



HP3948C

48 in 1 IP QAM Modulator



Product Overview

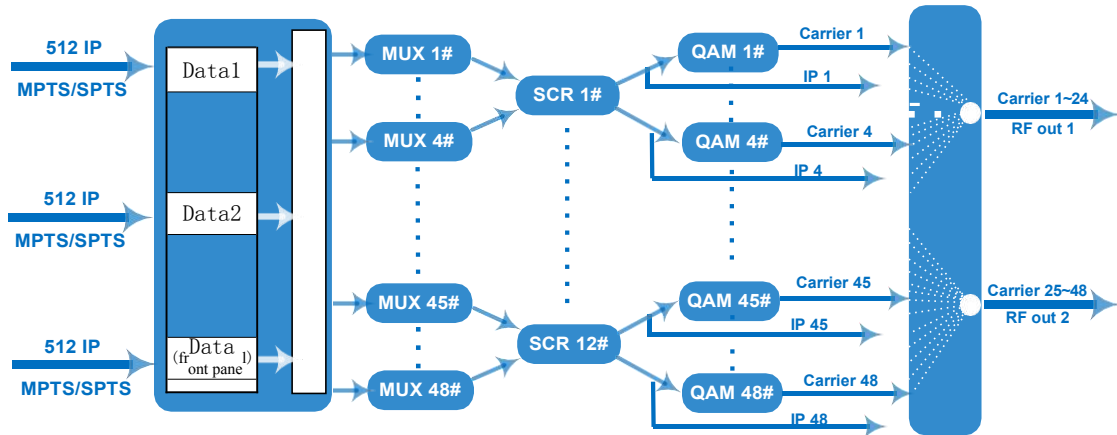
HP3948C 48 in 1 IP QAM modulator is Mux-scrambling-modulating all-in-one device developed by CATCAST. It has 48 multiplexing channels, 12 scrambling channels and 48 QAM (DVB-C) modulating channels, and supports maximum 1536 IP through the 3 GE ports and 48 non-adjacent carriers (50MHz~960MHz) output through the RF output interface. The device is characterized with dual RF output ports which broaden the bandwidth for QAM carriers.

Key Features

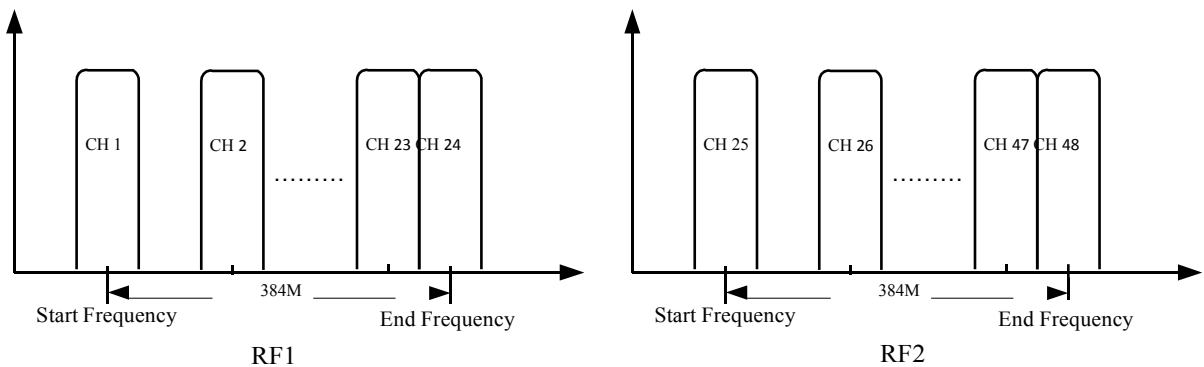
- **Max 1536 IP input thru 3 GE ports (SFP interface optional)**
- **Up to 512 PIDs remapping per output channel**
- **Supports 6 simulcrypt CAs and 12 scrambling channels**
- **48 IP out over UDP/RTP/RTSP: IP 1~24 out thru Data1, IP 25~48 out thru Data2**
- **48 non-adjacent QAM carriers output: carrier 1~24 out thru RF1, carrier 25~48 out thru RF2**
- **Supports RS (204,188) encoding**

- Supports accurate PCR adjusting/CA filtering, PID remapping and PSI/SI editing
- Web-based Network management

Inner Principle Chart



Carrier Setting Illustration



Specifications

Input	Input	Max 1536 IP in thru 3 GE ports [Data 1 & Data 2 bi-directional ports, Data port (located on front panel), each port can input max 512 IP] 100/1000M self-adaption Ethernet Port (SFP interface optional)
	Transport Protocol	TS over UDP/RTP, unicast and multicast, IGMP V2/V3
	Transmission Rate	Max 840Mbps for each GE input

Mux	Input Channel	1536	
	Output Channel	48	
	Max PIDs Remapping	512 per output channel	
	Functions	PID remapping (auto/manually optional)	
		PCR accurate adjusting	
PSI/SI table automatically generating			
Scrambling Parameters	Max simulcrypt CA	6	
	Scramble Standard	ETR289, ETSI 101 197, ETSI 103 197	
	Scramble Channel	12	
	Connection	Local/remote connection	
Modulation Parameters	DVB-C Modulator Section	J.83A	Constellation :16/32/64/128/256QAM
			Bandwidth :8M
		J.83B/C	Constellation :64/256QAM
			Bandwidth :6M
	QAM Channel	48 non-adjacent carrier	
	Modulation Standard	EN300 429/ITU-T J.83A/B/C	
	Symbol Rate	3600~7000Ksps, 1ksps stepping 5057Ksps (J.83B, 64QAM) 5361Ksps (J.83B, 256QAM)	
	Constellation	16, 32, 64 , 128, 256QAM	
	FEC	RS (204, 188)	
RF Output	Interface	2 F type output ports for 48 carriers, 75Ω Carrier 1~24 out thru RF1, 25~48 thru RF2	
	RF Range	50~960MHz, 1kHz stepping	
	Output Level	-20dBm~+10dBm(87~117dbμV), 0.1dB stepping	
	MER	≥ 40dB	
TS output	48 IP output over UDP/RTP/RTSP, unicast/multicast, 2*100/1000M self-adaption, Ethernet Ports (SFP). IP 1~24 out thru Data1, IP 25~48 out thru Data2.		
System	Network management software (NMS) supporting		
General	Demission	420mm×440mm×44.5mm (WxLxH)	
	Weight	3kg	
	Temperature	0~45°C(operation), -20~80°C(storage)	
	Power Supply	AC 100V±10%, 50/60Hz or AC 220V±10%, 50/60Hz	
	Consumption	15.4W	