# A cost-effective way to monitor the RF environment

Verifying the RF environment in test chambers is an important requirement for quality test operations. Leakage and unwanted signals can compromise testing integrity and having easy-to-use tools to identify specific sources in chambers is mandatory.

## Identify leakage and unwanted signals using LAMTA

RF Monitoring is an optional product feature available on the LAMTA software platform and offers users the ability to scan the RF environment in the lab and quickly see the results using LAMTA's GUI interface. The LAMTA RF monitoring solution includes LSR-0360 scanning receiver hardware and LAMTA software module.

### Features

The LSR-0360 supports multiple radio access technologies between **300 MHz and 6 GHz** and is fully integrated with the LAMTA software platform. LAMTA can control multiple LSR-0360 units and display the scan results.

**Supports 5GNR and LTE scanning functions to help identify signals**
- Shows PCI, RSSI, MNC, MCC, RSRP, RSRQ, SINR (requires initial setup of scanning profiles)
- Set global thresholds to filter the signals for each parameter

**Wi-Fi scanning (2.4/5.8) including SSID and RSSI**

**Spectrum analyzer sweep function.** Shows RF energy sources (without signal decode)

**Configurable IP Address.** For easier installaton on corporate and/or internal networks

**Observe signals in RF chambers, the lab space, or in the field.** Available as a LAMTA product feature or as an independent, standalone solution.



Fig.1: LSR-0360 Scanner hardware

### Benefits

**LAMTA user interface supports multiple scanners simultaneously, and allows multiple testers to access all scanners.** Anyone can use the spectrum analyzer function to quickly scan for spurious and unwanted signals within the test environment.

**Resolve complications quickly**
Use the spectrum analyzer function to quickly scan for unwanted signals and leakage within the test environment

**Improve operational quality**
Verify that the RF environment inside test chambers matches the desired state.

**Save time and cost**
Find leakage and interference in seconds via direct local or remote access.

# DATASHEET

## LAMTA RF Monitor (LSR-0360)

| Item | Specifications |
|---|---|
| Measurement Modes | 5G NR: (P-SS/S-SS) & PBCH<br>FDD/TD-LTE: P-SCH/S-SCH, RS, and RB<br>High speed multi-technology measurements with zero degradation in performance |
| Data Modes | 5G NR: PCI, PSS_RP, SSS_RP, PSS_RQ, SSS_RQ, SS_CINR, RSPBCH_RP, RSPBCH_RQ, RSPBCH_CINR, SSB_RP, SSB_RQ, SSB_CINR, SSB_Index<br>NB-IoT: RSSI, RS, RQ, CINR, Timing, Cell ID, Cyclic Prefix, CFO, Delay Spread<br>FDD/TD-LTE: RSSI, RS, RQ, CINR, Timing, Cell ID, Cyclic Prefix, CFO, Delay Spread |
| Frequency bands | 300MHz ~ 6GHz |
| Measurement Rate (typical) | 5G NR: 20 updates/sec @ single channel<br>FDD/TD-LTE: 40 updates/sec |
| Min. detection level | 5G NR: RSRP -128 dBm SCS@15kHz<br>FDD/TD-LTE: RSRP -130 dBm @20MHz BW |
| Dynamic range | 5G NR: -10 ~ + 35 dB @ PSS/SSS CINR, -8 to + 35 dB @ PBCH DMRS CINR<br>FDD/TD-LTE: -20 ~ +35 dB @20MHz P-SCH/S-SCH, -23 ~ +35 @ 20MHz RS |
| Sub Carrier Spacing | 5G NR: 15 / 30kHz |
| Channel Bandwidth | FDD/TD-LTE: 1.4 / 3 / 5 / 10 /15 / 20MHz |
| Internally generated spurious response | -110 dBm |
| RF operating range | -15 dBm max. |
| Safe RF inut range | ≤ 10 dBm |
| Frequency accuracy | ±0.05 ppm (GPS Locked); ±0.1 ppm (GPS Unlocked) |
| Max. power (+8 to +16VDC) | 24W |
| Weight/Size | 1.8kg / 265 * 135 * 65 mm |
| Temperature range | Operating: 0 ˚C to +50 ˚C, storage: -40 ˚C to +85 ˚C |
| Data communication port | LAN |
| RF / GPS input port | SMA Female (50 Ω) |