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## NS2R Series COFDM Video Receiver

**Excellent Digital Video Receiver for Urban Multipath Environments!**

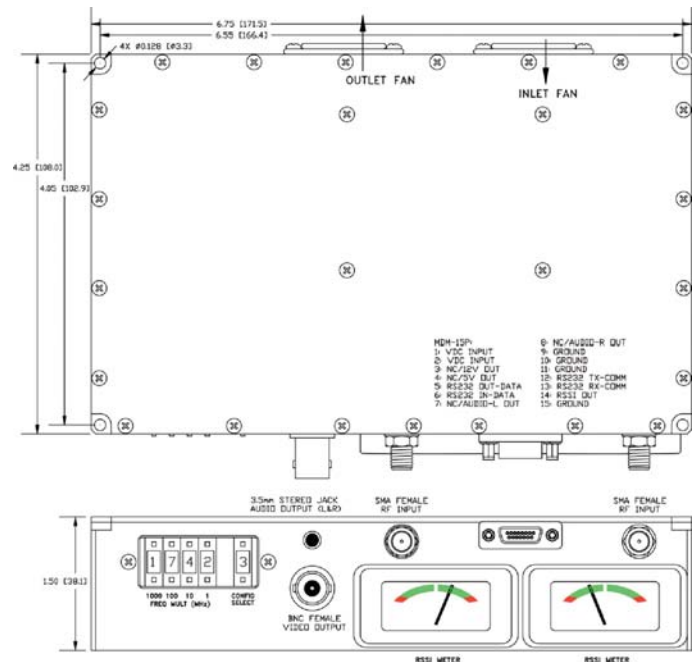
NSM Surveillance's NS2R Series COFDM video receivers are designed for high quality COFDM video reception in high multipath and urban environments.

The NS2R has low power draw, excellent sensitivity, JPEG2000 decoding, and full frequency band channelization. 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. NS2R receivers 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 presets.

The NS2R Series receivers are designed to withstand harsh environments and are ideal for law enforcement, surveillance, UAV, UGV, military, and other applications requiring high quality video receiver in a compact, rugged package.

NSMS' NS24 Series COFDM video receivers are designed for high quality COFDM video reception in high multipath and urban environments.



### DESIGN FEATURES:

- 15 Cubic Inch Package (3"x5"x1")
- UHF, L-Band, S-Band or C-Band
- Low Power Draw
- Full Band Channelized
- JPEG2000 Video Decoder
- NTSC or PAL Video Output
- 1.25 / 2.5 MHz Selectable BW
- QPSK / 16QAM / 64QAM Selectable Modulation
- AES 128 / 256 Bit Selectable Decryption
- Diversity Antenna Configuration
- Dual Chassis Mounted RSSI Meters
- Optional Stereo Audio
- Auxiliary Data Channel
- (DOMO Based)

# NS2R COFDM Video/Audio Receiver (DOMO based)

## RF CHARACTERISTICS

Frequency Range  
(Specify): ..... 340 – 400 MHz - 100 kHz Channels  
(Other Ranges Available) ..... 1700 – 1850 MHz - 1 MHz Channels  
..... 2200 – 2399 MHz - 1 MHz Channels  
..... 2400 – 2500 MHz - 1 MHz Channels  
..... 4400 – 4999 MHz - 1 MHz Channels  
..... 5700 – 5900 MHz - 1 MHz Channels

Frequency Selection  
(Specify): ..... Channelized (Full Band) - BCD Rotary Switches, RS232 Remote Control, and Programmable Binary Switch

Frequency Stability: .....  $\pm 4$ ppm Over -20°C to +70°C

Input Impedance: ..... 50  $\Omega$  Nominal, VSWR 2:1 Maximum

Maximum RF Input: ..... 0 dBm Without Damage

Noise Figure: ..... 3 dB Maximum

Image Rejection: ..... 50 dB Minimum

Signal Bandwidth: ..... 1.25 MHz or 2.5MHz – Selectable

Signal Strength: ..... Dual Chassis Mounted RSSI Meters

Configuration: ..... Diversity Antenna

## COFDM VIDEO/AUDIO CHARACTERISTICS

Modulation Type: ..... QPSK, 16QAM or 64QAM - Selectable

Input Impedance: ..... 75  $\Omega$  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 Output Level: ..... -10 dBV Line

Decryption: ..... 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 Baud Selectable

Connection: ..... RS232 OUT-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: ..... 700mA, Typical @ 12 VDC

## MECHANICAL

Material: ..... CNC Machined T6061-T6 Nickel Plated Aluminum

Dimensions: ..... 3.00" W x 5.00" L x 1" H

Weight: ..... 16 oz. Maximum

Connectors: .....

- RF Inputs: ..... SMA Female
- Video Output: ..... BNC Female
- DC Supply
- Audio Out ..... RS-232,
- RSSI: ..... MDM-15P
- Audio Output: ..... 3.5mm Stereo Jack

## 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.

