

7SIGNAL PLATFORM

7S6300 WI-FI SENSOR

OPTIMIZE ENTERPRISE WI-FI

The 7SIGNAL® platform uses multiple data sources to provide insight into Wi-Fi Health. The 7S6300 is a vendor agnostic Wi-Fi and RF sensor that acts as a perfect client on the network. The sensor collects and analyzes coverage, congestion, interference and connectivity data from the environment and sends to the cloud where it is displayed within the 7SIGNAL platform dashboard or shared via API with other tools.

Through this analysis, 7SIGNAL closes the visibility gaps that are to blame for wireless connectivity problems. 7SIGNAL's unique ability to optimize the network from the "outside-in" gives IT full control of the network and helps to mitigate risk by delivering a seamless digital experience for end users.



HOW IT WORKS

Traditional network monitoring tools adopt an 'inside-out' perspective. This means they analyze network health from the viewpoint of the infrastructure itself—focusing on aspects like access point performance and back-end systems. 7SIGNAL adopts an 'outside-in' perspective, and focuses on wireless digital experiences and provides a real-world view of how the network performs.

THE KEY DIFFERENCE

7SIGNAL provides added layers of visibility and diagnostic capabilities that WLAN tools don't offer. 7SIGNAL is vendor agnostic and provides independent data. It bridges the "visibility gap" between the infrastructure and end-user experience, ensuring that organizations get the most out of their Wi-Fi and increases business efficiency.

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
- Ensure seamless digital experiences
- Send alerts and alarms to existing ticketing, ITSM, AIOps and BI platforms
- Full spectrum analyzer in all 3 bands with packet capture
- Supports any AP vendor



A COMPREHENSIVE WI-FI PERFORMANCE SENSOR

7S6300 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 Test endpoint

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)

Use APIs to send problem data to dashboards or ticketing systems

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 GHz, 5 GHz and 6 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.


ROI METRICS

670%
3-year return
on investment

59%
reduction in mean time
to resolution (MTTR)

3 months
to payback
on investment



TECHNICAL INFORMATION

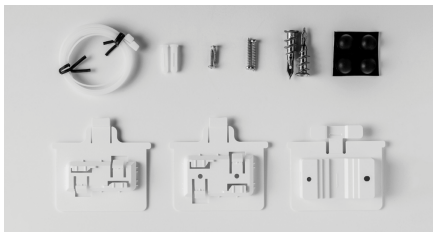
WI-FI STANDARDS	802.11 a/b/g/n/ac/ax 4x4:4, Wi-Fi 4, 5, 6/6E
PHYSICAL LAYER	DSSS, OFDM, HT, VHT, HE
MODULATION	BPSK, QPSK, DBPSK, DQPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM
SENSITIVITY (TYPICAL)	802.11bg -96dBm @ 6Mbps 802.11gn 20 -95dBm @ MCS0 802.11gn 40 -92dBm @ MCS0 802.11a -93dBm @ 6Mbps 802.11n/ac/2x20 -93dBm @ MCS0 802.11n/ac/2x40 -91dBm @ MCS0 802.11n/ac/2x80 -89dBm @ MCS0 802.11ac/ax160 -86dBm @ MCS0
INTEGRATED ANTENNAS	Four 2.4 GHz, Four 5 GHz, Four 6 GHz antennas
REGULATORY	Radio FCC ID: YLF7S6300, Canada IC: 11766A-7S6300, CE Mark, UKCA, UL/CSA, EN 62368-1, RoHS Directive 2011/65/EU, REACH Compliant
RF OUTPUT POWER	2.4 GHz: +17 dBm per antenna, 23 dBm max w/4 antennas 5GHz: +17 dBm per antenna, 23 dBm max w/4 antennas 6GHz: +17 dBm per antenna, 23 dBm max w/4 antennas *Regional restrictions may apply
FREQUENCY BANDS	5.150 GHz - 5.850GHz, 5.925 GHz - 7.125 GHz, 2.412 GHz - 2.472 GHz
CHANNELS: 802.11A/N/AC/AX	ETSI: 5 GHz: ch 36 - 64, 100 - 165 (includes UNII-3) 6 GHz: ch 1 - 93 US: 5 GHz: ch 36 - 64, 100 - 165 (includes UNII-3) 6 GHz: ch 1 - 229
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	2.2 GHz Quad-core ARM A53 1 GB eMMC 1 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 GHz, 5 GHz and 6 GHz spectrum analysis with Qualcomm-Atheros on-chip Spectrum Analyzer
EXTERNAL CONNECTORS	Gigabit Ethernet 10/100/1000/2500/5000 Mbps DC power adapter, Reset Pinhole



TECHNICAL INFORMATION (CONTINUED)

POWER	Power over Ethernet (PoE+) IEEE802.3at (48V) 12V DC, 2.5A, external power supply sold separately
MECHANICAL	Plastic Top Cover, Metal Bottom Ceiling T-bar Mount, Wall Mount & Pole Mount Brackets included
ENVIRONMENTAL	Operating temperature: 32F ~ +104F (0C ~ +40C) Storage temperature: -40F ~ +185F (-40C ~ +85C) Environment: IP44, indoor usage
DIMENSIONS	Length: 205mm x Width: 205mm x Height: 33mm (8.0in x 8.0in x 1.3in)
WEIGHT	1.5 lb 24 oz 0.68 kg
INDIVIDUAL BOXES	Dimensions: 326mm x 217mm x 48mm Weight: 0.93 kg
10-PACK CARTON	Dimensions: 496mm x 347mm x 258mm Weight: 9.299 Kg
ECCN (EXPORT CONTROL CLASSIFICATION NUMBER)	5A002 a.1 with an ENC License exception

PRODUCT IMAGES



SOFTWARE

Use the 7SIGNAL dashboard to view Wi-Fi experience data from every corner of your global network.

