

MPEG-2 Encoder& QAM Modulator



Overview

PEM-10 encoder&modulator is a professional equipment for professional head-end of broadcast television. It is A high-integrated professional equipment containing 2/4/6/8/10 MPEG - 2 encoding, multiplexing, scrambling, and modulating function, applicable to security and monitoring, hotel label and cable TV network.

This equipment supports 2/4/6/8/10 AV input, one ASI input and one ASI output, one QAM-modulated RF output. It can receive AV input from multiple signal source, such as satellite receiving machine, closed circuit TV camera, blue ray player and antenna, etc. The encoded and modulated signal can be outputted directly or outputted mixed with original cable TV signal. QAM-modulated RF signal can be received by TV set or STB on DVB-C standard.

Features

- Support 2/4/6/8/10 composite video (CVBS) input, one ASI input multiplexing
- Support 2/4/6/8/10 groups nonequilibrium stereo input
- Support DVB simul-crypt scrambling
- MPEG-2 MP@ML video encoding, advanced video pre-processing
- MPEG-1 Layer2, LC-AAC and AC3 audio encoding
- Support PAL, NTSC SD video standard
- Fully conform to DVB-C(EN300 429) and ITU-T J.83A standard
- Support one QAM-modulated RF output and one multiplexed ASI output
- 5 modulating constellation: 16QAM, 32QAM, 64QAM, 128QAM, 256QAM
- Support PCR precise modulation
- Support PSI/SI editing and insertion
- Excellent RF output performance, MER $\geq$ 40db
- Support LCN, SDT, NIT insertion
- Support network management(NMS)

Technical Specification

Input	2/4/6/8/10 AV video input (BNC interface)	
	2/4/6/8/10 groups nonequilibrium stereo(CVBS) input (BNC interface)	
	One ASI input(BNC interface), can be multiplexed with other code rate	
Video	Resolution	720×480_59.94i, 544×480_59.94i,352×240_59.94i 320×240_59.94i ,176×240_59.94i,160×120_59.94i 720×480_59.94i, 544×480_59.94i,352×240_59.94i 320×240_59.94i ,176×240_59.94i,160×120_59.94i
		720×576_50i ,640×576_50i,352×288_50i 320×288_50i, 176×288_50i, ,176×144_50i
		720×576_50i ,640×576_50i,352×288_50i 320×288_50i, 176×288_50i, ,176×144_50i
	Encoding	MPEG-2 MP@ ML
	Code rate	0.8Mbps~15Mbps (each channel)
	Code rate Model	CBR/VBRCBR/VBR
Audio	GOP structure	IPPPP, IBPBP, IBBPB, IBBBP
	Video pre-processing	Eliminate interlacing, denoise, sharpen image
	Encoding	MPEG-1 Layer 2,LC-AAC, AC3
	Sample rate	48KHz48KHz
Audio	Sample accuracy	24-bit24-bit
	Code rate	32Kbps~384Kbps(each channel)

Multiplexing	Multiplex 2-10 encoded programs and one ASI input code rate; output one multiplexed ASI code rate	
Scrambling	DVB simul-crypt scrambling function is optional; support 4 CAS	
Modulation	QAM channel	1
	Standard	EN300 429、ITU-T J.83A/B/C
	Symbol Rate	1.0~7.0Msps, 1kspsstepper
	constellation	16QAM 、 32QAM 、 64QAM 、 128QAM 、 256QAM
	FEC	RS(204, 188)
RF output	Interface Type	F head, 75Ω impedance
	Frequency Range	110~860MHz, 1kHzstepper
	Input level	-16dBm~-0dBm(each QAMsignal carrier), 1dBstepper
	MER	≥40db
	ACLR	-55dBC
System parameter	Front panel	English LCD display; push-button equipped with network information, state information
	Network management	Support Chinese, English, etc.
	LCN insertion	support
General Specifications	Power supply	AC 100~240V±10%, 50/60Hz
	Size	1RU, with depth of 350mm
	Power consumption	< 80W
	Operation temperature	0~45℃