server ⁴⁾
Transmission of the logbook entries	to a syslog server ⁴⁾
	⁴⁾ Internet connection required
Network interfaces	adjustable
OpenVPN connection	world wide access to the head-end station ⁴⁾
	⁴⁾ Internet connection required
Safety	Password protection
Number format for IDs	switchable decimal or hexadecimal
Backup the configuration.....	Backup and restore
Manager.....	several configurations can be stored in the device
Network diagnostic tool.....	Ping
Factory reset (via menu "Firmware")	all settings except password and IP address!
Reset button.....	only network settings and password
Monitoring	of power supplies and case fans
Assembly instruction (offline; PDF)	in menu Help

APPLICATION EXAMPLE

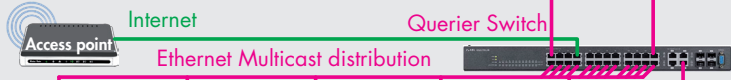
Unicable-II-
operation
up to 4
Satellites



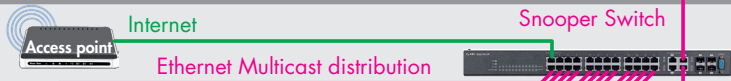
Receiving Station
MTS 1916 IPS CI
Conversion
10 x SAT + 6 x SAT/Terrestrial
to 128 x IPTV SPTS



6 common interfaces
for descrambling
of scrambled stations
of input lines 1-6



IPTVs/STBs for SPTS data streams



IPTVs/STBs for SPTS data streams



IPTVs/STBs for SPTS data streams

HTML control

Middleware

Internet



TECHNICAL DATA

The devices meet the following EU directives:
2011/65/EU, 2014/30/EU, 2014/35/EU
The product fulfils the guidelines and standards for CE labelling.

Unless otherwise noted all values are specified as "typical".

RF input DVB-S/S2 (ETSI 300 421)

Frequency range: 950 ... 2150 MHz
DVB-S mode: QPSK
DVB-S2 modes: QPSK, 8PSK, 16APSK, 32APSK
Symbol rate DVB-S: QPSK: 1 ... 45 MSymb/s
Symbol rate DVB-S2:
 QPSK 4.5 ... 45 MSymb/s
 8PSK 4.5 ... 45 MSymb/s
 16APSK 4.5 ... 39 MSymb/s
 32APSK 4.5 ... 32 MSymb/s
Maximum data rate/tuner 83 MBit/s
Level range: 60 dB μ V ... 80 dB μ V
Input impedance: 75 Ω
LNC supply: 14 V/18 V max. 500 mA

RF input DVB-T/T2/T2 HD/C acc. to EN 302755 v1.3.1/300429

Channels C5...C12, S21...S41, C21...C69
Frequency range: 42 ... 866 MHz
Input level: 60 dB μ V ... 80 dB μ V
Antenna supply: 5 V max. 500 mA

Over all output data

Data rate: \leq 800 MBit/s

IPTV Output

SPTS max. 128 + 1 (Mediaplayer)
Protocols: UDP (User Data Protocol), RTP (Real-Time Transport Protocol)

Connections

SAT inputs: 4 F sockets
Terrestrial input: 1 F socket
LAN (for control/cascading) 100-BASE-T: 2 RJ 45 sockets
LAN (for data) 1000-BASE-T: 1 RJ 45 socket
Common Interfaces 6

General

PSUs: 2 (redundant; can be exchanged individually during operation)
Mains voltage: 100...240 V, 50/60 Hz
Maximum Power consumption 85 W
Admissible ambient temperature: 0 ... +50 $^{\circ}$ C
Dimensions (WxHxD): 483 mm x 44,5 mm (1HE) x 490 mm
Weight: 5.5 kg

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