COL5181HM H.264 HD Encodulator

Outline

COL5181HM is a professional high integration device which includes encoding, multiplexing, and modulation. It supports 8/16/24 HDMI inputs, 1 ASI input, 1 USB payer input and 128 IP inputs via the GE port. It also supports DVB-C RF out with 12 non-adjacent carries or DVB-T/ATSC RF out with 8 non-adjacent carriers, or ISDB-T RF out with 6/16 non-adjacent carriers, and supports 12/8/6/16 MPTS as mirror of 12/8/6/16 carriers through the GE port and 1 ASI out as mirror of one of the carriers. This full function device makes it ideal for small CATV head end system, and it's a smart choice for hotel TV system, entertainment system in sports bar, hospital, apartmentt etc.

Key features

- 8/16/24 HDMI inputs, MPEG-4 AVC/H.264 Video encoding

- 1 ASI input for re-mux

- 128 IP input over UDP and RTP via GE port

- Each carrier out channel process maximum 32 IP from the GE port(UDP&RTP protocol)

1

- MPEG1 Layer II, LC-AAC and HE-AAC Audio encoding, AC3 Pass Through and audio gain adjustment

- Support 12 groups multiplexing/DVB-C modulating

- Support 8 groups multiplexing/DVB-T/ATSC modulating---Optional

- Support 6 (or 16) groups multiplexing/ISDB-T modulating---Optional

- Support 1 ASI out as mirror of one of RF output carriers---Optional

- Support 12 MPTS IP output over UDP, RTP/RTSP –DVB-C RF out

- Support 8 MPTS IP output over UDP, RTP/RTSP-- DVB-T/ATSC RF out

- Support 6 (or 16) MPTS IP output over UDP, RTP/RTSP-- ISDB-T RF out

- Support LOGO, Caption and QR code insertion

- Support PID remapping/ accurate PCR adjusting/PSI/SI editing and inserting

- Control via web management, and easy updates via web

Technical specification

Input	8/16/24 HDMI inputs for option 1 ASI in for re-mux 1 USB Player input for re-mux 128 IP input over UDP and RTP, GE port, RJ45—DVB-C RF out 128 IP input over UDP and RTP, GE port, RJ45—DVB-T/ATSC RF out 128 IP input over UDP and RTP, GE port, RJ45—ISDBT RF out		
Video	Resolution	Input	1920×1080_60P, 1920×1080_60i, 1920×1080_50P, 1920×1080_50i, 1280×720_60P, 1280×720_50P, 720×576_50i,720×480_60i,
		Output	1920×1080_30P, 1920×1080_25P, 1280×720_30P, 1280×720_25P, 720×576_25P,720×480_30P,
	Encoding	MPEG-4 AVC/H.264	

Unicor s.a.   www.unicorsa.com.ar

	Bit-rate	1Mbps~13Mbps each channel	
	Rate Control	CBR/VBR	
	GOP Structure	IP…P (P Frame adjustment, without B Frame)	
Audio	**Encoding**	MPEG-1 Layer 2, LC-AAC, HE-AAC and AC3 Pass through	
	Sampling rate	48KHz	
	Resolution	24-bit	
	Audio Gain	0-255 Adjustable	
	MPEG-1 Layer 2 Bit-rate	48/56/64/80/96/112/128/160/192/224/256/320/384 kbps	
	LC-AAC Bit-rate	48/56/64/80/96/112/128/160/192/224/256/320/384 kbps	
	HE-AAC Bit-rate	48/56/64/80/96/112/128 kbps	
Multiplexing	**Maximum PID Remapping**	255 input per channel	
	Function	PID remapping (automatically or manually)	
		Accurate PCR adjusting	
		Generate PSI/ SI table automatically	
Modulation	**DVB-C**	QAM Channel	12 non-adjacent carriers output (maximum bandwidth 192MHz)
		Standard	EN300 429/ITU-T J.83A/B
		MER	≥40db
		RF frequency	50~960MHz, 1KHz step
		RF output level	-20~+3dbm, 0.1db step
		Symbol Rate	5.0Msps~7.0Msps, 1ksps stepping
			J.83A	J.83B
		Constellation	16/32/64/128/256QAM	64/256 QAM
		Bandwidth	8M	6M
	DVB-T	Standard	EN300744
		FFT mode	2K,4K, 8K
		Bandwidth	6M, 7M, 8M
		Constellation	QPSK, 16QAM, 64QAM
		Guard Interval	1/4, 1/8, 1/16, 1/32
		FEC	1/2, 2/3, 3/4, 5/6, 7/8
		MER	≥42 dB
		RF frequency	50~960MHz, 1KHz step

Unicor s.a.   **www.unicorsa.com.ar**

		RF out	8 non-adjacent carriers output (maximum bandwidth 192MHz)
		RF output level	-20~ +3dBm, 0.1db step
	ATSC	Standard	ATSC A/53
		Bandwidth	6M
		Constellation	8VSB
		FEC	RS(208 188)+Trellis
		MER	≥40dB
		ACL	-55 dBc
		RF frequency	50~960MHz, 1KHz step
		RF out	8 non-adjacent carriers output (maximum bandwidth 192MHz)
		RF output level	-20~+3dbm (for all carriers), 0.5db stepping
	ISDB-T	Standard	ARIB STD-B31
		Bandwidth	6M
		Constellation	QPSK, 16QAM, 64QAM
		Guard Interval	1/32, 1/16, 1/8, 1/4
		Transmission Mode	2K, 4K, 8K
		Code rate	1/2, 2/3, 3/4, 5/6, 7/8
		MER	≥40dB
		RF frequency	50~960MHz, 1KHz step
		RF out	6 (or 16) non-adjacent carriers output (maximum bandwidth 192MHz)
		RF output level	-20dBm~+3dBm, 0.1dB stepping
Stream output	1 ASI output as mirror of one of RF output carriers(Optional) 12 MPTS output over UDP and RTP/RTSP as mirror of 12 DVB-C carriers, 8 MPTS output over UDP and RTP/RTSP as mirror of 8 DVB-T/ATSC carriers(Optional) 6 MPTS output over UDP and RTP/RTSP as mirror of 6 ISDB-T carriers(Optional) 16 MPTS output over UDP and RTP/RTSP as mirror of 16 ISDB-T carriers(Optional) 1*1000M Base-T Ethernet interface, GE port		
System function	Network management (WEB)		
	Chinese and English language		
	Ethernet software upgrade		
Miscellaneous	**Dimension (W×L×H)**	482mm×328mm×44mm	

Environment	0~45℃(work)；-20~80℃（Storage）
Power requirements	AC 110V± 10%, 50/60Hz, AC 220 ± 10%, 50/60Hz

Principle Chart (Each Encoder Module)

Unicor s.a.   www.unicorsa.com.ar