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Competence in Communication Technologies

Datasheet

MIE 77 series EdgeQAM

Description

MIE 77-xx is a new compact (1RU only) chassis and cost-effective QAM modulator. MIE 77-xx has 1 module, 1 1000Mbps IP input, 1 SFP input, the RF output supports 16QAM~256QAM modes. The MIE 77-xx has a very convenient management interface, the user can complete all operation access through the Ethernet port on device.

Features

- Support 2 to 4 CA Simulcrypt, compatible with multiple conditional access systems
- Support IP input interface and able to re- multiplex and scrambling single or multiple programs
- In 1RU, up to 16 frequencies
- Support 1.15MHz~8.05MHz bandwidth
- Support 16QAM、32QAM、64QAM、128QAM、256QAM modulation modes
- Support SFP input and IP input
- Support MPTS and SPTS over IP input, up to 512 UDP
- Provide RF output monitoring port (-20dB)
- Adjustable Symbol Rate up to 7Mbaud
- Max. effective bit rate up to 51.6Mbps (SR=7Mbaud, 256QAM)
- Nominal RF Output power ≥100dBuV (with 0~10dB adjustable attenuation range) and 48~863MHz frequency range
- access via Ethernet link

Application

- DVB-C QAM modulation
- VOD edge IPQAM
- DVB+HFC networks

Compatible

- EN 50083-9
- ETSI TR 101 154
- ETSI TR 101 891
- EN 300 429
- ITU-T J.83A/C

Recommended Operating Conditions

Stress in excess of the maximum absolute ratings can cause permanent damage to the device (See Table 1)

Table 1 – Recommended Operating Conditions

Parameter	Symbol	Min.	Max.	Unit
Supply Voltage Note	V	90	250	V
Supply Frequency	F	49	51	Hz
power consumption	C		55	W
Ambient Operating Temperature	Tw	0	+50	°C
Storage Temperature	Ts	-25	+55	°C
Operating Humidity	H	10	75	%

Note: Support both 110V and 220V supply voltage standards, but please let us know which one do you need when you release order.

Specifications

Table 2 – Technical Specifications

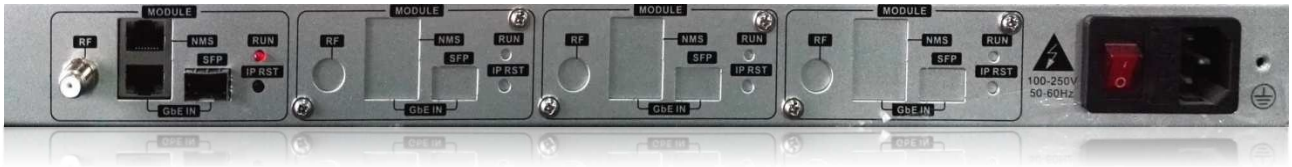
Parameter	Symbol	Description	Unit	Remark
Mechanical dimension				
Height	H	42	mm	About 1U
Width	W	434	mm	About 17″
Depth	D	340	mm	
Input SFP				
Type	-	LC		
Connector	-	SFP or RJ45		SFP with higher priority
Max. throughput	-	1.25	Gbps	
Compatible protocol	-	IP V4, UDP, RTP,ARP		
Multiplexing and scrambling				
Input channels		512 UDP		
Max PID		512 PID per freq		
Scrambling channels		4		
Function		PID remapping		
RF Output				
Impedance	-	75	Ω	
Output channels		16		
Connector	-	BNC	NA	
Frequency	-	48~863	MHz	Support any frequency set and Non-ajacent
Output level	-	>100	dBuV	Adjustable
Modulation Specification				
Modulation scheme		16~256QAM		
Standard		ITU-T J.83 Annex A,C		
Symbol Rate	SR	1~7	Mbaud	
Bandwidth	BW	1.15~8.05	MHz	

Effective output bit rate		≤51.6	Mbps	SR=7Mbaud, 256QAM
Modulation Error Rate	MER	≥40	dB	After equalizer
Modulation Error Rate	MER	≥33	dB	1. Before equalizer; 2. 64QAM mode; 3. -8dBm output level
Bit Error Rate	BER	≥9x10E-9		After FEC, 64QAM
Carrier to Noise	C/N	≥45	dB	1. 64QAM mode; 2. -8dBm output level
Management for IPQAM model				
Type		10/100BASE-T		
Connector		RJ45		
Max. bitrate		125	Mbps	

Panel Diagram

Front panel:

Rear panel:



Ordering Information

Part Number	Description
MIE 77-16	One module, QAM Modulator, RF output support 16~256QAM modes, up to 16 frequencies, output frequency range is 48~863MHz，SR=1~7Mbaud
MIE 77-32	Two module, QAM Modulator, RF output support 16~256QAM modes, up to 16*2 frequencies, output frequency range is 48~863MHz，SR=1~7Mbaud
MIE 77-48	Three module, QAM Modulator, RF output support 16~256QAM modes, up to 16*3 frequencies, output frequency range is 48~863MHz，SR=1~7Mbaud
MIE 77-64	Four module, QAM Modulator, RF output support 16~256QAM modes, up to 16*4 frequencies, output frequency range is 48~863MHz，SR=1~7Mbaud