



A Long-Range, Over-The-Air Radio Waveform Analyzer

DX-2002 Series Instrument Product Sheet



The DiagnostX DX-2002 Series instrument is a long-range, over-the-air radio waveform analyzer that measures a radio's alignment and operating characteristics in real time without any user intervention or impact on the radio system.

DX-2002 Series Features

- Monitors the Base Station Receive Control Channel (Inbound) Frequency
 - Protocols: P25 Trunked and P25 Conventional, Legacy, DMR, NXDN and TRBO
 - AFC Meter Feature: Included
 - Encryption: AES-256
 - P25 System Metrics:
 - RF Frequency Error
 - Symbol Frequency Error 600 and 1800
 - Modulation Fidelity
 - Average Symbol Deviation
 - Emission Mask Conformance
 - BER, RSSI, and SNR
 - Available Frequency Bands: VHF 136-174; UHF 380-430; UHF 450-470; UHF 470-512; 700; 800; 900 MHz
 - Installation: Two (2) connections - universal AC power and an antenna.
Can connect to the Rx antenna multicoupler
 - One DX-2002 instrument can be networked with up to three (3) NX-200 remote receivers to provide system-wide coverage. All data is stored in a unified database accessed through the DiagnostX Viewer (DV).
 - Autonomous - DiagnostX is non-intrusive and has no impact on the LMR network
 - Optional DiagnostX Viewer (DV) licenses can be installed on any computer on the network
-

DX-2002 Specifications

| | | |
|-----------------------------|-------------|---------------------------|
| DIMENSIONS | 2U | 3.46" H x 19" W x 18.9" D |
| WEIGHT | ~ 27 lbs. | |
| POWER | AC Voltage | 100-240VAC @50-60Hz |
| NETWORK CONNECTIVITY | RJ45 | Gigabit Ethernet |
| PERIPHERALS | USB and PS2 | * Mouse and Keyboard |

* Not Supplied

| | |
|-----------------|-------------------------------|
| DX-2002a | Single-Protocol / Single-Band |
| DX-2002b | Single-Protocol / Dual-Band |
| DX-2002c | Dual-Protocol / Single-Band |
| DX-2002d | Dual-Protocol / Dual-Band |
| DX-2002e | Dual-Protocol / Tri-Band |

DiagnostX Viewer (DV) Report Sorted by Radio ID

| Radio Id | Alias | Dept Name | RF Carrier Frequency Error (Hz) | Symbol Frequency Error 600 | Symbol Frequency Error 1800 | Modulation Fidelity | Average Symbol Deviation (Hz) | Status | Date/Time |
|----------|-------|-----------|---------------------------------|----------------------------|-----------------------------|---------------------|-------------------------------|------------------|--------------------|
| 9 | 9 | | 63 | 1 | 9 | 2.48% | 1804 | PASSED | 10/13/2020 1:10 PM |
| 10 | 10 | | 383 | 1 | 9 | 2.50% | 1804 | FAILED | 10/13/2020 1:10 PM |
| 11 | 11 | | 66 | 1 | 9 | 2.52% | 1804 | PASSED | 10/13/2020 1:10 PM |
| 12 | 12 | | 0 | 0 | 0 | 0.00% | 0 | NOT ENOUGH EV... | 10/13/2020 |
| 13 | 13 | | 393 | 1 | 9 | 2.56% | 1804 | FAILED | 10/13/2020 1:10 PM |
| 14 | 14 | | 70 | 1 | 9 | 2.57% | 1804 | PASSED | 10/13/2020 1:10 PM |
| 15 | 15 | | 72 | 1 | 9 | 2.60% | 1804 | PASSED | 10/13/2020 1:10 PM |
| 16 | 16 | | 74 | 1 | 9 | 2.61% | 1804 | PASSED | 10/13/2020 1:10 PM |
| 17 | 17 | | 74 | 1 | 9 | 2.63% | 1804 | PASSED | 10/13/2020 1:10 PM |
| 18 | 18 | | 76 | 1 | 9 | 2.65% | 1804 | PASSED | 10/13/2020 1:10 PM |
| 19 | 19 | | 78 | 1 | 9 | 2.67% | 1804 | PASSED | 10/13/2020 1:10 PM |
| 20 | 20 | | 79 | 1 | 9 | 2.69% | 1804 | PASSED | 10/13/2020 1:10 PM |
| 21 | 21 | | 81 | 1 | 9 | 2.71% | 1804 | PASSED | 10/13/2020 1:10 PM |
| 22 | 22 | | 83 | 1 | 9 | 2.74% | 1804 | PASSED | 10/13/2020 1:10 PM |
| 23 | 23 | | 429 | 1 | 9 | 2.75% | 1804 | FAILED | 10/13/2020 1:10 PM |
| 24 | 24 | | 0 | 0 | 0 | 0.00% | 0 | NOT ENOUGH EV... | 10/13/2020 |
| 25 | 25 | | 87 | 1 | 9 | 2.79% | 1804 | PASSED | 10/13/2020 1:10 PM |
| 26 | 26 | | 0 | 0 | 0 | 0.00% | 0 | NOT ENOUGH EV... | 10/13/2020 |
| 27 | 27 | | 442 | 1 | 9 | 2.82% | 1804 | FAILED | 10/13/2020 1:10 PM |
| 28 | 28 | | 0 | 0 | 0 | 0.00% | 0 | NOT ENOUGH EV... | 10/13/2020 |
| 29 | 29 | | 92 | 1 | 9 | 2.85% | 1804 | PASSED | 10/13/2020 1:10 PM |
| 30 | 30 | | 0 | 0 | 0 | 0.00% | 0 | NOT ENOUGH EV... | 10/13/2020 |
| 31 | 31 | | 96 | 1 | 9 | 2.90% | 1804 | PASSED | 10/13/2020 1:10 PM |
| 32 | 32 | | 98 | 1 | 9 | 2.92% | 1804 | PASSED | 10/13/2020 1:10 PM |
| 33 | 33 | | 463 | 1 | 9 | 2.93% | 1804 | FAILED | 10/13/2020 1:10 PM |
| 34 | 34 | | 100 | 1 | 9 | 2.95% | 1804 | PASSED | 10/13/2020 1:10 PM |
| 35 | 35 | | 102 | 1 | 9 | 2.97% | 1804 | PASSED | 10/13/2020 1:10 PM |
| 36 | 36 | | 104 | 1 | 9 | 2.98% | 1804 | PASSED | 10/13/2020 1:10 PM |
| 37 | 37 | | 479 | 1 | 9 | 3.00% | 1804 | FAILED | 10/13/2020 1:10 PM |

All models include an antenna, a multicoupler cable, and a one-year manufacturer warranty.

Contact LocusUSA for more information or a quote at (321) 727-3077 or sales@locususa.com.

Patent Nos.

United States: #8,565,096, #8,600,371, #8,825,042, #8,948,022, #9,282,482, #9,432,866, #9,681,321, #9,743,302, #9,961,578, #10,200,902, #10,244,417, #10,609,585, #10,659,982
 Australian: #2010235881, #2012253596 #2015203442 • Canadian: #2,746,238 • European: EP 2707798 B1 • Other patents pending.

LocusUSA and DiagnostX are registered trademarks of Locus Location Systems, LLC. All rights reserved.