

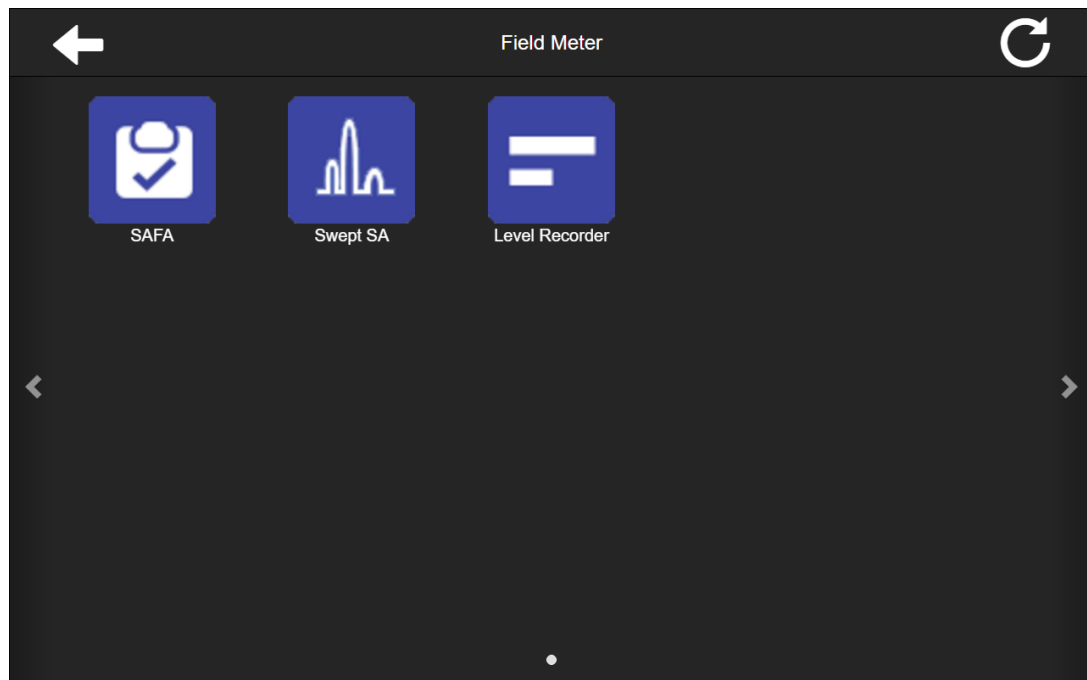
# EM860

Selective measurement of high frequency  
electromagnetic fields



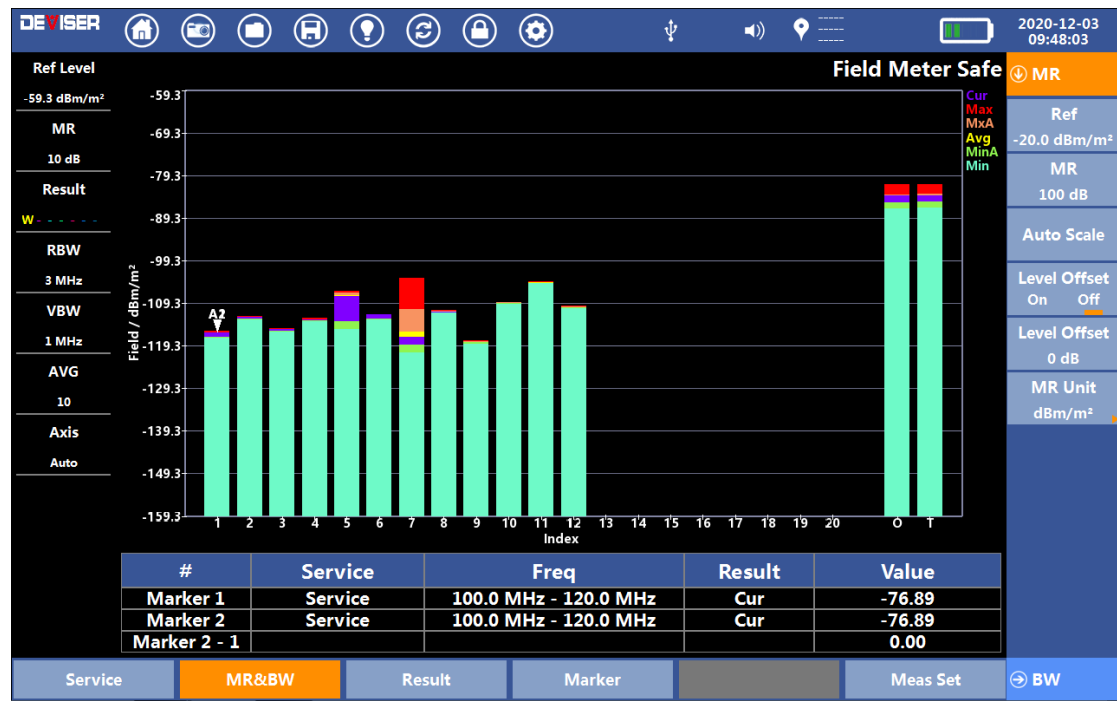
# OPERATING MODES

1. Safety Evaluation
2. Spectrum Analysis
3. Level Recorder
4. Analysis of electromagnetic field strength
5. 5G NR Demodulation
6. Powerful background data management system



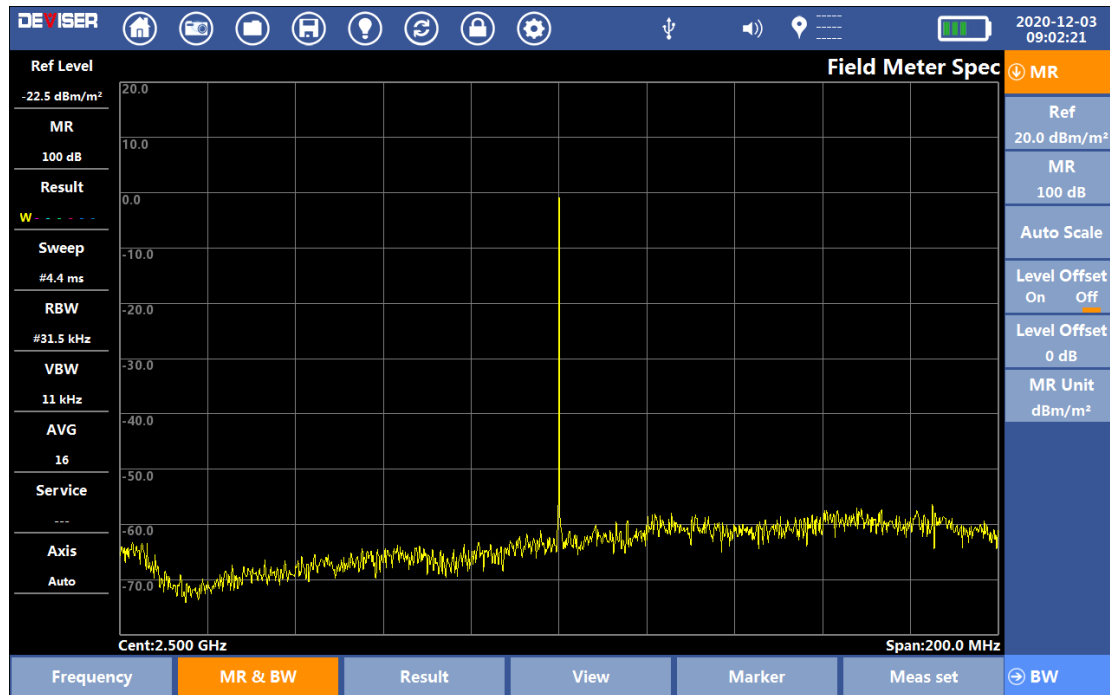
# Details

- Safety Evaluation



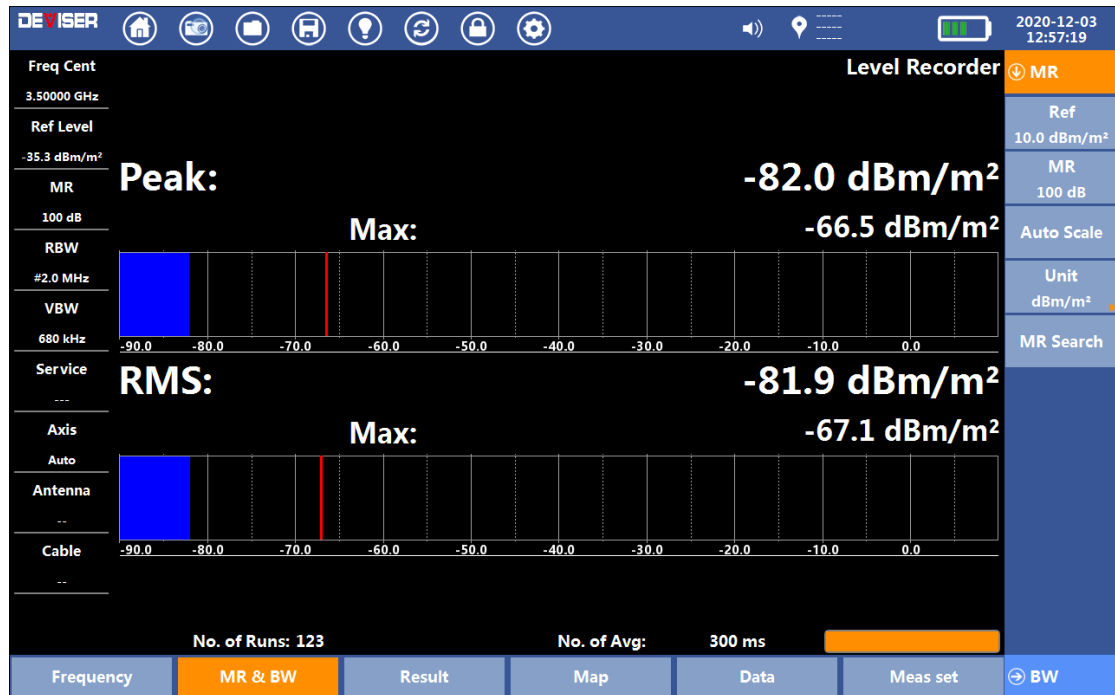
Safety Evaluation	
<b>Result</b>	Shows field meter of each service by histogram
<b>Number of services</b>	1 to 100, the parameters of each service is defined by user
<b>Channel bandwidth of one service</b>	1 MHz to 6 GHz
<b>RBW</b>	30 kHz, 100 kHz, 300 kHz, 1 MHz, 3 MHz
<b>Detection</b>	RMS
<b>Axis</b>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

● Spectrum Analysis



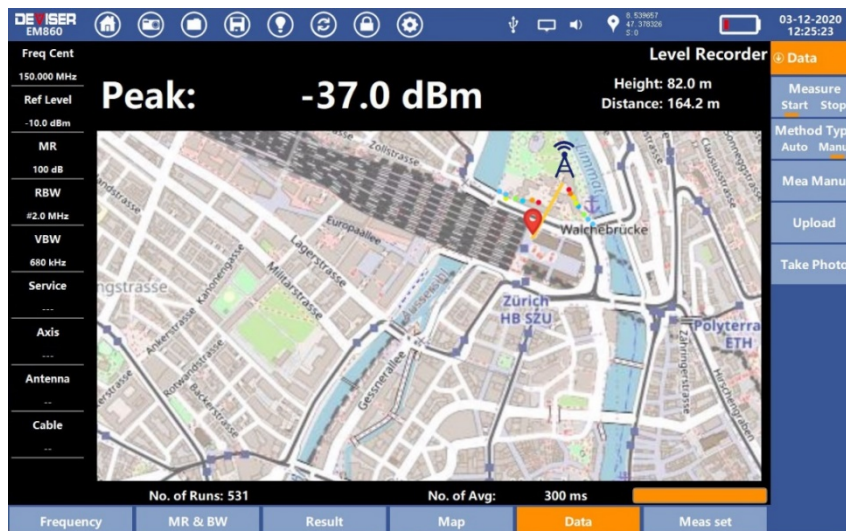
Spectrum Analysis	
<b>Result</b>	Spectrum Analysis
<b>RBW</b>	1 Hz to 3 MHz
<b>VBW</b>	1 Hz to 3 MHz
<b>Result types</b>	Act : Display instantaneous spectrum Max : Maximum hold function Avg : Average over a selectable number of a selectable time period spectrum Max Avg : Maximum hold function after averaging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

● Level Recorder



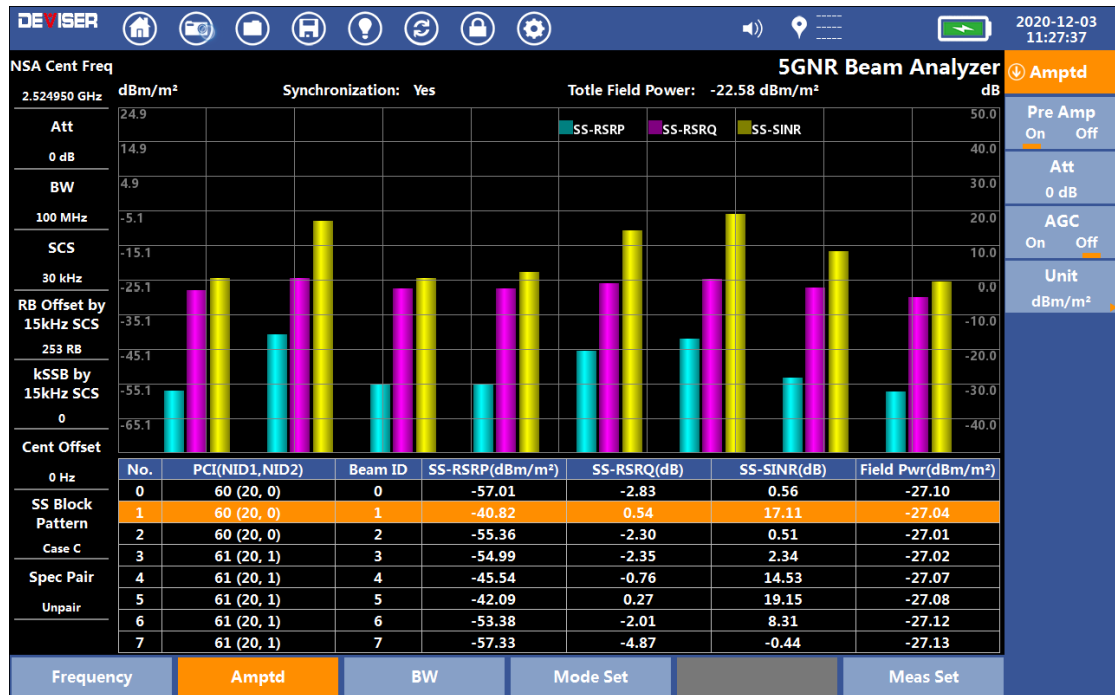
Level Recorder	
<b>Result</b>	Selective level measurement at a fixed frequency setting
<b>RBW</b>	15 Hz to 2 MHz
<b>VBW</b>	1 Hz to 3 MHz
<b>Result types</b>	Peak ACT: Displays the actual peak value Peak MAX : Max hold function for peak value RMS ACT : Averaging over a defined time period RMS MAX : Max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

- Analysis of electromagnetic field strength



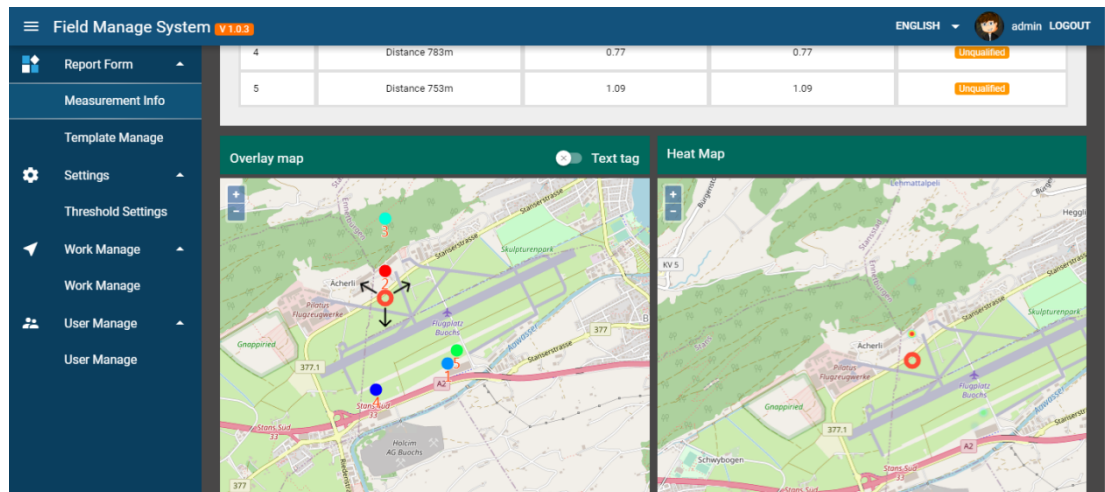
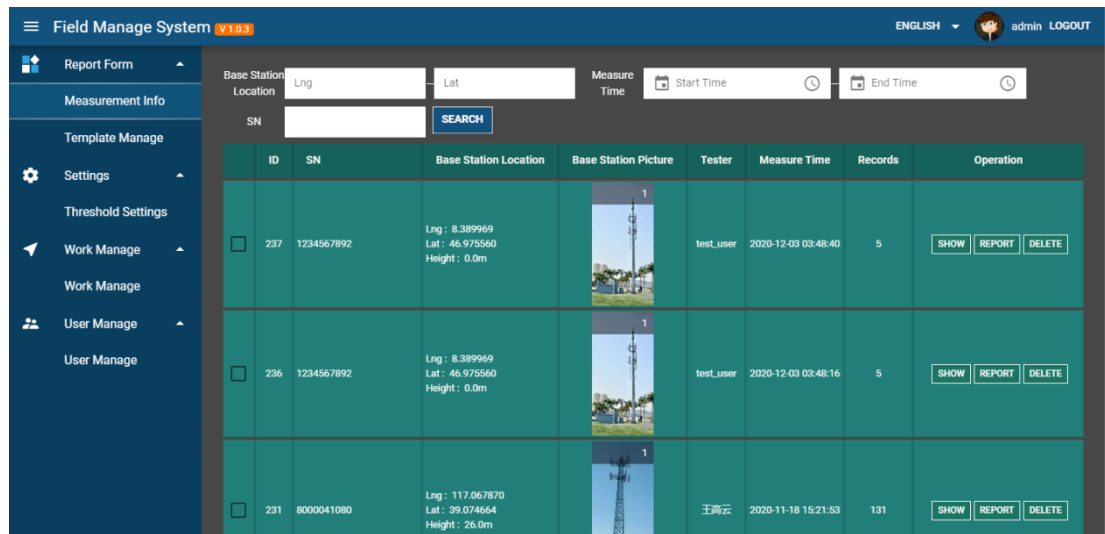
Analysis of electromagnetic field strength	
<b>Result</b>	Real time display of field strength in GIS
<b>Result types</b>	It supports designated frequency point, field strength measurement of specified axis and display on GIS
<b>Multiple source location modes</b>	Support work order positioning, rangefinder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

● 5G NR Demodulation



5G NR Demodulation	
<b>Result</b>	5G NR signal SS-RSRP and field power level of each PCI and Beams
<b>Result types</b>	PCI, Beam ID, SS-RSRP, SS-RSRQ, SS-SINR, Field Power
<b>Channel Bandwidth</b>	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
<b>Detection</b>	RMS
<b>Axis</b>	X, Y, Z axis for single-axis and Three-Axis

● Powerful background data management system



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



# SPECIFICATIONS

## Basic Unit

<b>EM860</b>	
Operating modes	
Measurements vs. frequency	<ul style="list-style-type: none"> <li>● Spectrum Analysis</li> <li>● Safety Evaluation</li> </ul>
Measurements vs. time	<ul style="list-style-type: none"> <li>● Level Recorder</li> </ul>
Measurements on mobile networks	<ul style="list-style-type: none"> <li>● 5G NR Demodulation</li> </ul>
RF Data	
Frequency range	9 kHz to 6 GHz
RBW	See specifications for each mode
Phase Noise	Typical <math>-105\text{ dBc/Hz}</math> @ 100kHz offset from 1GHz
Frequency accuracy	<math>< \pm 1\text{ ppm}</math>
Displayed Average Noise Level (DANL)	Amplifier OFF: $\leq -135\text{ dBm}$ , 10MHz~3GHz、 $\leq -130\text{ dBm}$ , 3GHz~6GHz、 $\leq -125\text{ dBm}$ , 6GHz~9GHz; Amplifier ON: $\leq -155\text{ dBm}$ , 10MHz~3GHz、 $\leq -150\text{ dBm}$ , 3GHz~6GHz、 $\leq -145\text{ dBm}$ , 6GHz~9GHz、
Level accuracy	$\pm 1.5\text{ dB}$ (+20°C - +30°C)
RF input	N type/50Ω
Maximum RF power level	+25dBm (peak power/entrance attenuation>15dB) ; $\pm 50\text{ VDC}$

## Three-axis antenna (E-field)

Frequency range	420 MHz to 6 GHz
Antenna type	E-field
RF connector	N-Connector, 50 Ω