

Technical Specification



STS 1916 CT CI

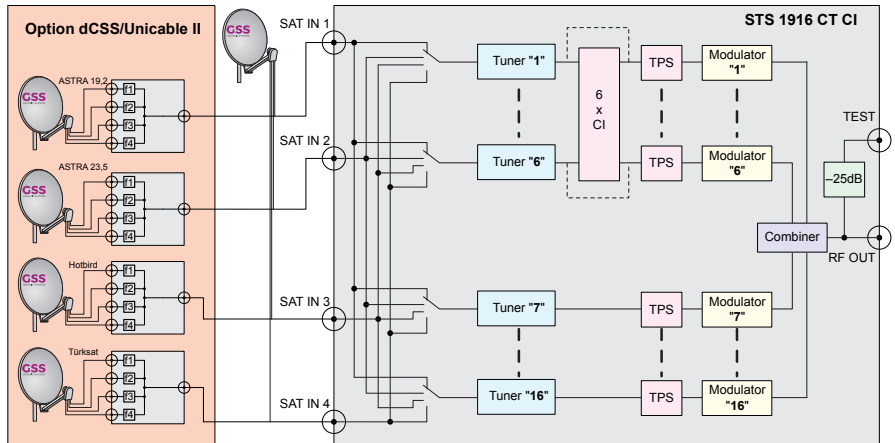
Default access data (HTML + SFTP):
192.168.0.120
User: admin
Password: geheim

DESCRIPTION

The head-end station converts 16 transponders modulated acc. to DVB-S/S2/S2X standard (up to 32 APSK) into 16 DVB-C or DVB-T modulated transponders. In conjunction with specially programmed 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 instead of transponder 16.

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
dCSS/Unicable II operation ¹⁾	max. 4 satellites with 4 levels each
	¹⁾ in conjunction with specially programmed multi-switches
DVB-C/T output.....	1
DVB-C/T test output (-25 dB).....	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...16	DVB-S/S2/S2X; inputs 1...4 selectable
	Display of frequency offset and C/N with reserve
Integrated MediaPlayer for one transport stream format file (max. 10MBit/s) optionally for line 16.	

FILTER & CA

Station filter.....	lines 1...16
PID filter (drop/remap).....	lines 1...16
TS/ON ID Remapping ³⁾	for output lines 1...16
6 CI slots for CA modules.....	lines 1...6
Display of the current/maximum possible ⁴⁾ total output data rate.....	Σ Output lines 1...16
Display of the current output data rate.....	Output lines 1...16
Display of peak value of output data rate reached so far.....	Output lines 1...16
Display of maximum possible output data rate ⁴⁾	Output lines 1...16
	³⁾ for transponders with uncompressed EIT
	⁴⁾ depending on the output settings

OUTPUT SIGNAL PROCESSING

Output lines.....	16
Output signal form.....	RF
Display of the current/maximum possible ⁴⁾ output data rate.....	for output lines 1...16
	⁴⁾ depending on the output settings
RF output signals	suitable for adjacent channels
Output modulation adjustable for the complete station.....	QAM or COFDM
Output lines can be switched off individually.....	RF output lines 1...16
Total output level adjustable.....	0...-31dB

QAM

Frequency/Channel; Symbol rate; Modulation, Spectrum, Level (0...-10dB) individually adjustable for each output line.

COFDM

Frequency/Channel; Spectrum; Modulation; Code rate; Guard interval; Bandwidth; Level (0...-10dB) individually adjustable for each output line

NIT

Renew; delete; add transponder; import NIT of other devices; export NIT

NIT modes: Output of the displayed NIT (user); alternatively, transmission of the input NIT (original); alternatively, no NIT (deactivate).

Note in case of faulty NIT

LCN

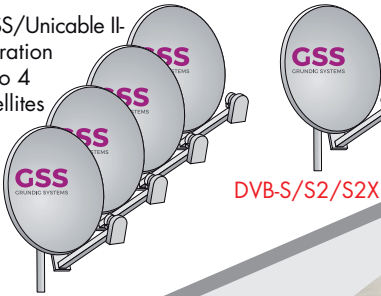
Generation of an LCN list (programme location number preassignment)

SYSTEM

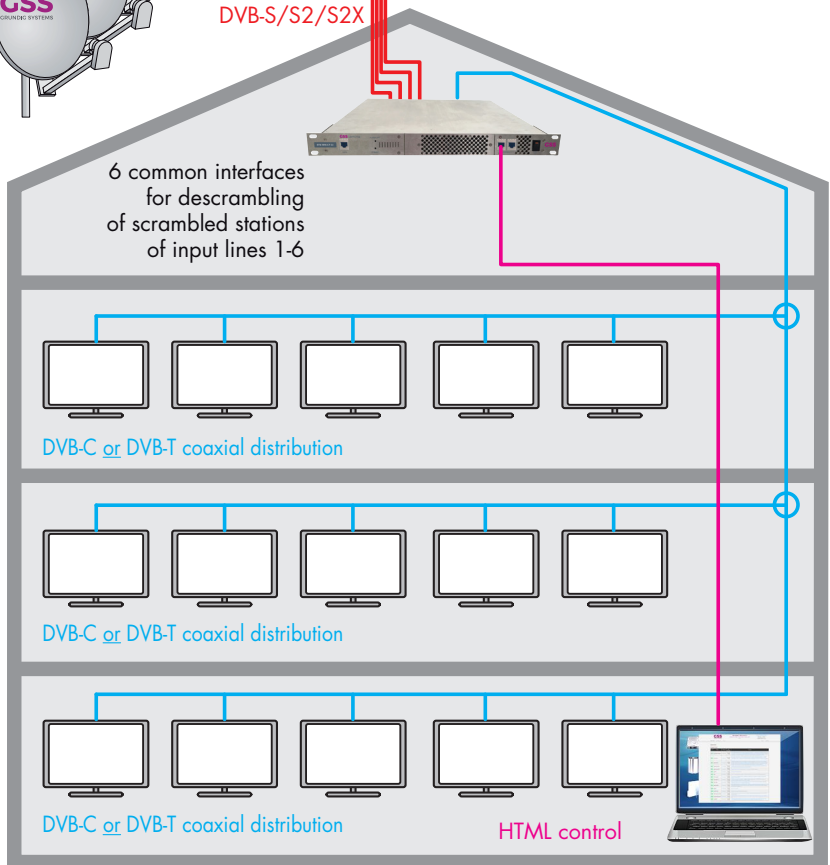
User interface	HTML
- User Administrator	Full access
- User Guest	read only, apply (save) locked
Logbook.....	Display of warnings and events
- Response times adjustable.....	for input signal and data overflow errors
- Notification in case of errors	via mail and to your syslog server ⁵⁾
- Transmission of the logbook entries	to a syslog server ⁵⁾
	⁵⁾ Internet connection required
Network interface	adjustable
OpenVPN connection	world wide access to the head-end station ⁵⁾
	⁵⁾ 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

dCSS/Uncable II-
operation
up to 4
Satellites



Receiving Station
STS 1916 CT CI
Conversion from 16 x SAT
to 16 x DVB-C or 16 x DVB-T



TECHNICAL DATA

The device 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/S2X (ETSI 300 421; ETSI EN 302 307-1/-2)

Frequency range:	950 ... 2150 MHz
DVB-S mode:	QPSK
DVB-S2 modes:	QPSK, 8PSK, 16APSK, 32APSK
DVB-S2X modes:	QPSK, 8PSK, 8APSK-L, 16APSK(L), 32APSK(L)
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 dBµV ... 80 dBµV
Input impedance:	75 Ω
LNC supply:	14 V/18 V max. 500 mA

RF output QAM (suitable for adjacent channels; symbol rates and modulation individually adjustable)

Frequency range:	42.0 MHz ... 868.0 MHz
Types of modulation:	QAM 4, 16, 32, 64, 128, 256
Output level:	80...96 dBµV
Dynamic phase error:	< 0.2 °
MER:	> 45 dB
Output impedance:	75 Ω
Symbol rate:	1000...7500 kBd

RF output COFDM (suitable for adjacent channels; modulation individually adjustable)

Frequency range:	42.0 MHz ... 868.0 MHz
Types of modulation:	QPSK, 16 QAM, 64 QAM
Transmission modes	2k
Code rates	1/2, 2/3, 3/4, 5/6, 7/8
Guard intervals	1/4, 1/8, 1/16, 1/32
Output level:	80...96 dBµV
Output impedance:	75 Ω

Connections

SAT inputs:	4 F sockets
RF output:	1 F socket
RF test output (-25 dB):	1 F socket
LAN (for control) 100-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
Power consumption without LNC/CI:	65 W
Maximum Power consumption	90 W
Admissible ambient temperature:	0 ... +50 °C
Dimensions (WxHxD):	483 mm x 44,5 mm (1HE) x 490 mm
Weight:	5.5 kg

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