

# WISI GT36

## TANGRAM HD/SD Encoder for 4x HD/SD-SDI or A/V inputs



### Description

The TANGRAM ENCODER is a professional and high density HD/SD audio & video encoding device which adds the feature of MPEG-4 and MPEG-2 encoding to the TANGRAM product line. With the same form factor as the TANGRAM modules, the TANGRAM ENCODER can be used in any TANGRAM base unit. The TANGRAM ENCODER allows you to add services available in HD/SD-SDI or AV analog format to your digital network.

### Scope of delivery

- 1x GT36 Module
- 1x Quick Guide

Technical data	
<b>HD-SDI Input</b>	
Number of ports	4 pcs.
Video input	HD-SDI, Audio embedded
Audio input	Stereo, AC-3 pass through
Input format HD-SDI	1080p25/30, 1080i50/60/59.94, 720p50/60/59.94
Impedance	75 Ω
Compliance	HD-SDI SMPTE 292M, SMPTE 299M
<b>SD-SDI input</b>	
Number of ports	4 pcs.
Video input	SD-SDI, Audio embedded

### At a glance:

- HD/SD MPEG-4 (AVC, H.264) and HD/SD MPEG-2 video encoding
- Up to 4 HD/SD-SDI or A/V analog inputs per module
- Professional multiplexer integrated
- SPTS and MPTS streaming (CBR or VBR)
- Supports PSI/SI processing
- Integrated into the TANGRAM Systemmanagement
- Control and management via web-UI

Technical data	
Audio input	Stereo, AC-3 pass through
Input format SDI	576i50, 480i59.94
Impedance	75 Ω
Compliance	SD-SDI SMPTE 259M-C, SMPTE 291M
<b>Analog video input</b>	
Number of ports	4 pcs. 3,5 mm jack socket
Input format	Composite FBAS-signal (PAL/NTSC/SECAM)
Impedance	75 Ω
Input level	1 V <sub>ss</sub> (± 0,4 V)
Input frequency range	20 Hz ... 5 MHz

Technical data	
Frequency response	≤ ±2 dB (20 Hz...4 MHz)
Analog audio input	
Input format	Left, Right asymmetrical
Impedance	600 Ω/15 kΩ (switchable)
RF input level	-4 dBm (500 mVeff)
Input level range	-18...+18 dBμV
Input frequency range	40 Hz...15 kHz
Video Encoding	
Encoding capacity	4x HD/SD MPEG-2/MPEG-4
Video system	MPEG-2 HD/SD and MPEG-4 HD/SD (H.264/AVC)
Picture size	1080p25/30, 1080i50/60/59.94, 720p50/60/59.94, 576p50, 480p60/59.94, 576i50, 480i60/59.94
Profile MPEG-4	Baseline, Main, High
Bit rate	MPEG-2 10-19Mbps, MPEG-4 6-13Mbps @ 1080p25/30, 1080i50/60/59.94, 720p50/60/59.94; MPEG-2 4-12Mbps, MPEG-4 2-6Mbps @ 576p50, 480p60/59.94; MPEG-2 2-8Mbps, MPEG-4 1-4Mbps @ 576i50, 480i60/59.94
Chroma sample	4:2:0
Aspect Ratio Conversion	16:9 for HD; 4:3 for SD
Subtitle DVB Support	No
Subtitle OP47 Support	No
Picture size conversion	Downscaling yes, Upscaling no
Frame rate conversion	No
Test pattern	Yes
Audio Encoding	
Audio system	ISO 11173-3 (MPEG-1 L2), MPEG-2 AAC (LC)
Number of audio channels	1 pro Videoeingang @ 4x HD / SD MPEG-2 / MPEG-4; 2 pro Videoeingang @ 2x HD / SD MPEG-2 / MPEG-4
Sampling frequency	48 kHz
Bit rate	64...288 Kbps (max. MPEG1 L2/AAC)
Audio modes	Stereo, AC-3 pass through
Sampling rate conversion	No
Streaming- In-/Output	
IP Inputs	0 or 32 pcs. (32 with GTSTR software option)
IP Outputs	0 or 32 pcs. (32 with GTSTR software option)
IP-Compliance	ISO/IEC 13818
IP-Input bitrate	Max. 425 Mbit/s per IPTS, Max. 850 Mbit/s total
IP-Output 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

Technical data	
IP-Output protocol	UDP/RTP/RTP+FEC Unicast and Multicast, IGMP v2 and v3
IP-TS-Input format	SPTS CBR/VBR, MPTS CBR
IP-TS-Output format	SPTS CBR/VBR, MPTS CBR
IP-FEC Inputs	0 or 32 pcs. (with GTSTREC software option)
IP-FEC Outputs	4 or 32 pcs. (with GTSTREC software option)
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 (GTSYMUX functionality inclusive)
PID filtering and PID remapping	Yes
PCR correction and de-jitter	Yes
Advanced PSI/SI regeneration	Yes
NIT generation	No
Compliance	ETSI EN 300 468
Processing bitrate	Max. 1200 Mbps total
Number of PIDs	Max. 2000 PIDs gesamt
Connectors	
Analog audio input	4 pcs.
Video input	4 pcs.
GigE/Control/Power supply	CompactPCI Type C (SGMII)
General data	
Power consumption	max. ≤18 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)	DIN EN 55022:2008-05
Hardware revision	1000
Software version	10

Packaging data	
Sales unit	1 pcs.
Dimensions (WxHxD) sales unit	100 x 20 x 220 mm
Packaging volume sales unit	0.44 dm <sup>3</sup>
Gross weight sales unit	0.36 kg
Shipping unit	1 pcs.
Dimensions (WxHxD) shipping unit	170 x 70 x 340 mm
Packaging volume shipping package	4 dm <sup>3</sup>
Gross weight shipping unit	0.5 kg
EAN	4010056764876
Article number	76487
Customs tariff number	85176200