

Frequency & Code Selective EMF Analyzer EM860

Superior Performance

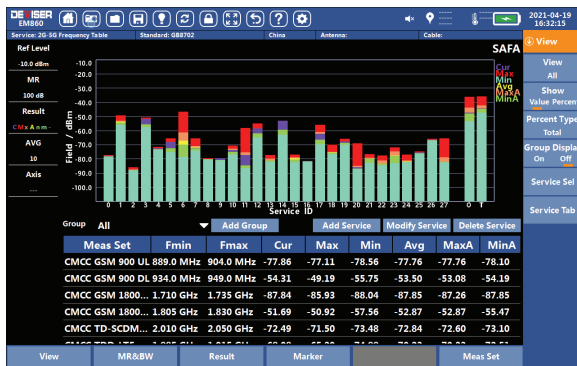


Key Benefit

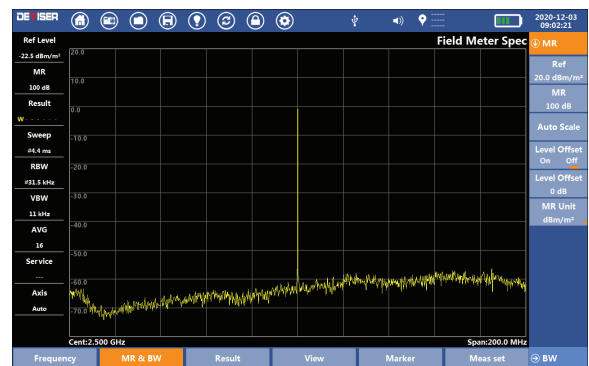
- Safety Evaluation
- Spectrum Analysis
- Level Recorder
- Analysis of electromagnetic field strength
- 5G NR code selective EMF measurement
- LTE code selective EMF measurement
- 3G UMTS code selective EMF measurement
- Powerful background data management system

Details

Safety Evaluation



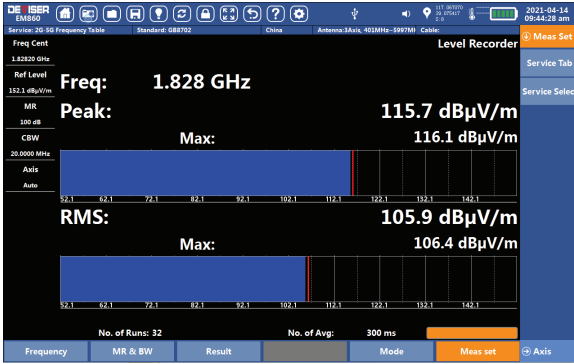
Spectrum Analysis



| Safety Evaluation | |
|----------------------------------|---|
| Result | Shows field meter of each service by histogram |
| Number of services | 1 to 100, the parameters of each service is defined by user |
| Channel bandwidth of one service | 1 MHz to 6 GHz |
| RBW | 30 kHz, 100 kHz, 300 kHz, 1 MHz, 3 MHz |
| Detector | RMS |
| Axis | X, Y, Z axis for single-axis and Three-Axis |

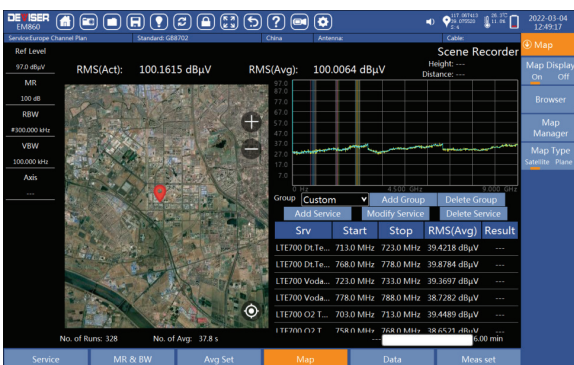
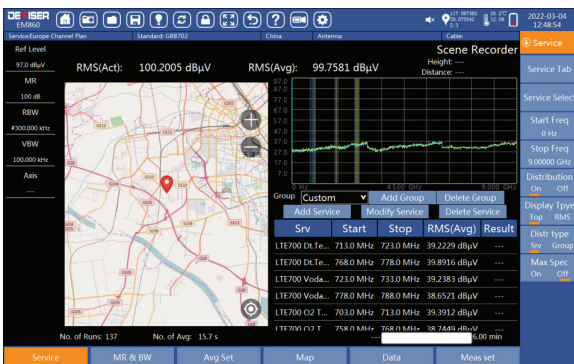
| Spectrum Analysis | |
|-------------------|---|
| Result | Spectrum Analysis |
| RBW | 1 Hz to 3 MHz |
| VBW | 1 Hz to 3 MHz |
| Result types | Act : Display instantaneous spectrum Max : Maximum hold function Avg : Average over a selectable number of a selectable time period spectrum Max Avg : Maximum hold function after averaging Min : Minimum hold function Min Avg : Minimum hold function after averaging |
| Detector | RMS |
| Axis | X, Y, Z axis for single-axis and Three-Axis |

Level Recorder



| Level Recorder | |
|----------------|---|
| Result | Selective level measurement at a fixed frequency setting |
| RBW | 15 Hz to 2 MHz |
| VBW | 1 Hz to 3 MHz |
| Result types | Peak ACT: Displays the actual peak value Peak MAX : Max hold function for peak value RMS ACT : Averaging over a defined time period RMS MAX : Max hold function for RMS values |
| Axis | X, Y, Z axis for single-axis and Three-Axis |

Scene Recorder



Scene Recorder

| | |
|--------------------------------|---|
| Result | Real time display of field strength in GIS |
| Result types | It supports designated frequency point, field strength measurement of specified axis and display on GIS |
| Multiple source location modes | Support work order positioning, rangefinder positioning, input latitude and longitude positioning |
| Map type | Online map, offline map, satellite map |
| Data transmission | Support the upload of measurement data to the background system by 4G, WLAN or LAN. |
| Task distribution | Support the measurement work orders through the background system. |
| Axis | X, Y, Z axis for single-axis and Three-Axis |

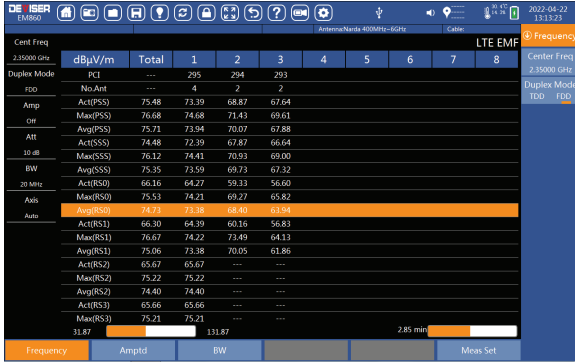
5G NR code selective EMF measurement



5G NR code selective EMF measurement

| | |
|-------------------|--|
| Result | 5G NR synchronize signal power of each beam of multiple Cells in the same frequency |
| Result types | PCI, No.SSS, Act(SSS Max), Max(SSS Max), Avg(SSS Max), Act(SSS Sum), Avg(SSS Sum), Act(SSS0~SSS7) |
| Channel Bandwidth | 5 MHz, 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz, 50 MHz, 60 MHz, 70 MHz, 80 MHz, 90 MHz, 100 MHz |
| Detection | RMS |
| Axis | X, Y, Z axis for single-axis and Three-Axis |

LTE code selective EMF measurement



| LTE code selective EMF measurement | |
|------------------------------------|--|
| Result | LTE synchronize signal and reference signals power of multiple Cells in the same frequency |
| Result types | PCI , Act(PSS) , Max(PSS) , Avg(PSS) , Act(SSS) , Max(SSS), Avg(SSS) , Act(RS) , Max(RS), Avg(RS) , Total values |
| Channel Bandwidth | 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz |
| Detection | RMS |
| Axis | X, Y, Z axis for single-axis and Three-Axis |

3G UMTS code selective EMF measurement



| 3G UMTS code selective EMF measurement | |
|--|--|
| Result | UMTS Scr and CPICH channel power |
| Result types | Scr, Act(CPICH), Max(CPICH), Min(CPICH), Avg(CPICH) and total values |
| Channel Bandwidth | 5 MHz |
| Axis | X, Y, Z axis for single-axis and Three-axis |

Field Meter Scope



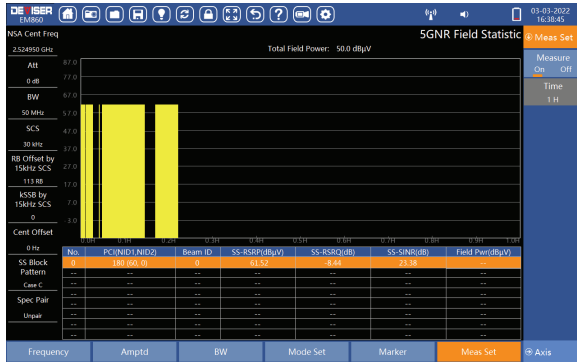
| Field Meter Scope | |
|-------------------|---|
| Result | Time domain signal field strength |
| Bandwidth | Time RBW: 30kHz, 60kHz, 120kHz, 480kHz, 960kHz, 1.92MHz, 3.64MHz, 7.68MHz, 15.36MHz, 30.72MHz, 61.44MHz, 122.88MHz. |
| Sweep Time | 5ms, 10ms, 20ms, 40ms |
| Axis | X, Y, Z axis for single-axis |

5G NR Multi Path



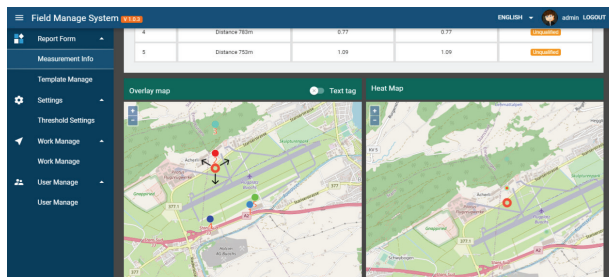
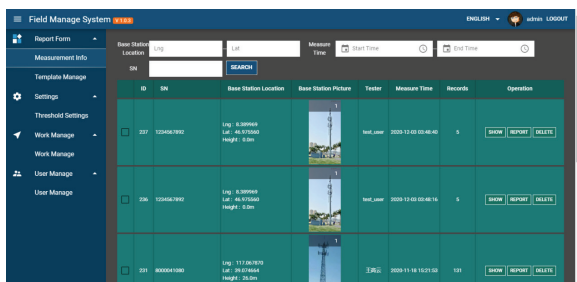
| 5G NR Multi Path | |
|-------------------|--|
| Result | It indicates the amount of power of the dominant pilot signal that is dispersed outside the main correlation peak due to multipath echoes that are expressed in dBm. |
| Result types | P-SS RSRP, S-SS RSRP, Delay |
| Channel Bandwidth | 5 MHz, 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz, 50 MHz, 60 MHz, 70 MHz, 80 MHz, 90 MHz, 100 MHz |
| Axis | Single-axis |

5G NR Field Statistic



| 5G NR Field Statistic | |
|-----------------------|--|
| Result | The static of field power within all bandwidth in one period. |
| Result types | PCI, Beam Index, SS-RSRP SS-RSRQ SS-SINR, Field Power |
| Channel Bandwidth | 5 MHz, 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz, 50 MHz, 60 MHz, 70 MHz, 80 MHz, 90 MHz, 100 MHz |
| Axis | X, Y, Z axis for single-axis and Three-axis |

Powerful background data management system



| Data management system | |
|----------------------------|---|
| Work order management | You can customize the work order, specify the measurement location and surveyor. Simplify the work |
| User management | Edit different users to work with the work order function |
| Data management | Query and manage data. You can mark the surrounding buildings and places later |
| Report template management | Custom report template can be used to generate and export reports according to their own format when exporting reports. |
| Report export | Export the specified measurement to doc or CSV format to facilitate data management |
| Support multiple devices | Support for EM9 and EM860 |

SPECIFICATIONS

Basic Unit

| Operating modes | |
|--------------------------------------|--|
| Measurements vs. frequency | <ul style="list-style-type: none"> Spectrum Analysis Safety Evaluation |
| Measurements vs. time | <ul style="list-style-type: none"> Level Recorder |
| Measurements on mobile networks | <ul style="list-style-type: none"> 5G NR / TDD LTE / FDD LTE/3G UMTS Demodulation |
| RF | |
| Frequency range | 100 kHz to 9 GHz |
| RBW | See specifications for each mode |
| Phase Noise | Typical<-105 dBc/Hz@ 100kHz offset from 1GHz |
| Frequency accuracy | < ±1 ppm |
| Displayed Average Noise Level (DANL) | Amplifier OFF: ≤-135dBm, 10MHz~3GHz. ≤-130dBm, 3GHz~6GHz. ≤-125dBm, 6GHz~9GHz; |

| | |
|------------------------|--|
| | Amplifier ON: ≤-155dBm, 10MHz~3GHz. ≤-150dBm, 3GHz~6GHz. ≤-145dBm, 6GHz~9GHz. |
| Level accuracy | ±1.5 dB (+20°C - +30°C) |
| RF input | N type/50Ω |
| Maximum RF power level | +25dBm (peak power/entrance attenuation>15dB) ; ±50VDC |

Three axis electric field antenna TS-6

| | |
|-----------------|------------------------|
| Frequency range | TS-6G(200MHz to 6 GHz) |
| Antenna type | E-field |
| RF connector | N-Connector, 50Ω |

Three axis antenna (H-field)

| | |
|-----------------|---------------------------|
| Frequency range | TS-250M(100kHz to 250MHz) |
| Antenna type | H-field |
| RF connectore | N-Connector, 50Ω |

| Ordering information | | |
|--|-------------------------|------------------|
| Standard configuration | | |
| Description | Part No. | Order No. |
| EM860 Frequency & Code Selective EMF Analyzer | EM860 | 0110.0860.03 |
| Battery Pack, Rechargeable, 10.8V, 9200mAH, 99.36WH | 10.8V, 9200mAH, 99.36WH | 6120.0100.08 |
| Carry Case S5040 (including shoulder belt and wave cotton) | S5040 | 6120.0600.61 |
| External Dual Charger for Li-Ion Batteries | EM860N.2.101 | 2120.0816.05 |
| Omnidirectional Antenna | E8000-005 | 6120.0900.05 |
| Shoulder strap for EM860 Base Unit | EM860-000 | 6120.0600.55 |
| RF Connector (N/SMA) | N/SMA-JK | 6190.0500.37 |
| USB WIFI Module | USB150M | 6120.0600.15 |
| Power Supply DC Vehicle Adapter (12V/5A) | 12V/5A | 6120.0700.04 |
| AC-DC Power Adapter (15V/6A, 90W) | 15V 6A | 6120.0700.02 |
| Power Adaptor Plug Cord | AE4000-733 | 6290.0500.03 |
| Quick operation manual (English) | E8900-003 | 6120.0600.59 |
| Optional Accessories | | |
| Frequency Selective Antenna TS-6G (200MHz-6GHz) | TS-6G | 2120.0860.00 |
| Frequency Selective Antenna TS-250M(100K-250M) | TS-250M | 6110.0900.04 |
| Antenna kit | EM860-201 | 2120.0860.15 |
| Tripod | R2004 | 6110.0900.05 |
| Tripod kit | EM860-200 | 2120.0860.14 |
| Extension Cable(2 meters) with control cable | EM860-001 | 6110.0500.37 |
| Extension Cable(2 meters) without control cable | EM860-009 | 6120.0500.45 |
| Extension Cable(5 meters) without control cable | EM860-010 | 6120.0500.46 |
| Extension Cable(5 meters) with control cable | EM860-008 | 6110.0500.50 |
| Calibrator | EM860-700 | 6110.0500.51 |
| HDMI Cable(4K60Hz, 3 meters) | HDMI | 6120.0500.42 |



Carry Case S5040



Shoulder strap



Extension Cable(2 meters or 5 meters) with control cable



Extension Cable(2 meters or 5 meters) without control cable



Tripod adapter for Triaxial Antenna