SeeHawk Engage+™

User Equipment-Based Multi-Network Measurement Tool

Product Description

SeeHawk Engage+, part of the SeeHawk Engage family, is a network measurement tool designed for drive testing and walk testing today's heterogeneous networks with multiple Android™ User Equipment (UE) devices. With SeeHawk Engage+, you can perform multi-network and multi-service testing with ease. SeeHawk Engage+ allows control and measurement of up to seven devices simultaneously with a combination of Engage devices or scanning receivers. Auto discovery of devices makes the setup and configuration effortless.

Since SeeHawk Engage+ runs on commercial tablets, it eliminates the cost of custom hardware. Combined with the floating license capability, it also allows you to easily transfer licenses from one device to another. Automatic software updates guarantee that you are always running the latest software. SeeHawk Engage+ also features cloud-based device management so that you can control your SeeHawk-enabled UEs remotely.

SeeHawk Engage™ Advantage

- Fully automated updates via the cloud ensure that your software is always up to date.

- Supports most popular off-the-shelf phones and tablets.

- Remote configuration via the cloud allows easy control of your SeeHawk Engage test tool fleet.

- Log file storage and export in the cloud allows you to make the most out of your data.
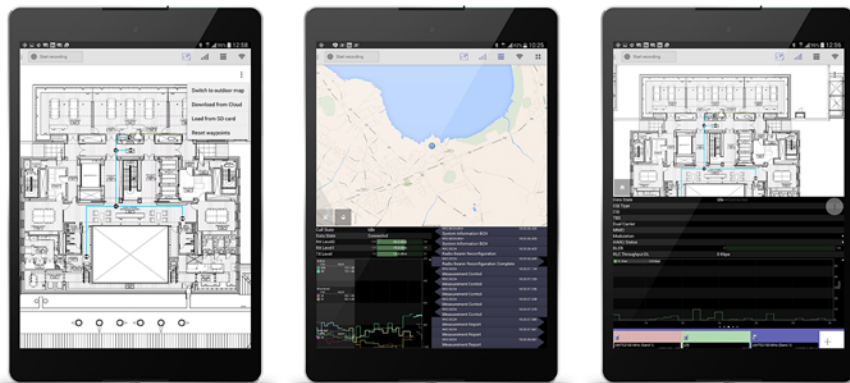
Key Features

- Collects measurements wirelessly from multiple SeeHawk Engage-enabled devices and scanning receivers

- Supports up to seven (7) devices simultaneously via Bluetooth

- Supports scanning receivers via Bluetooth

- Supports major cellular technologies such as CDMA, EV-DO, GSM, UMTS, and LTE, all in one tool

- Runs on commercial tablets or phones

- Transferrable license allows you to move your software from one device to another with ease

- Powerful real-time visualization of measurement data

- Extensive application testing

- Wi-Fi and Bluetooth measurements

- Cloud integration for easy management and file transfer

SeeHawk Engage+™ Features

SeeHawk Engage+ is designed to manage testing of today's heterogeneous multi-technology, multiband networks with ease.

When combined with multiple devices and scanners, it supports RF field testing applications across the network life cycle, from site surveys to commissioning to network benchmarking or acceptance testing through ongoing optimization testing. These capabilities, combined with a floating license scheme and the power of cloud-based measurement setup and management, make testing cost and resource effective.

Testing Capabilities

- Automated test sequencing with built-in scripting

- Forcing features for bands and technologies

- Channel/PCI locking

- Application Testing
  - Call with MOS
  - SMS
  - FTP with multi-stream
  - FTPS
  - HTTP web browsing
  - HTTP file transfer
  - Ping
  - YouTube

- Detailed serving system information including System, Band, MNC, MCC, and CID

- Complete signal strength measurements for serving and neighbor channels

- Detailed uplink power control parameters

- Comprehensive set of RACH parameters such as TX Max, RX Min, TX Pwr, and Preambles

- Detailed information on packet scheduling (TBF state, TS allocation, CQI, and BLER %)

- Data throughput measurements

- Full Layer 3 and RRC signaling

User Interface

NETWORK MEASUREMENT VISUALIZATION
- Line graph
- Bar graph
- Distribution graph
- Textual
- Historical textual view that always shows previous value

SIGNALING DISPLAY
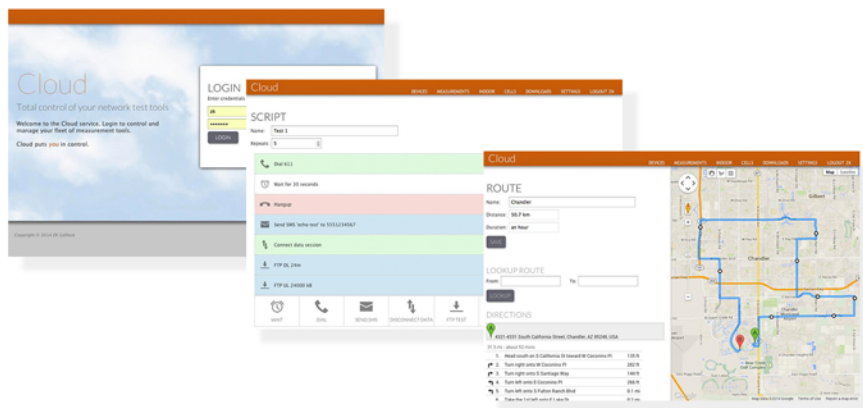- Highlight with color
- Filter in/out

APPLICATION TEST VIEW
- Real-time view for ongoing application testing (web, video, etc.)

MAP VIEW
- Support for Google and OpenStreet maps
- Offline mode with map pre-loading
- Drive route coloring with user definable thematics

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SeeHawk Engage in the Cloud

Total Control of Your Network Test Tools

Cloud-based remote control

SeeHawk Engage family measurement tools come with PCTEL's pre-configured cloud service. Simply log in, and you are ready to take advantage of its features.

SeeHawk automatically stores your log files in the cloud and allows you to download your measurements in various file formats.

From the cloud, you can also configure devices, manage or upload maps and scripts, and execute tests on your SeeHawk-enabled UEs remotely.

SeeHawk Engage's cloud service not only gives your SeeHawk Engage-enabled devices fully automated data storage for all drive and walk test files – it also gives you a simple way to control and configure your devices remotely.

SeeHawk Engage's cloud-based license management makes device management a breeze. Floating SeeHawk Engage licenses stay with each device only as long as they are needed.

You'll never need to lose time and money due to incorrect measurement settings. Remote configuration ensures that all the teams in the field use the correct settings when making measurements.

Key Features

- Free with SeeHawk Engage family tools, including 1 GB of file storage

- Zero configuration required

- Built-in measurement file export to the most common formats, such as MapInfo, Google Earth, ESRI, and CSV

- Indoor map support for iBwave format or image file formats such as JPB, PNG, and BMP

- Cell tower database for importing most popular cell tower formats and custom-defined CSV formats

- Device management, with the capability to push configuration settings to SeeHawk Engage family tools

- License management

Want to turn your data into actionable intelligence more quickly? Analyze your data quickly and easily through the integration of SeeHawk Engage with PCTEL's SeeHawk Analytics platform, featuring innovative algorithms for interference management and quick identification of network quality issues.

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Parameters

GSM/EDGE

Detailed serving system information including System, Band, MNC, MCC, and CID

Serving cell: RSSI, BSIC, C/I, RXQ, FER, TA, RLT

Neighbor cell: RSSI, BSIC, Band

Hopping channel: HSN, MAIO

RACH parameters such as TX Max, RX Min, TX Pwr, RAND, and Paging mode

Detailed information on packet data: Modulation, Coding scheme, Timeslot allocation, BEP, TFI, and TBF

Data throughput measurements

Full Layer 3 signaling

CDMA/EVDO

Detailed serving system information including System, Band, SID, NID, and Reg Zone

Active set: PN, Ec/Io, RSCP

Candidate set: PN, Ec/Io, RSCP

Neighbor set: PN, Ec/Io, RSCP

Remaining set: PN, Ec/Io, RSCP

RACH parameters such as Probe number, Access RX level, Access TX adjust, and Interference correction

Detailed information on packet data: Modulation, Payload bits, ARQ Ack/Nack, SINR, and PER

Data throughput measurements

Full Layer 3 signaling

UMTS/HSPA

Detailed serving system information including System, Band, MNC, MCC, CID, RAI, LAI, and URAID

Active set: PSC, Ec/No, and RSCP

Monitored set: PSC, Ec/No, RSCP, and Intra/Inter

Detected set: PSC, Ec/No, RSCP, and Intra/Inter

RACH parameters such as Preambles, AICH, Signature, Subchannel, SFN, Timing, and TXPower

Detailed information on packet scheduling (TBF state, TS allocation, CQI, and BLER %)

Data throughput measurements

Full Layer 3 and RRC signaling

LTE

Detailed serving system information including System, Band, MNC, MCC, CID, TAC, and ARFCN

Active: PCI, RSRP, RSRQ, SINR

Neighbor: PCI, RSRP

MIMO measurements: Antenna count and measurements for each antenna

RACH parameters such as Preamble info, PRACH TX, SN, SNF, RNTI type, RNTI, and RA Timing Advance

Detailed information on packet scheduling (MSC, RB allocation, TBS Stream info, and bandwidth)

Data throughput measurements

Full Layer 3 and RRC signaling

VOICE QUALITY

POLQA MOS

G.107 Rating

Attenuation

Line Noise level

Sample rate (reference/measured)

SNR (reference/measured)

Level (reference/measured)

Active speech ratio (reference/measured)

Duration (reference/measured)

WI-FI

SSID

RSS

BSSID

Channel

Cryptset

BLUETOOTH

SSID

RSS

BSSID

Type