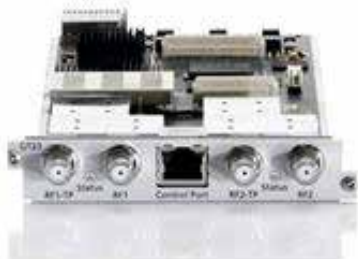


WISI GT 23 W 12 QAM, Annex A,C

Tangram module IP to 12x QAM



Description

The GT 23 W module is part of the Tangram product portfolio and provides the conversion from IP signals to QAM channels (digital TV programmes). GT 23 W supports a numerous of IP inputs with SPTS VBR/CBR and MPTS CBR, multiplexing and demultiplexing, PSI/SI regeneration, content encryption and can modulate up to 12 QAM channels with different standards (DVB-C/J.83 Annex A and C). Tangram is a very high density and highly flexible solution for all kinds of networks. The WISI Tangram chassis uses a fully redundant concept (n+1, 1+1).

Scope of delivery

- 1x GT 23 module
- 1x Quick Guide

At a glance:

- High quality IP to QAM modulation
- Up to 12 QAM channels on 2 RF outputs
- High density 72 QAM channels in 1 RU
- For measurement / monitoring test ports of the output signal
- DVB CSA Simulcrypt scrambling
- RTP/ IP input streaming with FEC error correction
- DVB/ARIB transport stream processing
- QAM channels individually switchable on/off

WISI GT 23 W 12 QAM, Annex A,C

Technical data

Streaming-Input	
IP-Inputs	128 pcs.
IP-Standard	ISO/IEC 13818
IP-Input bitrate	Max. 425 Mbit/s per IPTS, Max. 850 Mbit/s total
IP-Input protocol	UDP/RTP/RTP+FEC Unicast and Multicast, IGMP v2 and v3
IP-TS-Input format	SPTS CBR/VBR, MPTS CBR
IP-FEC inputs	Yes, with GTFEC License
IP-FEC compliance	SMPTE 2022-1, SMPTE 2022-2
IP-Packet format	MPEG over UDP/IP and RTP/IP
IP-Packet size	188 Byte
IP-PCR restamping	Yes
IP-Dejittering	Yes, per default 100ms, individual adjustable

QAM Modulation

Compliance	DVB-C (EN 300 429), ITU-T J.83 Annex A and C
Modulation type	16-, 32-, 64-, 128-, 256-QAM
Symbol rate	4,45...7,00 MS/s
Roll-Off	12%, 13%, 15%, 18%
MER	> 45 dB (typ. 46 dB)
BER	≤ 1*10 ⁻¹⁰
Spectrum flatness	± 0,4 dB
Shoulder attenuation	≥ 49 dB (typ. 50 dB)

RF parameters

Output ports	2 pcs.
Channels per port	up to 6 (DVB-C, J.83 Annex A and C)
Output impedance	75 Ω
Output frequency range	45...1002 MHz
Output frequency window	48 MHz/port
Output frequency steps	1 kHz
Output frequency stability	± 10 kHz
Channel bandwidth	8 MHz
Output level (each RF port)	108 dBμV (6 ch)
Output level stability	± 1 dB
Output return loss	≥ 14 dB (45 MHz) -1,5 dB/Octave
Output level steps	0...30 dB (0,5 dB steps)
Spurious (Inside TV-Channels)	> 58 dB (based on the PAL system level)
Spurious (outside TV-Channels)	45...450 MHz, typ. 66 dB, 450...1002 MHz, typ. 64 dB (based on the PAL system level)

Processing

Service remultiplexing	Yes, with GTMUX Software option
PID filtering and remapping	Yes
PCR correction and de-jitter	Yes
Advanced PSI/SI regeneration	Yes
NIT generation	Yes, with GTPSISI or GTSYMUX
Encryption	Yes, DVB-CSA
Encryption throughput	Max. 600 Mbps total (DVB-C 12 outputs, J.83 Annex A,C)

Technical data

Compliance	ETSI EN 300 468
Processing bitrate	Max. 1200 Mbps total
Number of PIDs	Max. 2000 PIDs total

Connectors

RJ45	1 pcs.
F-socket RF- output	4 pcs. (2x RF-Output, 2x Test-Output -20dB ± 1dB)

General data

Power consumption	Max. ≤ 19 W
Operating temperature range	-5°C...+45°C, 23°F...113°F, (ETSI EN 300 019-1-3 Class 3.1)
Max. humidity (non condensing)	95 %
Electro Magnetic Compatibility (EMC)	EN 50083-2
Safety compliance	UL/CSA/CAN 60950-1
Signalling	Multicolor LEDs (Power on - green, Error - red)
Operation Mode	DVB-C 12 outputs (J.83 Annex A)
Hardware revision	1000
Software version	3.0

Packaging data

Sales unit	1 pcs.
Dimensions (WxHxD) sales unit	100 x 20 x 250 mm
Packaging volume sales unit	0,5 dm ³
Gross weight sales unit	0,180 kg
Shipping unit	1 pcs.
Dimensions (WxHxD) shipping unit	170 x 75 x 340 mm
Packaging volume shipping package	4,3 dm ³
Gross weight shipping unit	0,340 kg
EAN	4010056711771
Article number	71177
Customs tariff number	85437090