



**NDS3316**

**16 in 1 IP QAM Modulator**



## Product Overview

NDS3316 16 in 1 IP QAM modulator is the latest generational Mux-scrambling-modulating all-in-one device developed by DEXIN. It has 16 multiplexing channels, 16 scrambling channels and 16 QAM (DVB-C) modulating channels, and supports maximum 512 IP input through the GE port and 16 non-adjacent carriers (50MHz~960MHz) output through the RF output interface. The device is also characterized with high integrated level, high performance and low cost. This is very adaptable to newly generation CATV broadcasting system.

## Key Features

- **2 GE input, Data 1 and Data 2**
- **Support up to 512 channels TS over UDP/RTP, unicast and multicast, IGMP v2\v3**
- **Max 840Mbps for each GE input**
- **Support accurate PCR adjusting**
- **Support CA filtering, PID remapping and PSI/SI editing**
- **Supports up to 180 PIDS remapping per channel**
- **Support DVB general scrambling system (ETR289), simulcrypt standards ETSI 101 197 and**



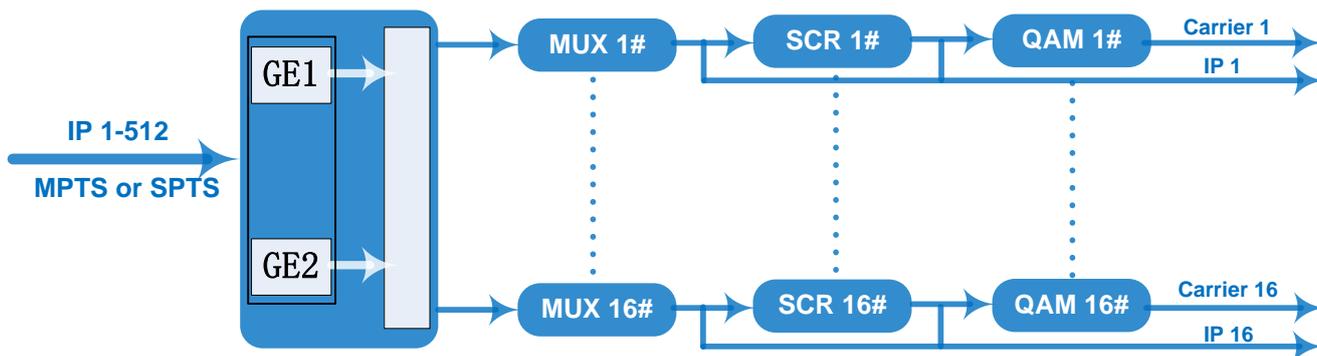
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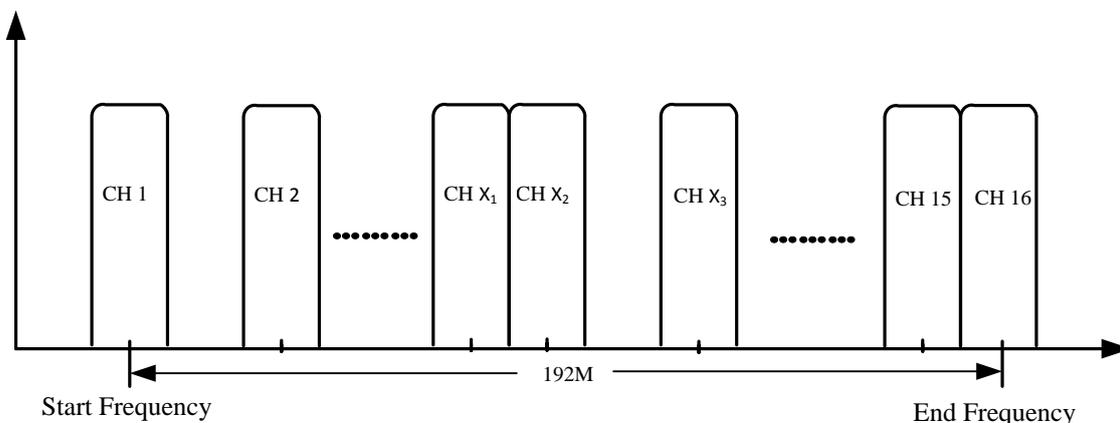
## ETSI 103 197

- Support 16 multiplexed or scrambled TS over UDP/RTP/RTSP output
- 16 non-adjacent QAM carriers output, compliant to DVB-C (EN 300 429) and ITU-T J.83 A/B
- Support RS (204,188) encoding
- Support Web-based Network management

## Inner Principle Chart



## Carrier Setting Illustration



## Specifications

<b>Input</b>	Input	512 IP input, 2 100/1000M Ethernet Port(SFP optional)
	Transport Protocol	TS over UDP/RTP, unicast and multicast, IGMP V2/V3
	Transmission Rate	Max 840Mbps for each GE input
<b>Mux</b>	Input Channel	512
	Output Channel	16
	Max PIDs	180 per channel

	Functions	PID remapping(auto/manually optional)	
		PCR accurate adjusting	
		PSI/SI table automatically generating	
<b>Scrambling Parameters</b>	Max simulcrypt CA	4	
	Scramble Standard	ETR289, ETSI 101 197, ETSI 103 197	
	Connection	Local/remote connection	
<b>Modulation Parameters</b>	DVB-C Modulator Section	J.83A	Constellation : 16/32/64/128/256QAM Bandwidth :8M
		J.83B	Constellation : 64QAM/ 256QAM Bandwidth :6M
	QAM Channel	16 non-adjacent carrier	
	Modulation Standard	EN300 429/ITU-T J.83A/B(DVB-C)	
	Symbol Rate	5.0~7.0Msps, 1ksps stepping	
	FEC	RS (204, 188)	
	<b>RF Output</b>	Interface	1 F typed output port for 16 carriers, 75Ω impedance
RF Range		50~960MHz, 1kHz stepping	
Output Level		-20dBm~+10dBm(87~117dbμV), 0.1dB stepping	
MER		≥ 40dB	
<b>TS output</b>	16 IP output over UDP/RTP/RTSP, unicast/multicast, 2 100/1000M Ethernet Ports		
<b>System</b>	Network management software (NMS) supporting		
<b>General</b>	Demission	420mm×440mm×44.5mm (WxLxH)	
	Temperature	0~45℃(operation), -20~80℃(storage)	
	Power Supply	AC 100V±10%, 50/60Hz or AC 220V±10%, 50/60Hz	

### System Connection Sample (IP Based)

