GSS
GRUNDIG SYSTEMS

GSS – more than technology

GSS.sortiment for perfect reception 2019/2020

V3 | June 2019

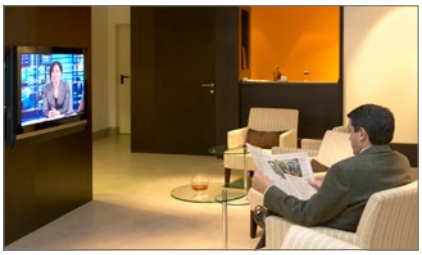
GSS
GRUNDIG SYSTEMS

GSS.Products

- Head-End Stations – Compact, Modular, Integrable
- SAT Antennas and LNBs
- Multiswitches and Amplifiers
- Accessories and Distribution Technology
- Optical Reception Technology and Accessories
- Components for Installation

GSS.Branch Solutions

- **GSS**.HotelTV
- **GSS**.HospitalTV
- **GSS**.AuthorityTV
- **GSS**.BuildingManagement
- **GSS**.Housing



Good connection through quality

Television begins with the quality of the reception technology.

Our company stands for best quality and outstanding service. We are a leader in the development and production of professional head-end station technology. Even in the age of digitization, we are developing head-end stations with the innovative aim of actively shaping TV reception in the digital world of tomorrow.

Innovation – always one more idea

GSS has set itself the goal to know the future requirements and to use all possibilities of the receiving technology and the digitization, in order to delight customers.

With our product series **GSS**.modular, **GSS**.compact, **GSS**.lamina and **GSS**.mux, we are already delivering the reception technology for tomorrow.

Content

GSS.Quality – only the best for your customers

GSS.compact classic

Six variants for one goal – best reception in the best quality

The GSS.compact classic is available in four variants with CI module and in 2 variants without CI module available! Configure the system with the new HTML user interface. This will save you a lot of time.

- User friendly HTML interface
- Best system values through direct conversion
- Low operating costs thanks to LOW WATT technology
- Compact design for space-saving installation
- Low noise due to a fanless operation
- Easy installation through pre-programming

DVB Digital Video Broadcasting · 16·32 APSK · LOW WATT TECHNOLOGY · HDTV · OPENVPN

Always the right solution for your requirement

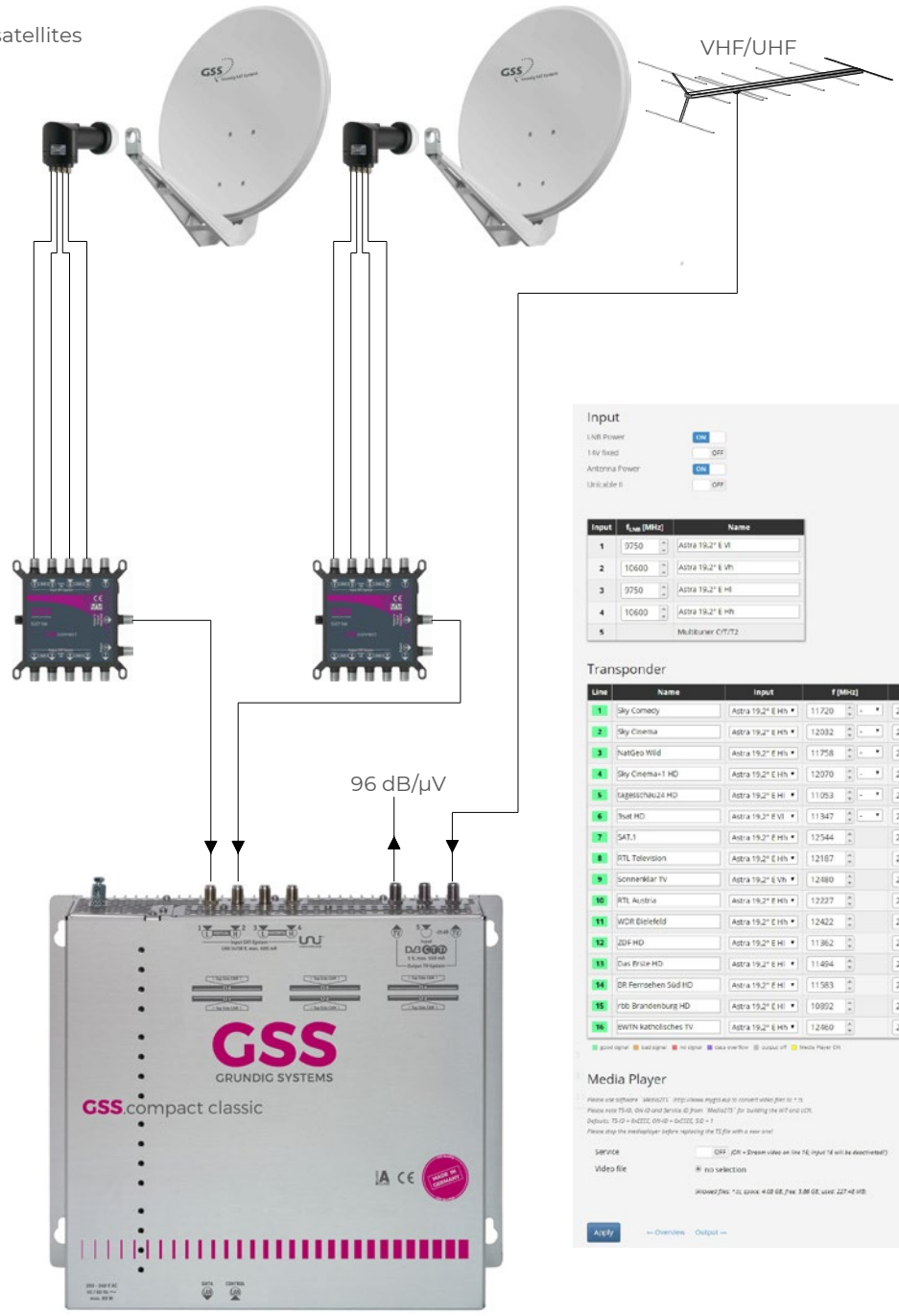
	STC 4-16 CT lite	STC 4-16 CT	STC 4-16 CT CI	MTX 5-16 CT CI	STC 4-16 IPS CI	STC 4-16 IPM CI
16 Tuner DVB-S/S2	✔	✔	✔		✔	✔
10 Tuner DVB-S/S2				✔		
6 Tuner DVB-S/S2/T/T2/C				✔		
4 x SAT inputs for 4 levels	✔	✔	✔	✔	✔	✔
1 x HF input DVB-T/T2/C				✔		
Input with 16 x IPTV (MPTS)				✔		
Input with 128 x IPTV (SPTS)				✔		
6 x CI slot			✔	✔	✔	✔
Unicable control for up to 4 satellites		✔	✔	✔	✔	✔
Optional Mediaplayer via line 16		✔	✔	✔		
Output with 16 x DVB-C or 16 x DVB-T	✔	✔	✔	✔		
Multiplex				✔		
Network Information Table (NIT)		✔	✔	✔		
Logical Channel Numbering (LCN)		✔	✔	✔		
Program filter	✔	✔	✔	✔	✔	✔
Worldwide access via OpenVPN		✔	✔	✔	✔	✔
IPTV with up to 128 streams SPTS					✔	
IPTV with 16 streams MPTS				✔		✔
Generation of an M3U list				✔	✔	✔
Session Announcement Protocol (SAP)					✔	✔

GSS.compact classic

Solutions at a glance

STC 4-16 CT lite	16 x DVB-S2 to DVB-C or DVB-T
STC 4-16 CT	16 x DVB-S2 to DVB-C or DVB-T incl. NIT, LCN, OpenVPN
STC 4-16 CT CI	16 x DVB-S2 to DVB-C or DVB-T incl. NIT, LCN, OpenVPN, 6 x CI
MTX 5-16 CT CI	10 x DVB-S2 + 6 x DVB-S2/T/T2/C to DVB-C/DVB-T incl. NIT, MPTS, LCN, OpenVPN 6 x CI, Multiplex
STC 4-16 IPS CI	16 x DVB-S2 to max. 128 streams IPTV (SPTS) incl. 6 x CI
STC 4-16 IPM CI	16 x DVB-S2 to 16 streams IPTV (MPTS) incl. 6 x CI

System for
MTX 5-16 CT CI
Feed from two satellites
and DVB-T2



GSS.lamina

Nine variants for one goal – best reception in 19“ solution

The GSS.lamina is available in five variants with CI module and in 4 variants without CI module. Configure the system with the new HTML user interface. That means maximum service comfort.

- User friendly HTML interface
- Worldwide access via OpenVPN
- Best system values through direct conversion
- Low operating costs thanks to LOW WATT technology
- Redundant power supply
- 19-inch design, 1 HU
- Future Ready 16/32 APSK tuner
- Easy installation through pre-programming

Select the right solution for your requirement

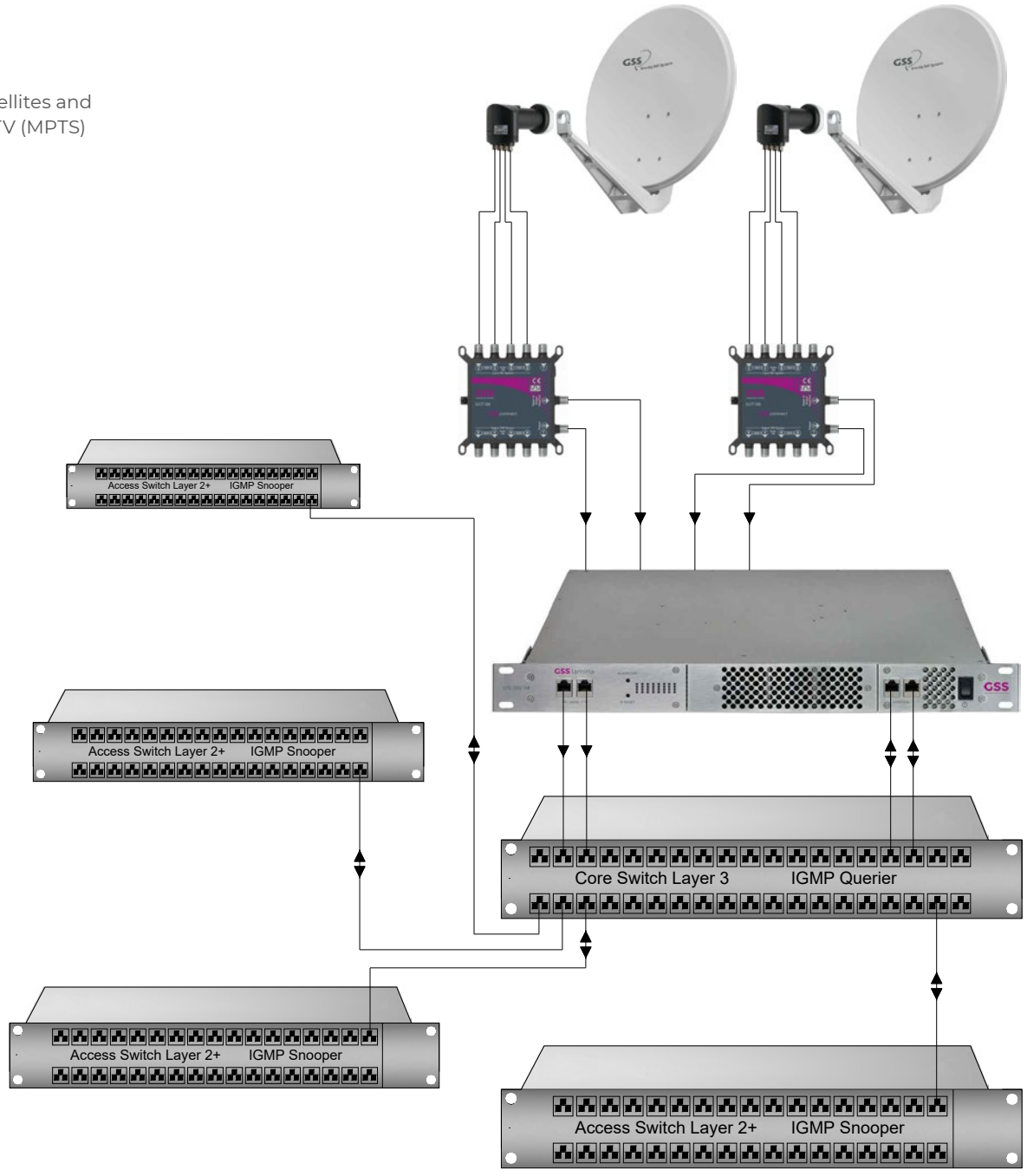
	STS 1916 IPM	STS 1932 IPM	STS 1916 IPM CI	STS 1916 IPS CI	MTS 1916 IPS CI	STI 1916 CT	STI 1932 CT	MUX 1916 IPM CI	STIM 1916 CT
16 Tuner DVB-S/S2	✔		✔	✔					
32 Tuner DVB-S/S2		✔							
10 Tuner DVB-S/S2					✔			✔*	
6 Tuner DVB-S/S2/T/T2/C					✔			✔*	
4 x SAT input for 4 levels	✔		✔	✔				✔	
8 x SAT input for 8 levels		✔							
1 x HF input DVB-T/T2/C					✔			✔	
Input with 16 x IPTV (MPTS)						✔		✔	✔
Input with 32 x IPTV (MPTS)							✔		
Input with 128 x IPTV (SPTS)									✔
6 x CI slot			✔	✔	✔			✔	
Unicable control for up to 4 satellites	✔		✔	✔	✔			✔	
Unicable control for up to 8 satellites		✔							
Output with DVB-C or DVB-T						16x	32x		16x
Multiplex								✔	✔
Network Information Table (NIT)						✔	✔		✔
Logical Channel Numbering (LCN)						✔	✔		✔
Program filter	✔	✔	✔	✔	✔	✔	✔	✔	✔
Worldwide access via OpenVPN	✔	✔	✔	✔	✔	✔	✔	✔	✔
IPTV with up to 128 streams SPTS				✔	✔				
IPTV with 16 streams MPTS	✔		✔					✔	
IPTV with 32 streams MPTS		✔							
Generation of an M3U list	✔	✔	✔	✔	✔			✔	
Session Announcement Protokoll (SAP)				✔	✔				

* (incl. DVB-S2X)

Solutions at a glance

STS 1916 IPM	16 x DVB-S2 to IPTV (MPTS)
STS 1932 IPM	32 x DVB-S2 to IPTV (MPTS)
STS 1916 IPM CI	16 x DVB-S2 to IPTV (MPTS), 6 x CI
STS 1916 IPS CI	16 x DVB-S2 to IPTV (SPTS), 6 x CI
MTS 1916 IPS CI	6 x DVB-S2/T/T2/C + 10 x DVB-S2 to IPTV (SPTS), 6 x CI
STI 1916 CT	16 x IPTV (MPTS) to DVB-C or DVB-T
STI 1932 CT	32 x IPTV (MPTS) to DVB-C or DVB-T
MUX 1916 IPM CI	6 x DVB-S2X/T/T2/C + 10 x DVB-S2X + 16 x MPTS/SPTS to IPTV (MPTS), 6 x CI, Multiplex
STIM 1916 CT	128 x SPTS + 16 x MPTS to DVB-C or DVB-T, Multiplex

System for
STS 1932 IPM
Infeed of two satellites and conversion to IPTV (MPTS)



GSS.modular

Digital head-end stations for maximum flexibility

Our modular head-end systems are available in three different versions in a wide variety of variants. Maximum flexibility that adapts precisely to customer requirements.

GSS.modular basic

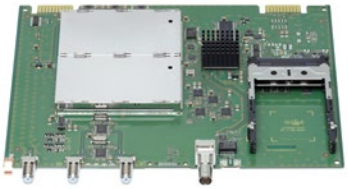
GSS.modular classic

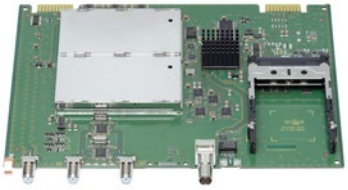
GSS.modular professional

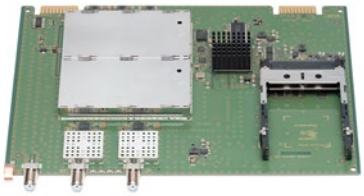
Function	**GSS**.modular basic	**GSS**.modular classic	**GSS**.modular professional
Features			
5 Years warranty	-	-	✔
Calibration and test protocol	-	-	✔
High quality powder coating	-	-	✔
Cabinet			
8 slots, wall or 19-inch mounting integrated control unit	STC 160	STC 816	PSU 8-16 A
8 slots, wall or 19-inch mounting, integrated control unit, redundant power supply		STC 816 R	PSU 8-16 R
1 slot, 19-inch mounting (1 HU) control unitBE-Remote required		PST 19-1	PST 19-1
Conversion to DVB-C			
DVB-S(2) to DVB-C, TWIN, Transport Stream Processor, 1 x CI		HDTV 610 CI TPS	PHDQ 6100 CI TPS
DVB-S(2)/ASI to DVB-C, TWIN, Transport Stream Processor, Multiplex, 1 x CI		HDTV 1000 ASI D	PHDQ 1000 ASI D
DVB-S(2)/ASI to DVB-C, QUATTRO, Transport Stream Processor, 2 x CI	HDMA 784 C ASI	HDTA 614 C ASI	PADQ 6400
DVB-C(2)/T(2) to DVB-C TWIN, Transport Stream Processor, 2 x CI	HD2CT 860 C	HD2CT 800 C	PCT2Q 8000
DVB-C/DVB-T/ASI to DVB-C/ASI, TWIN, Transport Stream Processor, 1 x CI		HDMC 1000 C	PQDQ 1000
IPTV (MPTS) to DVB-C TWIN, Transport Stream Processor, 1 x CI		HMPT 1000 C	PMDQ 1000
IPTV (SPTS) to DVB-C TWIN, Transport Stream Processor, 1 x CI		HSPT 1000 C	PSPQ 1000
Conversion to DVB-T			
DVB-S(2)/ASI to DVB-T, TWIN, Transport Stream Processor, Multiplex, 1 x CI		HDTV 1000 TD	PHDT 1000 T
DVB-S(2)/ASI to DVB-T, QUATTRO, Transport Stream Processor, 2 x CI	HDMA 784 T ASI	HDTA 614 T ASI	PADT 6400
DVB-C(2)/T(2) to DVB-T TWIN, Transport Stream Processor, 2 x CI	HD2CT 860 T	HD2CT 800 T	PCT2T 8000
DVB-C/DVB-T/ASI to DVB-T/ASI, TWIN, Transport Stream Processor, 1 x CI		HDMC 1000 T	PQDT 1000
IPTV (MPTS) to DVB-T TWIN, Transport Stream Processor, 1 x CI		HMPT 1000 T	PMDT 1000
IPTV (SPTS) to DVB-T TWIN, Transport Stream Processor, 1 x CI		HSPT 1000 T	PSPT 1000
Conversion to IPTV			
DVB-S(2)/ASI to IPTV (MPTS), TWIN, Transport Stream Processor, Multiplex, 1 x CI		HDTV 1000 MPTS	PHIM 1000
DVB-S(2)/ASI to IPTV (SPTS), TWIN, Transport Stream Processor, Multiplex, 1 x CI		HDTV 1000 SPTS	PHIS 1000
DVB-T/C/ ASI to IPTV (MPTS), TWIN, Transport Stream Processor, Multiplex, 1 x CI		HDMC 1000 MPTS	PCIM 1000
DVB-T/C/ ASI to IPTV (SPTS), TWIN, Transport Stream Processor, Multiplex, 1 x CI		HDMC 1000 SPTS	PCIS 1000
Conversion to PAL			
DVB-S(2)/T(2)/C(2) to PAL 1 x CI		HDM 400 P CI	PHDP 4000
AV-Module			
4 x AV to IP SPTS or MPTS	HDE 166		
4 x AV to ASI	HDE 164		
2 x AV to ASI or IPTV SPT / MPTS		HDE 210	PADE 7006
1 x HDMI / AV / YPbPr to ASI / IPTV SPTS / DVB-C/T		HDE 400	PADE 4000

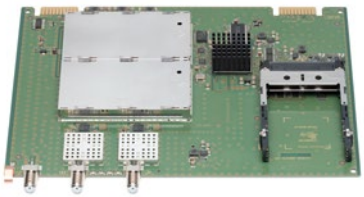
Modules for **GSS**.modular basic

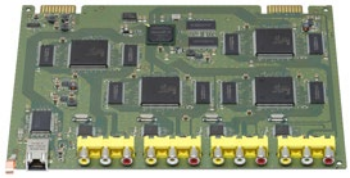
Maximum flexibility creates simple solutions

HDMA 784 T ASI	**Quadruple conversion from HDTV Digital SAT to Digital Terrestrial (DVB-S(2) – COFDM)**	
	Inputs DVB-S or DVB-S2	2
	Converted transponders	4
	CI modules	2

HDMA 784 C ASI	**Quadruple conversion from HDTV Digital SAT to Digital Cable (DVB-S(2) – QAM)**	
	Inputs DVB-S or DVB-S2	2
	Converted transponders	4
	CI modules	2

HD2CT 860 C	**Twin conversion from HDTV Cable/Terrestrial to Digital Cable (DVB-C(2)/DVB-T(2) – QAM)**	
	Inputs DVB-C/C2 or DVB-T/T2	2
	Converted transponders/multiplexes	2
	CI modules	2

HD2CT 860 T	**Twin conversion from HDTV Cable/Terrestrial to Digital Terrestrial (DVB-C(2)/DVB-T(2) – COFDM)**	
	Inputs DVB-C/C2 or DVB-T/T2	2
	Converted transponders/multiplexes	2
	CI modules	2

Encoder	**Quadruple AV Encoder to LAN – HDE 166**
	The quad AV encoder converts up to 4 audio and video signals to LAN. The CVBS and audio signals are fed via RCA connectors.

Accessories for **GSS**.modular basic

SID 162	Input distribution with LNB supply
	The SAT IF distributor SID 162 has a SAT IF input with 6 outputs and a SAT IF input with 4 outputs. Cascading is possible to distribute one level to 10 outputs. Included is a DC supply of 12 V and max. 800 mA. Ideal for the distribution of SAT IF signals. The delivery includes 8 RF cables.

SID 162 A (Active)	Input distribution with LNB supply
	The SAT IF distributor SID 162 A has a SAT IF input with 6 outputs and a SAT IF input with 4 outputs. Cascading is possible to distribute one level to 10 outputs. Included is a DC supply of 12 V and max. 800 mA. Ideal for the distribution of SAT IF signals. The delivery includes 8 RF cables. The input signals are amplified by 0 dB at the output.

HOC 168	Output collector
	The output collector HOC 168 has 8 inputs, 1 output with max. 101 dBµV and 1 measuring output, which is attenuated by 20 dB.

NT 160	Power Supply Unit
	Power Supply Unit for the head-end station STC 160

PSW 160	Software for remote control
not illustrated	With the remote control software for the GSS.modular basic, the setting data can be configured, documented, stored and transmitted. Together with QAM modules, the NIT can be read out. DVB-C channels can be assigned a logical channel number (LCN).

RCU 160	SNMP Management System
	▸ SNMP-capable management interface (LAN); Connection to a LAN dial-in router via DSL as standard ▸ Query and control of the most important parameters and device data ▸ Backup storage of configurations and all channels on remote control PC ▸ Software update via FTP connection

RCA 162	Extension unit of the RCU 160
	▸ Adapter for integrating a second STC 160 head-end station to the SNMP management system RCU 160

Modules for **GSS**.modular classic and professional

Highest quality and maximum flexibility for every requirement

Classic HDM 400 P CI		Professional PHDP 4000
		
No. of inputs	1	DVB-S/S2 or T/T2 or DVB-C
No. of outputs	1	PAL B/G
Sound output	1	Stereo
No. of CI slots		
5 years warranty	1	for Professional PHDP 4000
Satellite and Terrestrial Reception Module from Digital SAT (DVB-S, DVB-S2), Digital Terrestrial (DVB-T, DVB-T2) or Digital Cable (DVB-C) to PAL		

Classic HDTA 614 C ASI		Professional PADQ 6400
		
No. of inputs	2	DVB-S/S2, ASI
No. of outputs	1	DVB-C
No. of converted transponders	4	
No. of CI slots	2	
5 years warranty		for Professional PADQ 6400
Quadruple conversion from HDTV Digital SAT to Digital Cable (DVB-S(2) – QAM)		

Classic HDTA 614 T ASI		Professional PADT 6400
		
No. of inputs	2	DVB-S/S2, ASI
No. of outputs	1	DVB-T
No. of converted transponders	4	
No. of CI slots	2	
5 years warranty		for Professional PADQ 6400
Quadruple conversion from HDTV Digital SAT to Digital Terrestrial (DVB-S(2) – COFDM)		

Modules for **GSS**.modular classic and professional

Highest quality and maximum flexibility for every requirement

Classic HD2CT 800 C		Professional PCT2Q 8000
		
No. of inputs	2	DVB-T/T2 or DVB-C/C2
No. of outputs	1	DVB-C
No. of converted transponders/multiplexes	2	
No. of CI slots	2	
5 years warranty		for Professional PCT2Q 8000
Twin conversion from HDTV Cable/Terrestrial to Digital Cable (DVB-C(2)/DVB-T(2) – QAM)		

Classic HD2CT 800 T		Professional PCT2T 8000
		
No. of inputs	2	DVB-T/T2 or DVB-C/C2
No. of outputs	1	DVB-T
No. of converted transponders/multiplexes	2	
No. of CI slots	2	
5 years warranty		for Professional PCT2T 8000
Twin conversion from HDTV Cable/Terrestrial to Digital Terrestrial (DVB-C(2)/DVB-T(2) – COFDM)		

Classic HDTV 1000 ASI D		Professional PHDQ 1000 ASI D
		
No. of inputs	2	DVB-S/S2, ASI
No. of outputs	1	DVB-C, ASI
Multiplex ready	✔	
No. of converted transponders	2	
No. of CI slots	1	
5 years warranty		for Professional PHDQ 1000 ASI D
DVB Transmodulators from DVB-S(2) to DVB-C (QAM)		

Modules for **GSS**.modular classic and professional

Highest quality and maximum flexibility for every requirement

Classic HDTV 1000 TD		**Professional PHDT 1000 D**
		
No. of inputs	2	DVB-S/S2, ASI
No. of outputs	1	DVB-T, ASI
Multiplex ready	✔	
No. of converted transponders	2	
No. of CI slots	1	
5 years warranty		for Professional PHDT 1000 D
DVB Transmodulators DVB-S(2) to DVB-T (COFDM)		

Classic HDMC 1000 C		**Professional PQDQ 1000**
		
No. of inputs	2	DVB-T/C, ASI
No. of outputs	1	DVB-C, ASI
No. of converted multiplexes	2	
No. of CI slots	1	
5 years warranty		for Professional PHDQ 1000
DVB Transmodulators DVB-C or DVB-T to DVB-C (QAM)		

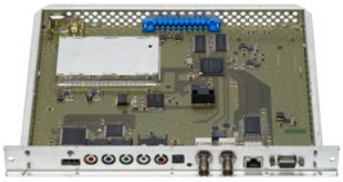
Classic HDMC 1000 T		**Professional PQDT 1000**
		
No. of inputs	2	DVB-T/C, ASI
No. of outputs	1	DVB-T, ASI
No. of converted multiplexes	2	
No. of CI slots	1	
5 years warranty		for Professional PQDT 1000
DVB Transmodulators DVB-C or DVB-T to DVB-T (COFDM)		

Modules for **GSS**.modular classic and professional

Signal conditioning and encoding – quality required

Classic HDTV 610 CI TPS		Professional PHDQ 6100 CI TPS
		
No. of inputs	2	DVB-S/S2
No. of outputs	1	DVB-C
No. of converted transponders	2	
No. of CI slots	1	
5 years warranty		for Professional PHDQ 6100 CI TPS
Conversion from HDTV Digital SAT to HDTV Digital Cable (DVB-S(2)-QAM)		

Classic HRC 300 AV		Professional PAVP 4300
		
No. of inputs	3	Per input 1 x Video/2 x Audio
No. of outputs	1	PAL B/G
Sound mode		stereo
5 years warranty		for Professional PAVP 4300
AV module for the feeding 3 different AV signals via cinch sockets (e.g. camera, DVD player)		

Classic MPEG 4 Encoder HDE 400		Professional MPEG 4 Encoder PADE 4000
		
No. of inputs	1	HDMI (HD) or ASI or YPbPr (SD/HD) or CVBS (SD)
No. of outputs	1	DVB-C/T, ASI, SPTS, MPTS
Transponder cascadable	✔	
5 years warranty		for Professional PADE 4000
Convert HD video or SD video and audio signals to MPEG 4 data stream and output via ASI interface, LAN interface and / or COFDM or QAM modulators		

Modules for **GSS**.modular classic and professional

Signal conditioning and encoding – quality required

Classic Encoding HDE 210		**Professional Encoding PADE 7006**
		
No. of inputs	2	CVBS or Y/C or ASI
No. of outputs	1	ASI or IPTV (SPTS/MPTS)
Converted transponder streams	2	
5 years warranty		for Professional PADE 7006
Conversion from AV analogue to MPEG-2		

IPTV implementation for maximum flexibility

IPTV Converters of the classic series	**IPTV Converters of the professional series**
	
IPTV converter for both directions, from IP to DVB C / T and from DVB-S / S2 or DVB-C / T to IP	

	from IP to DVB-C/T		**from DVB-S/S2 or DVB-C/T to IP**			
Modul types Classic	HMPT 1000 C	HMPT 1000 T	HDTV 1000 SPTS	HDTV 1000 MPTS	HDMC 1000 SPTS	HDMC 1000 MPTS
Module types Professional	PMDQ 1000	PMDT 1000	PHIS 1000	PHIM 1000	PCIS 1000	PCIM 1000
No. of inputs DVB-S/S2			2	2		
No. of inputs DVB-C/T					2	2
Common Interface via Tuner A			✔	✔	✔	✔
Input ASI			✔	✔	✔	✔
Input LAN	MPTS	MPTS				
Output QAM	✔					
Output COFDM		✔				
Output ASI	✔	✔		✔		✔
Output IPTV			SPTS	MPTS	SPTS	MPTS

Accessories for **GSS**.modular classic and professional

PST 19-1	Extension Unit with LNB supply
	▸ 19” cabinet with 1 height unit ▸ Slot for 1 module ▸ Suitable for all current modules with own microcontroller ▸ Delivery unequipped ▸ Supplied with power supply ▸ Both classic and professional use

RCU 1	SNMP Management System
	▸ SNMP-enabled management interface (LAN) ▸ Query and control of the most important parameters and device data ▸ Storage of configuration data (backup storage) ▸ Software update via FTP connection ▸ Error messages via email ▸ Both classic and professional use

BE-REMOTE	Control Unit for Head-End Stations
	▸ STC 332, STC 316, STC 816, STC 1200, STR 19-8 and PST 19-1 ▸ SNMP Management system ▸ Can be used for GSS.modular classic

NT 120 and NT 190	Power Supply Units for Head-End Stations
	▸ Universal power supplies for all classic and professional series head-end stations ▸ NT 190, additional shielding for STC 816 and PSU 8-16 A

PSW 1000	Control and operating software
not illustrated	With this software, the head-ends from the classic and professional series can be programmed via the interface contained in the control panel. This can also be done from another location via an analogue or GSM modem.

GSS.mux

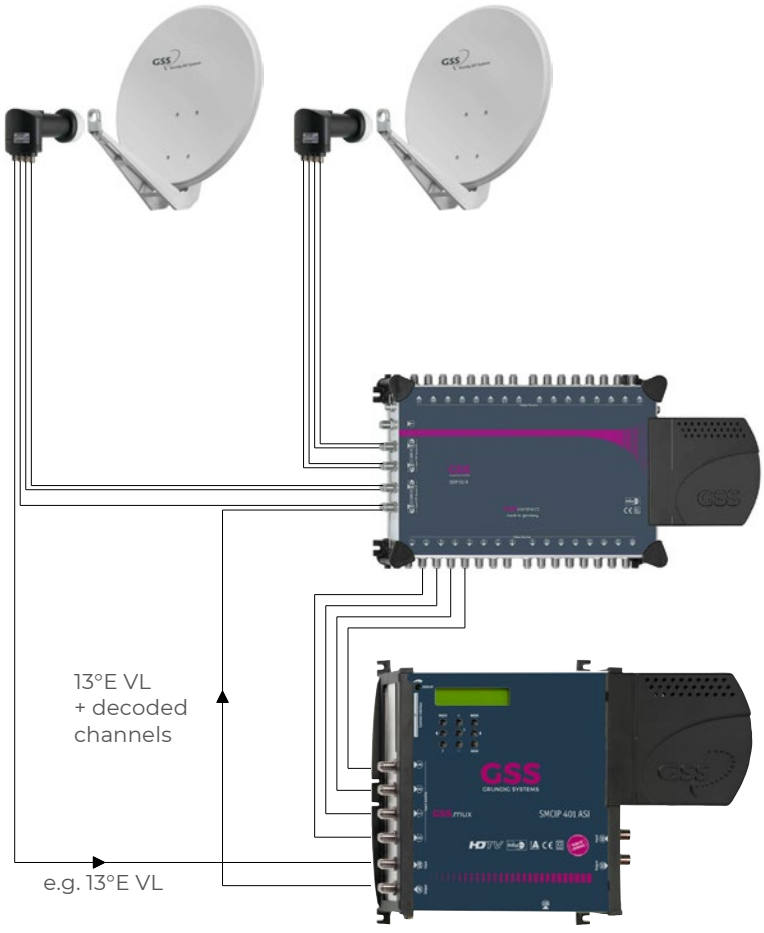
- Central decryption of channels from max. four transponders DVB-S/S2
- Infeed of channels of additional satellites in an existing SAT-IF distribution network
- Bandwidth optimization through multiplexing
- DiSEqC switching commands
- Types with DVB-S, DVB-T, and DVB-C modulator available
- Loop-through operation with the DVB-S variant
- ASI input and output
- Output frequency and bandwidth freely selectable
- Low pass filters GF 1920 and GF 2120 available as accessories for SMCIP 401 ASI

Select the right solution

Input parameters	SMCIP 401 ASI	SMCIP 402 C	SMCIP 402T
4 tuners DVB-S/S2, 950 – 2150 MHz	✔	✔	✔
DiSEqC 1.1 for up to 16 Satellite levels	✔	✔	✔
QPSK, 8PSK, 16APSK, 32APSK	✔	✔	✔
1 loop-through input DVB-S	✔		
ASI input	✔	✔	✔
Output parameters		✔	
1 output DVB-S (QPSK), 950 – 2250 MHz	✔		
1 output DVB-C (QAM), 42 – 868 MHz, S21 – C69		✔	
1 output DVB-T (COFDM), 42 – 860 MHz C5-C12, C21-C69			✔
Output level electronically adjustable 48 – 95 dBµV	✔		
Output level electronically adjustable 71 – 102 dBµV		✔	✔
ASI output	✔	✔	✔
Modulator can be switched off (for ASI out)	✔	✔	✔

System for

SMCIP 401 ASI
Infeed and decryption
of channels of two satellites



Satellite Dishes

Basic line

- Different colors available
- Available in four sizes
- Light weight construction thanks to aluminum quality
- Easy installation through plug-in system
- Maximum stability thanks to double mast clamp made of stainless steel

Pro line

- Different colors available
- Available in three sizes
- Light weight construction thanks to aluminum quality
- Fast assembly thanks to pre-assembly
- More stability with double mast clamp
- Double feed arm for best reception

Antennas	Basic line				Pro line		
	STA 1000	STA 855	STA 755	STA 605	STA 100	STA 85	STA 80
Diameter	1.090 mm	850 mm	840 mm	640 mm	981 mm	880 mm	800 mm
Opening angle	< 1.8°	< 2.2°	< 2.2°	< 2.9°	1.75°	2.1°	2.4°
Cross polar isolation	> 27 dB	> 27 dB	> 27 dB	> 27 dB	28 dB	27 dB	26 dB
Mast clamp	32–76 mm	32–76 mm	32–50 mm	32–50 mm	30–60 mm	30–60 mm	30–60 mm
Elevation max.	5–90°	15°–50°	15°–50°	15°–50°	15°–50°	15°–50°	15°–50°
Wind load	268 kg	192,1 kg	156.2 kg	91.7 kg	87.1 kg	68.2 kg	58.1 kg
Feed reception	Ø 40	Ø 40	Ø 40	Ø 40	Ø 40	Ø 40	Ø 40
Feed holder made of metal, aluminum, plastic	M	M	M	P	A	A	A
Mount for multifeed available	✔	✔	✔	-	✔	✔	✔
Type multifeed holder	STM1/STM2	STM1/STM2	STM1/STM2	-	STM3	STM3	STM3
Double feed holder	-	-	-	-	✔	✔	✔
Powder-coated back	-	-	-	-	✔	✔	✔
Available colors anthracite / light gray / brick red	A/LG	A/LG/BR	A/LG/BR	A/LG	A/LG/BR	A/LG/BR	A/LG/BR

LNBs

Universal
Single-LNB GLS401

Universal
Twin-LNB GLT401

Universal
Quattro-LNB GLQ401

Universal
Quad-LNB GLQD401

Universal
OCTO-LNB GLOT401

Universal LNB Type	GLS401	GLT401	GLQ401	GLQD401	GLOT401	GLW401
Designation	Single LNB	Twin LNB	Quattro	Quad	Octo	Wideband
No. of receivers max.	1	2	-	4	8	-
More participants capable	-	-	✔	-	-	✔
Input frequency range 10.7–11.7/11.7–12.75 GHz	✔	✔	✔	✔	✔	✔
Oscillator frequency 10, 41 GHz	-	-	-	-	-	✔
Output frequency range 950–1950/1100–2150 MHz	✔	✔	✔	✔	✔	-
Output frequency range: Vertical and Horizontal 290–2340 MHz	-	-	-	-	-	✔
Gain	58–65 dB	58–65 dB	57–63 dB	57–63 dB	57–63 dB	50–60 dB
Current consumption typ.	max. 80 mA	max. 115 mA	max. 160 mA	max. 160 mA	max. 180 mA	max. 250 mA
Feed holder Ø 40 mm	✔	✔	✔	✔	✔	✔

Multiswitches for stand-alone systems

We have the right combination – no matter what

Sample pictures
5/9/13/17 inputs
and 12 outputs each

Multiswitches with 5 inputs and up to 32 outputs						
Type Multiswitch	SDSP 506	SDSP 508	SDSP 512	SDSP 516	SDSP 524	SDSP 532
No. of inputs	4 x SAT, 1 x TERR					
No. of receiver outputs	6	8	12	16	24	32

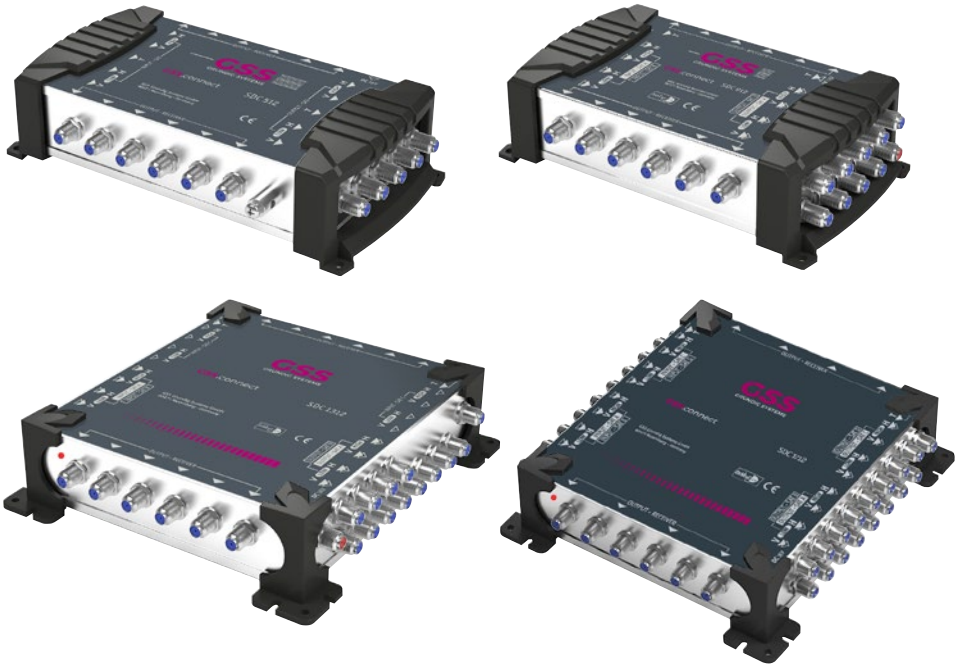
Multiswitches with 9 inputs and up to 32 outputs					
Type Multiswitch	SDSP 908	SDSP 912	SDSP 916	SDSP 924	SDSP 932
No. of inputs	8 x SAT, 1 x TERR				
No. of receiver outputs	8	12	16	24	32

Multiswitches with 13 inputs and up to 32 outputs					
Type Multiswitch	SDSP 1308	SDSP 1312	SDSP 1316	SDSP 1324	SDSP 1332
No. of inputs	12 x SAT, 1 x TERR				
No. of receiver outputs	8	12	16	24	32

Multiswitches with 17 inputs and up to 32 outputs					
Type Multiswitch	SDSP 1708	SDSP 1712	SDSP 1716	SDSP 1724	SDSP 1732
No. of inputs	16 x SAT, 1 x TERR				
No. of receiver outputs	8	12	16	24	32

Multiswitch Cascadable

We have the right combination – no matter what



Sample pictures
5/9/13/17 inputs
and 12 outputs each

Multiswitches with 5 inputs and up to 32 outputs					
Type Multiswitch	SDC 508	SDC 512	SDC 516	SDC 524	SDC 532
No. of inputs	4 x SAT, 1 x TERR				
No. of loop-through outputs	4 x SAT, 1 x TERR				
No. of receiver outputs	8	12	16	24	32

Multiswitches with 9 inputs and up to 32 outputs					
Type Multiswitch	SDC 908	SDC 912	SDC 916	SDC 924	SDC 932
No. of inputs	8 x SAT, 1 x TERR				
No. of loop-through outputs	8 x SAT, 1 x TERR				
No. of receiver outputs	8	12	16	24	32

Multiswitches with 13 inputs and up to 32 outputs					
Type Multiswitch	SDC 1308	SDC 1312	SDC 1316	SDC 1324	SDC 1332
No. of inputs	12 x SAT, 1 x TERR				
No. of loop-through outputs	12 x SAT, 1 x TERR				
No. of receiver outputs	8	12	16	24	32

Multiswitches with 17 inputs and up to 32 outputs					
Type Multiswitch	SDC 1708	SDC 1712	SDC 1716	SDC 1724	SDC 1732
No. of inputs	16 x SAT, 1 x TERR				
No. of loop-through outputs	16 x SAT, 1 x TERR				
No. of receiver outputs	8	12	16	24	32

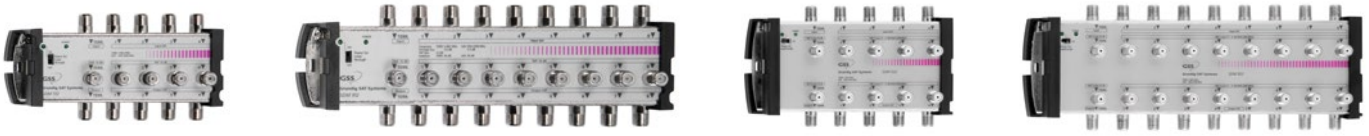
Amplifier

No matter how big the distribution network is – we have the right power

Amplifier for multiswitches				
Type Amplifier	SDA 521	SDA 921	SDA 1321	SDA 1721
No. of inputs SAT	4	8	12	16
No. of inputs TERR	1	1	1	1
No. of outputs SAT	4	8	12	16
No. of outputs TERR	1	1	1	1
Gain SAT	30 dB	30 dB	30 dB	30 dB
Gain TERR	25 dB	25 dB	25 dB	25 dB

Multi Tap

Distributing, decoupling, forwarding – we have the right TAP



Multi Tap				
Type Multi Tap	SDM 512	SDM 912	SDM 522	SDM 922
No. of inputs SAT	4	8	4	8
No. of inputs TERR	1	1	1	1
No. of outputs SAT	4	8	4	8
No. of outputs TERR	1	1	1	1
No. of drop outputs SAT	4 x 1	8 x 1	4 x 2	8 x 2
No. of drop outputs TERR	1 x 1	1 x 1	1 x 2	1 x 2
Power supply unit SDP 1533 optionally available	✔	✔	✔	✔

Multi Splitter

Multi Splitter for splitting the satellite signal at the end of a SAT IF string		
Type Multi Splitter	SDS 526	SDS 926
No. of inputs SAT	4	8
No. of inputs TERR	1	1
No. of split outputs SAT	4 x 2	8 x 2
No. of split outputs TERR	1 x 2	1 x 2
Power supply unit SDP 1533 optionally available	✔	✔

DiSEqC Multiswitches

DiSEqC Multiswitches				
Type Multiswitch DiSEqC	SD 201	SD 301	SD 401	SD 501
No. of inputs SAT	2	2	4	4
No. of inputs TERR		1		1
No. of outputs	1	1	1	1
Waterproof housing incl.	✔	✔	✔	✔

Modular Multiswitches

Maximum flexibility through modular expansion



Modular Multiswitches stand-alone			
Type Multiswitch	SCP 508	SC 508	SC 504
Base unit with power supply unit	✔		
Extension unit		✔	✔
No. of inputs SAT	4	4	4
No. of inputs TERR	1	1	1
No. of receiver outputs	8	8	4



Modular Multiswitches Unicable 2			
Type Multiswitch	SCUP 524.1	SCU 524.1	SCUP 516.1
Base unit with power supply unit	✔		✔
Extension unit for GSS.compact			✔
Extension unit for GSS.lamina			✔
Extension unit		✔	
No. of inputs SAT	4	4	4
No. of inputs TERR	1	1	1
No. of userbands	24	24	16
Wideband ready	✔	✔	✔

dCSS Multiswitches

Type dCSS Multiswitch	SDUC 532	SDUC 516
Base Unit with power supply unit	✔	✔
Extension unit for GSS.compact	–	✔
Extension unit for GSS.lamina	–	✔
LNB input for 1 x Quattro	✔	✔
LNB input for 2 x Wideband	✔	✔
No. of inputs SAT	4	4
No. of inputs TERR	1	1
No. of dCSS outputs	2	2
No. of loop-through outputs	5	5
No. of user bands	32	16

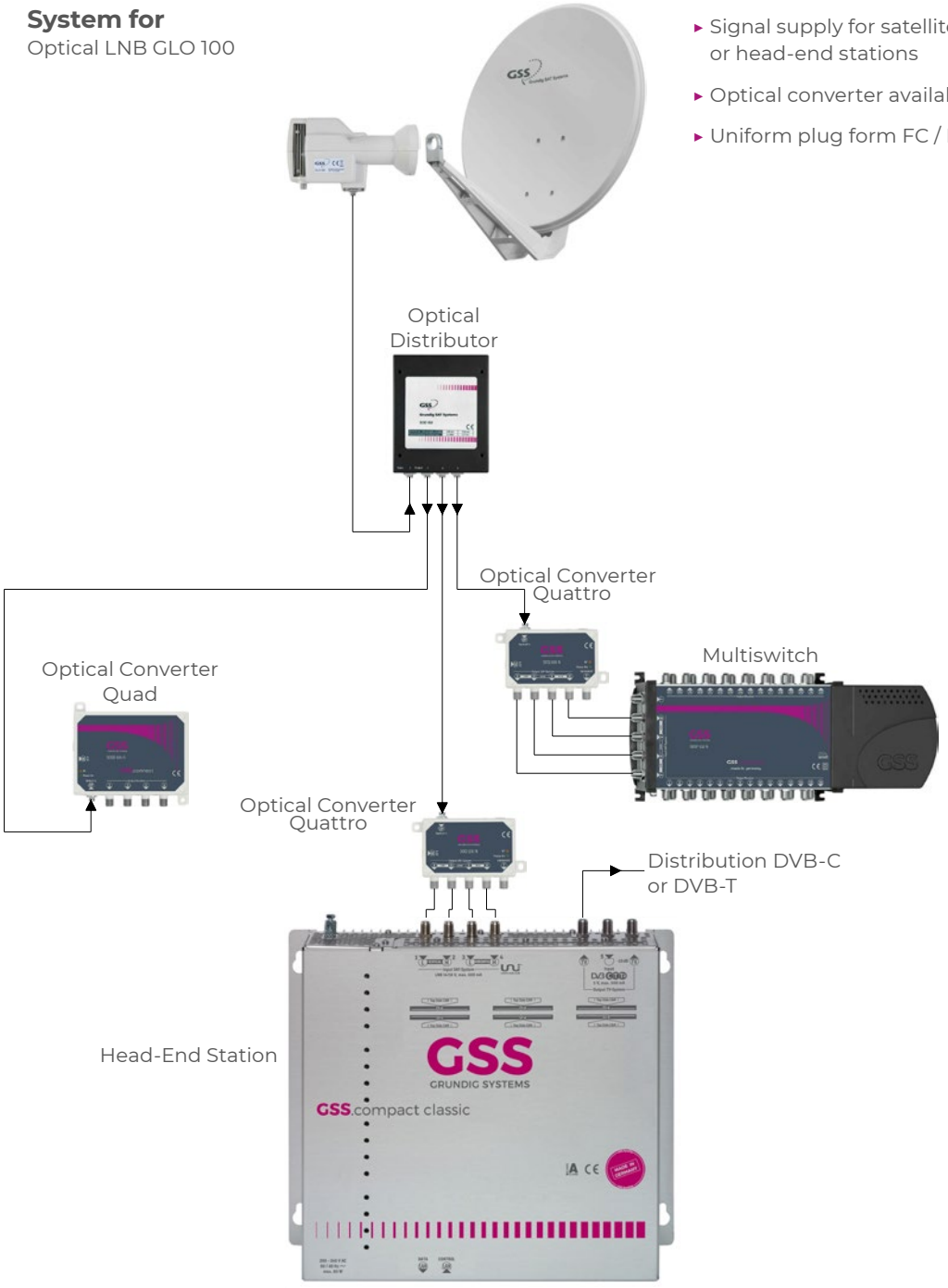
Wideband Amplifier

Wideband Amplifier					
Type Wideband Amplifier	AR 4201	AR 4301	AR 5201	AR 5301	AR 5401
Frequency range forward	47 – 1006 MHz	47 – 1006 MHz	47 – 1006 MHz 85 – 1006 MHz	47 – 1006 MHz 85 – 1006 MHz	47 – 1006 MHz 85 – 1006 MHz
Frequency range return-path			5 – 65 MHz	5 – 65 MHz	5 – 65 MHz
Gain forward	20 dB	30 dB	20 dB	30 dB	40 dB
Gain return-path			20 dB	22/28 dB	26/32 dB
No. of inputs	1	1	1	1	1
No. of outputs	1	1	1	1	1
Measuring output/input	– 20dB	– 20dB	– 20dB	– 20dB	– 20dB
Measuring output/output	– 20dB	– 20dB	– 20dB	– 20dB	– 20dB

GSS.optic

Distances do not matter with GSS.optic

System for
Optical LNB GLO 100



The benefits at a glance

- Optical transmission of 4 satellite levels over one fiber
- Virtually lossless transmission
  (approx. 0.3 dB attenuation per km)
- Simple level calculation
- Less installation effort, just a 4 mm cable per satellite
- No interference from electromagnetic interference
- Pre-assembled fiber optic connections
  in various lengths
- Feed-in facility for terrestrial signals
- Signal supply for satellite distribution systems
  or head-end stations
- Optical converter available as quad or quattro version
- Uniform plug form FC / PC

GSS.Quality even when it comes to Optic

GLO 100	Optical LNB
	▸ Optical LNB with 1310 nm wavelength, power supply via plug-in power supply

GLOF 100	Optical LNB
not illustrated	▸ Optical LNB with 1310 nm wavelength, power supply via plug-in power supply ▸ C120 Flange connection

GLOS 100	Optical LNB Set for the supply of terrestrial signals
	▸ 2 optical outputs ▸ incl. LNB ▸ incl. converter ▸ incl. N-cable 2 meters ▸ incl. power adapter ▸ Optionally, the N-cable is available in 5 or 10 meters

Synchronous optical distributors with up to 32 outputs

						
Type Distributor	SOD 102	SOD 103	SOD 104	SOD 108	SOD 116	SOD 132
No. of optical inputs	1	1	1	1	1	1
No. of optical outputs	2	3	4	8	16	32

Asynchronous optical distributors

				
Type Distributor	SOTD 1090	SOTD 2080	SOTD 3070	SOTD 4060
No. of optical inputs	1	1	1	1
No. of optical outputs	2	2	2	2
Optical attenuation output 1	11.0 dB	7.7 dB	5.9 dB	4.6 dB
Optical attenuation output 2	1.0 dB	1.5 dB	2.1 dB	2.8 dB

GSS.Quality even when it comes to Optic

Optical Converter		
		
Type Converter	SOQ 100 N	SOQD 104 N
No. of optical inputs	1	1
Output Coax	4 SAT levels HH, HL, VH, VL and TERR	4 Receiver outputs

SOFC 001 – SOFC 200	Optical cable – pre-assembled with FC / PC connector
	▸ Available in 1, 3, 5, 10, 15, 20, 30, 40, 50, 75, 100 and 200 m

SOAT 05, 10, 15 and 20	Optical Attenuators
	▸ Attenuators with 5 dB, 10 dB, 15 dB and 20 dB attenuation ▸ Suitable for attenuating the input signal of the optical converters SOQ 100 N and SOQD 104 N

SOA FC-FC	Connection Adapter
	▸ Connection adapter for connecting two pre-assembled optical cables

SOPM	Optical Measuring Instrument
	▸ Optical power measurements ▸ Measurements of optical attenuation ▸ Optical transmission loss measurements

GSS.optic – Optical Transmission Equipment

Optical Transmitter

Type Transmitter	DOT 1310-X	DOT 1550-10
Wavelength	1310 nm	1550 nm
Optical power output	7, 10, 13 dBm	10 dBm
Optical connector output	SC/APC	SC/APC
HF input	✔	✔
User interface via web browser	✔	✔
Redundant power supply	✔	✔

Optical Nodes

	HON 300	BON 100-1	BON 100-2	BON 200-1
Application	FTTH	FTTB	FTTB	FTTB
Optical connector input	SC/APC	SC/APC	SC/APC	SC/APC
Return-path	-	-	✔	-

GSS.meter

Satellite Meter	ME 200
	The satellite meter is a very clear measuring instrument. The integrated 3.5” display allows all measurement functions to be displayed quickly and clearly. The live TV picture can also be switched on. ▸ DVB-S2 and DVB-S measurements ▸ Electronic compass ▸ Small handy housing ▸ Easy to handle

Tap and Splitter




KLASSE A
CLASS

BC Splitter					
Type of Splitter	SR 812	SR 610	SR 407	SR 305	SR 203
Frequency range 5 – 1200 MHz	✔	✔	✔	✔	✔
No. of inputs	1	1	1	1	1
No. of outputs	8	6	4	3	2

BC Tap 1-fold			
Type of Tap	TR 116	TR 112	TR 108
Frequency range 5 – 1200 MHz	✔	✔	✔
No. of inputs	1	1	1
No. of outputs	1	1	1
No. of tap outputs	1	1	1

BC Tap 2-fold symmetric			
Type of Tap	TR 216	TR 212	TR 208
Frequency range 5 – 1200 MHz	✔	✔	✔
No. of inputs	1	1	1
No. of outputs	1	1	1
No. of tap outputs	2	2	2

BC Multiple Tap asymmetric			
Type of Tap	MTR 08	MTR 06	MTR 04
Frequency range 5 – 1200 MHz	✔	✔	✔
No. of inputs	1	1	1
No. of outputs	1	1	1
No. of tap outputs	8	6	4

SAT Splitter				
Type of Splitter	SRS 408 DC	SRS 308 DC	SRS 207 DC	SRS 205
Frequency range 40 – 2400 MHz	✔	✔	✔	✔
No. of inputs	1	1	1	1
No. of outputs	4	3	2	2
Output with diode protection	✔	✔	✔	

Antenna Sockets

Multimedia Antenna Socket

KLASSE A CLASS

ORM Series

- Return channel suitable 5–65 MHz
- Easy to install
- Settling dimension 8/13 mm
- Extended F sockets
- For all common switch programs

Type of Antenna Socket	ORM 00	ORM 10	ORM 11	ORM 14
Frequency range 5 – 1006 MHz	✔	✔	✔	✔
Kind of socket	Stub	Loop-through	Termination	Loop-through
Connections	IEC socket for RF / IEC plug for TV / F socket for data			

BC Antenna Socket

KLASSE A CLASS

OR Series

- The antenna sockets of the OR series can be used in distribution networks up to 862 MHz.
- They are designed for the connection of a radio receiver and a TV

Type of Antenna Socket	OR 02	OR 09	OR 11
Frequency range 5 – 862 MHz	✔	✔	✔
Kind of socket	Stub	Loop-through	Loop-through
Connections	IEC socket for RF / IEC plug for TV		

SAT Antenna Socket

ORS 03

ORS 04

ORS 1 3DC

KLASSE A CLASS

ORS Series

- The antenna sockets are characterized by a stable cast housing and can be mounted under plaster in VDE switch boxes

Type of Antenna Socket	ORS 03	ORS 04	ORS 13 DC
Frequency range 40 – 2400 MHz	✔	✔	✔
Kind of socket	Stub	Stub	Loop-through
Connections IEC socket for RF / IEC plug for TV	1	1	1
No. of F connectors for SAT	1	2	1

Wall Holder

Wall Holder made of aluminium			
	▸ Wall holder for SAT dishes ▸ Aluminium		
Type	WAH 25	WAH 35	WAH 45
Length – distance from wall in mm	250	350	450
Height in mm	250	250	250

Wall Holder made of Steel				
	▸ Wall holder for SAT dishes ▸ Steel ▸ WSH 50 S: swivelling			
Type	WSH 18	WSH 28	WSH 40	WSH 50 S
Length – distance from wall in mm	180	280	400	500
Height in mm	250	250	250	250

Flat Roof Stand

	▸ Flat roof stand for SAT antennas ▸ Weight via paving slabs 50 x 50 cm	
Types	FDS 5050/FDS 50	FDS 5050/FDS 60
Dimensions of stand	110 x 110 cm	110 x 110 cm
Length of mast	100 cm	100 cm
Diameter mast	50 mm	60 mm

Roof Installation

Frankfurter Pans for mast installation

Type	RMFR	RMFB	RMPB
Material	Plastic	Plastic	Lead
Colour	Red	Black	Silver
Incl. cable outlet			✔

RMS 60

Pole Sleeve

- Colour: Black
- 42/48/60 mm

RM 9

Rafter Holder

- Adjustable for rafter widths from 56 to 92 cm
- Mast length 92 cm
- Mast diameter 48 mm

RME 50

Mast Extension

- For RM 9
- Extension by 50 cm

RMT 80

not illustrated

Sealing tape

- Rhepanol sealing tape
- up to 80 mm

Coaxial cable

Type	STA 110-100	STA 110-250	STA 110-500
Version	▸ Inner conductor: 1.00 mm ▸ Insulation: 4.65 mm ▸ Outer diameter: 6.80 mm ▸ Shielding measure: > 115 dB		

KAR 100

Dereeler

- With brake
- Suitable for 100 meters roll

HF

Connection Cable			
Type	CCQ 150	CCQ 250	CCI 150
Length in cm	150	250	150
Both sides with quick-F connector	✔	✔	
IEC plug and IEC socket			✔

Grounding and equipotential bonding of the inputs and outputs of all GSS multiswitches

	EB 5	EB 9	OP 1	EBV 5	EBV 9
Grounding angle with 5 connectors F to F	✔			1 piece	
Grounding angle with 9 connectors F to F		✔			1 piece
Overvoltage protection			✔	5 pieces	9 pieces

Connectors

FSI 70-5.1	F-Self-Install connector, for coax cables 1.1 / 4.8
FSI 71-4.9	F-Self-Install connector, for coax cable SAT 110-XXX
FCC 70-5.1	F-compression connector, for coax cable 1.1 / 4.8
FCC 71-4.9	F-compression connector, for coax cable SAT 110-XXX
FCW 70	F-connector, screwable, waterproof, for coaxial cable with 7.0 mm diameter
FC 70	F-connector, screwable, for coaxial cable with 7.0 mm diameter
FC 60	F-connector, screwable, for coaxial cable with 6.0 mm diameter
FC 50	F-connector, screwable, for coaxial cable with 5.0 mm diameter
FCF 70	F-connector, female-female
FCF 360	F-connector, female-female, U-shaped
FQQ 70	F connector, quick connector
FIM 70	Adapter, F-female-IEC female
FIF 70	Adapter, F-female-IEC female
FT 75	F-terminating resistor, 75 Ω
FTD 75	F-terminating resistor, 75 Ω, DC decoupled
FQF 70	Adapter from Quick-F to F-socket
ICM 100	IEC connector, screwable
ICF 100	IEC socket, screwable


FCW 70


FCC 70-5.1

FSI 71-4.9

FSI 70-5.1


FC70


FC 60


FC 50


FQQ 70


FCF 360


FCF 70


FIM 70


FIF 70


FT 75


FTD 75


FQF 70


ICM 100


ICF 100

Your Contact Partners

Dubai

GSS Grundig SAT Systems
Middle East LLC
P B#95680
Al Habtoor Commercial Complex
Office No: 09, Al Qusais-3
Dubai
Phone +971 4 222 33 43
Mobile +971 56 702 92 73
philips@gss.de

Africa

GSS Grundig Systems Africa
03 Abu Bakr El Sedik,
Sq. 1145 Sheraton, Heliopolis Area
Cairo
Phone +20 2 226 709 92
Fax +20 2 226 740 47
mohamed.beltagui@gssafrica.com

Rest of World

GSS Grundig Systems GmbH
Beuthener Str. 43
D-90471 Nuremberg
Germany
Phone +49 911 703-72 09
Fax +49 911 703-92 10
info@gss.de

GSS Grundig Systems GmbH
Beuthener Str. 43
D-90471 Nürnberg

GXE0100