

- Outputs up to 16 RF QAM channels
- Up to 800 Mbps output bitrate
- 4 GbE IP input ports: accept up to 160 MPTS or SPTS
- 4 ASI input ports
- Built-in Re-multiplexer
- WEB and SNMP remote control

ADV-5160QM

16-Channel DVB-C QAM Modulator



The ADV-5160QM is a professional all-in-one high density IP/ASI to DVB-C QAM modulator. It receives up to 160 digital TV transport streams from Gigabit Ethernet and 4 ASI streams from 4 ASI ports. It outputs up to 16 QAMs RF channels. A powerful TS re-Multiplexer matrix rebuilds up to 16 new TS streams for further QAM modulation. These 16 QAM carriers are directly independently up-converted with high speed DAC to achieve excellent RF performance covered the whole 1GHz band. ADV-5160QM is housed in a 1-RU chassis with two AC power supplies in redundancy.

Main Features

- Compliant with ITU J.83 Annex A & C and DVB-C EN300429
- Integrated GbE IP de-encapsulation
- 4 Gigabit TS/IP ports, (RJ-45 & SFP) x 2, 2+2 redundancy
- ≤200ms De-jitter for TS/IP input
- Up to 160 SPTS or MPTS Inputs over GbE and 4 ASI inputs over 4 ASI ports
- 16 independent QAM modulators
- RF output backup port for 1+1 redundancy
- Redundant Power Supply
- Network Management through SNMP, HTTP, CLI (Command Line Interface)

Supports Two switched GigE ports inputs



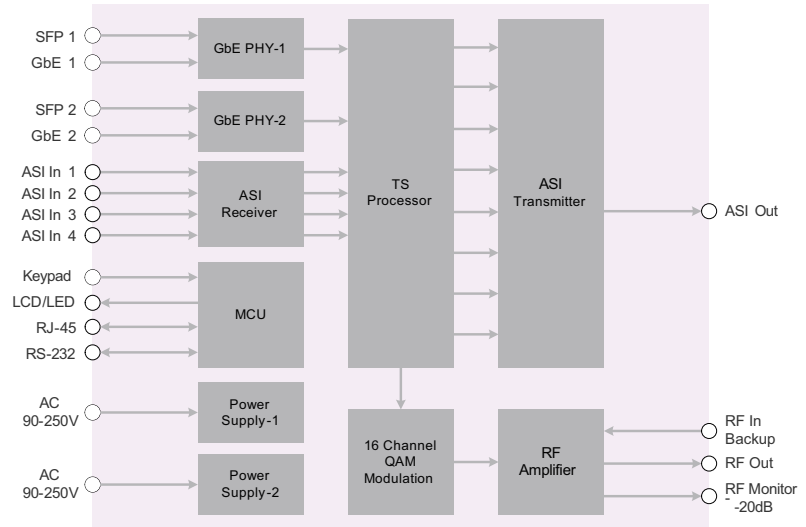
16 QAM output channels on single RF output



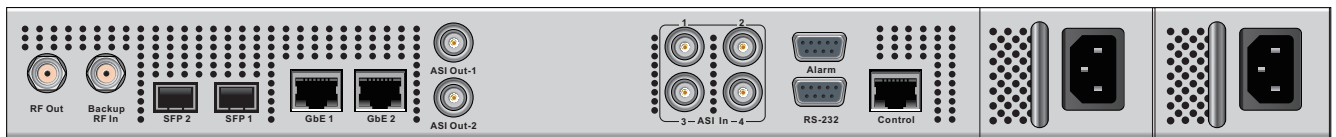
Redundant power supplies



ADV-5160QM Functional Block Diagram



Back Panel Interface



Specification

IP Input		Control & Monitoring	
Connector Type	(1000Base-T + SFP) x 2, IEEE803.2, 2+2 redundant	Connector Type	1xRJ-45, 10/100 Base-T((for remote control))
Protocol	IPv4, IGMPv2, IGMPv3, ARP, UDP, RTP	Remote Control	HDMS, HTTP 1.1
Operating Mode	Full duplex, Auto negotiable	Protocol	SNMP v1 & v2, HTTP 1.1
Streaming Type	Multicast or Unicast	Local Control	LCD and 6-key on front panel
Number of Streaming Inputs	160	Serial Port	1xRS-232 D-sub 9-pin (for debug use only)
Type of TS Streaming	SPTS or MPTS	RF Monitor Port	1xF type female, 75Ω, -20dB lower than the main RF output
TTL	1~256 (adjustable)	Alarm and Contact Relay	
De-jitter	200ms	Contact type	1xD-sub 9-pin
Effective Input Bit Rate	≤950Mb/s	Alarm & Warning Indicator	Dual colors LED on Front panel, Contact Relay on Rear panel
ASI Input		Trap	SNMP v1 & v2
Connector Type	4xBNC female, 75Ω	Event Log	last 1000 events logged in non-volatile memory
Standard	DVB-ASI, EN50083-9	Sensors & Indicators	
Input Return Loss	15dB	Temperature Sensor	Yes
Minimum Input Level	200mV	Fan Status Sensor	Yes
Input Data Mode	Burst or Byte, 188 or 204 Byte/Package	Alarm Buzzer	Yes
Input Data Rate	≤216Mb/s	Bit rate Capacity Indication	Yes (for each QAM)
QAM Modulation		Power Supply	
Standard	DVB-C EN300 429, J.83 Annex A & C	Power Supply	AC 90V ~ 250V, 50/60Hz
Symbol Rate	3.6MBaud~7MBaud	Power Consumption	50Watts Max.
Roll-off Factor	12%, 13%, 15%, 18%	Physicals	
MER	>36dB (with Tester Equalizer = off)	Dimension	445mmx543mmx44mm
Number of QAM Carriers	16	Weight	8Kg
RF Output		Operating Temperature	0~45°C
Connector Type	1xF type Female, 75Ω	Storage Temperature	-10~60°C
Channel Bandwidth	6MHz, 8MHz	Operating Humidity	10~90%, non-condensing
Output Frequency Range	49~1000 MHz	Certification	
Output Frequency Adjustment Step	1KHz	EMC: EN 55024:1998+A1:2001+A2:2003, EN 55022:2006+A1:2007, EN 61000-3-2:2006, EN 61000-3-3:2008	
Output Frequency Accuracy	±25ppm	FCC: Part 15 Class B	
Output Level	105dBuV per channel	Environment: RoHS, WEEE	
Output Level Attenuation	30dB(step by 1dB)		
Output Return Loss	15dB min.		
Shoulder Attenuation	50dBc (typical.) @ BW±10%		
Spurious Rejection	60dBc (typical.)		
Spectrum Flatness	4dB (over full output frequency range)		
Useful Output Bit Rate	800 Mbps		