

# CatCast



## HPS8542A V2

## 4K Encoder Modulator

NEW

Support CC (Closed Caption) /Teletext  
4\*HDMI 4K Encoding ➡ Digital RF



## Product Overview

HPS8542A V2 4K encoder modulator is Catcast's new breakthrough all-in-one devices which integrate encoding (H.264 /H.265) and modulating to convert V/A signals into Digital RF output. It is equipped with 4 HDMI channels input and 1 ASI input(optional) and output via 2 ASI ports(optional) and 1 DATA (4\*SPTS or 2 or 4 MPTS--as per carrier numbers)output over UDP, RTP/RTSP. The latency has been greatly reduced to achieve an extremely low value from the encoding progress to the decoding terminals.

It adopts an inner drawer-type structural design which greatly facilitates the change of encoding modules as needed. The signals source could be from satellite receivers, closed-circuit television cameras, Blue-ray players, and antenna etc.

## Key Features

- HDMI input with H.265/h.264 video (4K encoding for H.265 only)
- DVB-C/DVB-T/ISDB-T/ATSC RF OUT for order option
- IP output over UDP, RTP/RTSP from the 100/1000M self-adaptive data port
- Support AC3 Pass-through
- Support OSD (logo/QR Code) insertion, logo in PPT form is available
- Support CC (Closed Caption) /Teletext (CC is not available for H.265 at present)
- Excellent modulation quality
- LCN support (Logical Channel Number)
- LCD Screen for easy management

## Specifications

<b>Input</b>	2/4 HDMI in. 2/4 HDMI loop out 1 ASI in for re-mux	
<b>Video</b>	Resolution	3840*2160_60/50P(H.265 only), 1920*1080_60/59.94/50P, 1280*720_60/59.94/50P,
	Encoding	HEVC/ H.265 , MPEG 4 AVC/H.264
	Bit-rate	2Mbps~20Mbps
	Rate Control	CBR/VBR
	Chroma	Input:4:4:4/4:2:2; output:4:2:0
	GOP Structure	IBBP, IPPP
<b>Audio</b>	Encoding	MPEG-1 Layer 2, LC-AAC, HE-AAC and AC3 Pass through
	Sampling rate	32KHz,44.1KHz,48KHz
	MPEG-1 Layer 2 /LC-AAC Bit-rate	48Kbps~384Kbps
	HE-AAC Bit-rate	24 Kbps~128 Kbps
	HE-AAC V2 Bit-rate	18 Kbps~56 Kbps
<b>Multiplexing</b>	Maximum PID Remapping	255 input per channel
	Function	PID remapping ( automatically or manually)
		Accurate PCR adjusting
		Generate PSI/ SI table automatically

**Modulation**

Modulation	DVB-C	QAM Channel	4*DVB-C carriers			
		Standard	EN300 429/ITU-T J.83A/B			
		MER	≥40db			
		RF frequency	50~960MHz, 1KHz step			
		RF output level	-20~+3dbm, 0.1db step			
		Symbol Rate	3.000~9.000Msps adjustable			
		Constellation	J.83A	J.83B	J.83C	
			16/32/64/128/256QAM	64/256QAM	64/256QAM	
		Bandwidth	8M	6M	6M	
	DVB-T	Standard	EN300744			
		Transmission Mode	2K,4K, 8K			
		Bandwidth	6M, 7M, 8M			
		Constellation	QPSK, 16QAM, 64QAM			
		Guard Interval	1/32, 1/16, 1/8, 1/4			
		MER	≥42 dB			
		RF frequency	50~960MHz, 1KHz step			
		RF out	4*DVB-T carriers			
		RF output level	-28~ -3 dBm, 0.1db step			
	ATSC	Standard	ATSC A/53			
		Bandwidth	6M			
		Constellation	8VSB			
		MER	≥40dB			
		RF frequency	50~960MHz, 1KHz step			
		RF out	4*ATSC carriers			
		RF output level	-20~+3dbm(for all carriers), 0.5db stepping			
	ISDB-T	Standard	ARIB STD-B31			
		Bandwidth	6M			
		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			
		MER	≥40dB			
		RF frequency	50~960MHz, 1KHz step			
RF out		2*ISDBT carriers				
RF output level		-20dBm~+3dBm, 0.1dB stepping				

<b>Stream output</b>	2 ASI out(BNC type, same one mirror out TS as one of 4/2 MPTS outputs and 4 SPTS outputs) DVB-C/DVB-T/ATSC: IP (4 MPTS & 4 SPTS) out over UDP, RTP/RTSP ISDBT: IP (2 MPTS & 4 SPTS) out over UDP,RTP/RTSP	
<b>System function</b>	Network management(WEB)	
	Chinese and English language	
	Ethernet software upgrade	
<b>Miscellaneous</b>	Dimension(W×L×H)	482mm×328mm×44mm
	Environment	0~45℃(work); -20~80℃ (Storage)
	Power requirements	AC 110V± 10%, 50/60Hz, AC 220 ± 10%, 50/60Hz

## Principle Chart

