

JANTEQ SURVEILLANCE SERIES DIGITAL VIDEO COFDM RECEIVER

"The Notebook Receiver" NHDRX-XXX, is a stylish professional four channel diversity digital microwave receiver used to demodulate COFDM signals in the frequency range 1.7- 8.5 GHz. The Receiver is compatible with the standards for 2K DVB-T (Digital Video Broadcast-Terrestrial) and will decode MPEG 2 and H.264.

The Receiver front end has been designed to survive in the harshest of RF environments. This is achieved by using multiple IFs with narrow band tracking filters and LNA, Mixer combinations that withstands strong In-band interfering signals.

The front panel uses a 7" high resolution, high brightness, LCD screen in conjunction with tactile switches, a navigation wheel and stereo speakers to set operator monitoring and receiver control to a new standard.

The rear panel has a variety of signal formats that are available on two assignable BNC connectors, a HDMI socket and various audio jacks. Streaming Video is available from the RJ45 IP connection.

Finally the Receiver is constructed in an attractive, ruggedized machined aluminum housing.



Key Features to be found in this Radio

- Multiband capability: Available in L, S, LS, LSC or X bands.
- DVB-T bandwidths of 5, 6, 7 & 8 normal and 1.25 & 2.5MHz optional.
- HD H264 Main & Baseline, 4:2:0. HD MPEG2 Main & Baseline, 4:2:2 with Low Latency.
- Four antenna proprietary diversity system.
- Excellent RF performance in a hostile RF environment. Front end over load, adjacent channel rejection and spurious signal rejection.
- Two built in Wide band receive Antennas. Two N Type inputs for external Antennas.
- In built 7" X VGA video color monitor and audio monitoring speakers.
- HDMI output for use with high quality consumer monitors.
- Choice of monitoring outputs with assignable BNC outputs. Down scaling of HD to SD composite for local monitoring.
- On Screen Display for video overlay with spectrum analysis on monitoring outputs.
- Administrator configurable menus with pin.
- SD card recording of HD/SD transport stream up to eight hours.
- Decryption AES, 128, 192 or 256Bit.
- User Data up to 1 Mbits 232, RS 485.
- Remote control via, RS 232, USB or IP.
- Video over IP RTP/UDP source & sink. RTSP server SMPTE 20121 COP-3 FEC.
- Choice of internal 100-240VAC power supply or external 10-28VDC input.

'Notebook' Receiver [NHDRX-XXX] Technical Specifications.

RF SECTION:

Frequency Range:
 Dual Band 1.7 to 1.9 GHz, 2.2 to 2.4GHz.
 Triple Band 1.7 to 1.9, 2.2 to 2.4 & 4.4 to 5 GHz.
 X Band 8100-8500Mhz
 RF/IF Frequency stability: ± 2.5ppm
 Tuning step size: 100/125/250 kHz,
 RF Input impedance: 50 Ohms, < 1.5 :1 VSWR
 Maximum Input power Input in band: -10dBm, Regrowth >30dbc
 Maximum Non destructive I/P +17dBm.
 IF Bandwidth 5MHz, 6MHz, 7MHz, 8MHz
 Optional 1.25 & 2.5MHz
 IF Linearity IM3: >50 dB over entire input signal range
 Threshold: -92 dBm @ 8MHz, QPSK, ½FEC, 1/32

Demodulation Decoder Section:

COFDM: EN300-744 DVB-T
 Constellation: QPSK, 16QAM, 64QAM
 Code Rate: ½, 2/3, ¾, 5/6, 7/8
 Guard Interval: 1/32, 1/16, 1/8, 1/4.
 Deencryption: AES 128/256
 Spectrum Inversion: Automatic detection
 BER >10-8 input level>-90dBm QPSK 8 MHz

MPEG-2 VIDEO Decoder Section:

Compression Standard ISO 13818-1, ISO 13818-2 MPEG-2
 Profiles: MP@HL, 422P@ML, MP@H14L
 GOP Support I, IP, IPB.
 System Latency: <120ms (Encoder & Decoder)

H.264 Main Profile Long GOP:

Compression Standard ITU-T Rec. H.264 (03/2005).
 Profiles Base line and Main. 4:2:0.

VIDEO FORMAT STANDARDS:

1080p 30, 29.97, 25, 24, 23.98.
 1080PsF 30, 29.97, 25, 24, 23.98.
 1080i 60, 59.94, 50.
 720p 60, 59.94, 50, 30, 29.97, 25.
 NTSC and PAL.

VIDEO OUTPUTS SECTION:

Video Output Formats: 2 BNC 75R output A & B, can select from list below
 Analog Video Output:
 Analog Composite: 75 Ohms 1Vp-p NTSC/PAL 525/625Lines
 Frequency Response: 0.5 dB (10 Hz to 5MHz)
 Digital Video Output:
 Digital Video Output Signals: HD-SDI, SD-SDI
 Digital Video Signal-to-Noise: >65 dB
 Composite Output Level 75 Ohms 1Vp-p, NTSC/PAL
 HD/SD- SDI Output: SMPTE 292 / 259M (1.5Gb/s – 270Mb/s)
 Test Pattern Generator Internal SD/HD SMPTE test bar generator
 DBV-ASI Signal per SMPTE 299

BNC A	BNC B
SD/HD SDI or ASI out.	SDSDI or ASI In.
Composite Video out	Composite Video out
	Composite Video in.
	ASI out
	Genlock. (Optional)

Composite video monitor down converted from HD with selectable OSD. HDMI Monitoring output available. Extra Composite video and dual channel Audio available on 3.5mm jack.
 Output signals has a choice of, SMPTE bars, Blue or Black Field or Freeze Frame When the signal is lost.

AUDIO SECTION:

Audio Output: 1 stereo pairs
 Decoding Scheme: MPEG-1 Layer 1 & Layer ISO 13818-3
 (AAC, PCM and Nicam Optional)
 Embedded SDI support.
 Audio Bit Rate: 128kbit/sec – 384kbit/sec
 Sample Rate: 48kHz
 Frequency Response: 20Hz – 20kHz: +/- 1dB
 Audio THD: 0.1% (@ 1kHz +8dBm)
 Signal/Noise: > 68dB (@ 1 KHz, +8dBm)
 Gain: gain adjust, +/- 6dB in 1dB increments
 Max line output level: +18dBm
 Output impedance: Analog line: 1.5K Ohm, unbalanced
 Tone Generator: Internal 400Hz/1KHz tone generator.

POWER:

AC input Range: 100-240VAC.
 DC Input Range: 10 to 28 Volts DC
 Protection Under voltage and reverse polarity.
 Input Power 24 Watts Max DC. 30 Watts AC.

USER DATA CHANNEL:

RS 422 OUTPUT: Transparent data pipe up to 1 M bit/s or on IP.

REMOTE CONTROL:

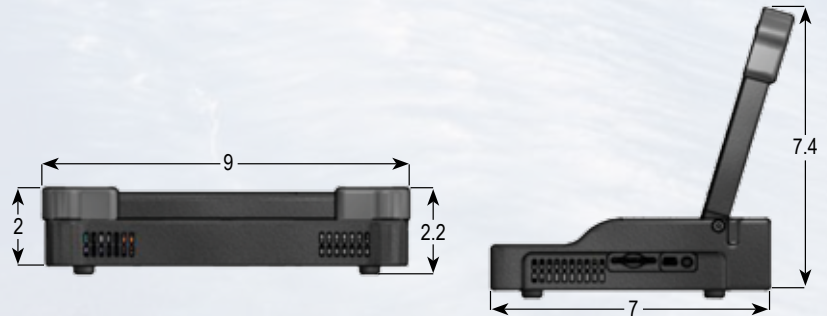
The Remote Control can be accessed through three different rear panel connectors.
 The DB9 RS232, USB 'B' or the Ethernet RJ45 connector.

CONTROL PANEL:

Display 7 inch Color XVGA LCD for confidence video, spectrum display or status.
 Indication: Power, Demodulator Lock, Decoder Lock, Encryption Lock.
 Presets: One hundred user defined presets.
 Menu Sensor wheel encoder with Escape, Enter and a short cut button for Presets.

Physical Characteristics:

Dimensions: 9" (229mm)W x 7"(178)L x 2"(51)H
 Weight: 2.1 lbs (950g)
 Temperature:
 Operating: -10 to +50°C
 Storage: -50 to +90°C
 Relative Humidity: 5 to 95% non-condensing



JANTEQ
 CORPORATION

9272 Jeronimo Rd, Suite 124
 Irvine, CA 92618
 Tel: 949 215 2603
 Fax: 949 215 2604
 info@janteq.com