

WDH-5600TM

32-Way IP to QAM Modulator

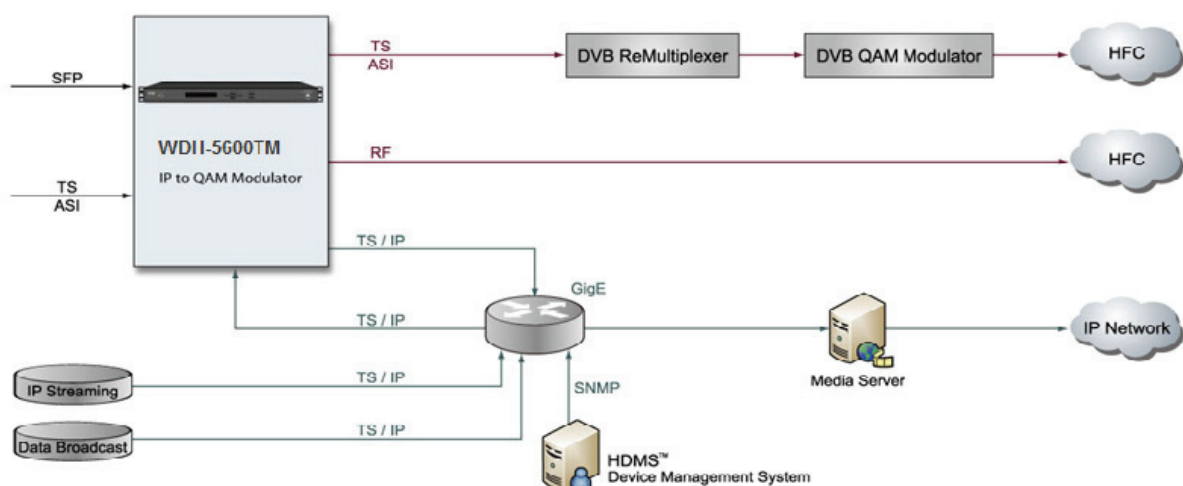


The WDH-5600TM is a professional all-in-one high density IP to DVB-C QAM modulator. It receives up to 64 or 160 digital TV transport streams from both Gigabit Ethernet and ASI ports. It supports 16 QAMs or 32 QAMs by software option. For 16 QAMs, a powerful TS re-Multiplexer matrix re-builds up to 16 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. For 32 QAMs, without re-Multiplexer built-in, each QAM carrier can randomly select one of 64 TS/IP input or ASI input. It is housed in a 1-RU chassis with two AC power supplies in redundancy.

Main Feature

- 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 64 or 160 SPTS or MPTS Inputs over GbE
- 16 or 32 independent QAM modulators
- RF output backup port for 1+1 redundancy
- Redundant Power Supply
- Network Management through SNMP, HTTP, CLI (Command Line Interface)

Application Case



Specification

IP Input	
Connector Type	(1000Base-T + SFP) x 2, IEEE803.2, 2+2redundant
Protocol	IPv4, IGMPv2, IGMPv3, ARP, UDP, RTP
Operating Mode	Full duplex, Auto negotiable
Streaming Type	Multicast or Unicast
Number of Streaming Input	64 or 160 (software option)
Type of TS Streaming	SPTS or MPTS
TTL	1~255 (adjustable)
De-jitter	200ms
Effective Input Bit Rate	≤950Mb/s

ASI Input	
Connector Type	4×BNC female, 75Ω
Standard	DVB-ASI, EN50083-9
Input Return Loss	15dB
Minimum Input Level	200mV
Input Data Mode	Burst or Byte, 188 or 204 Byte/Packet
Input Data Rate	≤216Mb/s

QAM Modulation	
Standard	DVB-C EN300 429, J.83 Annex A & C
Symbol Rate	3.6Mbaud~7Mbaud
Roll-off Factor	12%, 13%, 15%, 18%
MER	>36dB (with Tester Equalizer = off)
Number of QAM Carrier	16 or 32 (software option)

RF Output	
Connector Type	1×F type Female, 75Ω
Channel Bandwidth	6MHz, 8MHz
Output Frequency Range	49~1000 MHz
Output Frequency Adjustment Step	1KHz
Output Frequency Accuracy	±25ppm
Output Level	105dBuV per channel
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	800Mb/s

Control & Monitoring	
Connector Type	1×RJ-45, 10/100 Base-T(for remote control))
Remote Control	HDMI, HTTP 1.1
Protocol	SNMP v1 & v2, HTTP 1.1
Local Control	LCD and 6-key on front panel
Serial Port	1×RS-232 D-sub 9-pin (for debug use only)
RF Monitor Port	1×F type female, 75Ω, -20dB lower than the main RF output

Alarm and Contact Relay	
Contact type	1×D-sub 9-pin
Alarm & Warning Indicator	Dual colors LED on Front panel, Contact Relay on Rear panel
Trap	SNMP v1 & v2
Event Log	last 1000 events logged in non-volatile memory

Sensors & Indicators	
Temperature Sensor	Yes
Fan Status Sensor	Yes
Alarm Buzzer	Yes
Bit rate Capacity Indication	Yes (for each QAM)

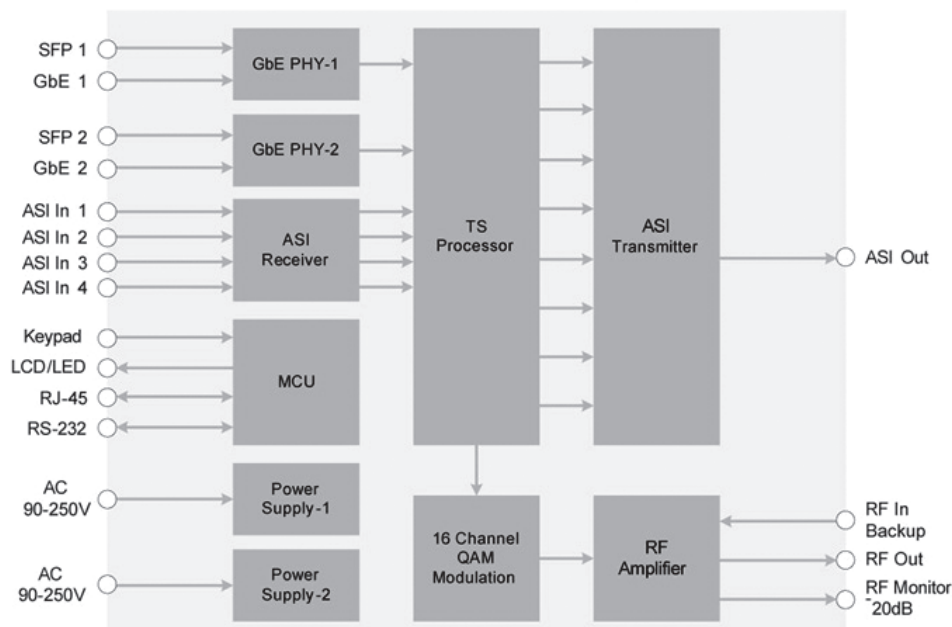
Power Supply	
Power Supply	AC 90V ~ 250V, 50/60Hz
Power Consumption	50Watts Max.

Physicals	
Dimension	445mmx543mmx44mm
Weight	8Kg Net, 12Kg Gross
Operating Temperature	0~45°C
Storage Temperature	-10~60°C
Operating Humidity	10~90%, non-condensing

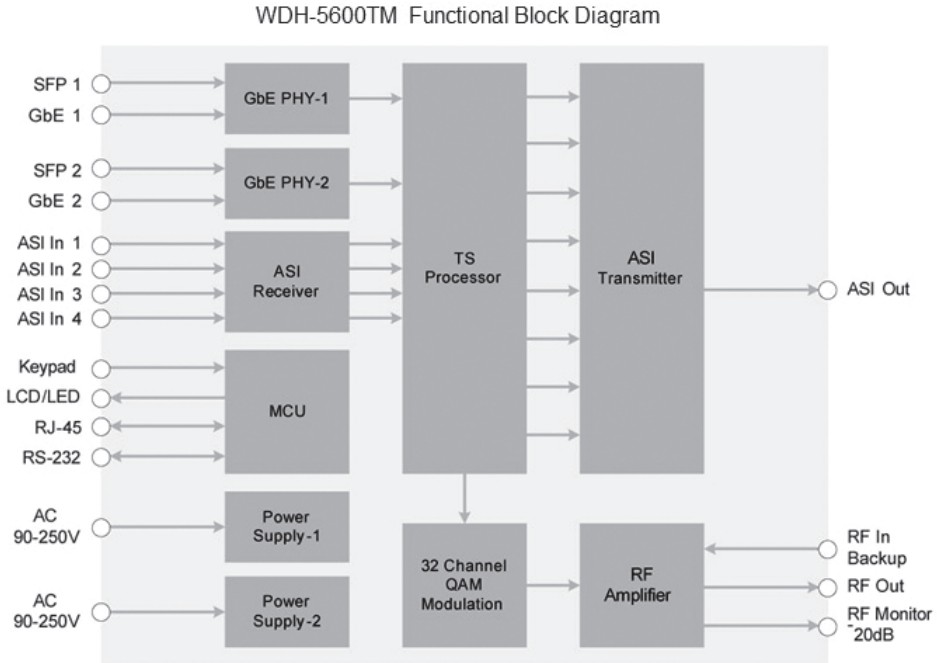
Certification	
EMC	EN 55024:1998+A1:2001+A2:2003, EN 55022:2006+A1:2007, EN 61000-3-2:2006, EN 61000-3-3:2008
FCC	Part 15 Class B
Environment	RoHS, WEEE

Block Diagram

WDH-5600TM Functional Block Diagram



Block Diagram



Back Panel Interface

