

# WISI GT 31 W

Tangram Frontend DVB-S/S2/S2X/C/T/T2/ISDB-T



## Description

The GT 31 W module is part of the Tangram product portfolio. The GT 31 W module allows you to add up to 4 DVB- transport streams per module to your network. Tangram is a very high density and highly flexible solution for all kinds of networks. The WISI Tangram chassis uses a fully redundant concept.

## Scope of delivery

- 1x GT31 module
- 1x Quick Guide

## At a glance:

- Multi transport stream reception for DVB signals
- Up to 4 DVB-S/S2/S2X/C/T/T2/ISDB-T RF inputs
- DVB/ARIB transport stream processing
- RTP/ IP FEC output stream protection
- High density reception of 24 transponders in 1 RU
- Demultiplex MPEG-2/MPEG-4 signals for SPTS transmission
- SPTS and MPTS streaming (CBR or VBR)
- UDP and RTP MPEG transport stream over IP protocol

## Technical data

### RF-Inputs DVB-S/S2/S2X

Number of tuner	4 pcs.
Modulation type	DVB-S/S2/S2X
Frequency range	950...2150 MHz
Level range	35...90 dB $\mu$ V, -74...-19 dBm
Symbol rate	1...45 Mbaud (<100 Mbit)
FEC inner DVB-S2	LDPC 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
Return loss	>12 dB
DiSEqC	DiSEqC 1.0
LNB electrical power supply	0.4 A 13/ 18 V max.
Compliance	DVB-S (EN 300 421), DVB-S2 (EN 302 307-1), DVB-S2X (EN 302 307-2)

### RF-Inputs DVB-T/T2

Number of tuner	4 pcs.
Modulation type	DVB-T/T2
Frequency range	43...862 MHz
Level range	39...79 dB $\mu$ V, -70...-30 dBm
COFDM-Spectrum DVB-T	2 k and 8 k FFT
Guard Interval	1/32, 1/16, 1/8, 1/4
FEC inner code DVB-T/T2	Conv., K=7, G=1/2, 2/3, 3/4, 4/5, 5/6, 7/8
DVB-T2 bandwidth	1.7, 5, 6, 7, 8 MHz (and extended bandwidth)
Return loss	>18 dB @ 47 MHz, >12 dB @ 862 MHz

### RF-Inputs DVB-C

Number of tuner	4 pcs.
Modulation type	DVB-C
Frequency range	43...862 MHz
Level range	49...90 dB $\mu$ V, -90...-19 dBm (QAM 256)
Symbol rate DVB-C	1...7.2 Mbaud
QAM-Modulationsart	16-, 32-, 64-, 128-, 256-QAM
Return loss	>18 dB @ 47 MHz, >12 dB @ 862 MHz
Compliance	EN300421, EN302307, EN300744, EN302755, EN300429, Nordig unified ver 2.2.1, D-book 7.0

### RF-Inputs ISDB-T

Number of tuner	4 pcs.
Modulation type	ISDB-T
Frequency range	43...862 MHz
Level range	38...90 dB $\mu$ V, -71...-19 dBm
Compliance	ARIB STD-B31, Layer A
Bandwidth ISDB-T	6/78 MHz

### Streaming-In-/Output

IP-Inputs	0 pcs.
IP-Outputs	64 or 128 pcs. (128 with GTSTRX License)
IP-Compliance	ISO/IEC 13818
IP-Input bitrate	-
IP-Output bitrate	Max. 425 Mbit/s per IPTS, Max. 850 Mbit/s total
IP-Input protocol	-

## Technical data

IP-Output protocol	UDP/RTP/RTP+FEC Unicast and Multicast, IGMP v2 and v3
IP-TS-Input format	-
IP-TS-Output format	SPTS CBR/VBR, MPTS CBR
IP-FEC Inputs	-
IP-FEC Outputs	32, 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

### Processing

Service remultiplexing	Yes, with GTMUX Software option
PID filtering and remapping	Yes
PCR correction and de-jitter	Yes
Advanced PSI/SI regeneration	Yes
Encryption	Yes, DVB-CSA, AES, Samsung LYNK
Encryption throughput	Max. 600 Mbps total
Decryption	Yes, BISS (GTBISS)
Decryption throughput	Max. 300 Mbps total
Compliance	ETSI EN 300 468
Processing bitrate	Max. 1200 Mbps total
Number of PIDs	Max. 4000 PIDs total

### Connectors

RJ45	1 pcs.
F connector RF input	4 pcs.

### General data

Power consumption max.	<25 W (max.)
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	-
Hardware revision	1102
Software version	3.0
Tuner	Tuner 067

### Packaging data

Sales unit	1 pcs.
Dimensions (WxHxD) sales unit	100x20x220 mm
Packaging volume sales unit	0,44 dm <sup>3</sup>
Gross weight sales unit	0.360 kg
Shipping unit	1 pcs.
Dimensions (WxHxD) shipping unit	170x70x340 mm
Packaging volume shipping package	4,0 dm <sup>3</sup>
Gross weight shipping unit	0,360 kg
EAN	4010056739720
Article number	73972
Customs tariff number	85176200