HP2416C

24 in 1 mux scrambling QAM modulator

Outline

HP2416C is a high performance and cost-effective QAM modulator designed by Catcast. It supports 24 DVB-S/-S2/-S2X (DVB-T/-T2, DVB-C, ATSC, ISDB-T Optional) FTA tuner input, maximum 128 IP input through GE1 and TS input for re-mux ASI ports. After multiplexing, scrambling and QAM modulating, it gives 16 non-adjacent carriers output and 16 IP (MPTS) output through GE2.

HP2416C is also characterized with high integrated level, high performance and low cost. It supports dual power supply (optional). This is very adaptable to newly generation CATV broadcasting system.

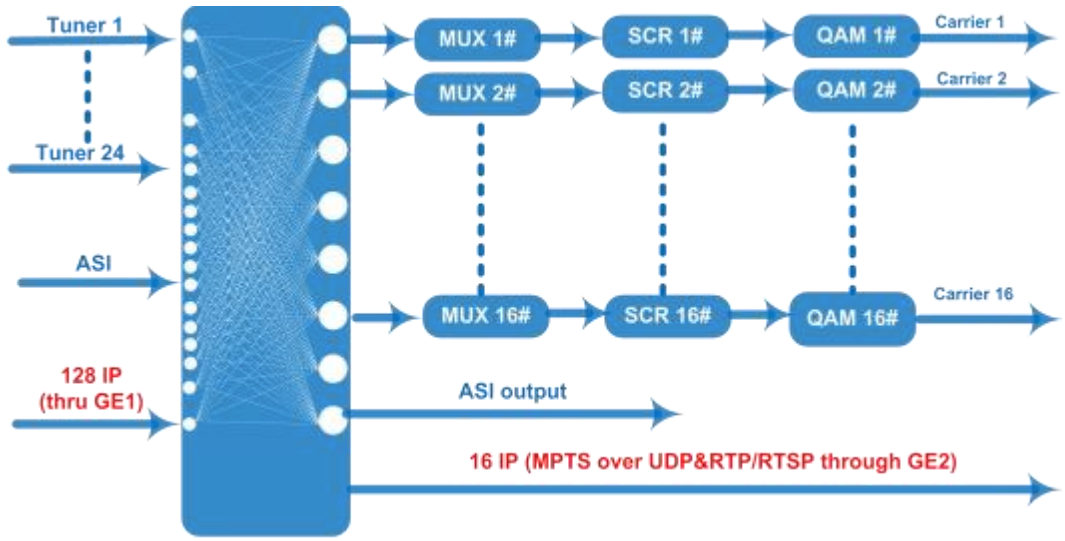
Key Features

- **24 DVB-S/-S2/-S2X (DVB-T/-T2, DVB-C, ATSC, ISDB-T Optional) FTA Tuner + 1 ASI**

input+128 IP input through GE1 over UDP and RTP protocol

- **16*DVB-C RF output**
- **1 IP (MPTS) output over UDP and RTP/RTSP, as mirror of one carrier**
- **Support 16 groups multiplexing+16 groups scrambling +16 groups QAM modulating**
- **Excellent RF output performance index, MER≥40db**
- **Support accurate PCR adjusting**
- **Support PSI/SI editing and inserting**
- **Support Web management, Updates via web**
- **Support TS recording and playing via the USB disk (FTA 32)**
- **Redundancy Power Supply (optional)**

Working Principle



Specifications

Input	24 DVB-S/-S2/-S2X (DVB-T/-T2, DVB-C, ATSC, ISDB-T Optional) FTA tuner			
	128 IP input through GE1 over UDP and RTP protocol			
	1 ASI input, BNC interface			
Tuner Section	Multi-mode tuners switchable **(New)**	DVB-C	Standard	J.83A(DVB-C), J.83B, J.83C
			Frequency In	60~890MHz
			Constellation	16/32/64/ 128/256 QAM
		DVB-T/T2	Frequency In	60~890MHz
			Bandwidth	6/7/8 M bandwidth
		ISDB-T	Frequency In	60~890MHz
	Version 1	DVB-S/S2	Frequency In	950~2150MHz
			Symbol rate	QPSK 1~45Mbauds

				8PSK 1~45Mbauds
			Code rate	1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
			Constellation	QPSK, 8PSK
	Version 2 **(New)**	DVB-S	Frequency In	950~2150MHz
			Symbol rate	0.5~45Msps
			Signal Strength	- 65~-25dBm
			FEC	1/2, 2/3, 3/4, 5/6, 7/8
			Constellation	QPSK
			Max input bitrate	≤129 Mbps
		DVB-S2	Frequency In	950~2150MHz
			Symbol rate	QPSK/8PSK / 16APSK: 0.5~45 Msps 32APSK: 0.5~40Msps;
			FEC	QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10 16APSK: 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 32APSK: 3/4, 4/5, 5/6, 8/9, 9/10
			Constellation	QPSK, 8PSK, 16APSK, 32APSK
			Max input bitrate	≤129 Mbps
		DVB-S2X	Frequency In	950-2150MHz
			Symbol rate	QPSK/8PSK / 16APSK: 0.5~45 Msps 8APSK/32APSK: 0.5~40Msps
			FEC	QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10, 13/45, 9/20, 11/20 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10 8APSK: 5/9-L, 26/45-L 16APSK: 2/3, 3/4, 4/5, 5/6, 8/9, 9/10, 1/2-L, 8/15-L, 5/9-L, 26/45, 3/5, 3/5-L, 28/45, 23/36 , 2/3-L, 25/36, 13/18, 7/9, 77/90 32APSK: 3/4, 4/5, 5/6, 8/9, 9/10, 2/3-L, 32/45, 11/15, 7/9
			Constellation	QPSK, 8PSK, 8APSK, 16APSK, 32APSK
			Max input bitrate	≤129 Mbps
		ATSC	Frequency In	30~1000MHz
			Bandwidth	6M
			Constellation	8VSB
Multiplexing	Maximum PID Remapping		360 output per channel	
	Function		PID remapping (automatically or manually)	
			Accurate PCR adjusting	
			Generate PSI/SI table automatically	
Scrambling Parameters	Max simulscrypt CA		4	
	Scramble Standard		ETR289, ETSI 101 197, ETSI 103 197	

	Connection	Local/remote connection	
Modulation	QAM Channel	16 non-adjacent carriers output	
	Standard	EN300 429/ITU-T J.83A/B	
	MER	≥40db	
	RF frequency	50~960MHz, 1KHz step	
	RF output level	-20~+10dbm(87~107 dbμV),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
Stream out	16 RF output (F type interface)		
	16 IP (MPTS) output over UDP and RTP/RTSP (thru GE2), 2 ASI output(one as mirror)		
System	Network management (WEB)		
	Chinese and English language		
	Ethernet software upgrade		
General	Dimension(W*D*H)	482mm×300mm×44.5mm	
	Temperature	0~45℃(Operation) ; -20~80℃(Storage)	
	Power	AC 100V±1050/60Hz; AC 220V±10%, 50/60HZ	