

## PR-3232 IP MUX SCRAMBLING QAM MODULATOR



### Product Outline

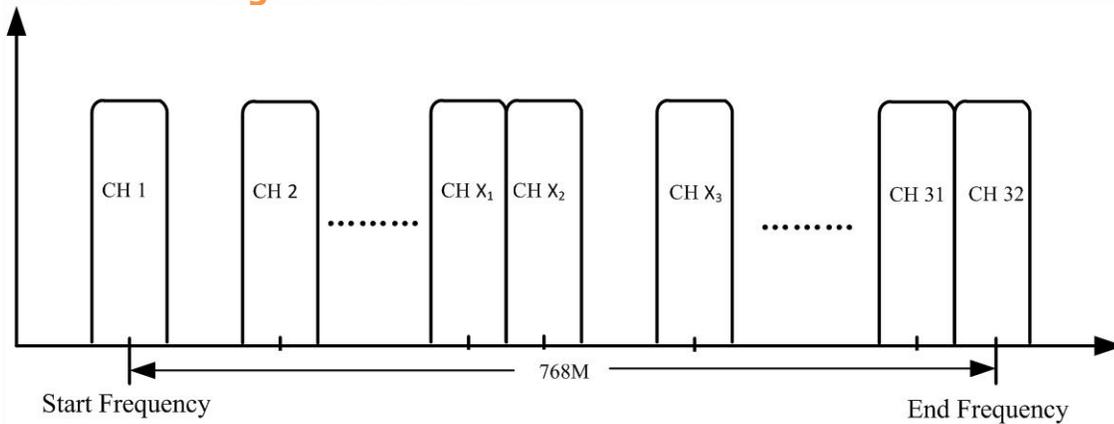
PR-3232 IP Mux-Scrambling QAM modulation module is the latest generation mux-scrambling-modulating all-in-one device. A single module supports maximum 512 IP (MPTS/SPTS) input and 24 carriers output as well as 24 IP output after multiplexing and scrambling process (RF output for local transmission and IP output for remote sub-head end). It adopts the slot structure with one device supporting maximum 3 PR-3232 modules and 72 channels mux-scrambling-modulation. Each module can work standalone. With its powerful performance and low cost, PR-3232 is especially adequate for the new generation CATV system.

### Key features

- Compliant to DVB-C (EN 300 429) and ITU-T J.83 A
- Support DVB general scrambling system (ETR289), simulcrypt standards ETSI 101 197 and ETSI 103 197
- 2 GE input per module, RJ45 interface or SFP
- Supports up to 512 channels IP input over UDP, RTP (MPTS/SPTS)
- Supports unicast and multicast, supports IGMP v2v3
- Max 840Mbps effective bit rate for every GE input

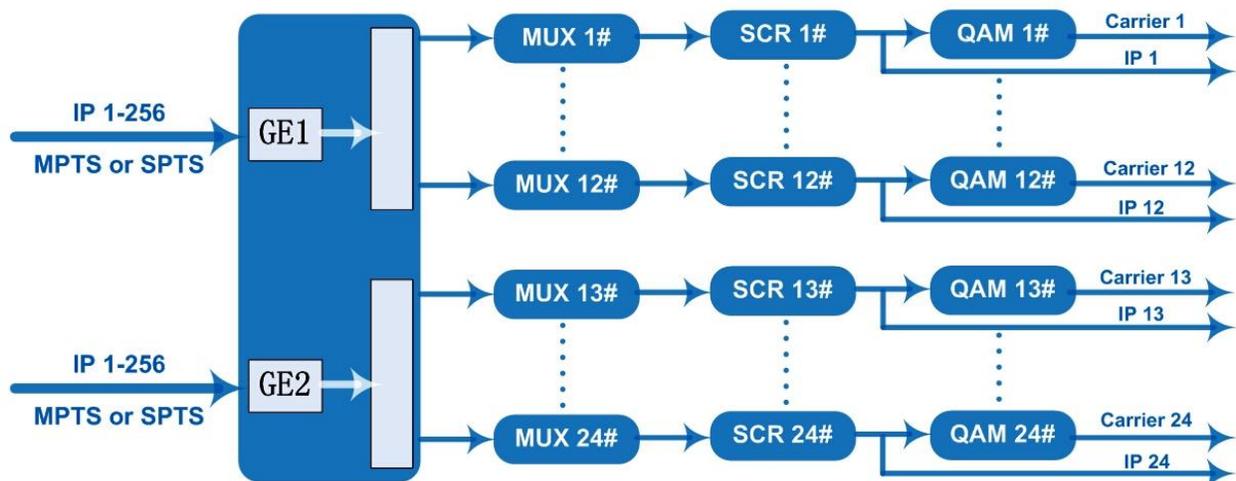
- Supports re-multiplexing and MPTS/SPTS multiplexing
- Supports up to 256 PIDs remapping per channel
- 24 QAM carriers output per module, adjustable frequency output within 768 MHz
- Support 24 IP (MPTS) output over UDP, RTP/RTSP per module
- Supports RS (204,188) encoding
- Excellent RF performance, MER $\geq$ 40db
- Support Web-based NMS Management
- Modular design, 1U chassis support up to 3 modules
- Redundancy Power Supply

### Carrier Setting Illustration

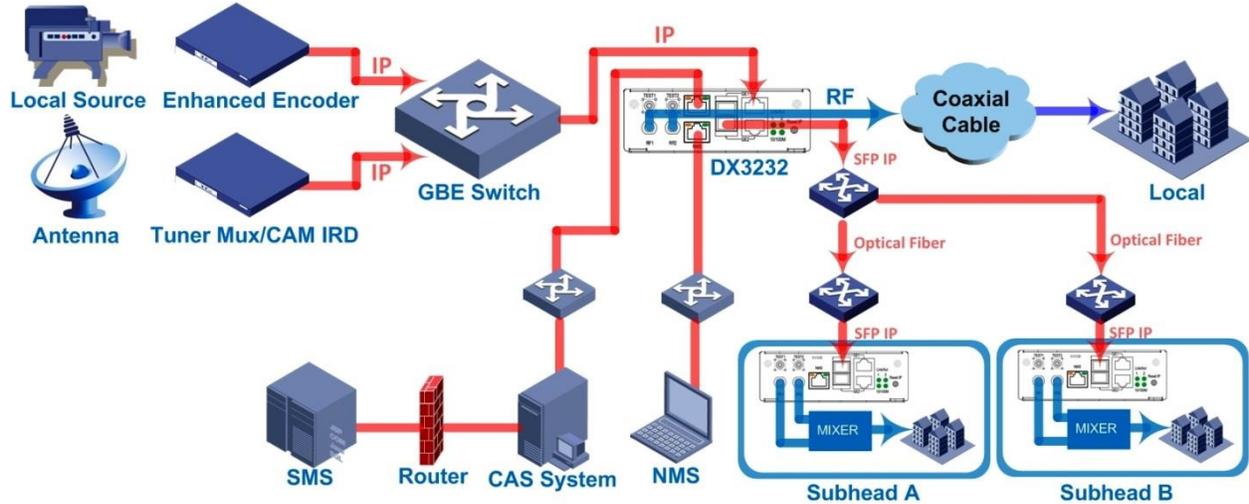


**24 QAM carriers output per module, adjustable carrier frequency output within 768 MHz:  
support non-adjacent frequency setting  
Bandwidth can be disregarded (regardless of bandwidth)**

### Inner Principle (of a single module)



## System Connection Sample IP Base



## Specification

### Input

Interface	2 GE(RJ45) or 2 SFP input ports, hot backup
IP Input	256x2=512
Transport Protocol	TS over UDP/RTP, unicast and multicast, IGMP V2/V3
Transmission Code	Max 840Mbps effective bit rate for every GE input

### Multiplexer

Input Channel	512/Module
Output Channel	24/Module
Max PIDs	256 per channel
Functions	PID remapping(auto/manually optional) PSI / SI table automatically generating

### Scrambling

Max simu-encrypt CA	4/Module
Scramble Standard	ETSI 101 197, ETSI 103 197
Connection	Local/remote connection

### QAM Modulation

QAM Channel	24/Module
Modulation Standard	EN300 429/ITU-T J.83A
Symbol Rate	5750~7200 Ksps, 1ksps stepping
Constellation	16, 32, 64, 128, 256QAM
FEC	RS (204, 188)

### RF Output

Interface	1 F typed output port for 24 carriers, 75Ω impedance
RF Range	36~960MHz, 1kHz stepping
Output Level	+10dBm ~ -10dBm, 0.5dB stepping
MER	≥ 40dB

### IP Output

24*IP (MPTS) output over UDP, RTP/RTSP per module
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### System

Manage: Web Server NMS
Language: English/Chinese

### General

Demission (WxLxH)	630mm×440mm×44.5mm
Weight	9.0kgs
Temperature	0~45℃ (operation), -20~80℃ (storage)
Power Supply	AC 100V±10%, 50/60Hz or AC 220V±10%, 50/60Hz
Consumption	15.4W