

WISI GT 2100

Software option for 10x IP to analog (PAL, NTSC, SECAM)



Description

The GT 2100 software option is part of the new GT2000 concept and enables analogue modulation (PAL, NTSC, SECAM) out of an IP stream with HEVC, MPEG-4 and MPEG-2 decoding. GT 2100 offers a very high density with up to 10 services from IP to analogue TV. Typical applications are for cable TV operators who provide the TV signals in their network digitally via IP and then need to convert them to provide analogue TV programmes to the end customers. TANGRAM is a modular headend architecture with an optimal price/performance ratio thanks to high signal density and offers high fail-safety through redundancies (n+1, 1+1).

Scope of delivery

- After buying the software option you can download the entitlement file which includes the software option on www.wisiconnect.tv.

At a glance:

- High quality IP to analogue PAL/SECAM/NTSC modulation
- Up to 10 analogue channels on 1 RF output
- Outstanding signal parameters by direct digital modulation
- UHD, HD and SD downscaling functionality
- HEVC, MPEG-4 H.264, MPEG-2 H.264 decoding
- Test port for signal measurement / monitoring
- Temperature and output level monitoring
- RTP/ IP input streaming with FEC error correction

Technical data

Streaming-Input	
IP-Inputs	40 pcs.
IP-Compliance	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 GTEFEC 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
IP-Dejittering	Yes, per default 100ms, individual adjustable

Video processing

Video decoder	10x MPEG-2 SD (MP@ML) or 10x MPEG-2 HD (MP@HL) or 10x MPEG-4 SD (MP 77 @ Level 3, 3.1) or 10x MPEG-4 HD (HP 100 @ Level 4.1) or 10x HEVC 4:2:0 HD/SD (MP and M10P @ Level 4.1) or 1x HEVC 4:2:0 UHD/4k (MP M10P @ Level 5.2) HEVC decoding with software option GTEHEVCD per video
Video downscaling	10x HEVC/MPEG-4/MPEG-2 HD/SD or 1x HEVC UHD/4k
Video Standard	PAL/SECAM/NTSC
Aspect Ratio Conversion	Auto, Ignore, Letterbox, Pan and scan, Combined, Forced
Vertical blanking interval	WST Teletext inserting (lines 7-15, 20-21), VPS inserting (line 16) WSS inserting according to aspect ratio
Subtitle	DVB teletext, DVB subtitling, SCTE 27, SCTE 20, ATSC A/53
Test lines	17, 18, 330, 331 for PAL/SECAM, NTC-7 Composite, NTC-7 Combination on lines 17 and 280
Test carrier wave	Yes
OSD Video	Yes, text or picture PNG
OSD Radio	Yes, text or picture PNG
Compliance	ISO 13818-2 (MPEG-2/H.262); ISO 14496-10 (MPEG-4/H.264/AVC); ISO/ IEC 23008-2 (MPEG-H/H.265/HEVC)

Video parameters

Differential gain	<1,5 %
Differential phase	<1,5 °
Group delay time	<50 ns
Luminance non-linearity	<3 %
Video frequency response	±1 dB (0.1...5 MHz)
S/N Video, weighted (CCIRrec. 567-1)	typ. 60 dB @10 channels (according to ITU-R Rec. 567)
2-T Puls K Faktor	<1,2 %
Test picture	100% color bars with 1 kHz audio tone

Audio processing

Audi Dolby Decoding	Yes, with GTEDOL
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Audio parameters

S/N mono FM audio PAL/SECAM	Typical 63 dB (BS.468 weighted)
S/N mono FM audio NTSC	Typical 57 dB (BS.468 weighted)
S/N stereo A2	Typical 53 dB (BS.468 weighted)

Technical data

S/N stereo NICAM	Typical 75 dB (BS.468 weighted)
S/N stereo BTSC MTS	Typical 52 dB (BS.468 weighted)
Frequency response	±1 dB (40 Hz...15 kHz / BTSC SAP 40 Hz...10 kHz)

RF modulation parameters

TV systems	B/G, D/K, I, M, N
Output level	117 dBμV (1 ch), 102 dBμV (10 ch)
Output level stability	±1 dB
Output level setting	30 dB (0,5 dB steps)
Spurious suppression	>60 dB

RF parameters

Output ports	1 pcs.
Channels per port	up to 10
Output impedance	75 Ω
Output frequency	45...862 MHz
Output return loss	>14 dB (45 MHz) -1,5 dB/Octave
Output frequency window	Channels freely selectable
Output frequency steps	1 kHz
Output frequency stability	±3 kHz

Processing

PCR correction and de-jitter	Yes
Processing bitrate	Max. 1200 Mbps total
Number of PIDs	Max. 2000 PIDs total

General data

Power consumption	≤33 W
Electro Magnetic Compatibility (EMC)	EN 50083-2, FCC CFR 47 Part 15 (Class A)
Safety compliance	CE, UL/CSA/CAN 62368-1
Operation Mode	PAL-625/SECAM, PAL-M/NTSC, PAL-M/NTSC with BTSC
Hardware revision	1000
Software version	1.0
Possible Software options	GTESUA1, GTESUA3, GTERED, GTEFEC, GTEHEVC, GTEDOL, GTEBTS, GTEMON, GTEASE

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	0.33 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	0.48 kg
EAN	4010056762261
Article number	76226
Customs tariff number	85176200