

IPM6102

dibsys

64 Channels IP To Analog Modulator



IPM6102, 2U chassis high density analog modulator can ingest multiple HD or SD IP streams in either MPEG-2/ H.264 /H.265 format and convert them to PAL-B/G, PAL-DK, PAL-I, PAL-M, PAL-N, NTSC modulated RF analog outputs for delivery to legacy analog TV networks.

It can decode MPEG-2, H.264 and H.265 encoded video streams in SD and HD quality. In case of HD decoding, automatic downscaling to SD resolution is performed. Numerous audio formats and modes can be decoded and modulated on TV channels.

IPM6102 ensures a high agility inside the whole RF output frequency range. This enables full flexibility and makes the most efficient use of the available channel spectrum. This allows operators to support legacy analog tiers of service while simplifying headend equipment and power consumption and integrating with modern IP video headend architectures.

Features

- 2U chassis high density
- 4 GE ports (max 64 IP input over MPTS/SPTS), Max 840Mbps for each GE input
- Support H.265/HEVC H.264/AVC, MPEG-2 TS Decapsulation
- MPEG-1/2 Layer 1/2, (HE-)AAC, AC3, E-AC3 audio decoding
- Processing of up to 64 IP multicast groups of a Gigabit Ethernet MPEG TS into up to 64 standard PAL or SECAM TV programs (SECAM is under developing)
- 64 non-adjacent or adjacent carriers output, each 32 carriers within 400MHz
- OSD (Logo and Caption) insertion for each channel, easy operation
- CC/Subtitle/Teletext
- BISS De-scrambling (Under developing)
- Support program info modify, multiple audio choose
- Automatic HD to SD downscaling
- Multi-system (PAL-B/G, PAL-DK, PAL-I, PAL-M, PAL-N, NTSC) support
- support Brightness, Saturability, Contrast adjust
- Web-based Network management

TECHNICAL SPECIFICATIONS

Input	
Types	4 GE ports (max 64 IP input) Max 840Mbps for each GE input
Stream	UDP, UDP / RTP, 1-7 packets, FEC, SPTS, MPTS
Transport Protocol	TS over UDP/RTP, unicast and multicast, IGMP V2/V3
Packet Length	188 / 204 Bytes

Decoding Parameters

Video	H.265/HEVC, H.264/AVC Level 4.1 HP, MPEG-2 MP@HL
Audio	MPEG-1/2 Layer 1/2, (HE-)AAC, AC3, E-AC3
Data	Teletext , CC, DVB subtitle
Resolution	
MPEG-2	1080@60I, 1080@50I, 720@60P, 720@50P, 576@50I, 480@60I
H.264	1080@60I, 1080@50P, 1080@50I, 1080@30P, 1080@25P, 720@60P, 720@50P, 576@50I, 480@60I
H.265	1080@60P ,1080@60I, 1080@50P, 1080@50I, 720@60P, 720@50P
Aspect ratio	4:3/16:9

Modulation Parameters

Number of channels	up to 64
Connectors	75Ω, F-jack
Frequency range	43.25 – 951.25MHz, digital modulation
Output level	-5 ~ 2dBm (102 ~ 112dBμV)

Output Bandwidth	400MHz (each 32 carriers)
Return loss	≥ 14dB
Spurious frequency dist.	≥ 60dB
Residual carrier accuracy	1%
TV standard	PAL-B/G, PAL-DK, PAL-I, PAL-M, PAL-N, NTSC, SECAM
Video-signal to noise ratio	≥ 60dB
Carrier to noise ratio	≥ 60dB (when single carrier on) ≥ 55.5dB (when all 64 carriers on)

Network Interface

Management	1 x 100 Base-T Ethernet (RJ 45)
Data	2 x 1000 Base-T Ethernet (RJ 45)

Others

Output volume adjustment	0 - 100 %
Image resolution output	480i/576i
OSD	logo: JPG, BMP, PNG CAPTION: support multiple languages, scrolling direction and speed customized

General

Dimension	483mm×330mm×88mm (WxLxH)
Temperature	0~45℃ (operation), -20~80℃ (storage)
Power Supply	AC100V±10%, 50/60Hz or AC 220V±10%,50/60Hz

WEB Interface (TV standard)

PAL-DK Standard

Quick Config. [close]

Model: PAL-DK

Channel Level: -1.0 (-5 ~ +5 dBm)

Audio Gain: 0.0 (-6 ~ 2 dB)

Modulation Enable: ☒

Start Frequency: 360.250 (43.25 ~ 951.25 MHz)

Bandwidth: 8.000 MHz

Audio Track: Left

Apply Close

PAL-B/G Standard

Quick Config. [close]

Model: PAL-B/G

Channel Level: -1.0 (-5 ~ +5 dBm)

Audio Gain: 0.0 (-12 ~ 2 dB)

Modulation Enable: ☒

Start Frequency: 112.250 (43.25 ~ 951.25 MHz)

Bandwidth: 8.000 MHz

Audio Track: Left

Apply Close

PAL-I Standard

Quick Config. [close]

Model: PAL-I

Channel Level: -1.0 (-5 ~ +5 dBm)

Audio Gain: 0.0 (-12 ~ 2 dB)

Modulation Enable: ☒

Start Frequency: 112.250 (43.25 ~ 951.25 MHz)

Bandwidth: 8.000 MHz

Audio Track: Left

Apply Close

PAL-M Standard

Quick Config. [close]

Model: PAL-M

Channel Level: -1.0 (-5 ~ +5 dBm)

Audio Gain: 0.0 (-12 ~ 2 dB)

Modulation Enable: ☒

Start Frequency: 112.250 (43.25 ~ 951.25 MHz)

Bandwidth: 8.000 MHz

Audio Track: Left

Apply Close

PAL-NC Standard

Quick Config. [close]

Model: PAL-NC

Channel Level: -1.0 (-5 ~ +5 dBm)

Audio Gain: 0.0 (-12 ~ 2 dB)

Modulation Enable: ☒

Start Frequency: 112.250 (43.25 ~ 951.25 MHz)

Bandwidth: 8.000 MHz

Audio Track: Left

Apply Close

NTSC Standard

Quick Config. [close]

Model: NTSC

Channel Level: -1.0 (-5 ~ +5 dBm)

Audio Gain: 0.0 (-12 ~ 2 dB)

Modulation Enable: ☒

Start Frequency: 112.250 (43.25 ~ 951.25 MHz)

Bandwidth: 8.000 MHz

Audio Track: Left

Apply Close