

DP501 Digital Platform 6 module series



Outline

DP501 Digital Platform 6 module series products are the new generation of intelligent head-end equipment. This 1U chassis comes with 6 independent module slots. Each module can be configured individually based on the applications including encoding, decoding, trans-coding, multiplexing, descrambling and modulating processing and the combination of all these functions. Besides, it supports one power supply or two for optional.

IU device with the powerful performance, this series product will be widely used in new generation digital TV system with most cost effective proposal

Features

- ✓ Support flexible combination of different type of modules
- ✓ Support up to 6 modules
- ✓ Support 1 ASI output (MPTS2)
- ✓ Support 2 GE output, 512 SPTS (UDP, RTSP/RTP) output from GE1, 8 MPTS (UDP,RTP)output from GE2, Unicast/Multicast, RJ45/SFP interface
- ✓ Support 1 TS (MPTS/SPTS) input from each module, and maximum bitrate is 350Mbps
- ✓ Support multiplexing TS from different modules to one TS and output through one module or GE1/GE2 port

✓ Support Web management, Updates via web

Specifications

Port	GE1	TX/SFP,512SPTS
	GE2	TX/SFP,8MPTS
	NMS	Network Management Software connection
	CAS	To the PC installing CAS
	ASI out	Multiplexing TS out
General	Dimensions(WxDxH)	480mm*412mm*44.5mm
	Approx weight	9g
	Temperature range	0~45℃(operation) , -20~80℃(storage)
	Power Supply	AC 110V±10% ,50/60Hz or AC 220V±10% ,50/60Hz
	Power consumption	20W

Part Number guide

COL-DP804S 4 FTA Tuner Module



Features

- ✓ 4 DVB-S/S2 Tuner input
- ✓ Maximum PID Remapping: 256 input
- ✓ PID remapping (automatically/ manually), Accurate PCR adjust
- ✓ Support Diseqc function
- ✓ Support Web management, Updates via web
- ✓ Support redundancy power supply (Optional)

Specifications

Tuner Input	Interface	4 Tuner input, F Type
	Input Level	-65 ~ -25dBm
	Input Frequency	950~2150MHz
	Symbol Rate	DVB-S: QPSK 1~45 Mbps



		DVB-S2: QPSK/8PSK 1~45 Mbps 16APSK 1~45 Mbps 32APSK 1~32 Mbps (16APSK&32APSK are optional as required)
	FEC Code Rate	DVB-S:: 1/2, 2/3, 3/4, 5/6, 7/8 DVB-S2: 1/2, 2/3, 3/4, 5/6, 7/8, 4/5, 5/6, 8/9, 9/10

COL-DP802S 2 DVB-S/S2 Descrambling Module



Features

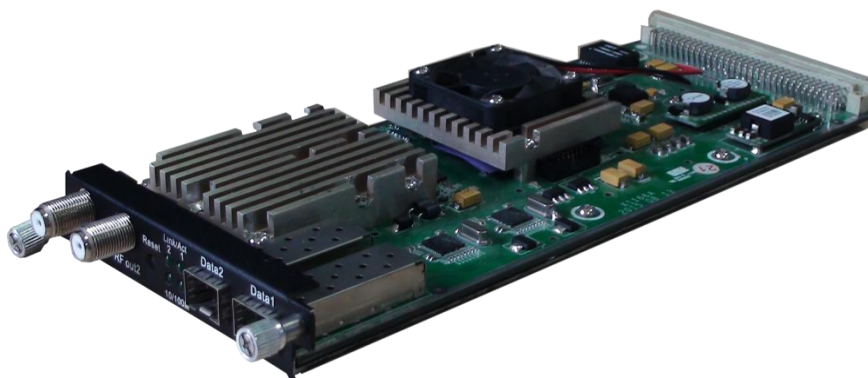
- ✓ 2 DVB-S/S2 Tuner input
- ✓ 2 independent common interface slots
- ✓ Support Diseqc function
- ✓ Maximum PID Remapping: 256 input
- ✓ PID remapping (automatically/ manually), Accurate PCR adjust

- ✓ Support Web management, Updates via web
- ✓ Support redundancy power supply (Optional)

Specifications

Tuner Input	Interface	2 Tuner input, F Type,2DVB-CI
	Input Level	-65 ~ -25dBm
	Input Frequency	950~2150MHz
	Symbol Rate	DVB-S: QPSK 1~45 Mbps DVB-S2: QPSK/8PSK 1~45 Mbps 16APSK 1~45 Mbps 32APSK 1~32 Mbps (16APSK&32APSK are optional as required)
	FEC Code Rate	DVB-S::1/2, 2/3, 3/4, 5/6, 7/8 DVB-S2: 1/2, 2/3,3/4,5/6,7/8,4/5,5/6,8/9, 9/10

COL-DP606I 6 ISDB-T Modulating Module



Features

- ✓ Support 32×6 IP input over UDP/RTP, 2GE Ports (RJ45/SFP)
- ✓ Support 6 MPTS IP output over UDP/RTP, unicast/multicast, 2 GE Ports (RJ45/SFP)
- ✓ Max 840Mbps/GE Port Trans Rate
- ✓ Support up to 6 modules (optional)
- ✓ Support 6 channels of multiplexing and modulation (RF output -F type)
- ✓ Multiplexing input with 192channel
- ✓ Maximum PID Remapping with 180 input per channel
- ✓ Support PID remapping (automatically or manually), Accurate PCR adjusting, generate PSI/ SI table automatically
- ✓ Support Web management, Updates via web
- ✓ Support redundancy power supply (Optional)

Specifications

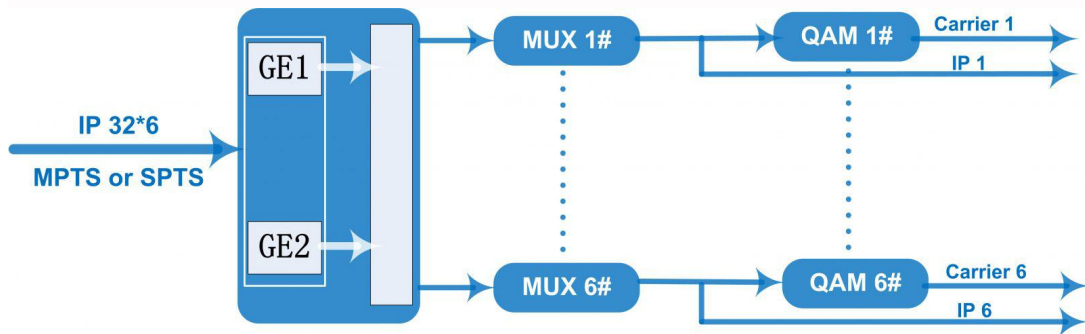
IP Input	192 Channels IP input over UDP/RTP (Unitcast/Multicast) 2GE Ports (RJ45/SFP)	
MER	≥40db	
Multiplexing	Input Channel	192
	Maximum PID Remapping	180 input per channel
Modulation	Standard	ARIB STD-B31
	Constellation	QPSK, 16QAM, 64QAM
	Carriers	6 non-adjacent carriers output
	Guard Interval	1/32, 1/16, 1/8, 1/4
	Transmission Mode	2K, 4K, 8K
	Code rate	1/2, 2/3, 3/4, 5/6, 7/8



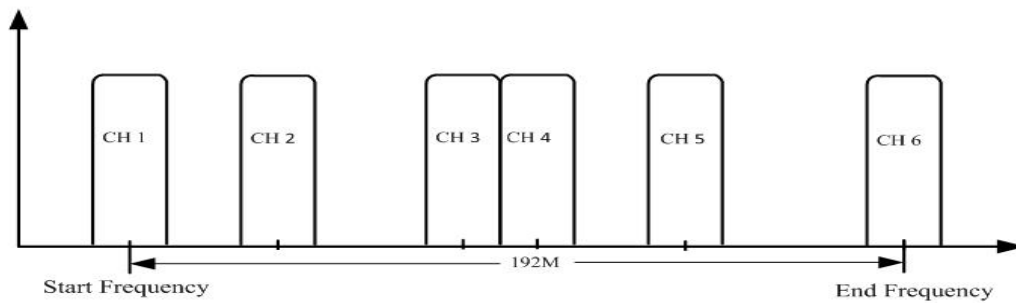
	RF Range	50~960MHz, 1KHz step
	Bandwidth	6M
	Output Level	-20~+10dbm (87~117dbμV), 0.1dB stepping
System	Web-based NMS support	
	Ethernet software upgrading	

Inner Principle

Char



Carrier Setting Illustration



COL-DP416Q 16 QAM Modulating Module



Features

- ✓ 512×2 IP input over UDP/RTP, 2GE Ports (RJ45/SFP)
- ✓ Support 16 IP output over UDP/RTP/RTSP, unicast/multicast, 2 GE Ports (RJ45/SFP)
- ✓ Max 840Mbps/GE Port Trans Rate
- ✓ Support up to 6 modules (optional)
- ✓ Support 16 channels of multiplexing, scrambling and modulation
- ✓ Maximum PID Remapping with 180 input per channel
- ✓ Support PID remapping (automatically or manually), Accurate PCR adjusting, generate PSI/ SI table automatically
- ✓ 16 non-adjacent carrier outputs within 192M bandwidth
- ✓ Support max 4 simulcrypt CA
- ✓ Support Web management, Updates via web
- ✓ Support redundancy power supply (Optional)

Specifications

Input	Input	512×2 IP input, 2GE Ports (RJ45/SFP)
	Transmission Rate	Max 840Mbps for each GE port
Mux	Input Channel	1024
	Output Channel	16
	Max PIDs	180 per channel
		PID remapping(auto/manually optional)
	Functions	PCR accurate adjusting PSI/SI table automatically generating
Scrambling	Maximum simulcrypt CA	4
	Standard	ETR289, ETSI 101 197, ETSI 103 197
	Connection	Local/remote connection
Modulation Parameters	Channel	16 non-adjacent carrier
	Modulation Standard	EN300 429/ITU-T J.83A/B (DVB-C)
	Constellation	16/32/64/128/256QAM
	Symbol Rate	5.0~7.0Msps, 1ksps stepping
	FEC	RS (204, 188)
RF Output	Interface	F typed output port for 16 non-adjacent carriers
	RF Range	50~960MHz, 1kHz stepping
	Output Level	-20~+10dbm (87~117 dbμV), 0.1db step for all carriers
	MER	≥ 40dB

System Web-based Network management

COL-DP204P 4 ASI/IP Multiplexing Module



Features

- ✓ 4ASI inputs/outputs
- ✓ 2 100/1000M Ethernet Port inputs/outputs
- ✓ Supporting PID remapping, PCR correction, generate PSI/ SI table automatically
- ✓ SNMP Network Management support
- ✓ Support redundancy power supply (Optional)

Specifications

Input port	4 ASI bi-direction, BNC 75Ω
	2 100/1000M Ethernet Port ,
Input stream	4 ASI input
	256×2 IP input
output port	4 ASI bi-direction, BNC 75Ω
	2 100/1000M Ethernet Port ,

output stream	4 ASI output
	4 IP output

COL-DP104H 4 HDMI encoding Module



Features

- ✓ Audio MPEG1 Layer 2, AAC(optional)
- ✓ 4 channel HDMI inputs
- ✓ H.264/AVC High Profile Level 4.0 video encoding support, advanced video pretreatment algorithm
- ✓ Real- time effective output bit-rate monitoring
- ✓ Support HD (1080i/720p_50/60) to SD (576p/480p_25/30) resolution downscale conversion
- ✓ SNMP Network Management support
- ✓ Support redundancy power supply (Optional)

Specifications

Input	4×HDMI inputs	
	1×ASI input, BNC interface	
Video	Resolution	1920*1080_60P, 1920*1080_50P
		1920×1080_60i, 1920×1080_50i
		1280×720_60p, 1280×720_50p
		720x576_50i, 720x480_60i
	Encoding	MPEG4 AVC/H.264 High Profile Level 4.0 for HD)
	Bit-rate	0.8Mbps~19Mbps (each channel)
	Rate Control	CBR/VBR
Audio	GOP Structure	IBBP
	Advanced Pretreatment	De-interlacing, noise reduction, sharpening
Audio	Encoding	MPEG-1 Layer 2 (MPEG-2 AAC, MPEG-4 AAC Optional), AC3 passthrough
	Sampling rate	48KHz,
	Resolution	24-bit
	Bit-rate	64Kb/s~384Kb/s each channel