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NS70 Series COFDM Video Transmitter

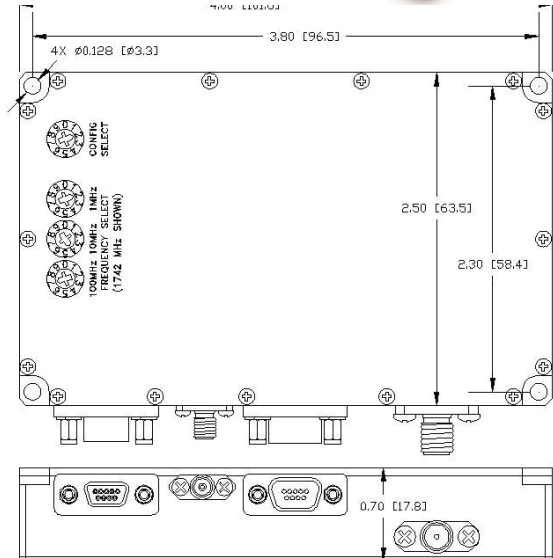
Excellent Digital Video Transmitter for Urban Multipath Environments!

NSMS NS70 Series 7.0 cubic inch COFDM video transmitters are designed for high quality COFDM video transmission in multipath environments such as metropolitan areas.

The NS70 Series transmitters offer extremely high power efficiency, up to 2 Watts output power, full frequency band channelization, and JPEG2000 video encoding. Many COFDM parameters are user-selectable: occupied bandwidths of 1.25 and 2.5 MHz; QPSK, 16QAM, or 64QAM modulation; FEC rates from 1/6th to 2/3rd, guard interval from 1/4 to 1/16, and 128 or 256 Bit AES encryption. NS70 transmitters are optionally configured with up to two audio channels and are standard equipped with an auxiliary data channel.

Frequency may be selected locally with chassis-mounted BCD switches, remotely through the transmitter's RS232 serial interface, and locally/remotely with configurable pre-sets.

The NS70 Series 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.



MDM-9P:	SSMA FEMALE VIDEO INPUT	MDM-9S:	SMA FEMALE RF OUTPUT
1: VDC INPUT		1: NC	
2: VDC INPUT		2: NC/AUDIO-L INPUT	
3: GROUND		3: GROUND	
4: RS232 OUT-DATA		4: GROUND	
5: RS232 IN-DATA		5: NC/AUDIO-R INPUT	
6: GROUND		6: GROUND	
7: GROUND		7: NC/12V CAM SUPPLY	
8: RS232 TX-COMM		8: NC/5V CAM SUPPLY	
9: RS232 RX-COMM		9: GROUND	

**** NOTES:**

- 1) NC = No Connection
- 2) Models with no audio or cam supply have MDM-9S connector omitted
- 3) Programmable BCD switch models utilize a single 10-position BCD switch in place of the shown 1 MHz switch

Design Features:

- 7.0 Cubic Inch Package (2.50"x4.00"x0.70")
- High Efficiency (<22W DC for 2W RF)
- Up to 2 Watts RF Output Power
- Full Band Channelized (Local/Remote Control)
- 10 Configurable Pre-Sets
- JPEG2000 Video Encoder
- NTSC or PAL Video
- 1.25 / 2.5 MHz Selectable Bandwidth
- QPSK / 16QAM / 64QAM Selectable Modulation
- AES 128 / 256 Bit Selectable Encryption
- Optional Stereo Audio
- Auxiliary Data Channel
- Non-DOMO based

NS70 COFDM Video/Audio Transmitter (non-DOMO based)

RF Characteristics

Frequency Range (Specify):340 – 400 MHz - 100 kHz Channels
(Other Ranges Available)1430 – 1540 MHz - 1 MHz Channels
.1700 – 1850 MHz - 1 MHz Channels
.2200 – 2399 MHz - 1 MHz Channels
.2400 – 2500 MHz - 1 MHz Channels
.4400 – 4999 MHz - 1 MHz Channels
Frequency Selection:Channelized (Full Band) - BCD Rotary Switches, RS232 Remote Control, and Programmable Binary Switch
Frequency Stability: ± 4 ppm Over -20°C to +70°C
Output Power (Specify):500mW, 1 Watt, or 2 Watts
Output Impedance:50 W Nominal, VSWR 2:1 Maximum
Output Protection:Open/Short Indefinitely
Occupied Bandwidth:1.25 MHz or 2.5MHz – Selectable
Spurious Output:-13 dBm Maximum

COFDM Video/Audio Characteristics

Modulation Type:QPSK, 16QAM or 64-QAM - Selectable
Input Impedance:75 Ω Nominal, Unbalanced
Video Encoding:JPEG2000
Frame Rate:30 FPS (NTSC) or 25 FPS (PAL)
Horizontal Resolution:704, 528, 480, or 352 Pixel - Selectable
COFDM Carriers:Approximately 200
Guard Interval:1/4, 1/8 or 1/16 - Selectable
Latency:<70 msec, End to End
Audio Channels (Specify):Zero, One, or Two (Stereo)
Audio Input Impedance:10 k Ω to Gnd, Minimum
Encryption:AES 128-bit, or AES 256-bit - Selectable

COFDM Data Characteristics

Interface Type:RS-232 Half Duplex
Supported Data Rates:Up to 115.2 kbps Selectable
Connection:RS232 IN-DATA

Configuration Interface Characteristics

Interface Type:RS-232
Interface Parameters:9600/8/1/None/None (Baud/Data Bits/Stop Bits/Parity/Handshake)
Connection:RS232 RX/TC-Comm Ports

Power Requirements

Input Voltage:+11 to +16 Vdc, Reverse Polarity Protected
Current Draw:700 mA for 500mW RF (Typical @ 12 Vdc)1.1 A for 1 Watt RF1.8 A for 2 Watts RF

Mechanical

Material:CNC Machined T6061-T6 Nickel Plated Aluminum
Dimensions:2.50" W x 4.00" L x 0.38" H
Weight:3.5 oz. Maximum
Connectors:
RF OutputSMA Female
Video Input: (Others Available)SSMA Female
DC Supply, RS-232MDM-9P
Audio Inputs, Mic/Cam Supplies:MDM-9S

Environmental

Temperature (Operating):-20°C to +70°C
Acceleration:100 g, 3 Axes
Altitude:Unlimited
Humidity:Up to 95% @ Any Temperature Forming Frost or Condensation

Product specifications subject to change.

