

Clearview Flex QAM

Flexible Transmodulator

Key Features

- » Multiplexes SPTS to MPTS via IP and/or QAM outputs; MPEG-2 or H.264/H.265
- » De-multiplexes MPTS to SPTS; MPEG-2 or H.264/H.265
- » Can pass-thru or modify PSIP information such as major/minor channels, short names, and corresponding program IDs (PIDs)
- » Allows for null packet insertions or deletion supporting Constant Bit Rate (CBR)
- » Supports UDP Unicast or Multicast and UDP delivery of IP packets
- » Remote Control port for local or remote web-based management
- » Audio formats supported: AC3, AAC and MPEG-1 Layer 2, E-AC3



Product Overview

The **Clearview Flex QAM** combines IP grooming and edge QAM technology into one integrated package. By providing a wide-range of functionality in a compact solution, the Flex QAM brings remarkable cost savings. The unit can convert ASI to IP video streams, as well as Mux and Demux ASI and IP streams.

Ordering Information

Model	Stock #	Description
Clearview Flex QAM	6582	Flexible Transmodulator
Clearview Flex QAM RP-2	6591	Rack Panel for 2 Flex QAM units across 1RU

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Specifications

Input	
IP Mode	
Connector	1x RJ45 (Rear Panel)
Standard	1000Base-T Ethernet (GigE)
UDP/RTP	Supported (User-Selectable)
Protocols Supported	IGMPv2/IGMPv3
Stream Portfolio	
Standard	ISO / IEC 13818-1 Systems
TS Packet Length	188 bytes
Sync Byte	0x47
SPTS and MPTS	Supported
Muxing	32 SPTS to 4 MPTS
Bit Rate	Constant
ASI	
Connector	4x BNC Female
Rates	DVB-ASI; EN 50083-9

Output	
QAM	
# of Output Modules	1x Quad-QAM (total of 4 QAM channels)
Connector	1x "F" Female (for combined output)
Modulation	QAM 16, 32, 64, 128, and 256
Standards	ITU-T J.83; Annex A and B
DVB Symbol Rate	Variable; up to 7 MSymbol/sec (MBaud)
Frequency Range	54 to 1002 MHz
Tuning	CATV Channel Selectable (Ch. 2 to 158)

Output	
Channels' Bandwidth	24 MHz (4x Adjacent 6 MHz)
RF Level	+40 dBmV (± 1 dB increment)
RF Level Adjustment Range	+35 to +42 dBmV (± 1 dB increment)
Frequency Tolerance	± 0.5 kHz @ 77 °F (25 °C)
Frequency Stability	± 5 kHz over 32 to 122 °F (0 to 50 °C)
Amplitude Flatness	± 0.25 dB (over 6 MHz channel)
Phase Noise	-98 dBc (@ 10 kHz)
Spurious	-60 dBc
Broadband Noise	-70 dBc (@ +40 dBmV output level, 5.5 MHz bandwidth)
Impedance	75 Ω
Spectral Inversion	Auto Recognition
Carrier Suppression	45 dB
Return Loss	14 dB typical
Signal to Noise Ratio	40 dB typical
MER	39 dB typical
I/Q Phase Error	Less than 1 degree
I/Q Amplitude Imbalance	Less than 1%
IP	
Connector	1x RJ45 (Rear Panel)
Standard	1000Base-T Ethernet (GigE)
UDP/RTP	Supported (User-Selectable)
Address Assignment	IPv4 addresses & port numbers (User-Selectable)
ASI	
Connector	1x BNC Female
Standard	DVB-ASI; EN 50083-9

Specifications (continued)

General		Alarms & Monitoring	
Dimensions (W x H x D)	8.69 x 1.97 x 12.70 in (220.7 x 50.0 x 322.6 mm)	Local Monitoring	1x Power LED 1x Status LED
Weight	3.0 lbs (1.36 kg)	Local Control	1x IP Reset Button
Power	12 VDC External Power Supply	Remote Device Monitoring/Control	1x RJ45 (10/100Base-T) GUI-Based Menu via Web Browser
Power Dissipation	20 W		
Operating Temp.	32 to 122 °F (0 to 50 °C)		
Storage Temp.	-13 to 158 °F (-25 to 70 °C)		
Operating/Storage Humidity	0 to 95% RH @ 35 °C max, non-condensing		

Modes of Operation

Mode	Input	Functions and Notes	Output TS Select
1 PASS-THRU	(RJ45) GigE Full Duplex ⁽¹⁾ ; 4xMPTS (16 prog./3 audio each max)	<ul style="list-style-type: none"> May select up to four (4) input sources to present four (4) transport streams (TS) over QAM and/or IP. 	^(2,3) 4xQAM (16 prog. each max) ^(2,3) 4xMPTS (16 prog. each max)
	(BNC) 4xASI	<ul style="list-style-type: none"> Limited PSIP Manipulation, e.g. Re-PID Capability May direct any one (1) of the TS to the ASI output (5th Output) 	1xASI (214 Mbps)
2 DEMUX	(RJ45) GigE Full Duplex ⁽¹⁾ ; 4xMPTS (16 prog./3 audio each max)	<ul style="list-style-type: none"> Defines 32xSPTS max Full PSIP Manipulation and Program Filtering Capability 	32xSPTS; 40 Mbps max each
	(BNC) 4xASI		
3 MUX	(RJ45) GigE Full Duplex ⁽¹⁾ ; • 32xSPTS (3 audio each max); or • 4xMPTS (16 prog./3 audio each max)	<ul style="list-style-type: none"> A total of 32 TS inputs can be multiplexed over a total of four (4) TS in any combination on QAM and IP. Full PSIP Manipulation and Program Filtering Capability 	^(2,3) 4x MPTS ^(2,3) 4xQAM
	(BNC) 4xASI	<ul style="list-style-type: none"> May direct any of the output TS to the ASI output (5th Output) 	1xASI

⁽¹⁾ Sum of input data and output data must not exceed 1 Gbps.

⁽²⁾ MPTS and QAM output TS quantity cannot exceed four (4).

⁽³⁾ Once defined, a TS may be selected for presentation on either QAM or IP, or both.

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Product I/O Diagram

