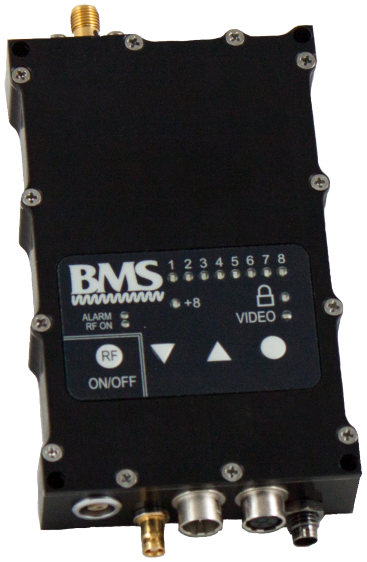
Broadcast Microwave Services, Inc.

MTxx24VHD

Hyper-Coder
COFDM H.264 Transmitter



> Key Features

- Digital Video Transmitter DVB-T COFDM
- H.264 Encoding
- Composite Video Input (PAL/NTSC)
- SDI Input for SD or HD video
- Two Analog Audio Channels
- Data Wayside Channel
- 20-200 mW Variable Outptut
- Models Available from 1.7 to 5.85 GHz
- KLV Metadata
- Ethernet Configuration and Control

> Applications

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

> Options

- External Power Amplifiers to 10 W
- Streaming IP Video
- 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 from 20-200 mW, 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.

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.

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.

> MTxx24VHD Hyper-Coder Transmitter

> Technical Specifications

RF:	
Tuning Step Size:	250KHz, 1MHz (others available)
Frequency Stability:	± 2.5 ppm
RF Output:	Variable 20-200mW in four steps
Encoding:	H.264 (MPEG4 Section 10/AVC)
Video Input:	Composite NTSC/PAL, SDI, HD-SDI digital video
NTSC:	640 x 480
PAL:	720 x 576
SD-SDI Input:	ANSI/SMPTE 259M
HD-SDI Input:	ANSI/SMPTE 292M (up to 1080i/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
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:	4.0" L x 2.4" W x 0.87" H (less connectors) < 8.4 cu. in.
Weight (excluding connectors):	< 9.6 oz. (UL model, < 6 oz.)
Optional Accessories:	MHS-2 Heatsink with fan, 9-18VDC
	MHS-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)	RF Out	DC Power (varies with RF output)
MT1824VHD	1.700-1.900	20-200mW	6.5-10W
MT2324VHD	2.200-2.500	20-200mW	6.5-10 W
MT4724VHD	4.400-5.000	20-200mW	6.5-10 W
MT5824VHD	5.725-5.850	20-200mW	6.5-10 W (Planned)

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