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IP Modulator Encoder A/V - IP or IP - DVBT/DVBC (QAM Annex A)

Two modules in one

Device with two operation modes: as an AV - IP / RF Encoder converting Audio/Video signals into an IP stream and multiple RF signals (DVB-T or DVB-C), or as an AV/IP - RF Encoder converting Audio/Video signals and IP streaming services into one multiple RF channel (DVB-T or DVB-C).

Ref.563852

Art.Nr UIPHDMI-QAC-T 8424450180204

Highlights

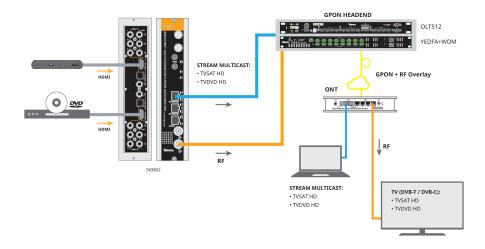
- Perfect image and audio synchronization
- Compatible with multiple formats, resolutions, and TV set sizes
- Editing of all the modulation and encoding parameters
- Configurable via web interface or PCT5.0 programmer
- High output power without the need for extra amplification
- Multi-standard output format
- Excellent output quality (MER>40 dB)
- Device monitoring and signal status LED diodes
- Energy-efficient thanks to their low power consumption
- Integrated RF combiner and Ethernet switch
- Remote firmware update
- Configuration via a web interface embedded in the encoder

Main features

- Multiple input signal types: HDMI, CVBS, YPbPr, SPdIf audio (ref.563832), etc.
- HDCP (High-bandwidth Digital Content Protection) function, which can be disabled by the owner with the content provider's authorization

Application example

(Click to see the picture)



AV - IP / RF MODE

The Encoder / Modulator generates a RF Mux and a Multicast stream with A/V signals.

The multicast stream with A/V services are distributed through the data network and they are received in devices and specific applications.

The RF Mux is received by the TV's with the same content.

This application is recommended in FibreData solutions which need an optimisation of the RF Overlay bandwidth (reallocation of A/V services between the data network and the TV network).

Technical specifications

Audio 2 2 sets 1 x H.D.(LVES) 2 2 sets 2 x RCA (L, R) 2 sets 1 x PCA (Digital) 2 sets 1 x TRCA (Digital) 3 sets 1 x TRCA (Digital) 4 sets 1 x TRCA (Digital) 5 sets 1 x TRCA (Digital) 6 sets 1 x TRCA	INPUT				
Public	Video				
P Multicast 2 ports R/45 switch Gbe SPTS or MPTS (UDP/RTP)	Audio			2 sets 1 x RCA (Digital)	
MPEG-2 / H264	Video + Audio			2 sets 1 x HDMI	
Output format MPEG-2 / H264 Resolution A80(, 480p, 576, 576p, 7720p, 1808 is 1080p, 1808 p) Aspect ratio 4.3, 16.9 y pass through GOP 10, 12, 15, 16, 18, 20, 24 do 30 AUDIO INCODER Output format Dolby Digital AC-3 only Digital Loop) or MPEG1 Layer2 (analogue input rIDMI PCM) Sampling rate kHz 48 Output Frequency bands MHz 46.862 Maximum output level dBy W1 115/55 MER dBy W2 (103/43 with active loop-through) MER dBy W3 (103/43 with active loop-through) MER dBy W3 (103/43 with active loop-through) MER Agardation (16, 32, 64, 128, 256 Annex A QAM 6 9 6 9 15 0 0 <th c<="" td=""><td colspan="3">IP Multicast</td><td>2 ports RJ45 switch Gbe SPTS or MPTS (UDP/RTP)</td></th>	<td colspan="3">IP Multicast</td> <td>2 ports RJ45 switch Gbe SPTS or MPTS (UDP/RTP)</td>	IP Multicast			2 ports RJ45 switch Gbe SPTS or MPTS (UDP/RTP)
Resolution	VIDEO ENCODER				
Resolution Atto-scan of input resolution (1)	Output format			MPEG-2 / H264	
AUDIO ENCODER Output format Dolby Digital AC-3 only Digital Loop) or MPEG1 Layer2 (analogue input HDMI PCM) Sampling rate kHz 48 Output Frequency bands MHz 46862 Maximum output level MBR MBR MBR MBR MBR MBR MBR MB	Resolution			720p, 1080i & 1080p	
AUDIO ENCODER Output format Dolby Digital AC-3 only Digital Loop) or MPEG1 Layer2 (analogue input HDMI PCM) Sampling rate kHz 48 Output Frequency bands Maximum output level Maximum output level MBR dB Annex A QAM COFEM Annex A QAM COFEM Annex A QAM Baudrate Annex A QAM Annex A QAM Annex A QAM Annex A QAM Baudrate Baudrate Annex A QAM Annex A QAM Baudrate Annex A QAM Annex A QAM Baudrate Baudrate Annex A QAM Annex A QAM Annex A QAM Baudrate Baudrate Annex A QAM Annex A QAM Annex A QAM Annex A QAM Baudrate Baudrate Annex A QAM Annex A QAM Annex A QAM Annex A QAM Baudrate Baudrate Annex A QAM Baudrate Baudrate Annex A QAM Baudrate Baudrate Annex A QAM Annex A	Aspect ratio			4:3, 16:9 y pass through	
Output format Dolby Digital AC-3 only Digital Loop) or MPEG1 Layer2 (analogue input HDMI PCM) Sampling rate kHz 48 Output Frequency bands MHz 46862 Maximum output level dBy/ dBy/ dBy/ dBy/ dBy/ dBy/ dBy/ dBy/	GOP			10, 12, 15, 16, 18, 20, 24 ó 30	
MPEG1 Layer2 (analogue input HDMi PCM)	AUDIO ENCODER				
Output Frequency bands MHz 46862 Maximum output level dBµV / dBmV 115/55 MER dB	Output format				
Frequency bands MHz 46862 Maximum output level dBµV / dBmV 115/55 / (103/43 with active loop-through) MER dB >40 Spurious dBc -60 Spurious 16, 32, 64, 128, 256 BaudRate Mbaud 6,9 Roll-off % 15 Code Reed Solomon Spectrum mode Normal / Inverted Frequency steps kHz 250 QPSK, 16QAM, 64QAM QPSK, 16QAM, 64QAM Guard interval μS 1/4, 1/8, 1/16, 1/32 FEC 1/2, 2/3, 3/4, 5/6, 7/8 Bandwidth MHz 6, 7, 8 Cell_id Yes Frequency steps kHz 125 / 166 Legency Steps kHz 2 SPTS IP multicast outputs	Sampling rate		kHz	48	
Maximum output level dBμV / dBmV (103/43 with active loop-through) MER	Output				
MER	Frequency bands		MHz	46862	
Modulation 16,32,64,128,256 BaudRate Mbaud 6,9 Roll-off % 15 Code Reed Solomon Spectrum mode Normal / Inverted Frequency steps kHz 250 Modulation QPSK, 16QAM, 64QAM Guard interval μS 1/4, 1/8, 1/16, 1/32 FEC 1/2, 2/3, 3/4, 5/6, 7/8 Bandwidth MHz 6,7,8 Cell_id Yes Frequency steps kHz 125 / 166 Frequency steps kHz 2 SPTS IP multicast outputs	Maximum output level				
Modulation 16, 32, 64, 128, 256 BaudRate Mbaud 6,9 Roll-off % 15 Code Reed Solomon Spectrum mode Normal / Inverted Frequency steps kHz 250 Modulation QPSK, 16QAM, 64QAM Guard interval μS 1/4, 1/8, 1/16, 1/32 FEC 1/2, 2/3, 3/4, 5/6, 7/8 Bandwidth MHz 6, 7, 8 Cell_id Yes Frequency steps kHz 2SPTS IP multicast outputs	MER		dB	>40	
Annex A QAM Roll-off Roll-off Roll-off Roll-off Reed Solomon Spectrum mode Frequency steps Requency steps Red Solomon Normal / Inverted Frequency steps Red Solomon Normal / Inverted Prequency steps Red Solomon Normal / Inverted Red Solomon Norm	Spurious		dBc	-60	
Roll-off % 15 Code Reed Solomon Spectrum mode Normal / Inverted Frequency steps kHz 250 Modulation QPSK, 16QAM, 64QAM Guard interval μS 1/4, 1/8, 1/16, 1/32 FEC 1/2, 2/3, 3/4, 5/6, 7/8 Bandwidth MHz 6, 7, 8 Cell_id Yes Frequency steps kHz 125 / 166	Annex A QAM	Modulation		16, 32, 64, 128, 256	
Code Reed Solomon Spectrum mode Normal / Inverted Frequency steps kHz 250 Modulation QPSK, 16QAM, 64QAM Guard interval μS 1/4, 1/8, 1/16, 1/32 FEC 1/2, 2/3, 3/4, 5/6, 7/8 Bandwidth MHz 6, 7, 8 Cell_id Yes Frequency steps kHz 125 / 166 Transport Stroom SP/MR 2 SPTS IP multicast outputs		BaudRate	Mbaud	6,9	
Code Reed Solomon Spectrum mode Normal / Inverted Frequency steps kHz 250 Modulation QPSK, 16QAM, 64QAM Guard interval μS 1/4, 1/8, 1/16, 1/32 FEC 1/2, 2/3, 3/4, 5/6, 7/8 Bandwidth MHz 6, 7, 8 Cell_id Yes Frequency steps kHz 125 / 166 Transport Stream SP/MR 2 SPTS IP multicast outputs		Roll-off	%	15	
Frequency steps kHz 250 Modulation QPSK, 16QAM, 64QAM Guard interval μS 1/4, 1/8, 1/16, 1/32 FEC 1/2, 2/3, 3/4, 5/6, 7/8 Bandwidth MHz 6, 7, 8 Cell_id Yes Frequency steps kHz 125 / 166 Transport Stream SP/MP 2 SPTS IP multicast outputs		Code		Reed Solomon	
Modulation QPSK, 16QAM, 64QAM Guard interval μS 1/4, 1/8, 1/16, 1/32 FEC 1/2, 2/3, 3/4, 5/6, 7/8 Bandwidth MHz 6, 7, 8 Cell_id Yes Frequency steps kHz 125 / 166 Transport Stroom SP/MP 2 SPTS IP multicast outputs		Spectrum mode		Normal / Inverted	
Guard interval μS 1/4, 1/8, 1/16, 1/32 FEC 1/2, 2/3, 3/4, 5/6, 7/8 Bandwidth MHz 6, 7, 8 Cell_id Yes Frequency steps kHz 125 / 166 Transport Stream SP/MP 2 SPTS IP multicast outputs		Frequency steps	kHz	250	
FEC 1/2, 2/3, 3/4, 5/6, 7/8 Bandwidth MHz 6, 7, 8 Cell_id Yes Frequency steps kHz 125 / 166 Transport Stream SP/MP 2 SPTS IP multicast outputs	COFDM	Modulation		QPSK, 16QAM, 64QAM	
Bandwidth MHz 6,7,8		Guard interval	μS	1/4, 1/8, 1/16, 1/32	
Bandwidth		FEC		1/2, 2/3, 3/4, 5/6, 7/8	
Frequency steps kHz 125 / 166 2 SPTS IP multicast outputs		Bandwidth	MHz	6, 7, 8	
Transport Stream SD/MP 2 SPTS IP multicast outputs		Cell_id		Yes	
		Frequency steps	kHz	125 / 166	
	IP	Transport Stream SP/MP			

	Transport Stream ID		Editable		
	Original Network ID		Editable		
	Network ID		Editable		
	LCN		Editable		
	NIT		Editable		
PSI	SDT		Editable		
	Tipo LCN		Generic / UK / NorDig V1 / NorDig V2		
	Network Name		Editable		
	Service PID		Editable		
	Service Name		Editable		
	Service ID		Editable		
General					
Voltage		Vdc	24		
Consumption		W	<20,4		
Protection index		IP	20		

⁽¹⁾ The output resolution is the same as the input signal source.