

CDT1 DVB-T COFDM Video Transmitter

Excellent Digital Video Transmitter for Urban Multipath Environments!



Design Features

- 6.8 Cubic Inch Package (2.65"x3.95"x0.65")
- High Efficiency (5.8W DC for 100mW RF)
- Full Frequency Band Channelization
- Local & Remote Frequency and Configuration Selection
- 6/7/8 MHz DVB-T Bandwidths
- Optional 1.25/2.5 MHz Bandwidths
- MPEG2 and MPEG4 Compression
- QPSK/16QAM/64QAM Modulation
- AES256 Bit Encryption
- Supports Composite Video (NTSC or PAL)

CDT1 Series

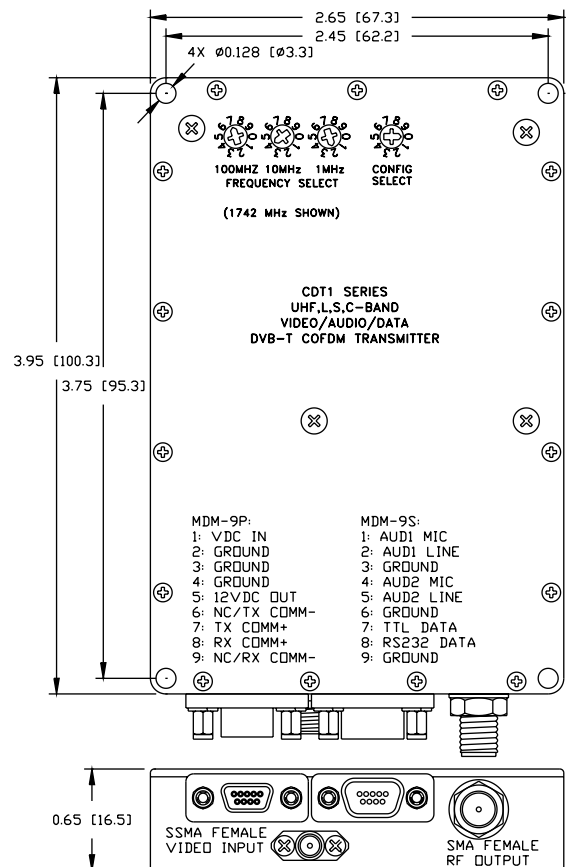
AMP's CDT1 Series 6.8 cubic inch COFDM DVB-T video transmitters are designed for secure, high quality video transmission in multipath environments such as metropolitan areas.

The CDT1 is a high efficiency transmitter design with 100 mWatts RF output power and features such as full frequency band channelization, MPEG2 or MPEG4 video encoding, DVB-T or narrow or ultra-narrow bandwidth settings, QPSK or 16QAM or 64QAM modulation, stereo audio, and auxiliary data channel.

Frequency may be selected locally with BCD rotary switches or remotely. Eight pre-programmed COFDM configurations are also locally selectable with a rotary switch.

CDT1 transmitters are designed to withstand harsh environments and are ideal for law enforcement, surveillance, UAV, UGV, military, and other applications requiring high quality video transmission in a compact, rugged package.

CDT1 transmitters can be mated to AMP's HSD1 High Power Amplifiers for applications that require higher RF output power.



Advanced Microwave Products
8748 Technology Way
Reno, NV 89521
Phone: (775) 345-9933
E-mail: sales@advmw.com
Web: www.advmw.com

RF Characteristics

Frequency Range (Specify):	UHF:	340.0-399.9 MHz	100 kHz Channels
(Other Ranges Available)	Lower L-Band:	1435-1535 MHz	1 MHz Channels
	Upper L-Band:	1700-1850 MHz	1 MHz Channels
	Lower S-Band:	2200-2399 MHz	1 MHz Channels
	Upper S-Band:	2400-2499 MHz	1 MHz Channels
	Full S-Band:	2200-2499 MHz	1 MHz Channels
	Lower C-Band:	4400-4900 MHz	1 MHz Channels
	Upper C-Band:	4900-4999 MHz	1 MHz Channels
	Full C-Band:	4400-4999 MHz	1 MHz Channels
Frequency Selection (Specify):	Full Band Channelized - Remote Control Only or Remote/Local Control		
Frequency Stability:	±10ppm Over -20°C to +60°C		
Output Power:	100mW		
Output Impedance:	50 Ω Nominal, VSWR 2:1 Maximum		
Output Protection:	Open/Short Indefinitely		
Occupied Bandwidth (Specify):	6/7/8 MHz (DVB-T), 2.5 MHz (Narrow), 1.25 MHz (Ultra-Narrow) - Configuration Dependent		
Spurious Output:	-13 dBm Maximum		

COFDM Video/Audio Characteristics

Modulation Type:	QPSK or 16QAM or 64QAM - Configuration Dependent		
Input Impedance:	75 Ω Nominal, Unbalanced		
Video Encoding:	MPEG2 (DVB-T, Narrow) or MPEG4 (Ultra-Narrow)		
Frame Rate:	30 FPS (NTSC) or 25 FPS (PAL)		
Horizontal Resolution:	480 Pixel		
COFDM Carriers:	2K DVB-T or Approximately 400 Narrow/Ultra-Narrow – Configuration Dependent		
Guard Interval:	1/4 to 1/16, Configuration Dependent		
Latency:	<100 msec to approx 500 msec, End to End – Configuration Dependent		
Encryption (Specify):	ABS 32-bit or AES 256-bit		
Audio Channels (Specify):	Zero or Two (Stereo)		
Audio Bandwidth:	4 kHz to 16 kHz, Configuration Dependent		
Audio Input Level:	-55 dBV Mic and -10 dBV Line Audio (Remotely Selectable)		
Audio Input Impedance:	>4 kΩ to Gnd		
Mic DC Supply (Audio Input(s)):	2.0 Vdc Thru 4.7 kΩ Pull-Up		

COFDM Auxiliary Data Channel Characteristics

Interface Type:	One-Way UART		
Signaling Type (Specify):	RS232/3.3V TTL, RS485, or RS422		
Supported Data Rates:	9600 Baud		

Configuration Interface Characteristics

Interface Type:	Two-Way UART		
Signalling Type (Specify):	RS232, RS485, RS422, or 3.3V TTL		
Interface Parameters:	9600/8/1/None/None (Baud/Data Bits/Stop Bits/Parity/Handshake)		

Power Requirements

Input Voltage:	+11 to +16 Vdc, Reverse Polarity Protected		
Current Draw:	480 mA for 100mW RF, Typical @ 12 Vdc		
Camera Supply Output:	+12 Vdc, 250mA Current Limit		

Mechanical

Material:	CNC Machined T6061-T6 Aluminum		
Finish (Specify):	Nickel Plated or Gold Iridite		
Dimensions:	2.65" W x 3.95" L x 0.65" H		
Weight:	<7 oz.		
Connectors:	RF Output:	SMA Female	
	Video Input:	SSMA Female	
	DC Supply, Comms, Cam Supply:	MDM-9P	
	Audio and Data Inputs	MDM-9S	

Environmental

Temperature (Operating):	-20°C to +60°C		
Acceleration:	100 g, 3 Axes		
Altitude:	Unlimited		
Humidity:	Up to 95% @ Any Temperature Forming Frost or Condensation		