

RSN-300i

Real-time Indoor RF Sensor Node



The RSN-300 contains a small high-performance, Real-Time Tektronix spectrum analyzer combined with a powerful embedded computer designed for the toughest environments. The affordable RSN-300 can continuously monitor RF spectrum and record spectral events for archiving and analysis. A powerful Intel multi-core embedded processor allows for sophisticated processing to be performed at the RF sensor node which dramatically reduces the amount of traffic transmitted over the network.

Compatible RF Software Tools

Add a keyboard, mouse, and monitor to run these applications:

- [SignalVu-PC](#) – Real-time signal analysis of live signal input
- [DataVu-PC](#) Data recording and playback with detailed signal analysis
- [SpectrumVu](#) Remote spectrum monitoring of 1-to-n RF sensor nodes

Key Features

- RSA306B RF front end
- Intel NUC7i5 embedded computer
- Fan-less rugged enclosure
- Small form factor
- GPS timing and position (Option)
- Multiple RSN-300 spectrum monitoring nodes can be networked together using SpectrumVu™ software

Input/Output Connectors

- Two USB 3.0 ports
- HDMI video port
- Ethernet GigE port
- 12-19 volt DC power input
- SMA connectors for GPS & RF antenna

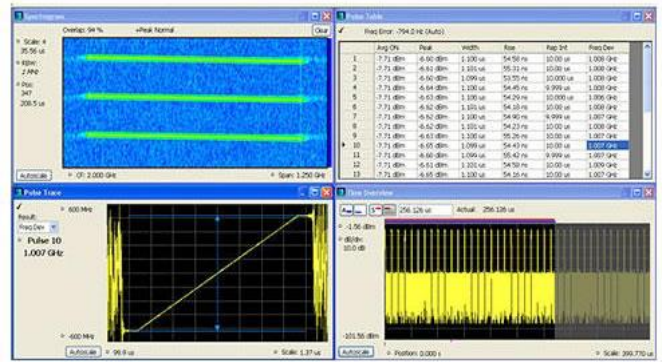
Key Performance Specs – RF Sensor

- 9 kHz to 6.2 GHz frequency range
- +20 to -160 dBm measurement range
- Fast sweeps over entire 6.2 GHz span
- Acquisition bandwidth of 40 MHz
- Amplitude accuracy ± 1.0 dB Typical (-10 °C to 55 °C) from 9 kHz - < 3 GHz
- ADC sample rate 112 Ms/s, 14 bits
- Maximum RF input level without damage ± 40 VDC

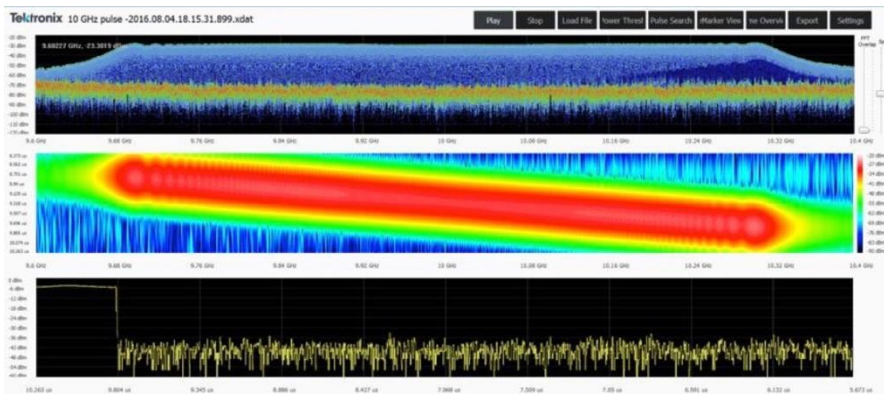
Key Performance Specs – Enclosure

- Dimensions 12 x 7.5 x 1.75 in (LxWxH)
- Weight approximately 6 pounds
- Rugged, fan-less, light weight

SignalVu-PC: Easily characterize your wideband RF signals by combining the analysis engine of the Tektronix Real-Time Signal Analyzer (RTSA) with your Tektronix oscilloscope. You get the functionality of a vector signal analyzer, pulse analyzer, WiGig or WLAN tester, spectrum analyzer and the powerful trigger capabilities of a digital oscilloscope - all in one instrument.



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DataVu-PC: Used for recording long-term events and searching for events of interest. Recording applications are growing due to increased spectrum crowding and the need to test in real world conditions. DataVu provides record, playback, and post-capture analysis for applications

including spectrum monitoring for compliance, hunting for interference, field survey or range environments during live testing, and troubleshooting infrequent events for design debug.

SpectrumVu: Provides a complete RF Spectrum monitoring solution by networking many small high-performance RF sensors operating synchronously and constantly monitoring the RF spectrum. Each RF sensor node can be programmed to constantly look for RF signals of interest and report spectral incidents to a Central Command Center. All spectral incidents are continuously logged in an SQL Database for analysis and report generation.

