

DMP500

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Multi-Standard Modulation Processor



DMP500 Today's digital systems demand powerful, flexible, multipurpose video processing and compact solutions that allow the service provider to support new network architectures. This 1RU case comes with 3 independent hot-swappable module slots.

Each module can be configured individually based on the applications including **ISDB-T, DVB-T, DVB-C, ATSC modulating** processing and the combination of all these functions.

Multi-Standard Modulation Processor is the next generation of intelligent headend processing equipment where the combination of compactness and flexibility leads to a cost-effective solution. Based on our experience, DMP500 brings operational and economic benefits in Video delivery applications.

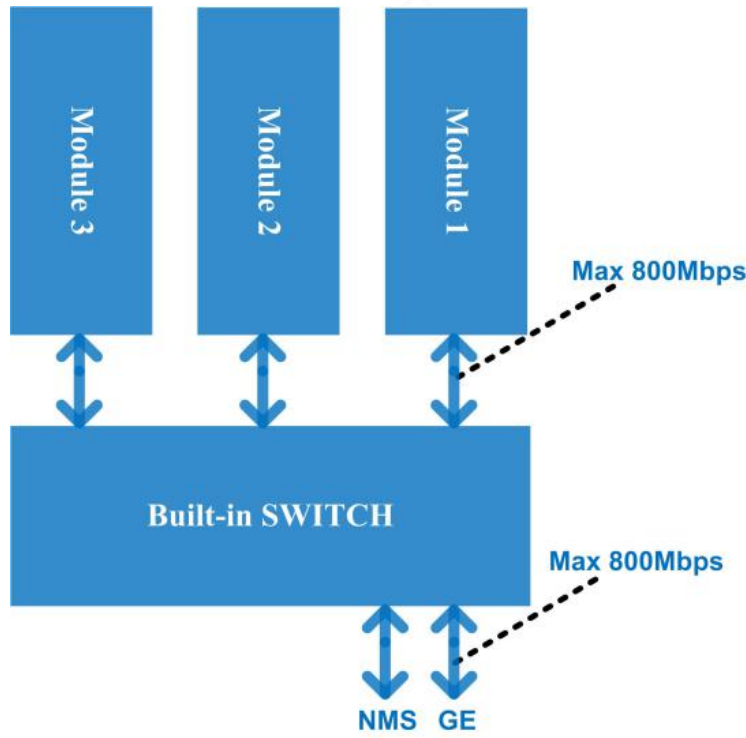
Features

- Modularized plug-in design, 1U chassis and 3 slots
- ISDB-T, DVB-T, DVB-C, ATSC modulating processing
- Support flexible combination of any different type of modules
- Maximum 800M data processing
- Support 1 GE bi-direction(Data port), RJ45 interface
- Support Web management, Update via web
- Dual unhotpluggable power supply

Advantage

- Adopt completely independent module design; enhance the stability of independent work of each module.
- With internal switch working mode; one network management port is used to manage each module (3 NMS IP via one network port).
- Novel design, convenient for operators to realize true backup and redundancy for one piece of equipment without occupying more space.

Principle Chart



TECHNICAL SPECIFICATIONS

16/32 QAM Modulating Module



Module Specifications

Data input 128 IP input from front panel Data port
 Max 512 IP input over UDP/RTP,
 2 GE Ports (RJ45/SFP)
 Max 1024 IP input over UDP/RTP,
 2 GE Ports (RJ45/SFP)

Data output 16/32 IP output over UDP/RTP/RTSP,
 unicast/multicast, 2 GE Ports (RJ45/SFP)

Trans Rate Max 840Mbps/GE Port

RF output (F type) 16/32 channels of multiplexing, scrambling
 and modulating

Multiplexing

Maximum PID Remapping: 180 output pids per channel
 256 output pids per channel

Function PID remapping (automatically or manually)
 Accurate PCR adjusting
 generate PSI/SI table automatically

Scrambling

Maximum simulcrypt CA 4

Standard ETR289, ETSI 101 197, ETSI 103 197

Connection Local/remote connection

Modulation

Standard EN300 429/ITU-T J.83A/B (DVB-C)

MER $\geq 40\text{db}$

RF frequency 50~960MHz, 1KHz step

RF output level -20~+10dbm (87~117 db μ V), 0.1db step for all carriers

Symbol Rate 5.0Msps~7.0Msps, 1ksps stepping

Constellation 16/32/64/128/256QAM

RF Output 16 non-adjacent carrier outputs within 192M bandwidth
 32 non-adjacent carrier outputs within 384M bandwidth

8 DVB-T/ATSC Modulating Module



Module Specifications

Data input 128 IP input from front panel Data port
 256 IP input over UDP/RTP, 2GE Ports (RJ45/SFP)

Data output 256 IP input over UDP/RTP, 2GE Ports (RJ45/SFP)
 8 IP output over UDP/RTP/RTSP, unicast/multicast,
 2 GE Ports (RJ45/SFP)

Trans Rate Max 840Mbps/GE Port

RF Output (F type) 8 non-adjacent carrier outputs within 192M bandwidth

Multiplexing

Channel Number	8 multiplexing channels
Maximum PID Remapping	180 input per channel
Function	PID remapping (automatically or manually) Accurate PCR adjusting generate PSI/ SI table automatically

Modulation: 8*DVB-T

Standard:	ETSI EN300 744
MER	≥40db
RF Frequency	50~960MHz, 1KHz step
Constellation	QPSK/16QAM/64QAM Bandwidth: 6/7/8 MHz
Trans mode	2K/4K/8K
FEC	1/2, 2/3, 3/4, 5/6, 7/8
RF Output Level	-20~+10dbm (for all carriers), 0.5db stepping

Modulation:8*ATSC

Standard	ATSC A/53
MER	≥40db
RF Frequency	50~960MHz, 1KHz step
Constellation	8VSB
Bandwidth	6MHz
FEC	RS(208 188)+Trellis
RF Output Level	-20~+10dbm (for all carriers), 0.5db stepping

6 ISDB-Tb Modulating Module



Module Specifications

Data input	128 IP input from front panel Data port 192 IP input over UDP/RTP, 2 GE Ports (RJ45/SFP)
Data output	6 IP output over UDP/RTP/RTSP, unicast/multicast, 2 GE Ports (RJ45/SFP)
Trans Rate	Max 840Mbps/GE Port
RF output (F type)	6 channels of multiplexing and modulation.

Multiplexing

Input Channel	192
Maximum PID Remapping	180 input per channel
Function	PID remapping (automatically or manually), Accurate PCR adjusting, generate PSI/ SI table automatically

Modulation

Standard	ARIB STD-B31
Bandwidth	6M
Constellation	QPSK, 16QAM, 64QAM
Guard Interval	1/32, 1/16, 1/8, 1/4
Transmission Mode	2K, 4K, 8K
Code rate	1/2, 2/3, 3/4, 5/6, 7/8
MER	≥40dB
RF frequency	50~960MHz, 1KHz step
RF output level	-20dBm~+10dBm (87~117dBμV), 0.1dB stepping

16 ISDB-Tb Modulating Module



Module Specifications

Data input	512×2 IP input over UDP/RTP, 2 GE Ports (RJ45/SFP) and stream connector
Data output	16 IP output over UDP/RTP/RTSP, unicast/multicast, 2 GE Ports (RJ45/SFP)
Trans Rate	Max 840Mbps/GE Port
RF output (F type)	16 channels of multiplexing and modulation.

Multiplexing

Maximum PID Remapping	256 output pids per channel
Function	PID remapping (automatically or manually) Accurate PCR adjusting, generate PSI/ SI table automatically

Modulation

Standard	ARIB STD-B31
Bandwidth	6M
Constellation	QPSK, 16QAM, 64QAM
Guard Interval	1/32, 1/16, 1/8, 1/4
Transmission Mode	2K, 4K, 8K
Code rate	1/2, 2/3, 3/4, 5/6, 7/8
MER	≥40dB
RF frequency	50~960MHz, 1KHz step
RF output level	-20dBm~+10dBm (87~117dBμV), 0.1dB stepping

Equipment

Dimension(W×L×H)	440mm×324mm×44mm
Approx weight	6kg
Environment	0~45℃(work); -20~80℃(Storage)
Power requirements	AC 110V± 10%, 50/60Hz, AC 220 ± 10%, 50/60Hz