

Data Sheet : H-THUNDER-8

HDMI Modulator | QAM RF Coax Output

Full HD up to 1080P - 8 Channel



Thor 8 HDMI Digital RF Modulator is an all-in-one device integrating MPEG2 encoding and modulating to convert audio video signals into DVB-C T ATSC ISDB-T RF out.

Thor Thunder-8 HDMI RF Modulator

The **Thor Thunder-8 HDMI RF Modulator** is a high-performance, 8-channel solution designed for encoding and modulating HDMI sources into CATV RF channels. With support for **Full HD resolutions up to 1080p/60**, this device enables the efficient and cost-effective distribution of HDMI signals across coaxial networks, making it perfect for large-scale setups.

The Thunder-8 accepts HDMI inputs from a variety of sources, including **set-top boxes (STBs)**, **satellite receivers**, **CCTV cameras**, and **media players**, and distributes them as RF signals compatible with any TV or STB. Pre-loaded with all major **global RF modulation standards**—including **QAM**, **ATSC**, **DVB-C Annex A/B**, **DVB-T**, and **ISDB-T**—this unit is a true plug-and-play solution that can operate seamlessly in any region worldwide.

Applications:

The Thunder-8 is tailored for environments requiring reliable video distribution to multiple TVs. It's ideal for settings such as:

- **Hotels and Resorts:** Deliver entertainment channels to guest rooms.
- **Schools and Universities:** Broadcast educational content across multiple classrooms or buildings.
- **Government and Military Facilities:** Provide secure content distribution for internal communication.
- **Trade Shows and Events:** Broadcast promotional or informational content to large crowds.
- **Churches and Concerts:** Stream live services or performances to overflow areas.

Its ability to modulate multiple HDMI sources into RF channels makes it a versatile choice for any application where high-density video distribution is required.

Comparison: Thunder-8 vs. Other Models

Feature	Thor Thunder-8	H-HDMI-QAM-IPLL Series
Number of Inputs	8	1, 2, 4, 8
Number of CATV Frequencies	8 (each source modulated on its own channel)	4 (supports multiple programs on one channel, e.g., 2.1, 2.2)
Modulation Standards	QAM, ATSC, DVB-T, ISDB-T (pre-loaded)	QAM, ATSC, DVB-T, ISDB-T (firmware dependent)
Encoding Method	MPEG-2	MPEG-2 or H.264 (selectable)
Dolby Audio Support	Yes	Yes
NMS (Network Management System)	Yes	Yes
Front Panel Control	Yes	Yes
IPTV Output	No	Yes

Features:

- **8 HDMI Inputs:** Allows simultaneous modulation of up to 8 HDMI sources into individual RF channels.
- **Global Compatibility:** Pre-configured to support all major RF modulation standards, ensuring smooth integration in any country or application.
- **Easy Management:** Features a **web-based GUI** for remote configuration and monitoring, as well as an intuitive **front-panel LCD display** with physical buttons for quick adjustments.
- **Compact Design:** Rack-mountable 1RU chassis for efficient space utilization in AV racks.
- **Professional Encoding:** Encodes video in **MPEG-2** and audio in **AC3** or **MPEG1** to deliver high-quality output with low latency.
- **HDCP Compliance:** Ensures compatibility with encrypted HDMI signals from various sources.

Specifications:

HDMI Encoding Section		
Input	Interface	H-THUNDER-8 - 8HDMI + 8CVBS for CC
Video	Encoding	MPEG2
	Input	Output
	480@59.94/60i	480@30p
	576@50i	576@25p
	720@50/59.94/60p	720@25/30p
	1080@50i	1080@25p
	1080@59.94/60i	1080@30p
	1080@50p	1080@25p
	1080@59.94/60p	1080@30p
	Bit-rate	2.000~20.000 Mbps
	Rate Control	VBR
	Aspect Ratio	16 :9
Audio	Encoding	MPEG1 Layer2, AAC, AC3
	Sample rate	48KHz
	Bit rate	MPEG1 Layer2 (192kbps)
		AAC (VBR)
		AC3 (128kbps)
DVB-C Modulator Section		
Standard	J.83A (DVB-C), J.83B	
MER	≥35dB	
RF frequency	54-1000MHz, 1KHz step	

RF output level		-35dbm, 1dB step	
Symbol rate		3.000~7.000Msps adjustable	
Constellation	J.83A		J.83B
	16/32/64/128/256QAM		64/ 256QAM
Bandwidth	8M		6M
DVB-T Modulator Section			
Standard		DVB-T COFDM	
Bandwidth		2M, 3M, 4M, 5M, 6M, 7M, 8M	
Constellation		QPSK, 16QAM, 64QAM	
Code rate		1/2, 2/3, 3/4, 5/6, 7/8	
Guard Interval		1/32, 1/16, 1/8, 1/4	
Transmission Mode:		2K, 8K	
MER		≥35dB	
RF frequency		54-1000MHz, 1KHz step	
RF output level		-35dbm, 1dB step	
ISDB Modulator Section			
Standard		ARIB STD-B31	
Constellation		QPSK, 16QAM, 64QAM	
Guard Interval		1/32, 1/16, 1/8, 1/4	
Transmission Mode		2K, 4K, 8K	
Code rate		1/2, 2/3, 3/4, 5/6, 7/8	
RF frequency		54~1000MHz, 1KHz step	
RF output level		-35dbm, 1dB step	
ATSC Modulator Section			
Standard		ATSC A/53	
Constellation		8VSB	
RF output level		-35dbm,1dB step	
MER		≥35dB	
RF frequency		54~1000MHz, 1KHz step	
RF output level		-35dbm, 1dB step	
System			
Management		Web	
Language		English	
Upgrade		Web update	
General			
Power supply		AC 100V±10%, 50/60Hz or AC 220V±10%, 50/60Hz	
Dimensions		482x328x44.5mm = (19"x12.9"x1.7")	
Temperature		0~45°C(operation), -20~80°C(storage)	

Drawing:

THOR BROADCAST H-THUNDER-8

8 channel HDMI and CVBS Clear CATV RF Modulator

QAM – ATSC – DVB-T – ISDB-T

8 x HDMI & CVBS Inputs

