



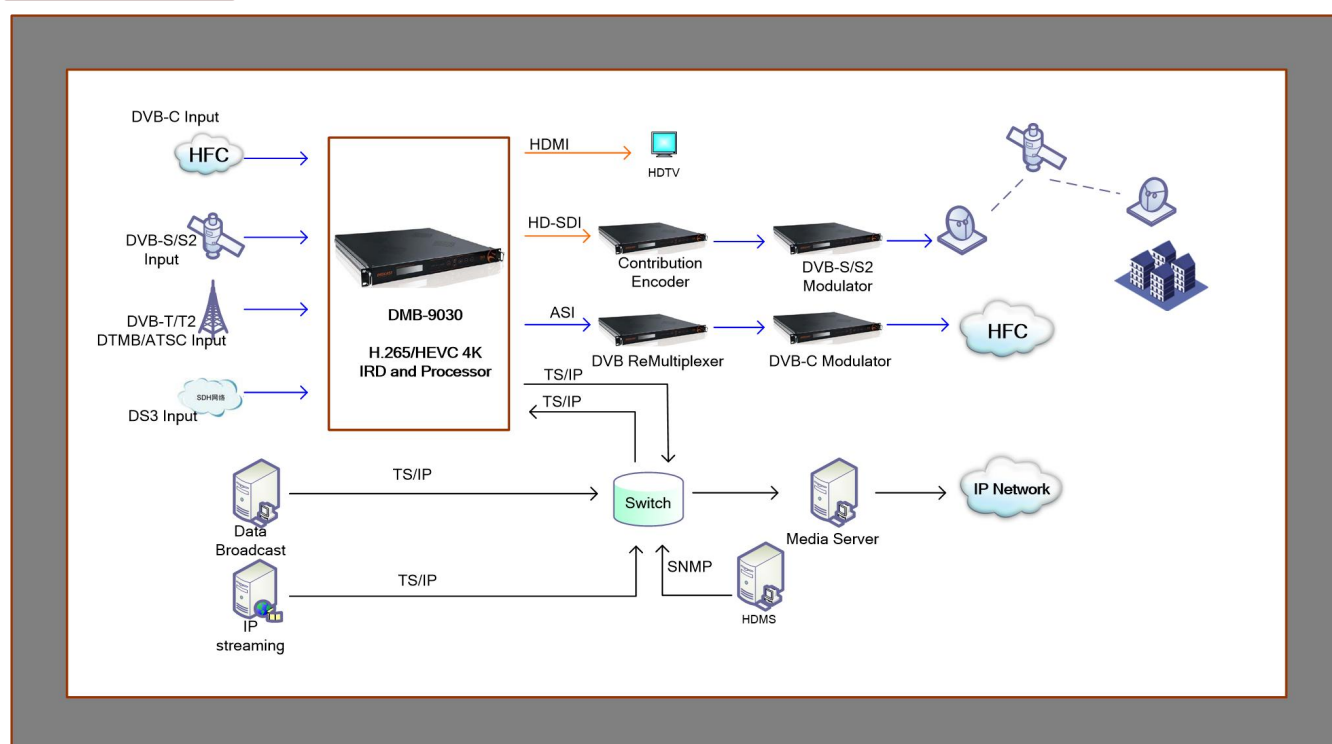
OVERVIEW

The DMB-9030 Enhanced is the newest model and flagship of DIGICAST IRD. It provides operators an ideal solution for receiving, re-multiplexing, descrambling and decoding operations, maximum supporting **4K*2K@60fps** 10bit decoding. Equipped with a variety of inputs, it ensures compatibility with all transmission media. The DMB-9030 Enhanced re-multiplexing capabilities enable creation of new transport streams that are subsets of the original stream. Customized services may be output as multiple SPTS or MPTS over IP, as well as over ASI. By the dual DVB common interfaces, DMB-9030 Enhanced could be decrypted multiple services in one transport stream or two. DMB-9030 Enhanced is also a professional IRD that features a broadcast quality decoder for MPEG-2, MPEG-4 AVC/H.264 and HEVC/H.265 in Standard Definition and High Definition formats, provides a variety of industry standard digital and analog outputs, including CVBS video and HDMI, HD-SDI. The unit also performs aspect ratio adaptation of HD programs to generate professional quality baseband analog video and audio outputs for easy integration with existing cable network infrastructure. This all-in-one architecture makes the DMB-9030 Enhanced an ideal product for distribution and contribution networks.

FEATURES

- Variety of input options DVB-T2/**S2X/S2/S/C/T**/DTMB/ATSC/ISDB-T, DS3/E3, TS/IP and ASI
- Supports DVB-S2 Input Stream Identifier (ISI, optional) and DVB-T SFN MIP pass through
- **Redundant backup among Tuner, ASI and TS/IP with configurable priority**
- Maximum supporting 4:2:0 **60p** 10bit UHD/HD/SD **HEVC/H.265**, SD/HD MPEG-2 and MPEG-4 AVC/H.264 digital video decoding
- Multiple Analog and Digital Outputs, **4*3G-SDI**, ASI, CVBS, HDMI, AES/EBU Audio, TS/IP
- Built-in TS re-multiplexer receives from ASI, Tuner and TS/IP Inputs
- **2× DVB-CI Slots**, multi-program decryption, **BISS-1 and BISS-E** decryption Frame synchronizes the IRD to the external black and burst reference
- Dynamic PMT detection and automatic updating
- Supports VBI TELETEXT, EBU/DVB Subtitle, Closed Caption, and can be embedded in SDI
- UDP/RTP, Unicast/Multicast, and double full duplex SPTS/MPTS over IP
- Remote Control and Supervision by SNMP, HTTP WEB and Proprietary HDMS software
- One alarm Relay with D-sub 9 male connector
- On Site software update through IP and USB
- RSSI, received Eb/No & BER monitoring
- 1.5" TFT LCD on front panel for monitoring
- **Hot-swappable redundant power supply**

APPLICATIONS



SPECIFICATIONS**TUNER INPUT****DVB-S/S2 Tuner Input (ISI Factory Optional)**

Connector Type 2×F type female 75Ω for Input
Input Frequency Range 950~2150MHz
Input Level -25~-65dBm
Symbol Rate 1~45Msps
Roll-off Factor
DVB-S: 0.35
DVB-S2: 0.35, 0.25, 0.2
FEC Code Rate
DVB-S QPSK: 1/2, 2/3, 3/4, 5/6, 7/8
DVB-S2 QPSK: 1/2, 3/5, 2/3, 3/4, 4/5,5/6, 8/9,9/10
DVB-S2 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9,9/10
LNB Polarity Selection Voltage 0, 13V, 18V selectable
LNB Band Selection Tone 0/22KHz selectable
Satellite Selection Command DiSEqC 1.0
ISI ID 1~255 user configurable

DVB-S/S2/S2x Tuner Input (16APSK/32APSK/64APSK Factory Optional)

Connector Type 1×F type female 75Ω for Input, 1×F type female 75Ω for loop through output
Input Frequency Range 950 ~ 2150MHz
Input Level -25 ~ -65dBm
Symbol Rate
QPSK/8PSK: 1~ 60Msps
16APSK: 1~58Msps
32APSK: 1~55Msps
64APSK: 1~34Msps
Roll-off Factor 0.05 to 0.35
FEC Code Rate
DVB-S: 1/2, 2/3, 3/4, 5/6, 7/8
DVB-S2: 1/2, 3/5, 2/3, 3/4, 5/6, 8/9, 9/10
LNB Polarity Selection Voltage 0, 13V, 18V selectable
LNB Band Selection Tone 0/22KHz selectable
Satellite Selection Command DiSEqC 1.0

DVB-C Tuner Input

Connector Type 2×F type female 75Ω for Input
Input Frequency Range 51~862MHz
Input Level 51~75dBμV
Symbol Rate 1~7MBaud (ITU J.83 Annex A)
Constellation 16QAM, 32QAM, 64QAM, 128QAM, 256QAM

Bandwidth 6MHz, 7MHz, 8MHz

Input Return Loss 7dB (typ.)

DVB-T/T2 Tuner Input

Connector Type 2×F type female 75Ω for Input

Input Frequency 104~862MHz (VHF/UHF)

Input Level -20~-70dBm

Constellation

DVB-T: QPSK, 16QAM, 64QAM

DVB-T2: QPSK, 16QAM, 64QAM, 256QAM

Bandwidth 6MHz, 7MHz, 8MHz

FFT Mode

DVB-T: 2K, 8K

DVB-T2: 1K, 2K, 4K, 8K, 16K, 32K

Guarding Interval

DVB-T: 1/4, 1/8, 1/16, 1/32

DVB-T2: 1/4, 5/32, 1/8, 5/64, 1/16, 1/32, 1/64, 1/128

FEC Code Rate

DVB-T: 1/2, 2/3, 3/4, 5/6, 7/8

DVB-T2: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6

Input Return Loss 7dB (typ.)

DTMB Tuner Input

Connector Type 2×F type female 75Ω for Input

Input Frequency 46.5~866MHz

Input Level -87~-29dBm

Symbol Rate 7.56MBaud

Bandwidth 6MHz/7MHz/8MHz

Constellation 4QAM-NR, 4QAM, 16QAM, 32QAM, 64QAM

Guard Interval PN420, PN595, PN945

Roll-off Factor 0.05

Interleaving Depth 240, 720

FEC Code Rate 0.4, 0.6, 0.8

ATSC Tuner Input

Connector Type 1×F type female 75Ω for Input

Input Frequency Range 54~864MHz

Input Level -75~-7dBm(ATSC 8VSB)

Symbol Rate 10.762MBaud

Constellation 8VSB

Roll-off Factor 0.115

Bandwidth 6MHz

ASI INPUT

Connector Type 2×BNC female, 75Ω
Standard DVB-ASI, EN50083-9
Input Bit Rate ≤ 200Mb/s

DS3/E3 Input

Connector Type 2×BNC female, 75Ω, including loop through
Standard Compliant with ITU-T G.703
Frame Structure Compliant with ITU-T G.752 and ITU-T G.804
Bit Rate
DS3: 44.736Mb/s
E3: 34.368Mb/s

TS over IP

Connector Type 2×RJ-45 independent, 100/1000 Base-T for TS/IP
Operating mode & Effective Bit Rate
1) full duplex, Support Pro MPEG FEC, Backup 1+1, Max 80Mb/s
2) 4-CH DVB mode output, Max 200Mb/s, Slave mirror output
3) 32-CH IPTV mode output, Total 800Mb/s, Slave mirror output
Protocol UDP / RTP, Multicast / Unicast, IGMPv3, ARP
FEC SMPTE 2022M (Pro-MPEG) FEC (for GigE only)

TS Processing

TS Input Management Demux and Remux among Tuner /DS3(optional) / E3 (optional), ASI and TS/IP
Inputs
TS Output Management Demux and Remux for 2 independent ASI outputs
Service and PID Management Remux, filtering and remapping
PSI/SI table regeneration, NIT and SDT edition, LCN Edition and Re-generation, EIT P/F edition
Descrambler DVB Common Scrambling Algorithm(CSA)
BISS Mode BISS-1, BISS-E
Common Interface Double PCMCIA slots, compatible with major CA CAMs in the market

ASI Output

Connector Type 2 pairs, 4 x BNC females, 75Ω
Standard DVB-ASI, EN50083-9
Output Bit Rate ≤ 200Mb/s
TS Processing
2 Independent TS pass through or Re-multiplexed from tuner, TS/IP and 2 ASI inputs

HDMI Output

Standard 1×HDMI 2.0 interface, HDCP 2.2
Video Resolution and Frame Rate
4KP60, 4KP50, 1080P50, 1080P30,
1080P24, 1080i60, 1080i50, 720p, 480p,
576p, 576i, 480i

Video PID Bit Rate \leq 50Mb/s

Video Decoding

Video Profile/Level

MPEG-2 SP@ML, MP@HL

MPEG-4 SP@L0-3, ASP@L0-5, GMC,

H.264 BP/MP/HP@ level 5.0,

H.265 Main Profile@L5.0 High-tier

Audio Decoding

Audio Format

MPEG-1 Layer 2

a. 2 stereo pairs (Stereo, Dual Mono, Left, Right)

MPEG-2 AAC

a. 5.1 down-mix to 2.0 (Stereo, Dual Mono, Left, Right)

b. 2.0 (Stereo, Dual Mono)

MPEG-4 HE-AAC v1/v2

a. 5.1 down-mix to 2.0 (Stereo, Dual Mono, Left, Right)

b. 2.0 (Stereo, Dual Mono, Left, Right)

SDI Output

Connector Type 4×BNCs, female, 75Ω

Standard SMPTE ST 2082(12G UHD-SDI),ST2081(6G UHD-SDI), **ST 424(3G-SDI)**,ST 292(HD-SDI), ST 259(SD-SDI), Level 800mV p-p

(Note: 12G SDI and 6G SDI are useless, just reserved,currently only 3G SDI)

Analog video Output

CVBS Connector 1×BNC female 75Ω, 1×RCA female

CVBS Standard NTSC, PAL, and SECAM

CVBS Resolution 576i×25, 480i×29.97

Analog Audio Output

Connector Type 2×D-sub 9 male, with XLR adaptor cable

Output Impedance 600Ω (balanced)

Output Mode Left, Right, Dual Mono, Stereo

Number of Output 2 pairs of stereo audio outputs (2 Audio PIDs or 4 channels are decoded)

Ancillary Data Processing

Subtitle DVB, EBU VBI Teletext, WSS

Closed Caption EIA 608, EIA 708, EIA 608-to-708

Redundancy

Redundancy Port among Tuner, ASI input and TS/IP input

Switching Condition TS Sync Loss

Switching Mode Main, Spare

Alarm

Connector Type 2×D-sub 9 male

Switching Condition User Defined

GENERAL OPTIONS

Control & Monitoring

Connector Type 1×RJ-45, 10/100 Base-T, for equipment IP Control

Remote Control SNMP 2.0, HTTP (Web GUI) , Proprietary HDMS (Headend Device Management System)

Local Control LCD display and Front control 6-key keypad

Serial Port 1×RS-232 D-sub female, for debug use only

Equipment Upgrade Telnet/FTP, WEB/HTTP or USB

Physical

Dimension 1U 19" Full-rack size

Weight 5.0kg

Power Supply AC 90V~250V, 50/60Hz

Power Consumption 30W (exclusive of LNB power)

Operating temperature 0~45°C

Storage temperature -10~60°C

Operating Humidity 10~90%, non-condensed