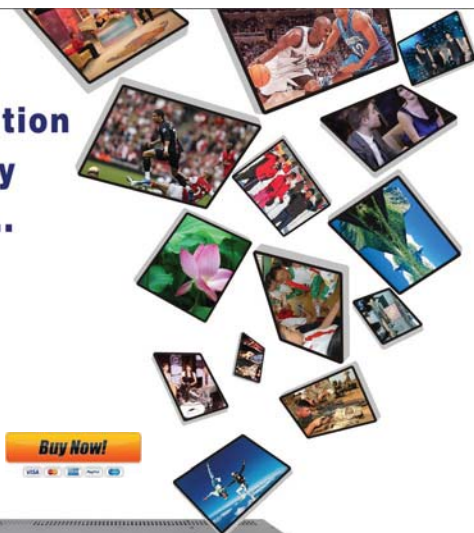


**Introducing
New Generation
High-Density
Headend.....**



Buy Now!



DMP900 Digital Media Platform

Headend In A Box / Easy To Manage / Pay As You Go / Save Space / Less Power Consumption / High Performance

DMP900 Digital Media Platform



- ◆ All six modules can be hot-swapped and hot-inserted
- ◆ Redundant power supply



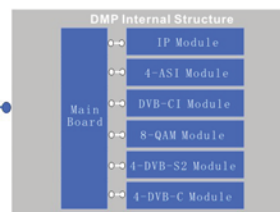
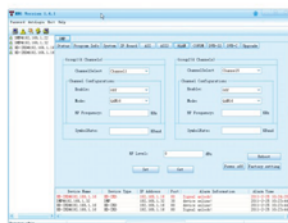
Innovative Design - Headend In A Box

DMP900 Digital Media Platform is the new generation of intelligent headend processing equipment. With a central processing capacity of 384 TS streams (~1500 programs), this compact, high-density 1RU platform comes with 6 independent module slots. All six modules can be hot-swapped and hot-inserted to support the growing requirements of network operators. Each module can be configured individually based on the applications including receiving, decoding, transmodulating, encoding, transcoding, ASI to IP conversion, scrambling, descrambling, multiplexing, and QAM/COFDM modulation. It can support up to:

- ▶ 20 inputs of DVB-S/S2, DVB-C or DVB-T receiving
- ▶ 10 SD/HD programs encoding (MPEG-2 or H.264) or transcoding (between MPEG-2 and H.264)
- ▶ 6 gigabit IP input/output
- ▶ 20 ASI-IP stream dual conversion
- ▶ 3 gigabit DVB-simulcrypt scrambling
- ▶ 40 channel QAM modulation
- ▶ 20 channel COFDM modulation
- ▶ 16 frequency transmodulation (DVB-S2/S/C/T to QAM)

DMP Network Management:

With one simple network management software, users can manage and configure all parameters of each individual module and each unit independently or as a full system. Supporting SNMP, DMP can also be integrated into different types of applications.



Module Specifications:

4-DVB-S/S2 Module



Module Specifications:

4×RF inputs, 75 Ω, F-type connector
 Frequency Range: 950 ~ 2150 MHz
 Symbol Rate: QPSK: 2M ~ 45Mbauds, 8PSK: 2M~37Mbauds
 FEC Mode: QPSK: 1/2, 2/3, 3/4, 5/6, 5/8, 9/10
 8PSK: 2/3, 3/4, 4/5, 5/6, 5/8, 9/10
 -45dBm ~ -25dBm
 Input Level: Vertical: 11.5V~14.0V, Horizontal: 18.0V~19.0V
 LNB Power Supply: 22KHz
 18~26 KHz

Features:

- ▶ 4 DVB-S/S2 inputs
- ▶ Multi-Service descrambling with DVB-CI module
- ▶ Program filtering
- ▶ Decoding and multiplexing

4-DVB-C/T Module



Module Specifications:

DVB-C/T Inputs: 2 inputs (each handle two RFs), 2 loop-outs
 Frequency Range: DVB-C Module: 45 ~ 862 MHz, DVB-T Module: 50 ~ 862 MHz
 Symbol Rate: 1.0 ~ 6.9 Mbauds, 0.45~7.0 Mbauds
 Input Level: 32 ~ 105 dBμV, -66 dBm ~ -4 dBm
 FEC Mode: Annex A/C, Annex B (optional), 2K & 8K(FFT)
 QAM Mode: 16/32/64/128/256 QAM

Features:

- ▶ 4 DVB-C/T inputs
- ▶ Multi-Service descrambling with DVB-CI module
- ▶ Program filtering
- ▶ Decoding and multiplexing

2-DVB-CI Module



Module Specifications:

DVB-CI: 2-independent common interface slots
 Standard: DVB-NR55-8/DAVIC V1.2
 CA Methods: Multicrypt1 & Simulcrypt
 CAS support: Conax, Inbeto, Viaccess, CTI, Nagravision, DVCrypt, etc.

Features:

- ▶ Two independent CI slots
- ▶ Multi-Channels descrambling
- ▶ DVB Simulcrypt1 and Multicrypt descrambling
- ▶ Support various CAS

Gigabit Scrambler Module



Module Specifications:

Number of Streams: 4/8/12 streams optional
 Processing capacity: Up to 1G data scrambling
 Number of CAS supported: Up to 4 DVB-simulcrypt CAS scrambling

Features:

- ▶ Programs or elementary stream scrambling
- ▶ 4 CA systems simultaneously support
- ▶ Comply with most leading CAS systems
- ▶ PSI and SI table remap and processing

Gigabit IP Module



Module Specifications:

IP Inputs/Outputs: 2×1000Base-T, RJ-45
 Processing Capability: 1 Gigabit input and 1 Gigabit output
 Gigabit-8 IP max Input/Output: 8 input TS streams & 8 output TS streams
 Gigabit-16 IP max Input/Output: 16 input TS streams & 16 output TS streams
 Gigabit-32 IP max Input/Output: 32 input TS streams & 32 output TS streams
 Error Correction: Pro-MPEG FEC
 Encapsulation Protocol: MPEG-2/MPEG-4 TS over UDP & RTP
 Broadcasting Type: Unicast & Multicast

Features:

- ▶ 8 or 32 different IP addresses input/output
- ▶ Unicast and Multicast support
- ▶ MPEG-2 and MPEG-4 TS over IP
- ▶ UDP and RTP support

4-ASI Module



Module Specifications:

ASI Inputs/Outputs: 4×ASI, BNC 75Ω
 Packet length: 188 & 204 byte (Auto detection)
 TS Max Bit Rate: 180 Mbps (each ASI)
 Maximum PID: 8192(each port)

Features:

- ▶ 4 SPTS/MPTS inputs or output
- ▶ TS streams Multiplexing
- ▶ Packet auto detection

4/8-QAM /4-COFDM Module



Module Specifications:

RF Outputs(DVB-C): 4/8×RF outputs (2 group of 4×RF output, 4 adjacent), 75Ω F-type
 Output Frequency Range: 45 ~ 862 MHz, 750 F-type
 Output Level: 50 dBμV ~ 115 dBμV, 50 ~ 850 MHz
 Constellation: 16/32/64/128/256 QAM, 80 dBμV ~ 115 dBμV
 FEC: Annex A/C, Annex B, QPSK, 16QAM, 64QAM
 Symbol Rate: 1.0 ~ 6.9 Mbauds, 1/2, 2/3, 3/4, 5/6, 5/8
 Guard Interval Level: 1/4, 1/8, 1/16, 1/32
 COFDM Mode: 2K or 8K
 COFDM Bandwidth: 6, 7, 8 MHz

Features:

- ▶ Fully ITU-T Annex A, C or Annex B support for 8-QAM module
- ▶ PMT PID filtering
- ▶ PCR jitter auto adjustment
- ▶ Tunable output RF frequency accuracy better than ±12.5 KHz for 8-QAM module
- ▶ Best MER and CNR

Module Specifications:

2-SD/HD SDI/AV Encoder Module



Module Specifications:

Encoder Inputs: 2×SDI or 2×AV, 2 X Audio inputs (balanced and unbalanced)
Video Processing
 Video Format: Standard MPEG-4 / H.264-AVC HP@L4
 Image Format: PAL and NTSC
 Input Resolution: 1920x1080x59.94/50; 1440x1080x59.94/50/60; 1280x720x59.94p/50p/60p/720x480x59.94/720x576x50
 Aspect ratio: 4:3, 16:9
 GOP Configurable: 1, IP, IPB, IPPB
 Video Bit rate: CBR & VBR, SD 1.5-20Mbps; HD 4.0-20Mbps
Audio Processing
 Audio Format: MPEG-1 and MPEG-2 Layer-I, II, AAC, Dolby AC-3 (optional)
 Sampling Frequency: 32KHz, 44.1KHz, 48KHz
 Audio mode: Stereo, joint stereo, dual channel, mono
 Audio Bit rate: 32-284Kbps

Features:

- MPEG-4/H.264-AVC standard compliant
- MPEG-1 layer II audio encoding
- Continuous & adjustable TS output ranged from 1.5 to 15Mbps
- PSI and SI table editing
- TS stream PCR synchronization

2-SD SDI/AV Encoder Module



Module Specifications:

Encoder Inputs: 2×SDI or 2×AV, 2 X Audio inputs (balanced and unbalanced)
Video Processing
 Video Format: MPEG-2 4:2:0 MP@ML
 Image Format: PAL and NTSC
 Input Resolution: 576, 50/480, 60i
 Aspect Ratio: 4:3, 16:9
 GOP Configurable: 1, IP, IPB, IPPB
 GOP Size: 6-96
 Video Bit rate: CBR & VBR, 1.5-15 Mbps
Audio Processing
 Audio Format: MPEG-1 and MPEG-2 Layer-I, II, AAC, Dolby AC-3 (optional)
 Sampling Frequency: 32KHz, 44.1KHz, 48KHz
 Audio Mode: Stereo, joint stereo, dual channel, mono
 Audio Bit rate: 32-284Kbps

Features:

- Fully MPEG-2 4:2:0 MP@ML video compliant
- MPEG-1 layer II audio encoding
- Continuous & adjustable TS output ranged from 1.5 to 15Mbps
- Support MPEG-2 frame/field motion estimation and DCT
- TS stream PCR synchronization

2-SD/HD H.264 HDMI Encoder Module



Module Specifications:

Encoder Inputs: 2×HDMI
Video Processing
 Video Format: Standard MPEG-4 / H.264-AVC HP@L4
 Image Format: PAL and NTSC
 Definition: 1920x1080x59.94/50; 1440x1080x59.94/50/60; 1280x720x59.94p/50p/60p/720x480x59.94/720x576x50
 Aspect ratio: 4:3, 16:9
 GOP Configurable: 1, IP, IPB, IPPB
 Video Bit rate: CBR & VBR, SD 1.5-20Mbps; HD 4.0-20Mbps
Audio Processing
 Audio Format: MPEG-1 and MPEG-2 Layer-I, II, AAC, Dolby AC-3 (optional)
 Sampling Frequency: 32KHz
 Audio Mode: Stereo, joint stereo, dual channel, mono

Features:

- Fully MPEG-2 4:2:0 MP@ML video compliant
- MPEG-1 Layer II audio encoding
- PSI and SI table editing
- TS stream PCR synchronization

2-MPEG-2/MPEG-4 Transcoder Module



Module Specifications:

Number of Channels: 2 channels per module
 Video Format: Standard MPEG-4 / H.264-AVC HP@HL
 GOP Structure: 1, IP, IPB, IPPB
 Audio Format: MPEG-2 Layer-I, II, AAC, Dolby AC-3 (optional)
 Audio Mode: Stereo, joint stereo, dual channel, mono

Features:

- Mpeg-2 & Mpeg-4 mutual transcoding
- Mbps-20Mbps bit rate adjustable
- Support 1080i/720p/576i video resolution
- Support PAL-B/G/D/K/M/N, NTSC, SECAM

2-AV&HDMI Decoder Module



Module Specifications:

Outputs: 1×CVBS, 1x Audio output (same as one of HDMI output)
 Decoding Format: 2×HDMI
 Image Format: PAL/NTSC/SECAM
 Video Format: MPEG-2/H.264 SD & HD
 Audio Format: 480i, 480p, 576i, 720p, 1080i
 Audio Mode: MPEG-1 and MPEG-2 Layer-I, II, AAC, Dolby AC-3
 Balanced and unbalanced

Features:

- One AV output and one HDMI output or two HDMI outputs
- PAL/PAL-M/N, NTSC, SECAM support
- 4:3/16:9 auto detection
- CBR & VBR support

2-SD&HD SDI Decoder Module



Module Specifications:

Outputs: 2×SDI, BNC 75Ω
 Decoding Format: MPEG-2/H.264 SD & HD
 Image Format: PAL/NTSC/SECAM
 Video Format: 480i, 480p, 576i, 720p, 1080i
 Video Bit rate: CBR & VBR, SD 1.5-20Mbps; HD 4.0-20Mbps
 Audio Format: MPEG-1 and MPEG-2 Layer-I, II, AAC, Dolby AC-3
 Audio Mode: Balanced, unbalanced, SDI-embedded

Features:

- Two HD/SD SDI outputs
- PAL/PAL-M/N, NTSC, SECAM support
- 4:3/16:9 auto detection
- CBR & VBR support

Typical Applications

Multi-channel DVB-S/S2 Receiving



Descriptions:

- Five DVB-S&S2 receiving modules (WVR4S2) and one Gigabit IP Module (WVIOGIP32)
- Support 20 DVB-S&S2 transponders receiving with one Gigabit TS/IP output of SPTS or MPTS to up to 32 different IP addresses after filtering & multiplexing
- Applications: IP centric Cable TV and IPTV headend, video signal transmission

Multi-channel DVB-S/S2 to QAM Transmodulating



Descriptions:

- Four DVB-S&S2 receiving modules (WVR4S2) and two 8-QAM module (WVM8QAM)
- Support 16 DVB-S&S2 transponders receiving, multiplexing and transmodulating
- Applications: Headend-in-the-sky (HITS), hotels/apartments and other SMATV systems

HD Program Distribution



Descriptions:

- Four HD encoding modules (WVEN2H2641), one scrambling module (WVSCRG16) & one 8-QAM module (WVM8QAM)
- Support 8 HD programs encoded, processed, scrambled and then to RF output to CATV network
- Applications: HD channel addition to CATV, hotels/apartments and other SMATV systems

ASI/IP Gateway



Descriptions:

- Five ASI Modules (WVIO4ASI) and One Gigabit IP Module (WVIOGIP32)
- Support 20 ASI streams and 1 Gigabit IP dual conversion
- Applications: Point-to-point transmission via IP, IPTV applications, IP-based network

MPEG-2 to MPEG-4 Transcoding

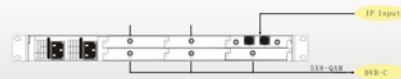


Descriptions:

- Five MPEG-2 to MPEG-4 transcoding modules (WVTC2TO4) and one Gigabit IP Module (WVIOGIP32) or one ASI input/output Module (WVIO4ASI)
- Support 10 channel of transcoding from MPEG-2 to MPEG-4 or from MPEG-4 to MPEG2
- Applications: Content providers, CATV and IPTV network

Typical Applications

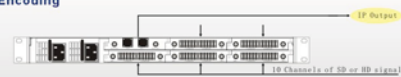
Edge QAM



Descriptions:

- Five 8-QAM modules (WVMSQAM) and one Gigabit IP Module (WVIOGIP32)
- Support 40 RF QAM outputs
- Applications: CATV, VOD, Headend-in-the-sky and SMATV systems

Multi-channel Encoding



Descriptions:

- Five MPEG-2/H.264 SDI encoding modules and one Gigabit IP Module (WVIOGIP32)
- Support 10 channel of MPEG-2 or H.264 encoding
- Applications: CATV, VOD, Content development & contribution, IPTV network

Super Scrambling



Descriptions:

- Three Gigabit IP Modules (WVIOGIP32) and three scrambling modules (WVSCRG16)
- Support up to 3 gigabit data of scrambling (~700 programs)
- Applications: CATV, VOD, Headend-in-the-sky, IPTV network

Multi-channel Decoding



Descriptions:

- Five MPEG-2/H.264 decoding modules and one Gigabit IP Module (WVIOGIP32)
- Support 10 channel of MPEG-2 or H.264 decoding
- Applications: CATV, broadcast monitoring system, Headend-in-the-sky, IPTV network

Equipment Specifications:

Base Unit Parameters:

Chassis Height:	1 RU
Dimension:	44mm x 499mm x 440mm (1.75" x 19.6" x 17.3")
Weight:	10 Kg
Power Supplies:	Up to two per chassis, Max 250W (fully loaded), AC 90 ~ 240V 50/60Hz
Temperature:	Operating: 0 ~ 50°C (32 ~ 118°F) Storage: -10 ~ 70°C (14 ~ 158°F)
Humidity:	5% ~ 95%
Operating Altitude:	200 ~ 10000 AMSL