SAPPHIRE EYE® 6200

WI-FI 6 SENSOR & HIGH PERFORMANCE CLIENT

OPTIMIZE ENTERPRISE WI-FI

Sapphire Eye® 6200 from 7SIGNAL® is a revolutionary, patented Wi-Fi optimization sensor designed to improve the digital experience of end users. The discreet Sapphire Eye 6200 hardware and 7SIGNAL's Software as a Service (SaaS) platform work together to mitigate risk associated with downtime which can impact revenue, productivity, customer & employee experiences. 7SIGNAL closes the visibility gaps that are to blame for digital connectivity problems with its unique "outside-in" point of view, and gives IT full control of the network.

HOW IT WORKS

The Wi-Fi 6 Sapphire Eye 6200 works as a Wi-Fi client, connecting to nearby AP's while monitoring their performance around the clock. It also continuously monitors RF conditions, including spectrum analysis. Data collected by the Sapphire Eye is sent to 7SIGNAL platform in the cloud for analysis. It is then translated into a data-rich dashboard that provides insight into visibility gaps that hinder optimal enterprise Wi-Fi performance.

AT A GLANCE

· Optimize enterprise Wi-Fi from the outside-in

· Mitigate risk associated with connectivity failure

· Proactive user experience impact analysis

· Identify root cause

· Accelerate remediation

· Identify digital experience performance gaps

· Send alerts and alarms to existing ticketing, ITSM, AIOps and BI platforms

· Full spectrum analyzer with packet capture

· Supports any AP vendor

THE KEY DIFFERENCE

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

Schedule a demo today!

7SIGNAL®
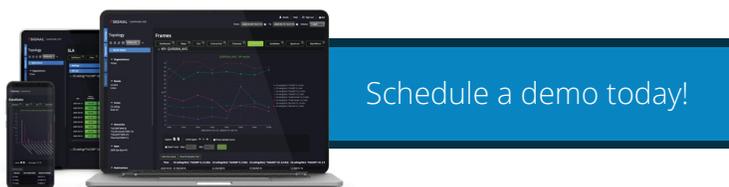
SAPPHIRE EYE® 6200

A COMPREHENSIVE WI-FI OPTIMIZATION 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 (L2-L7)

24x7 Wi-Fi & Ethernet interfaces

Beacon, association, authentication, captive portal, DHCP, DNS

FTP, PING, HTTP, 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

PROTOCOL 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

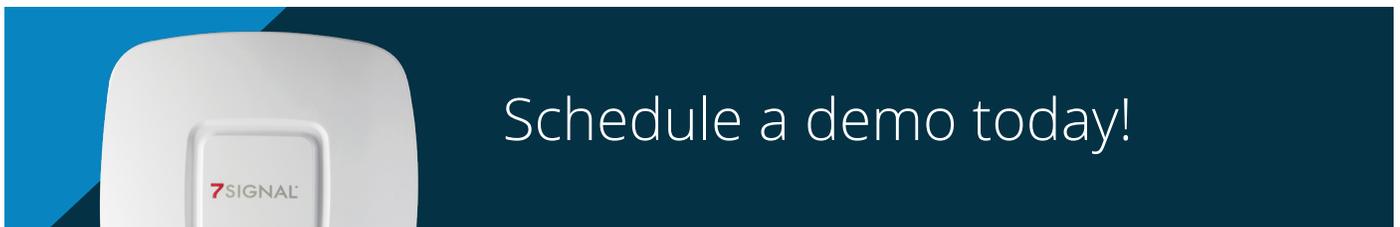High resolution 2.4 and 5 GHz spectrum analysis

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 protocol analyzer, like Wireshark.

Schedule a demo today!

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
REGULATORY	Radio FCC ID: TK4WLE3000HX, Canada IC:7849A-WLE3000HX, CE Mark, UKCA, UL/CSA, EN 62368-1, RoHS Directive 2011/65/EU, REACH Compliant
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
AUTHENTICATION	802.1X, PEAP, EAP-TLS, EAP-TTLS, EAP-FAST, WPA1-PSK, WPA2-PSK, Captive Portal, WPA3-SAE, 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), 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.