



HEP200D

10G IP QAM processor



Product Overview

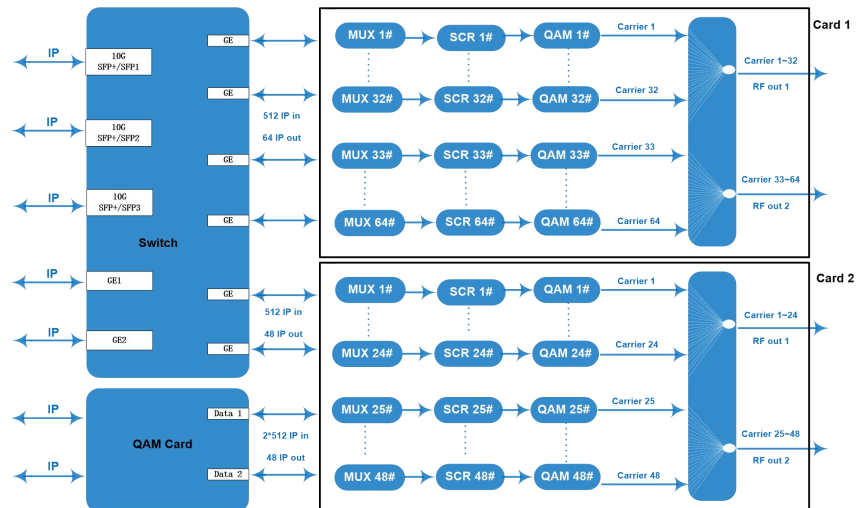
HEP200D 10G IP QAM processor is an all-in-one device developed by Catcast which integrates multiplexer, scrambler and modulator in one body with maximum 112 DVB-C QAM channels output. With 10G switch built in, it can process 10G optical signal to work as a traditional QAM modulator.

This processor is equipped with 2 card slots to load 32ch or 48ch or 64ch QAM card. Its high density helps operators to save cost to the most extent.

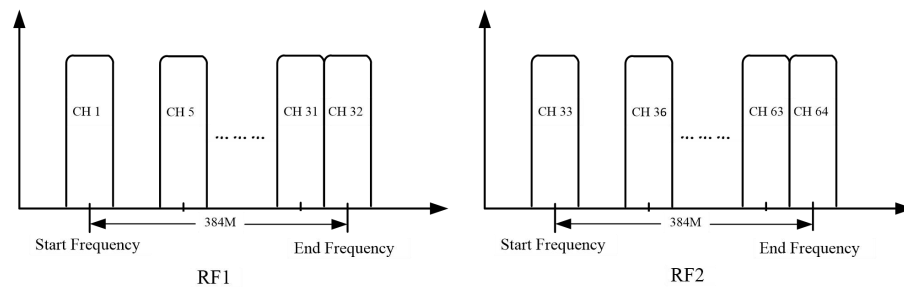
Key Features

- Support 3 SFP+ (10G)/SFP(1G) ports and 2 GE ports input & output from the front panel, or RJ45 GE ports input & output from daughter cards (32/48QAM)
- High density, modularized plug-in design, 1U chassis with max 2 QAM cards
- Support multiplexer and scrambler with 6 CAS Simul-cryption
- Maximum 112 non-adjacent QAM carriers output
- Supports accurate PCR adjusting/CA filtering, PID remapping and PSI/SI editing
- Web-based Network management

Inner Principle Chart (Example: one 64qam card + one 48qam card)



Carrier Setting Illustration (Example: 64qam card)



Specifications

Input	Input from Front Panel	Max 512 IP in per card through SFP+/SFP ports 1-3 and 2 GE ports	
	Input from Daughter Card	2*512 IP in from 2 GE ports (SFP port optional)--32/48 QAM	
	Transmission Rate	Max 9600Mbps for each 10G SFP+/SFP input	
	Transport Protocol	TS over UDP/RTP, unicast and multicast, IGMP V2/V3	
Mux	Max PIDs Remapping	256 per output channel	
	Functions	PID remapping (auto/manually optional)	
		PCR accurate adjusting	
		PSI/SI table automatically generating	
Scrambling	Max simulcrypt CA	6	
	Scramble Standard	ETR289, ETSI 101 197, ETSI 103 197	
	Connection	Local/remote connection	
Modulation	Modulation Standard	EN300 429/ITU-T J.83A/B/C	
	Constellation	J.83A	Constellation :16/32/64/128/256QAM
			Bandwidth :8M
		J.83B/C	Constellation :64/256QAM
			Bandwidth :6M
	QAM Channel	32/48/64/96/112 non-adjacent carriers output,	

		384Mbps bandwidth for each RF port
	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 (per card)	1 or 2 F type output ports for 32/48/64 carriers card, 75Ω. 32ch qam card : all Carrier out thru one RF port 32ch/48ch qam card : Carrier 1~16/1~24 out thru RF1, 17~32/25~48 thru RF2 64ch qam card : Carrier 1~32 out thru RF1, 33~64 thru RF2
	RF Range	50~960MHz, 1kHz stepping
	Output Level	-20dBm~+10dBm(87~117dbμV), 0.1dB stepping
	MER	≥ 40dB
TS output	Per Daughter QAM Card	32/48/64 IP output over UDP/RTP/RTSP, unicast/multicast, through SFP+/SFP ports 1-3 or GE ports RJ45
System	Web-based Network management	
General	Dimension	420mm×440mm×44.5mm (W×L×H)
	Temperature	0~45℃(operation), -20~80℃(storage)
	Power Supply	AC 100V±10%, 50/60Hz ; or AC 220V±10%, 50/60Hz
	Consumption	50W(1 daughter QAM card)/75W(2 daughter QAM cards)

Order Guide

Options Available	Combinations
32ch QAM out	32qam card * 1
48ch QAM out	48qam card * 1
64ch QAM out	64qam card * 1
96ch QAM out	64qam card * 1 + 32qam card *1
112ch QAM out	64qam card * 1 + 48qam card *1