

# RF Gateway

## IP to DVB-C Modulator



**RF Gateway** IP to RF modulator, with ASI input, modulation DVB-C to convert Video/Audio signals into RF over exist Coax Cable distribution. It provides a best-of-class modulator platform for Digital TV Owners and IPTV operators.

The platform can change the modulation signal by software upgrade, this flexible operation can help to reduce the cost in the operation of the project. **RF Gateway** supports modulation channel independent multiplexing, with DVB-C modulation output, and can output different modulation signals.

By using PSI/SI technology, inserting NIT information table in WEB, **RF Gateway** increased compatibility with terminal products in cable TV application.

This is an ideal solution used largely to Hotel, entertainment facilities, education broadcasting systems at schools and government buildings or IP Source signals convert to Cable TV broadcast environments.

### Key Features

- High density, high quality, high performance, high flexibility
- DVB-C (QAM) Modulation, 16/32 Channel Non-adjacent Carrier RF output
- supports 384\*IP (SPTS/MPTS) inputs over 3\*GbE Port
- 6 separate ASI input
- 8\*MPTS (6\*MPTS and 2\*RF pass through) out over GE1
- **Supports non-adjacent frequencies in the whole frequency range, and solves a small number of isolated frequency points**
- Agile full-band: 100 ~ 840Mhz
- Selectable the Value of PCR PID same as Video PID
- LCN (Logical Channel Number) support
- PSI/SI editing & inserting
- PID Remapping & Filtering
- Support TTL editing
- PCR correct and PCR interval adjusting
- Superior Shoulders and Excellent modulation quality MER
- Low power consumption and high reliability with MTBF(Mean Time Between Failure)  $\cong$  87600 Hours
- Easy-to-Use System Management via Web

### Application

- Advertising, monitoring, training and educating
- Upgrade all your analog Head-ends to digital TV Solution
- Enterprise, Hotel, campus, hospital, Public Place
- Low cost Digital TV distribution

# TECHNICAL SPECIFICATIONS

## IP Interfaces

Types 3\* Gigabit Ethernet  
 Connector providing 1000Base-T (twisted pair, RJ-45)  
 IP Encapsulation MPEG-TS over UDP/RTP IP  
 I/O Speed (1Gbe ports) 840 Mbps per port

## IP Input

Addressing & Protocols Unicast, Multicast (IGMP V2/V3)  
 MPEG Format 188/204 Bytes per TS packet  
 Maxinumber of services 384\*IP over 3\* GBE  
 Transport stream reception of MPTS and SPTS

## IP Output

Maxinumber of services 8\*MPTS (6\*MPTS and 2\*RF pass through)  
 TS out GbE  
 Packet Length 1-7  
 MPEG Format 188 Bytes per TS packet  
 Null Packet Processing Filtering & Insertion

## DVB-ASI inputs

Connector BNC female, 75Ω  
 Signal Level 200-800mVp-p  
 Packet Length 188 bytes  
 Maximum bit-rate per port ≤100Mbps  
 Number of Input Ports 6 separate ASI ports

## Stream Output

RJ45 Port 100/1000M GbE Port  
 MPEG TS over UDP, unicast, and multicast streaming  
 MPEG TS over RTP/RTSP  
 Configurable packet size (2-7)x188Bytes  
 Filter Null Packet

## Modulation Part

Connector 1 RF Port , F-Type, 75Ω  
 Output Return Loss 14 dB  
 MER ≥40dB  
 RF output level -30 ~ -10dbm, 1db step  
 RF frequency 100 ~ 840Mhz, 1KHz step  
 separate control Frequency difference range (0 ~768M)  
 Numbers of RF Channel 16/32\*Carrier RF Out

## DVB-C Standard J83.A (DVB-C, J83.B, J83.C)

Carrier	ANNEX A	Annex B		Annex C
Constellation (QAM)	16,32,64,128, 256	64	256	64/256
Bandwidth (Mhz)	8	6	6	6
Symbol Rate ( Mbaud)	5-7	5.057	5.361	4.2-5.3

## Multiplexing

Maximum PID Remapping 180 input per channel  
 PID remapping by automatically or manually  
 PSI/SI SDT/PMT/TOT/PAT/BAT/CAT/TDT/NIT  
 Accurate PCR adjusting

## System

Local interface LCD + control buttons  
 Remote management Web/NMS  
 NMS interface RJ45, 100M  
 Language English

## Environment

Voltage range 100 to 240V AC ; 50/60Hz  
 Power consumption 60W  
 Operation Temperature 0 ~ 45℃  
 Storage Temperature -20 ~ 80℃  
 Dimensions 482mm (L) \* 380mm (W) \* 44mm (H)  
 Weight 4.5 kg

## Principle Chart

