

IPM6100

16/32 Channels IP/HDMI to Analog Modulator

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IPM6100, 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.

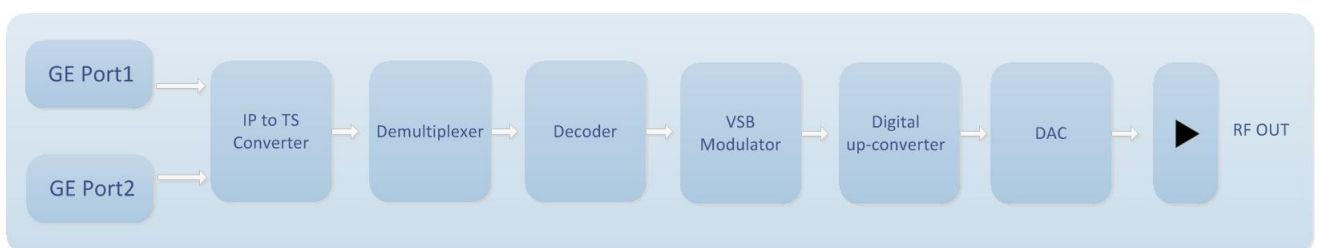
It can decode MPEG-2, H.264 and H.265 encoded video streams in SD and HD quality. In case of HD decoding, automatic downscaling to SD resolution is performed. Numerous audio formats and modes can be decoded and modulated on TV channels.

IPM6100 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

- 2 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 16/32 IP multicast groups of a Gigabit Ethernet MPEG TS into up to 16/32 standard PAL or SECAM TV programs
- 16/32 non-adjacent carriers output
- 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
- Support Web-based Network management
- passed the EU CE&RoHS certification

Principle Chart



TECHNICAL SPECIFICATIONS

Input

Types	2 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	16/ 32
Connectors	75Ω, F-jack
Frequency range	43.25 – 951.25MHz, digital modulation
Output level	maximum 112dBμV
Return loss	≥ 14dB
Spurious frequency dist.	≥ 60dB
Stereo cross talk	> 55dB
Residual carrier accuracy	1%

TV standard	PAL-B/G, PAL-DK, PAL-I, PAL-M, PAL-N, NTSC, SECAM (under developing)
Video-signal to noise ratio	≥ 60dB

Network Interface

Management	1 x 100 Base-T Ethernet (RJ 45)
Data	2 x 1000 Base-T Ethernet (RJ 45)
Protocol	IEEE802.3 Ethernet, RTP, ARP, IPv4, TCP/UDP, HTTP, IGMPv2/v3

Others

CNR	
(after internal combining)	60 dB
SNR	
(after internal combining)	> 53 dB
Sampling frequency	48, 44.1, 32
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	420mm*440mm*44.5mm (WxLxH)
Temperature	0~45℃ (operation), -20~80℃ (storage)
Power Supply	AC100V±10%, 50/60Hz or AC 220V±10%,50/60Hz

Ordering Information

Optional	Description
Option 1	16/32 *IP input, 16/32 analog channel outputs
Option 2	4*HD-MI+28*IP input, 32 analog channel outputs
Option 3	8*HD-MI+24*IP input, 32 analog channel outputs

WEB Interface (TV standard)

PAL-DK Standard

PAL-B/G Standard

PAL-I Standard

PAL-M Standard

PAL-NC Standard

NTSC Standard

ORDERING INFORMATION

Product category	Product Model	Detail Description
Related Products	16/32 Channels IP to analog Modulator IPM6100	<ul style="list-style-type: none"> ①PAL-B/G, PAL-DK, PAL-I, PAL-M, PAL-N, NTSC, SECAM; The format can be changed through backend authorization ②1*NMS, 2*DATA Port ③16/32/48/64 non-adjacent carriers output, Bandwidth 400 MHz ④Program volume control supported ⑤Support multi-sound tracks, Teletext , CC, DVB subtitle ⑥Brightness, Saturability, Contrast adjust ⑦logo: JPG, BMP, PNG, CAPTION: support multiple languages, scrolling direction and speed customized ⑧Optional 4HDMI+28IP or 8HDMI+24IP ⑨Support automatic decoding reset function
Companion Products	48/64 Channels IP to analog Modulator IPM6102	<ul style="list-style-type: none"> ①PAL-B/G, PAL-DK, PAL-I, PAL-M, PAL-N, NTSC; The modulation format is factory set and cannot be modified ②1*NMS, 1*DATA Port ③32/48/64 non-adjacent carriers output, Full bandwidth ④Program volume control supported ⑤Support multi-sound tracks and subtitles selection ⑥Brightness, Saturability, Contrast adjust ⑦Support running text and logo insertion ⑧Cloud management optional ⑨Support automatic parsing of input streams ⑩Support manual decoding reset function ⑪PSI Table Analysis Function ⑫Support to monitor the module/fan/ethernet port
	32/48/64 Channels IP to analog Modulator IPM6110	<ul style="list-style-type: none"> ①PAL-B/G, PAL-DK, PAL-I, PAL-M, PAL-N, NTSC; The modulation format is factory set and cannot be modified ②1*NMS, 1*DATA Port ③32/48/64 non-adjacent carriers output, Full bandwidth ④Program volume control supported ⑤Support multi-sound tracks and subtitles selection ⑥Brightness, Saturability, Contrast adjust ⑦Support running text and logo insertion ⑧Cloud management optional ⑨Support automatic parsing of input streams ⑩Support manual decoding reset function ⑪PSI Table Analysis Function ⑫Support to monitor the module/fan/ethernet port