SP145 Real-time Spectrum Analyzer

100 kHz to 14.5 GHz Real-time spectrum analyzer with calibrated streaming I/Q

The SP145 is a high-speed real-time spectrum analyzer and monitoring receiver. It tunes from 100 kHz to 14.5 GHz and can stream 61.44 million I/Q samples per second. The compact format, coupled with remarkable frequency accuracy, make this product an excellent option for field, test, or even aerial applications. The SP145 is USB-C powered for reliable and accurate spectrum analysis and RF data acquisition in a continuously changing environment. It features up to 200 GHz /sec sweep speed, includes an internal GPS and bridges the performance and frequency range gap between typical bench top products and full-featured, high-performance spectrum analyzers.

Engineers, operators and RF professionals will find diverse uses for the SP145, including LTE test and measurement, vector signal analysis, drive testing, spectrum monitoring and more. When fast, clean data analysis is critical, the SP145 delivers the performance and precision that is expected in a dependable piece of test and measurement equipment.

SIGNAL HOUND SPECTRUM ANALYZERS	BB60D	SP145	SM200B
Frequency Range	9 kHz to 6 GHz	100 kHz to 14.5 GHz	100 kHz to 20 GHz
Typical Use	• RF test & measurement • Transmitter spurious testing • EMC pre compliance • IoT	• RF test & measurement • Commercial wireless • RF Survey • UAV	• RF test & measurement • Wideband spectrum monitoring • Interference detection • TDOA
Sweep Speed	24 GHz/sec	200 GHz/sec	1THz/sec
SSB Phase Noise at 1 GHz, 10 kHz offset	-93 dBc/Hz	-118 dBc/Hz	-132 dBc/Hz
Where these products excel	• Desktop/Lab/Field Use • Identification of weak signals • Harmonics testing • Avionics interference testing	• Desktop/Lab/Field Use • Telecom & X band analysis • Drive test • Airborne RF measurement systems	• Desktop/Lab/Field Use • Wideband I/Q capture • Manufacturing test • Phase noise characterization
Architecture	Superheterodyne with preselector	Low IF with no preselector	Low IF with preselector
EVM (20 MHz Wi-Fi at 2.4 GHz)	-36 dB	-50 dB	-50 dB
Internal GPS	No	Yes	Yes
IF Bandwidth	27 MHz Streaming I/Q 27 MHz Real-time spectrum	40 MHz Streaming I/Q 40 MHz Real-time spectrum	40 MHz Streaming I/Q 160 MHz Real-time spectrum
Interface/Power Consumption	USB 3 micro-B/6 W	USB-C/9 W	USB 3 micro-B/32 W (ext.)
Standard 2-year warranty	Included	Included	Included