

# IPQC24

## 24 Channel Mux Scrambler EdgeQAM

### Description

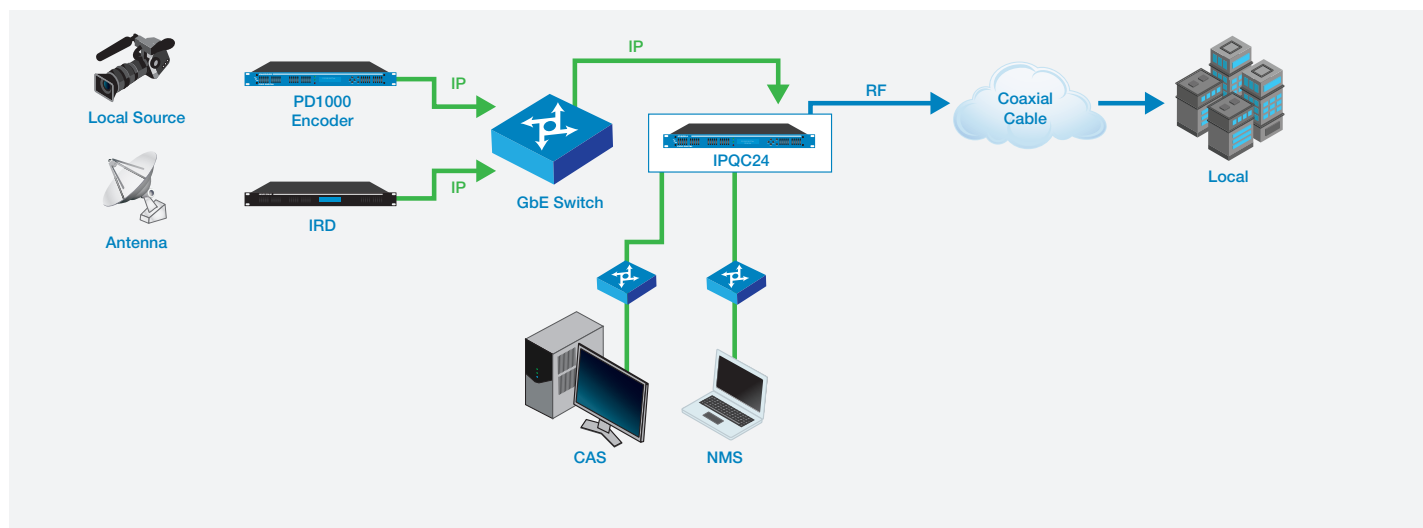
The IPQC24 is a highly integrated 1-RU video edge QAM that can multiplex and scramble IP video signals and convert them to QAM/DVB-C channels for use in CATV systems, such as the Pico Digital CONDOR. The unit features a flexible design and can be configured in a number of ways to suit specific end applications. The high-quality QAM output of the edge QAM is organized into 24 independent QAM channels, which can be placed anywhere within a 768 MHz span, from 36 MHz to 960 MHz. The IPQC24 supports up to four simultaneous CA systems and 1680 Mbps of IP data input.

### Features

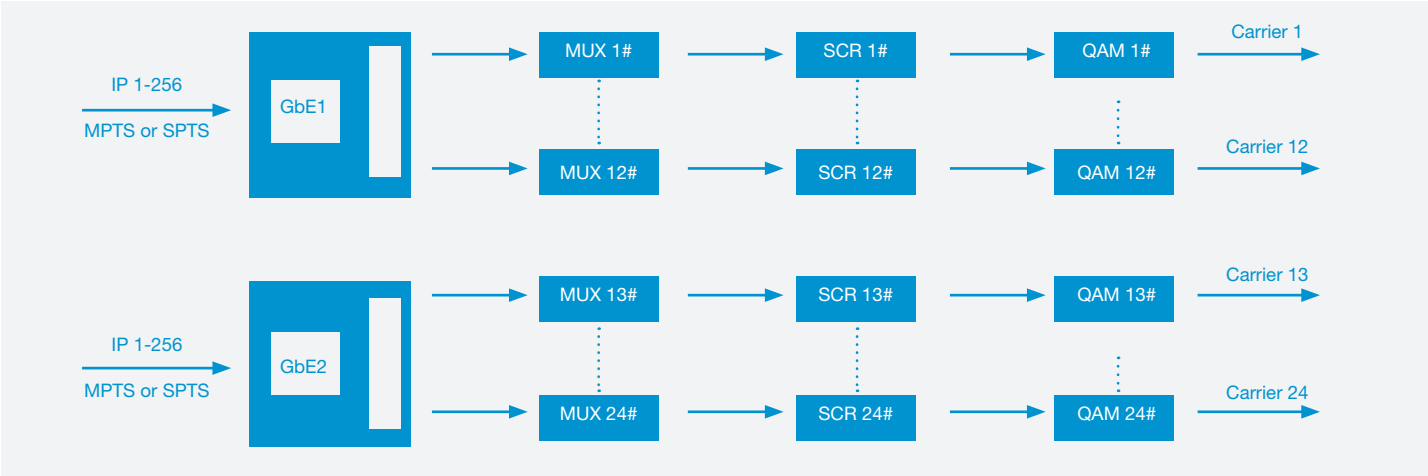
- Supports up to 512 channels of IP input over UDP, RTP (MPTS/SPTS)
- Supports unicast and multicast, IGMP v2/v3
- Max 840 Mbps effective bitrate for every GbE input
- Supports re-multiplexing and MPTS/SPTS multiplexing
- Supports up to 256 PIDs remapping per channel
- 24 QAM carriers output, adjustable frequency output within 768 MHz
- Supports RS (204, 188) encoding
- Excellent RF performance, MER  $\geq 40$  dB
- Remote control and monitoring via an easy-to-use web browser
- Modular design, 1-RU chassis
- Redundant power supply
- Simultaneous multiple encryption – four CA Systems supported
- Compliant to DVB-C (EN 300 429) and ITU-T J.83 Annex A and B
- Supports DVB general scrambling system (ETR289), Simulcrypt standards ETSI 101 197 and ETSI 103 197
- 2 GbE inputs, RJ-45 interface or SFP



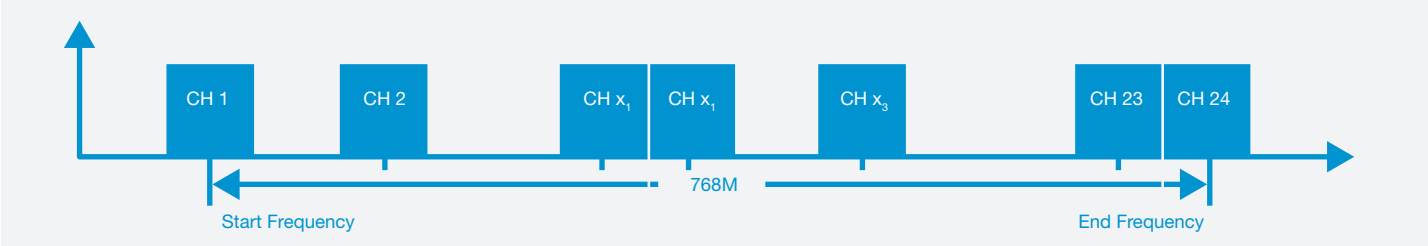
### Sample System Configuration



# System Diagram



# Carrier Setting Illustration



# Specification

Input	
Interface	2 GbE (RJ-45) or 2 SFP input ports, hot backup
IP Input	256 x 2 = 512
Transport Protocol	TS over UDP/RTP, unicast and multicast, IGMP V2/V3
Transmission Code	Max 840 Mbps effective bitrate for every GbE input
Multiplexer	
Input Channels	512
Output Channels	24
Max PIDs	256 / channel
Functions	PID remapping (auto/manually optional) PSI / SI table automatically generating <b>Note:</b> No EAS Support
Scrambling	
Simultaneous Encryption	4 different CA systems
Scramble Standard	ETSI 101 197, ETSI 103 197
Connection	Local/remote
QAM Modulation	
QAM Channel	24
Modulation Standard	EN300 429/ITU-T J.83 Annex A and B
Symbol Rate	5750 Ksps to 7200 Ksps, 1 Ksps steps
Constellation	16, 32, 64, 128, 256 QAM
FEC	RS (204, 188)

RF Output	
Interface	1 F-type output port for 24 carriers, 75 Ω impedance
Frequency Range	36 MHz to 960 MHz, 1 kHz steps
Output Level (Combined)	59 dBmV, .5 dB steps
RF Level Adjustment Range (Combined)	39 dBmV to 59 dBmV
MER	≥ 40 dB
Management	
Connection	RJ-45, GbE, Full Duplex, Auto-Neg
Protocols	HTTP
User Interface	Web Browser
Browser Support	IE9 or later, Firefox, and Chrome
General	
Dimensions	19" (L) x 18.5" (D) x 1.75" (H)
Weight	19.8 lbs.
Operating Temperature	0 °C to 45 °C
Power Supply	AC 110 V ± 10 %, 50 Hz/ 60 Hz AC 220 V ± 10 %, 50 Hz/ 60 Hz
Consumption	15.4 Watts

# Ordering Information

**IPQC24** 24 Channel Mux Scrambler EdgeQAM