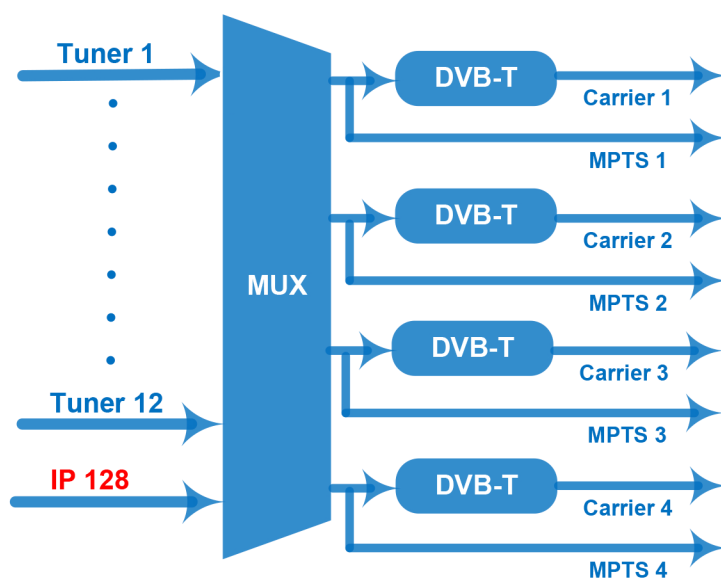# 4 in 1 DVB-T/C Modulator

Outline

NDS3348TS (NDS3348CS) is a high performance and cost-effective DVB-T (DVB-C optional) modulator designed by Dexin. It supports DVB-S2 (DVB-(T) optional) tuner inputs, after multiplexing, scrambling (only for DVB-C) and modulating process, then it gives 4 RF output. To meet customers' various requirements, this device is also equipped with 128 IP input and 4 MPTS output over UDP and RTP. Its pluggable structure design greatly facilitates the change of modules as needed. Moreover, NDS3348TS (NDS3348CS) can support Biss descrambling and can be upgraded and controlled through network system, which allows it to be widely used in setting up digital broadcasting network and provide good signals for scientific laboratory and DVB-T STB.
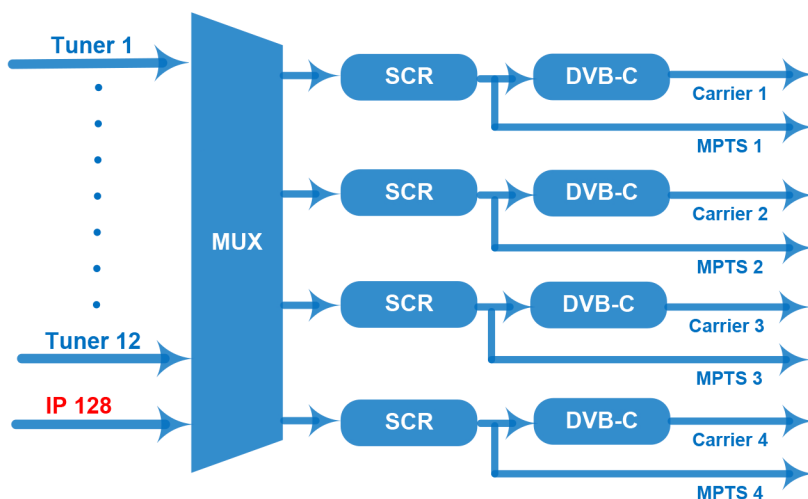
Features

- **12 DVB-S2 FTA Tuner input ports---Version I**
- **12 DVB-(T) Tuner input ports---Version II**
- **8 DVB-S2 FTA tuner+ 4 DVB-(T) tuner input---Version III**
- **8 DVB-(T) FTA tuner+4 DVB-S2 tuner input---Version IV**

- Support maximum 128 IP input(MPTS/SPTS) over UDP and RTP protocol
- Support Biss descrambling
- Support 4 groups multiplexing +4 groups DVB-T modulating----NDS3348TS
- Support 4 groups multiplexing +4 groups Scrambling+ 4 DVB-C modulating----NDS3348CS
- 4*DVB-T/C carrier output and 4 IP (MPTS) output over UDP and RTP protocol
- Integrated demodulating and multiplexing functions
- Support accurate PCR adjusting
- Support A/V PID filtering (for NDS3348TS), PID remapping
- Support PSI/SI rebuilding and editing
- Web-based NMS management

NDS3348TS DVB-T Principle Chart

NDS3348CS DVB-C Principle Chart

Specifications

Input	12 DVB-S2 FTA Tuner input ports---Version I 12 DVB-(T) Tuner input ports---Version II 8 DVB-S2 FTA tuner+ 4 DVB-(T) tuner input---Version III 8 DVB-(T) FTA tuner+4 DVB-S2 tuner input---Version IV 128 IP(SPTS/MPTS) input over UDP and RTP, RJ45, 1000M/100M Unicast/Multicast		
Tuner Section	DVB-S	Input Frequency	950-2150MHz
		Symbol rate	2-45Msps
		Signal Strength	-65~-25dBm
		FEC Demodulation	1/2, 2/3, 3/4, 5/6, 7/8 QPSK
	DVB-S2	Input Frequency	950-2150MHz
		Symbol rate	QPSK 1~45Mbauds; 8PSK 2~30Mbauds
		Code rate	1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
		Constellation	QPSK, 8PSK
	DVB-T/(T)	Input Frequency	30MHz ~999.999 MHz
		Bandwidth	6M, 7M, 8M
BISS descrambling	Mode 1, Mode E (Up to 850Mbps) (descramble individual program)		
Multiplexing	Maximum PID Remapping	256 per input channel	
	Function	PID remapping	
		A/V PID filtering (for NDS3348TS)	
		Accurate PCR adjusting	
		Generate PSI/SI table automatically	
Modulation	DVB-T	Standard	EN300744
		FFT mode	2K,
		Bandwidth	6M, 7M, 8M
		Constellation	QPSK, 16QAM, 64QAM
		Guard Interval	1/4, 1/8, 1/16, 1/32
		FEC	1/2, 2/3, 3/4, 5/6, 7/8
		MER	≥42 dB
		RF frequency	50~960MHz, 1KHz step
		RF out	4*DVB-T adjacent carriers combined output, 40M total bandwidth limitation
		RF output level	-28~ -3 dBm (79~105 dbµV), 0.1db step
	DVB-C	Standard	J.83A (DVB-C), J.83B,

		MER	≥43dB	
		RF frequency	50~960MHz, 1KHz step	
		RF output level	-25~ -1dbm (82~106 dbμV), 0.1db step	
		Symbol rate	5.000~7.000Msps adjustable	
		RF Out	4*DVB-C adjacent carriers combined output, 40M total bandwidth limitation	
			J.83A	**J.83B**
		Constellation	16/32/64/128/ 256 QAM	64/ 256 QAM
		Bandwidth	8M	6M
Stream out	4*MPTS over UDP and RTP out , RJ45, 1000M/100M, Unicast/Multicast			
System	web-based NMS support			
	Ethernet software upgrading			
General	Dimension (W*D*H)	482mm×300mm×44.5mm		
	Temperature	0~45℃(Operation) ; -20~80℃(Storage)		
	Power	AC 100V±1050/60Hz; AC 220V±10%, 50/60HZ		