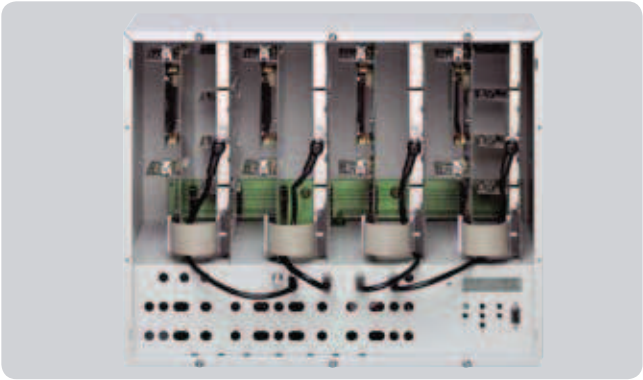
CSE 2800 digital main unit



CSE 3300 Base unit

CSE 2800 Headend system

The digital headend station system CSE 2800 provides reception and conversion of digital satellite TV channels and radio stations. It features a flexible module design.
The CSE 2800 allows conversion of up to 16 TV channels because of the quad module design. The output modulators are suitable for adjacent channels but you are not forced to adjust adjacent channels. The output channel range covers the complete needed spectrum of channel 02 up to channel 69 including special channels S 03 up to S 20 and the hyperband range of channels S 21 up to S 41. Decoding of encrypted channels can be done via the Common Interface. The supplied fixing brackets are suitable either for wall mounting of the CSE 2800 or for fixing it in a 19" rack.

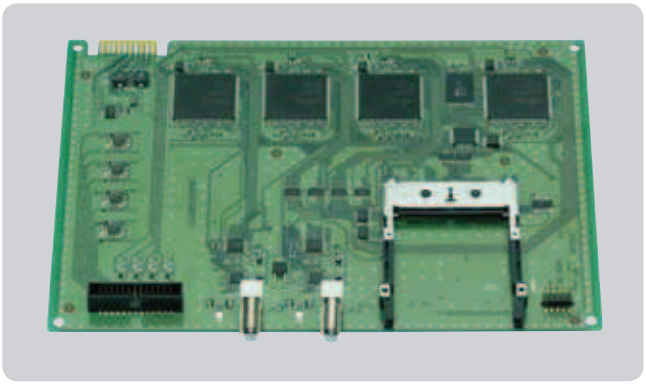
Technical data

TYPE **Art. No.**		**CSE 2800** **Main unit** **325001**
Conversion	Pcs	**16 x digital SAT**
Suitable for adjacent channels		Yes
Input/output impedance/ Programming		Integrated Control Unit 75Ω
Software update	via	RS-232 interface
External AV connection		4 x via every modulator module with CGV 160 AV
Input data		
Input frequency range	MHz MHz MHz	177.5 - 226.5 474 – 858 950 – 2150
Power feed for LNB (max.)	V/mA	12 /350
Output data		
HF output level/HF level adjusting	dBµV	max. 102
Output frequency range	MHz	47 – 862
Power supply		
Mains voltage/Frequency	Hz/V	50-60 / 180 – 265
Power consumption	W	210
Weight (fully loaded) approx.	kg	20
Dimensions (H x D x W)	mm	355 x 228 x 443 (8 HU - 19")

CSE 2800 QPSK to AV / COFDM to AV

Quad QPSK-AV-Transcoder

The Quad QPSK-AV-transcoder CGS 470 CI AV converts four TV channels out of two transponders. The number of converted TV channels via the corresponding tuner can be programmed via the integrated control unit. Either 3 TV channels of tuner 1 and 1 TV channel of tuner 2 or 2 TV channels of tuner 1 and 2 TV channels of tuner 2 can be converted. This ensures a maximum of flexibility. Decoding of up to 2 encrypted TV channels is possible via the Common Interface via tuner 1.



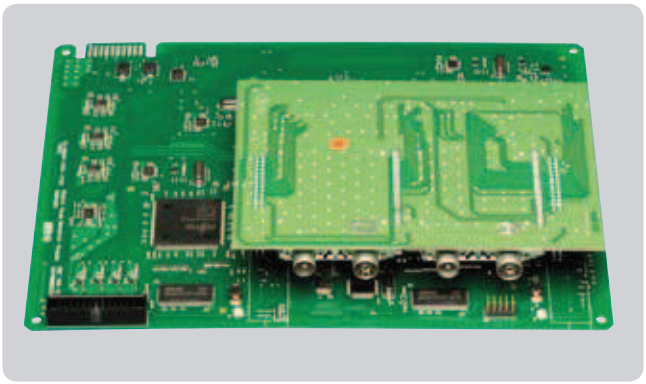
CGS 470 CI AV module

Technical data

TYPE		CGS 470 CI AV Quad
Art. No.		325010
No. of input tuners	Pcs	2
No. of AV outputs	Pcs	4
Input frequency range	MHz	950 - 2150
Symbol rate	Msymb/s	1 - 45
No. of converted TV channels	Pcs	4
Common interface		For up to 2 channels via tuner 1
Power feed for LNB (max.)	V/mA	12 / 350

Quad COFDM-AV-Transcoder

The Quad COFDM-AV-transcoder CGT 460 AV converts four TV channels out of two multiplexes. The number of converted TV channels via the corresponding tuner can be programmed via the integrated control unit. Either 3 TV channels of tuner 1 and 1 TV channel of tuner 2 or 2 TV channels of tuner 1 and 2 TV channels of tuner 2 can be converted. This ensures a maximum of flexibility.
The Quad COFDM-AV-Transcoder CGT 461 AV converts four TV channels out of one multiplex.



CGT 46x AV Quad module

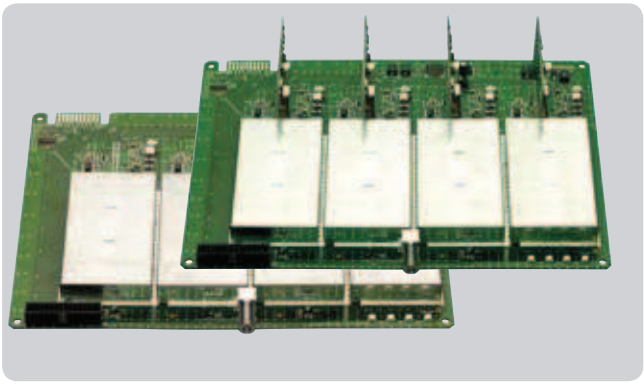
Technical data

TYPE		CGT 460 AV Quad	CGT 461 AV Quad
Art. No.		325011	325012
No. of input tuners	Pcs	2	1
No. of AV outputs	Pcs	4	4
Input frequency range (VHF) (UHF)	MHz MHz	177.5 - 226.5 474.0 - 858.0	177.5 - 226.5 474.0 - 858.0
No. of carriers		2 k and 8 k	2 k and 8 k
Symbol rate	Msymb/s	acc. to EN 300 744	acc. to EN 300 744
No. of converted TV channels	Pcs	4	4

CSE 2800 Quad AV modulators

Quad AV modulator

The modulator modules of the CSE 2800 are designed in single-sideband technology. Therefore they are suitable for adjacent channels. Up to 4 AV signals can be fed in.
Each module is equipped with four independent modulators which can be set freely. You are not forced to adjust adjacent channels. This means a maximum flexibility in projecting cable networks. The module CGFM converts the 4 AV signals into 4 free selectable FM frequencies.



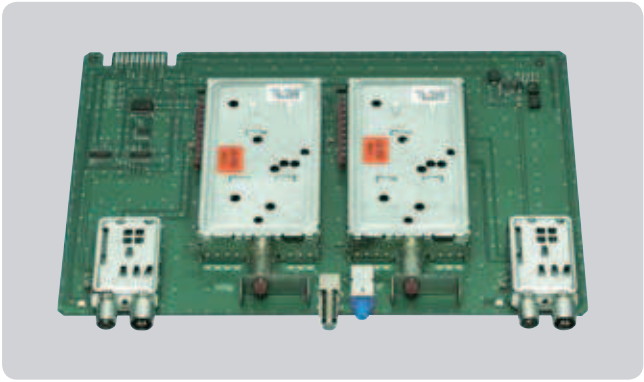
CGMM 470 and CGMS 470 modules

Technical data

TYPE		CGMM 470 Mono	CGMS 470 Stereo	CGFM 470 Stereo
Art. No.		**325013**	**325014**	**325015**
Input signals	Pcs	4 x AV	4 x AV	4 x AV
Channel grid	kHz	Suitable for adjacent channels		300
Sound output		Mono	Stereo	Stereo
Standard		B/G, CCIR	B/G, CCIR	FM
Output channels	MHz	C 02 - C 69 incl. S 03 - S 14 S 16 - S 41	S 03 - S 14 S 16 - S 41	87.5 - 108

Conversion from Digital Terrestrial to Digital Terrestrial (COFDM – COFDM)

Terrestrial modules for conversion of two terrestrial digital signals into two freely selectable channels in the VHF/UHF band. The carriers can be switched off separately.
Bandwidth 7/8 MHz switchable.



CGT 26x module

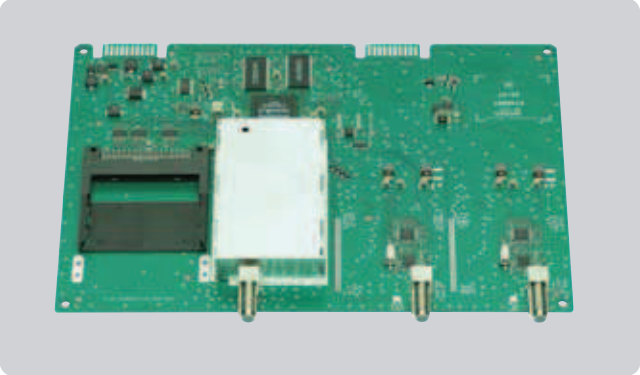
Technical data

TYPE		CGT 263	CGT 265
Art. No.		**325020**	**325021**
No. of inputs	Pcs	2	2
No. of loop-through outputs	Pcs	2	2
No. of converted channels	Pcs	2	2
Input frequency range	MHz	146 - 862	146 - 862
Output channels	MHz	C 05 - C 12 S 09 - S 16	C 21 - C 69

CSE 2800 digital SAT to digital cable (HDTV)

Transmodulation from Digital SAT to Digital Cable (DVB-S – QAM and DVB-S2 – QAM)

These modules transmodulate two different DVB-S2 resp. DVB-S modulated data streams (SCPC or MCPC) to two QAM-modulated data streams. The integrated TPS module serves for data processing of the demodulated transport stream:
This allows service information to be changed (NIT – Network Information Table), data rates increased (stuffing) and individual programs to be deleted from the transport stream, whereby the remaining channels can then be transmitted with bandwidth optimization. Moreover, the operator ID can be set. With the models, up to 12 channels can be decoded of the transport stream via the Common Interface which is fed in tuner A.

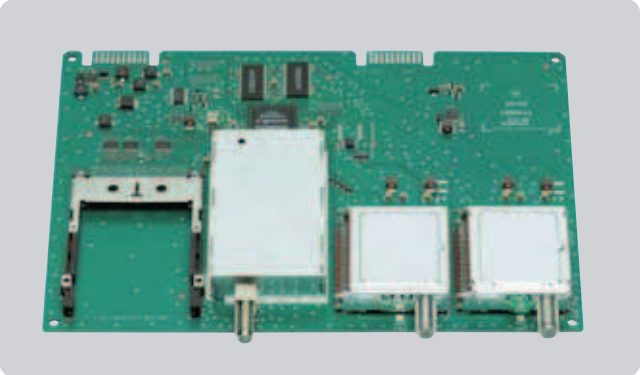


CGS 660 CI module

Technical data

TYPE **Art. No.**		**CGT 660 CI** COFDM - QAM **325022**	**CGS 660 CI** QPSK - QAM **325025**	**CGS-2 660** DVB S2 - QAM **325026**	**CGS 660 Twin** QPSK - COFDM **325027**
No. of inputs	Pcs	2	2	2	2
No. of converted transponders	Pcs	2	2	2	2
Input frequency range	MHz	950 - 2150	950 - 2150	950 - 2150	950 - 2150
DVB-S modes	QPSK				
DVB-S2 modes	QPSK				
DVB-S2 modes	8PSK				
Symbol rate DVB-S	QPSK	1 – 45	1 – 45	2 – 45	1 – 45
Symbol rate DVB-S2	QPSK			10 - 30	
Symbol rate DVB-S2	8PSK			10 - 31	
Output symbol rate	MBuad	1 – 7.5	1 – 7.5	1 – 7.5	
Modulation scheme			QAM 4, 16, 32, 64,128, 256		QPSK 16 and 64 QAM
TPS module		•	•	•	•
Software download	via	RS-232	RS-232	RS-232	•
Output frequency range/ Channel infrequency	MHz	45 - 862	45 - 862	45 - 862	42 - 862

HDTV



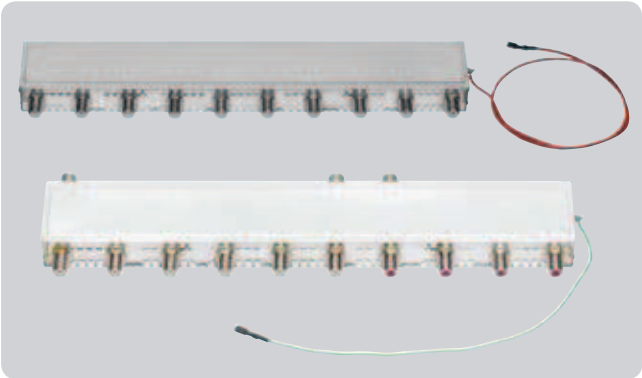
CGS 2- 660 module

CGSI 160 - Input distributor with LNB supply

The SAT IF distributor has 1 SAT IF input with 9 outputs. The connected LNB can be supplied with 12 V and a maximum current of 800 mA. It is ideal suitable for the distribution of SAT IF signals because of its high isolation.
There are included 8 HF cables in the delivery.

CGSD 162 - Input distributor with LNB supply

The SAT IF distributor has 1 SAT IF input with 6 outputs and 1 SAT IF input with 4 outputs. These outputs are able to be cascaded for having 1 level with 10 outputs. The connected LNB can be supplied with 12 V and a maximum current of 800 mA. It is ideal suitable for the distribution of SAT IF signals because of its high isolation.
There are included 8 HF cables in the delivery.



CGSI and CGSD input distributor modules

Technical data

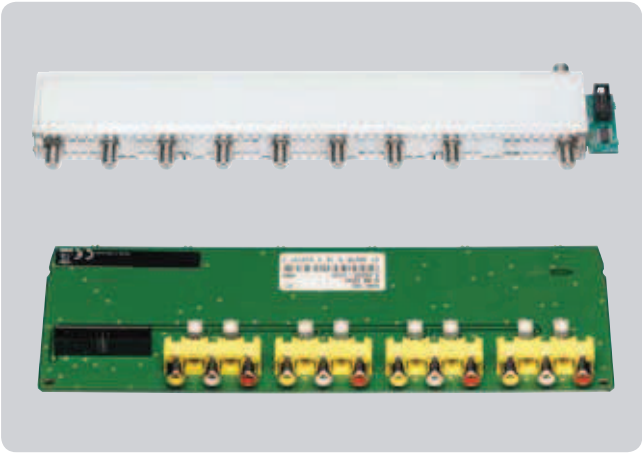
TYPE	CGSI 160	CGSD 162
Art. No.	325032	325033

CGOC 168 - Output collector

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

CGV 160 AV - Quad AV Adapter board

The quadruple AV adapter is necessary for feeding in of external AV signals via cinch connectors with the quadruple modulators CGMM 470 and CGMS 470.



CGSI and CGSD input distributor modules

Technical data

TYPE	CGOC 168	CGV 160 AV
Art. No.	325035	325031