

MTxx33HD

Hyper-Coder

COFDM H.264 Transmitter



> Key Features

- Digital Video Transmitter DVB-T COFDM
- H.264 Encoding
- Composite Video Input Standard (PAL/NTSC)
- SDI and HD-SDI Digital Video Input
- Transmit Standard or High Definition Video
- Two Analog Audio Channels
- Data Wayside Channel
- Variable Output Up To 2 Watt
- Models Available from 1.7 to 5.85 GHz
- KLV Metadata Transmission
- Web GUI Configuration and Ethernet Control

> Applications

- UAV/UGV Datalink
- Fixed Concealments
- Overt/Covert Surveillance

> Options

- External Power Amplifiers to 10 W
- Streaming IP Video Input
- Wide Variety of Antennas
- AES 128/256 Encryption (BCrypt1/BCrypt2)

> Description

Small size and superior performance are achieved in the Hyper-Coder video transmitters from BMS. Well suited for use in small UAV and ground robotics applications, the Hyper-Coder provides wireless HD video transmission using H.264 compression with first-in-class latency performance. These DVB-T COFDM digital transmitters offer robust performance in urban and non-line-of-sight environments.

With output power adjustable up to 2W, the Hyper-Coder is a complete transmitter solution offering excellent link distances.

Built in error correction and available AES encryption combine to make your communications secure and reliable.

End-to-end latency of 150 ms* allows users to make decisions in real time. Low-latency is also important when teleoperating unmanned air and ground vehicles (UAV/UGV). The units are spectrally efficient occupying from 6 to 8 MHz of spectrum. The transmitter is available with a variety of interfaces and inputs for easy integration into the user's hardware.

Small size, light weight, and low current draw make the Hyper-Coder transmitters from BMS ideal for many applications beyond unmanned vehicles including remote and concealed surveillance. Contact us today to learn how your system can be improved with the Hyper-Coder.

*Measured with companion BMS receiver

> Technical Specifications

RF:	
Tuning Step Size:	250KHz, 1MHz (others available)
Frequency Stability:	± 2.5 ppm
RF Output:	Variable up to 2W in four programmable steps
Encoding:	H.264 (MPEG4 Section 10/AVC)
Video Input:	Composite NTSC/PAL and SDI, HD-SDI digital video input
NTSC:	640 x 480
PAL:	720 x 576
SD-SDI Input:	ANSI/SMPTE 259M
HD-SDI Input:	ANSI/SMPTE 292M (up to 1080i/60, 1080p/30)
Modulation Format:	COFDM (DVB-T)
Carriers:	2k
Constellation:	QPSK, 16 QAM, 64 QAM
Code Rate:	1/2, 2/3, 3/4, 5/6, 7/8
Guard Interval:	1/32, 1/16, 1/8, 1/4
Bandwidth:	6 MHz, 7 MHz, and 8 MHz
Audio Coding:	ISO/IEC 13818-3 (MPEG-1 Layer 2)
Audio Frequency Response:	40 Hz to 10 kHz +/- 1.0dB
Audio Channels:	2 Mono
Audio Input:	Mic/Line (selectable), unbalanced (accepts Tibbetts 251-10 subminiature microphone)
Encryption (standard)	BTP (BMS Transmission Privacy)
Encryption (optional):	AES 128 or 256 bit (FIPS PUB 197, BCrypt1)
User Data:	RS232 side channel up to 115 kb/s
Configure and Control:	Ethernet 802.3 compliant, Web GUI
Presets:	16 user configurable presets
Input Voltage Range:	+10 to +15VDC (reverse polarity protected)
Power Consumption:	See table below.
Temperature Range:	Full Specification: -20° to +40°C baseplate
Storage:	-40° to +70°C
Humidity:	0 to 95% non-condensing
Ingress:	IP65 rated
Operating Altitude:	Unlimited
Vibration:	2 G Random, 20 to 2,000 Hz
Size:	4.8" L x 2.5" W x 0.88" H (less connectors) (12.19 x 6.35 x 2.24 cm)
Weight (excluding connectors):	< 11 oz. ,UL model < 7 oz. (311.84/198.45 gm)
Optional Accessories:	MMHS-2 Heatsink with fan, 9-18VDC MMHS-3 Heatsink, no fan

> Connectors

Connectors

Video:	Mini-BNC(f)
Audio:	Telocate type JT4MCS
DC Input:	LEMO-2
User Data:	LEMO-5
Configuration:	RJ-45
RF:	SMA (f)

> Ordering Information

MODEL	BAND (GHz)	Max RF Out	DC Power
MT1833HD	1.700-1.900	2W	20W
MT2333HD	2.200-2.400	2W	20 W
MT4733HD	4.400-5.000	2W	20 W
MT5833HD	5.725-5.850	2W	20W (Planned)