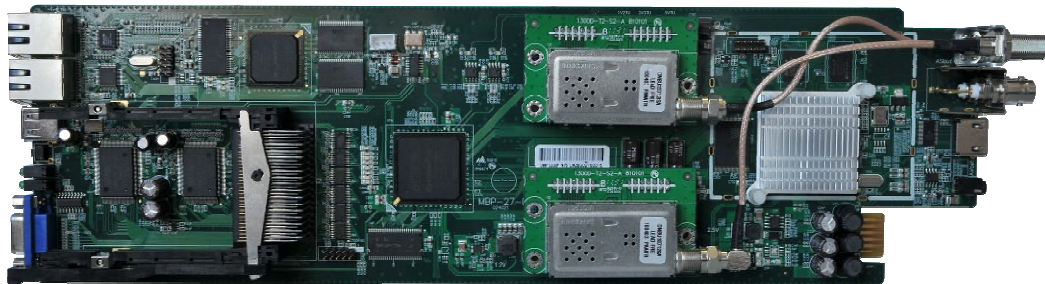


## Dual Channel Professional HD/SD IRD and Processor

Model: DMM-2200P



### Main Features

- Twin-tuner supporting DVB-S2/S/C/T/T2,DTMB and ATSC demodulations
- Mono channel decoder from 2 TS of twin tuners
- SD/HD MPEG-2(MP@ML&MP@HL) and MPEG-4/H.264(AVC high profile level 4.1) digital Video decoding
- 2x DVB-CI Slots, Multi Programs, BISS 1 and BISS E decryption
- Support services re-mux/filtering and 204/188 packet length
- UDP/RTP & Unicast/Multicast SPTS and MPTS over IP Input/Output
- Support VBI TELETEXT, EBU/ DVB Subtitle, Closed Caption
- Dynamic PMT detection and automatic updating
- Multiple Analog and Digital Outputs, ASI, CVBS, HDMI, TS/IP
- Support NTP(Network Time Protocol)
- Remote Control and Supervision by SNMP and HTTP WEB
- RSSI, received Eb/No & BER monitoring
- Easy firmware upgrade via USB port
- Automatic configuration backup when power-off
- PIP(Picture in Picture) supported via CVBS or HDMI

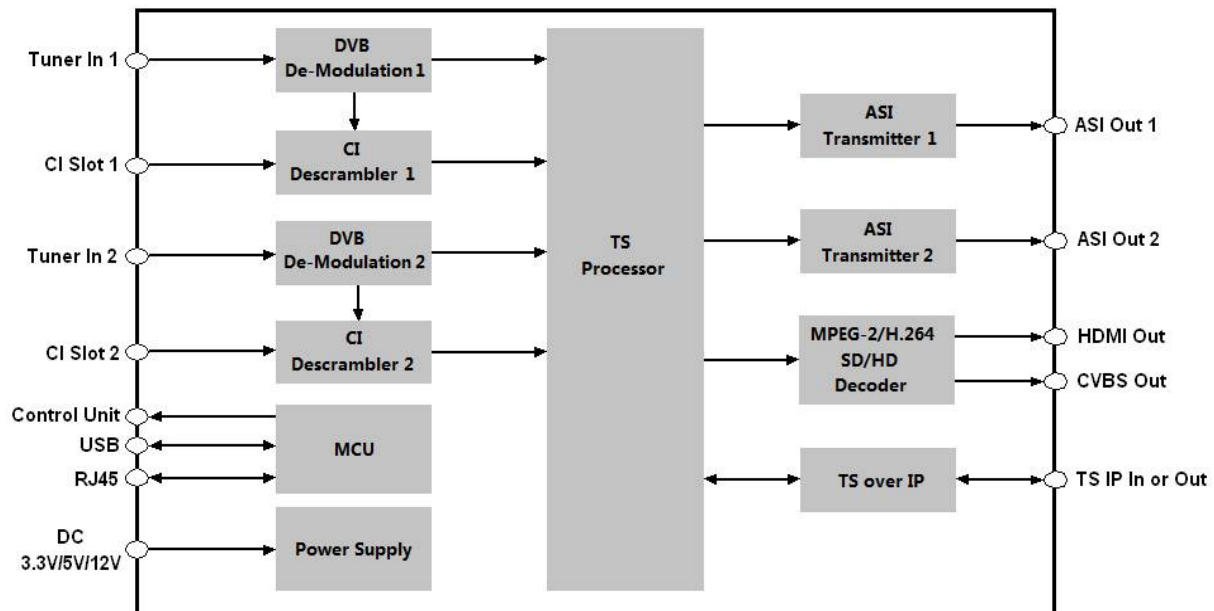
## Technical Specification

DVB-S/S2 Tuner Input	
Connector Type	2 x F type female 75Ω for input
Input Frequency Range	950~2150MHz
Input Level	-25~-65dBm
Symbol Rate	2~45MS/s for QPSK and 8PSK
Rolling-off Factor	DVB-S QPSK: 0.35
	DVB-S2 8PSK: 0.35, 0.25, 0.2
Punctured Rates	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 Polarization	0, 13V, 18V selectable
LNB Band Switching Tone	0/22KHz selectable
DiSEqC	DiSEqC 1.0
DVB-C Tuner Input	
Connector Type	2 x F type female 75Ω for input
Input frequency	51~862MHz
Input level	45~ 75dBuV
Symbol rate	1~7MS/s (ITU J.83 Annex A)
Constellation	16/32/64/128/256QAM
Bandwidth	6/7/8MHz
Input return loss	7dB (typ.)
DVB-T/T2 Tuner Input	
Connector Type	2 x F type female 75Ω for input
Input frequency	104~862MHz (VHF/UHF)
Input level	-20 ~ -70dBm
Constellation	DVB-T: QPSK/16-QAM/64-QAM
	DVB-T2: QPSK, 16QAM, 64QAM, 256QAM
Bandwidth	6MHz/7MHz/8MHz
FFT mode	DVB-T: 2K/8K
	DVB-T2: 1K, 2K, 4K, 8K, 16K, 32K
Guard 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.)
TS over IP	

Connector Type	1 × RJ45, 10/100M for TS/IP
Useful bit rate	70Mb/s for 10/100M
Protocol	UDP / RTP, Multicast / Unicast, IGMPv2, ARP
Uni/Multicast	support maximum 32 channel uni/multicast output
<b>TS Processing</b>	
TS input	Tuner1, Tuner2 or TS/IP input
TS output	2 independent ASI outputs
Re-mux	Re-mux services, edit PSI/SI
BISS descramble	BISS-1, BISS-E
CI slots	2 x PCMCIA Slots, comply with major CAMs in market
<b>ASI Output</b>	
Connector Type	2 x BNC Female, 75Ω
Standard	DVB-ASI, EN50083-9
Output bit rate	≤160Mb/s
<b>HDMI Output</b>	
Standard HDMI	1x HDMI 1.3 interface (partial)
Video Resolution	1080i x 30, 1080i x 29.97, 1080i x 25, 720p x 60, 720p x 59.94, 720p x 50, 480p x 60, 576p x 50, 576i x 25, 480i x 29.97
Audio Embedded	1 x Stereo or AC3 Loop Through
<b>Digital Video/Audio Processing</b>	
Video Standard	MPEG-2(MP@ ML for SD, MP@HL for HD), MPEG 4/H.264 AVC high profile level 4.1
Audio Standard	MPEG-1 Layer-I/II, MPEG-2 Layer-II LC-AAC, HE-AAC AC3, AC3+
<b>Analog Video Output</b>	
Connector Type	1 x BNC female
Video Standard	NTSC, PAL, and SECAM
Video bit rate	≤50Mb/s
<b>Analog Audio Output</b>	
Connector Type	1 x DB9, 600Ω, has a DB-9 to XLR converter
Output type	Left, Right, Dual Mono, Stereo
<b>Baseband Data Output</b>	
Subtitle	DVB/EBU
VBI	Teletext, WSS
Closed Caption	EIA 608, EIA 708, EIA 608-to-708
<b>A/V monitor</b>	
Monitor Port	HDMI, CVBS

Monitor Condition	User define
<b>Control &amp; Monitoring</b>	
Connector Type	1× RJ45, 10/100M, for equipment IP Control
Remote Control	SNMP, HTTP Web
Local Control	Handheld Programmer Unit
Software Upgrade	1× USB Port or FTP loader
<b>Physicals</b>	
Power supply	DC 3.3V/5V/12V, supplied by DMM-1000MF chassis
Power consumption	20W
Operating temperature	0 ~ 45℃
Storage temperature	-10 ~ 60℃
Operating Humidity	10~90%, non-condensed
<b>Racks</b>	
Power Supply	AC 100V-260V, 50-60Hz
Model and Type	DMM-1000 for 4RU; DMM-200 for 1RU
Number of Slot	8 slots for 4RU rack, 2 slots for 1RU rack
Dimension	Width=483mm, Height=177mm,Depth=388mm for 4RU
	Width=483mm, Height=44mm,Depth=388mm for 1RU
Cooling	By air with automatic temperature detection

### Function Block Diagram:



**Photo of 4RU Rack:**



**Photo of 1RU Rack:**



**Order Information:**

Interface		Model	DMM-2200P-S2	DMM-2200P-T2
Input	DVB-S2/S		X2	
	DVB-T2/T/C			X2
	CI		X2	X2
	TS/IP		•	•
Output	HDMI		•	•
	CVBS&Audio L/R		•	•
	ASI		X2	X2
	TS/IP		•	•

**Related Modules:**

Model	Product Name
DMM-1500P	Professional Multi-format HD/SD IRD and Processor
DMM-1500EC	Professional Digital TV Encoder/Trans-coder
DMM-1300TM	Digital TV Trans-modulator and Processor
DMM-1400PM	Professional Digital TV IRD and Trans-modulator
DMM-2200P	2 Channel Professional HD/SD IRD and Processor
DMM-2400D	4 Channel Professional Demodulator
DMM-2410EC	4 Channel Digital TV Encoder
DMM-2200MX	2 Channel Remux Scrambler
DMM-2400TM	4 Channel Trans-modulator