PRODUCT OVERVIEW

SAPPHIRE EYE® 6200

OPTIMIZE ENTERPRISE WI-FI

Sapphire Eye® 6200 from 7SIGNAL® is a revolutionary, patented environmental sensor designed to optimize enterprise Wi-Fi and improve the digital experience of end users. The discreet Sapphire Eye 6200 hardware and 7SIGNAL's Software as a Service (SaaS) platform allow for the measurement and analysis of wireless network performance through the cloud, empowering engineers, helpdesk and IT teams to provide fast solutions to endpoint and Wi-Fi problems.

HOW IT WORKS

The 802.11ax Sapphire Eye 6200 utilizes four (4) broadband MIMO antennas that work together to provide beamforming gain. This ensures accurate active measurements from a single remote location. Data collected by the sensor is sent to the cloud for analysis by the 7SIGNAL platform and translated into actionable insights to resolve connectivity issues and optimize enterprise Wi-Fi performance.

THE KEY DIFFERENCE

Unlike your IT infrastructure vendors, 7SIGNAL provides visibility of the Wi-Fi experience from the end-user's point of view. 7SIGNAL monitors the edge of the network (Layers 1-7) where the wireless experience matters most.

Schedule a demo today!

AT A GLANCE

- Optimize enterprise Wi-Fi
- Mitigate risk associated with connectivity failure
- User experience impact analysis
- Identify problem cause
- Accelerate remediation
- Identify digital experience performance gaps
- Send alerts and alarms to existing ticketing, ITSM, AIOps and BI platforms

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PRODUCT OVERVIEW

SAPPHIRE EYE® 6200

A COMPREHENSIVE WI-FI PERFORMANCE SENSOR

Sapphire Eye® 6200 sensors capture and analyze the entire RF environment and ethernet connections. Its full range of capabilities are listed below.

SYNTHETIC TESTS (L1-L7)

- 24x7 Wi-Fi & Ethernet interfaces
- Beacon, association, authentication, captive portal, DHCP
- FTP, PING, HTTP, SIP, VOIP
- Throughput, packet loss, latency, jitter, MOS
- KPIs for each AP, SSID and Sonar

RF ANALYSIS (L1-L2)

- Full spectrum analysis
- KPIs for each AP and channel
- Access point settings, capabilities, signal levels, channels, noise levels

TROUBLESHOOTING

- Historical data for passive and actives tests (90 days)
- Remote over-the-air (OTA) packet capture
- Actionable data from alarms point to root cause quickly
- Manual test execution from remote locations
- Out of band troubleshooting with zero impact to the Wi-Fi environment

TRAFFIC ANALYSIS (L2)

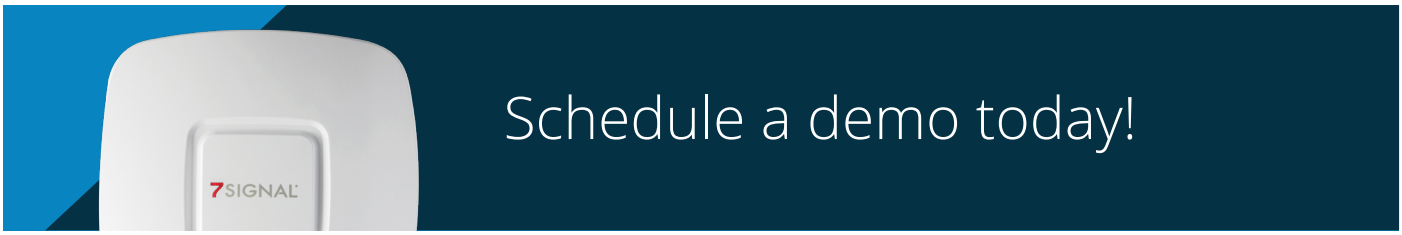
- Automated passive tests
- Remote over-the-air (OTA) packet capture
- KPIs for each client, SSID, AP, and band
- 802.11 frame analysis for traffic flow between clients and access points
- Statistics for all 802.11 frame types, reason codes and status codes

SPECTRUM ANALYSIS (L1)

- Automated passive tests
- High resolution 2.4 and 5 GHz spectrum analysis
- Chart types include waterfall, line and 3D
- Historical spectrum data saved for 2 weeks

FULL PACKET CAPTURE (L1-L2)

- Radiotap headers included
- Easy export to packet level analyzer, like Wireshark.



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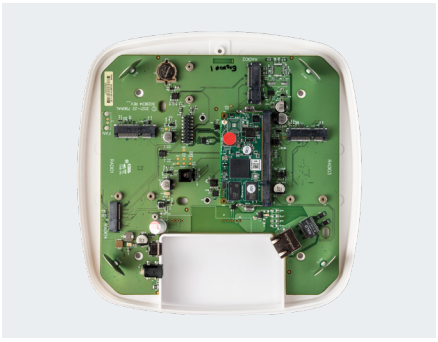
TECHNICAL INFORMATION

WI-FI STANDARD	802.11 a/b/g/n/ac/ax 4x4:4
PHYSICAL LAYER	DSSS, OFDM, HT, VHT, HE
MODULATION	BPSK, QPSK, DBPSK, DQPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM
SENSITIVITY (TYPICAL)	802.11bg -96dBm @ 6Mbps 802.11gn 20 -95dBm @ MCS0 802.11gn 40 -92dBm @ MCS0 802.11a -93dBm @ 6Mbps 802.11n/ac/ax20 -93dBm @ MCS0 802.11n/ac/ax40 -91dBm @ MCS0 802.11n/ac/ax80 -89dBm @ MCS0 802.11ac/ax160 -86dBm @ MCS0
INTEGRATED ANTENNA	Four 2.4 GHz / 5 GHz broadband antennas
RADIO CHIPSET	Qualcomm-Atheros QCN9024
RF OUTPUT POWER	2.4 GHz – Up to 20 dBm per antenna 5 GHz – Up to 19 dBm per antenna *Regional restrictions may apply
FREQUENCY BANDS	5.150 GHz – 5.850GHz, 2.412 GHz – 2.472GHz
CHANNELS: 802.11A/N/AC/AX	ETSI: 19 channels (ch: 36, 40, 44, 48, 52, 56, 60, 64,100,104,108,112,116,120,124,128,132,136,140) US: 24 channels (ch: 36, 40, 44, 48, 52, 56, 60, 64, 100, 104, 108, 112, 116, 120,124, 128, 132, 136, 140, 144, 149, 153, 157, 161, 165)
CHANNELS: 802.11B/G/N/AX	ETSI: 13 (ch.1-13) US/Canada: 11 (ch. 1-11)
SECURITY	64-bit, 128-bit, 152-bit WEP, 128-bit AES, TKIP
AUTHENTICATION	802.1X, PEAP, EAP-TLS, EAP-TTLS, EAP-FAST, WPA1-PSK, WPA2-PSK, Captive Portal, WPA3-PSR, OWE
PROCESSOR AND MEMORY	1.8 GHz Quad core ARM 16 GB eMMC 2 GB DDR4 RAM
RADIO FEATURES	Spatial Multiplexing, Cyclic-Delay Diversity (CDD), Low Density Parity Check (LDPC), Maximal Ratio Combining (MRC), Space Time Block Code (STBC), Dynamic Frequency Selection, OFDMa UL/DL, MU-MIMO UL/DL
SPECTRUM ANALYZER	2.4 and 5 GHz spectrum analysis with Qualcomm-Atheros on-chip Spectrum Analyzer
EXTERNAL CONNECTORS	Gigabit Ethernet 10/100/1,000 DC power adapter, USB-C Console port

TECHNICAL INFORMATION (CONTINUED)

POWER	Power over Ethernet (PoE+) IEEE802.3at (48V) 12V DC, 2A, external power supply sold separately
MECHANICAL	Ceiling mount with T-bar clips included
ENVIRONMENTAL	Operating temperature: 32F ~ +113F (0C ~ +45C) Storage temperature: -40F ~ +185F (-40C ~ +85C) Environment: IP44, indoor usage
DIMENSIONS	Height: 1.7in, Length: 8.3in, Width: 8.3in
WEIGHT	1.3 lb 20.08 oz .59 kg

PRODUCT IMAGES



SOFTWARE

Use the Sapphire Eye dashboard to view Wi-Fi experience data from every corner of your global network.