





# Wireless Communication and TV&Broadcasting Catalog

2023-2024

www.deviserinstruments.com

## E8900A 5G NR Spectrum and Signal Analyzer

### Key Benefits

- High-performance handheld spectrum analyzer for construction & maintenance of 5G  $\operatorname{NR}$  systems
- Test and demodulate 5G NR (FR1); TDD-LTE; FDD-LTE signals
- Efficient Interference hunting Apps include Spectrogram; DPS; Gated sweep; Orientate and Interference locating
- IQ data acquisition
- Indoor and outdoor coverage measurement
- Internal and external antenna for max accuracy
- Option support correlative interferometer DF antenna

### Measurements

### A Spectrum Analysis

9kHz to 9GHz spectrum analysis with 30GHz/s @ <10kHz RBW speed.



### bigital Persistence Spectrum

Digital Persistence Spectrum separates the intended signal transmission from underlying lowlevel inference signals.



5G NR Beam Analyzer

This model was developed

for 5G NR Massive MIMO

simultaneously.

systems, enabling track and

measure 8 beam IDs and PCI

from the around up specifically

## he Interference Location

Using directional antenna and angle of arrival (AoA) direction finding method, locate the interference source.



Rower vs Time

LTE and 5G NR Power vs Time

and analyze LTE and 5G NR.

waveforms simultaneous.

measurements to demodulate

Show spectrum and time domain

## Drientate

Using directional antenna find the suspected direction of the interference source.



## Outdoor Netclean Measurement

The Outdoor Netclean measurement function can effectively scan the area before the base station is constructed or an uncertain spectrum resource is used.



### **J**scl 5G NR Interference Detection

Quickly and efficiently find the location of a 5G NR base station that interferences with other communication systems.



## Specifications



## E8800A/C/D/E/F 9kHz-9GHz/18GHz/26.5GHz/35GHz/43GHz 5G NR Spectrum and Signal Analyzer

## Key Benefits

- High-performance handheld analyzer for construction & maintenance of 5G NR systems
- Test and demodulate 5G NR (FR1 & FR2); TDD-LTE; FDD-LTE, GSM signals
- Efficient Interference hunting Apps include Spectrogram; DPS; Gated sweep; Orientate and Interference locating

Spectrogram

Use the 3D Spectrogram tool

environment over time.

to monitor change in the signal

- IQ data acquisition
- Indoor and outdoor coverage measurement
- Optional support for electromagnetic field strength measurement
- Built in GPS, HDMI, LAN, USB, AUX interfaces and external WiFi module



### Measurements

## A Spectrum Analysis (Signal Scan Up To 43 GHz)

The E8800F performs standard spectrum analysis up to 43 GHz and 5G NR analysis support 5G FR1 and FR2 band.



### 5G NR FR2

The E8800F can meet the new subcarrier interval requirements and provide the measured values of PCI, Beam ID, SS- RSRP,SS-SINR, EVM,SSB constellation and more up to 64 beams.



### 5G NR FR1 Beam Analyzer

This mode is configured for Massive MIMO systems, enabling you to track and measure 8 beam IDs simultaneously.



Persistence testing separates and shows simultaneously both the desired signal transmission and the underlying low-level inference signals with supreme clarity, with no service interruptions at any point.



### 5G NR Inter Detect

Use the Interference Detection mode with a directional antenna to hunt down ingress signals in a 360-degree sweep.

### TDD-LTE Testing

TDD-LTE demodulation analysis includes channel power, cell ID, 4G time-division multipleaccess signal analysis, sub-frame spectrum, and special sub-frame demodulation indicators.

				1 200 and 1	
			TOD-LTE > P	ower vs Time 💿 🗤	
				5arc	
and the second s		States of the second se			
			the state of the s		
				U.D.	
				1090	
				114	
					860
	HARD	NALL CONTRACTOR	IS DOWN NOT LODGE	U MILLION CONTRACTOR	
	110.0	uni hauna	e An în Leighe de ne	nami.	
CHM 2332-CH2		10W13 F.G		204131 M 0	
0 1					
33.8 (Brit 54.3 (Brit	-352 dim 514 dim	ANA data - Stat ditra	R/dter -N/dter 481	0911 - 44.5 dBW	
0 1 1 1					
Manches Manager	States States	Distant Distant D	23con St2con out	01 0000	
111 Ciles 111 Ciles	474 (80) 11 14 10 10	NUMBER OF THE OWNER	ATTEN AFAILED -N.T.	der der die	
Total Energy		THAN AND DAY	Californ Sect.	Table C Ball	

### 🚯 LTE & 5G Outdoor Coverage

Together with an external GPS antenna, conduct 4G & 5G outdoor drive tests to obtain signal maps of the entire test sites.



## Specifications







Model	E8800A/C/D/E/F	Frequency accuracy	±1 ppm
Frequency range	9kHz-9GHz/18GHz/26.5GHz/35GHz/43GHz	Amplitude accuracy	±1.5 dB
IF bandwidth	110 MHz	Display	10.1" 1280 x 800 capacitive touchscreen
Phase noise(100 kHz offset from 1 GHz)	-103 dBc/Hz	Operating time	2.5 hours
Sweep Rate	80GHz/s@25kHz	Dimensions (LxWxH)	292mm x 211mm x 82mm
rtsa 100% poi	5us	Weight	E8800A:3.7kg E8800C/D/E/E:3.9kg

## E8600N/B/C/D 9kHz-6GHz/9GHz/18GHz/26.5GHz Portable Spectrum and Signal Analyzer

### Key Benefits

- Signal analysis: 5G NR, FDD/TDD-LTE, UMTS, GSM.
- Interference analysis: Spectrogram, Signal Strength, Interference Location, DPS, Gated Sweep
- Real-time spectrum function to detect hidden signals hard to find
- Built in GPS, HDMI, LAN, USB, AUX interfaces and external WiFi module
- Operating time is 5 hours, light weight
- Optional support for electromagnetic field strength measurement

### Measurements

### A Spectrum Analysis

With it's very high sweep speed, the user can capture burst signals in real time.



### (1) UMTS Measurement

The measurement value of Scr, Cpich channel power of multiple Cells in the same frequency are counted and displayed.



### Specifications

### Digital Persistance Spectrum

Persistence testing separates and shows simultaneously both the desired signal transmission and the undesired & underlying low-level inference signals with supreme clarity, with no service interruptions at any point.



## Outdoor Netclean

The Outdoor Netclean measurement function can effectively scan the area before the base station is constructed or an uncertain spectrum resource is used



### TDD-LTE Testing

TDD-LTE demodulation analysis includes channel power, PCI, subframe spectrum, and special sub-frame demodulation indicators.



### (°) Safety Evaluation

The instrument can preset the service table, modify the service provider or the specified frequency band according to the needs of the user, and select the service provider or the specific frequency band to display or hide the display operation.



### 56 NR FR1 Beam Analyzer

This mode is configured for Massive MIMO systems, enabling you to track and measure 8 beam IDs simultaneously.



### (°) Scene Recorder

The instrument can store the name of any service provider, create, edit and store channel tables, (CBW) and complete an electromagnetic radiation power monitoring sequence of the base station. The user can also accept work orders, upload records and export reports.



Model	E8600N/B/C/D	DANL (@ 1GHz)	-162dBm/Hz (High sensitivity mode)
Frequency range	9kHz-6GHz/9GHz/18GHz/26.5GHz	3rd-order intercept (TOI)	+15dBm
Frequency reference annual aging rate	±lppm	The SSB phase noise @1GHz	-100dBc/Hz@100kHz
Resolution bandwidth	10Hz ~ 3MHz	Operating time	5 hours
Attenuator range	0 to 30dB	Weight	about 2.5kg
Sweep Rate	20GHz/s@25kHz	Display	7 inch touch screen



## E8300A/B/C/D 9kHz-6GHz/9GHz/18GHz/26.5GHz Handheld Spectrum Analyzer

## Key Benefits

- Spectrum analysis: Channel Power, Occupied Bandwidth, Adjacent Channel Power, Field Strength, SEM;
- Interference huntting: Tone Search, Gated Sweep, Spectrogram (option), DPS (option),
- Support 2G/4G/5G(part) communication demodulation analysis (option);
- Screen capture, screen recording, recording and playback;
- Optional ET30 series directional antenna with GPS and electronic compass to lock the interference source position (optional);
- With EMF frequency selection electromagnetic radiation measurement APP option (6GHz-26.5GHz);
- Built-in GPS, LAN, USB, Type-C, AUX professional interface, external WiFi, 7-inch touch LCD;

Use the 3D Spectrogram tool

environment over time.

to monitor change in the signal

2. Spectrogram

6. LTE Summary

power, etc.

Display the measurement

offset, PCI, peak power, RS

results of LTE system frequency

Working time is about 3 hours, weight 2.5kg-2.7kg.

### Measurements

### 1. Spectrum Analysis

With the characteristics of high sweep speed, can capture burst signals in real time.



### 5. GSM Power vs Time

The result table shows the GSM system results of channel power, channel bandwidth, frequency offset, modulation type, Burst power, etc.





#### 3. Interference Location

Using directional antenna and angle of arrival (AoA) direction finding method, locate the interference source.



#### 7.5G NR Beam Analyzer

This mode is configured for 5G NR Massive MIMO systems, enabling you to track and measure 8 beam IDs simultaneously.



### 4. Gated Sweep

Special for TDD system interference hunting, observe uplink and downlink spectrum respective.



#### 8. Tone Search

The Tone search has the alarm function, according to the strength of the signal to judge the location of the source.



### Specifications

Model	E8300A/B/C/D	DANL (@ 1GHz)	-162dBm/Hz (High sensitivity mode)
Frequency range	9kHz-6GHz/9GHz/18GHz/26.5GHz	The SSB phase noise @1GHz	-100dBc/Hz@100kHz
Frequency reference annual aging rate	±lppm	Operating time	3 hours
IF bandwidth	20MHz/100MHz	Display	7 inch touch screen
Sweep Rate	10GHz/s@25kHz	Dimensions (LxWxH)	206mm x 171mm x 75mm
3rd-order intercept (TOI)	+14dBm	Weight	about 2.5kg



## E8500C/D 9kHz-18GHz/26.5GHz Spectrum and Signal Analyzer

## Key Benefits

- Spectrum Sweep, Channel Scanning, Channel Power, Adjacent Channel Power, Occupied Bandwidth, Spectrogram, Digital Persistance Spectrum;
- With 5G NR, 4G LTE, 3G UMTS, 2G GSM communication demodulation analysis;
- Support 5G NR/LTE time domain scanning mode;
- Support IQ data storage;
- With USB /LAN/HDMI HD interface, can connect to mouse, keyboard, high-definition projection screen;
- 10GB memory, sufficient test "status" recording and playback function, is a powerful tool for training and teaching;

Ratio (ACLR)

- 12.1 "touchscreen LCD, keyboard and touchscreen dual use;
- Remote control.

### Measurements

### 1. Spectrum Analysis

With the characteristics of high sweep speed, can capture burst signals in real time.



### 5. Channel Scanner

The field strength ratio for each service is shown in the form of a bar chart.



2. Adjacent Channel Leakage

Adjacent channel power ratio

refers to the ratio between the



### 6. 5G NR FR1 Beam Analyzer

This mode is configured for 5G NR Massive MIMO systems, enabling you to track and measure 8 beam IDs simultaneously.



3. Spectrogram

Use the 3D Spectrogram tool

environment over time.

7. LTE Power Vs Time

LTE demodulation analysis

includes channel power,

to monitor change in the signal



4. Digital Persistance Spectrum

Persistence testing separates the intended signal transmission from underlying low-level inference signals with supreme clarity, with no service interruptions at any point.



### 8. GSM Constellation

The results table shows the EVM, IQ bias, C/I, modulation type, Mag Err(amplitude error) and other test results.



## Specifications

Model	E8500C/D	Frequency accuracy	±1 ppm
Frequency range	9kHz - 18GHz/26.5GHz	Amplitude accuracy	±1.5 dB
IF bandwidth	100 MHz	rtsa 100% poi	5us
Phase noise (100 kHz offset from 1 GHz)	-100 dBc/Hz	Display	12.1" touchscreen
Sweep Rate	10GHz/s@<25kHz	Dimensions (LxWxH)	394mm x 230mm x 264mm

## E816-A/B/D Scanning Receiver

## Key Benefits

- Precise planning and design optimized for 5G networks
- Powerful PC based post-analysis software
- Spectrum clearing of existing and/or new bands.
- 8 frequency bands can be viewed simultaneously
- 4G/5G base station coverage test and a maximum of 32 frequency point tests are done in parallel.
- Spectrum and 4G/5G base station coverage testing
- TDD uplink and downlink spectrum testing for easy interference management

### Key Measurements 1. 4G/5G demodulation

LTE and 5G NR PCI, Beam Index, RS-RSRP, RS-RSRQ, and RS-SINR parameters of a compliant base station.



### 2. Spectrum Analysis

Measure spectrum trace, spectrogram and channel power for spectrum clearing and interference analysis.



## Specifications

Frequency r	ange	350 MHz - 6000 MHz
Measurement accuracy		±1.5dB
Interface		GPS(SMA), Antenna (SMA)
	E816-A	262mm x 160mm x 80m
Size	E816-B	166 mm x 97mm x 42mm
	E816-D	292mm x 210mm x 82mm

## E80/E80 Pro Smart Spectrum Analyzer E801 Smart Radio Interference Finder

### Product Function

- 📈 Spectrum Sweep
- 🛛 🕜 Orientate
- Tone Search
- Interference Location
- Channel Scanner
- 📧 Gated Sweep(E80 Pro Option)
- Coverage(E80 Pro Option)

### Key Benefits

- Built-in electronic compass and GPS for easy direction finding and positioning;
- Spectrum Analysis include Channel Power, ACLR, OBW, N dB Bandwidth, Spectrogram and DPS;

3. Interference Location



### Key Measurements

1. Spectrum analysis and Waterfall



2. DPS

### E80/E80 Pro Technical parameter

Frequency range	9kHz-6GHz(E80)/9GHz(E80 Pro)
IF bandwidth	20MHz(E80)/100MHz(E80 Pro)
Frequency accuracy	±1ppm
Resolution bandwidth	10Hz - 10MHz (1:3 step)
Sweep speed	10GHz/s@25kHz
Operating time	3 hours
Size	215.4 x 94.7 x 55.5 mm
Weight	0.9kg

## ET30 Series Handheld Directional Antenna

## Key Benefits

- Frequency range 9 kHz to 8 GHz
- Input impedance 50 $\Omega$ , VSWR < 2.5, horizontal or vertical polarization
- Built-in GPS, 3D electronic compass, built-in amplifier 15 dB, 100 mA, USB 2.0, SMA or N type interface
- Total weight (antenna+ transport box) around 7.5kg

### Models

- ET20M: 9 kHz-20 MHz directional antenna
- ET250M: 20 MHz-250 MHz directional antenna
- ET500M: 200 MHz-500 MHz directional antenna
- ET8000M: 500 MHz-8 GHz directional antenna



## Integrated Air-and-Ground Wireless Monitoring System

Lark drone rises from the ground to the 200-meter altitude in air, equivalent to the top of a 60-story height building to monitor space radio signals. With its high efficiency and low cost, the Lark system is far better than expensive monitoring vehicles and ground stations. Moreover, the occlusions can be reduced and the signal reflections can be weakened in higher altitude to increase the accuracy of direction finding and positioning!

For many years, Lark drone system has been successfully used in many airports for GNSS signal interference hunting, antenna radiation measurement, illegal urban wireless signal locating, electromagnetic field monitoring, base station interference hunting, and beacon tracking protection of high-risk technicians on the ground, etc.

	Mid-Size Drone	Light Drone
Model	Lark6000	Lark3000
Features	RTK's positioning accuracy in 0.1m, omnidirectional obstacle avoidance, automatic track generation and planning options	GPS positioning accuracy in 2m, light and compact, can be carried by single person
Main functions of Onboard Receiver	ES806 • frequency range: 9kHz to 26.5GHz (Weight: 1.5 to 2kg) • sweep speed: 20GHz/s@25kHz • IF bandwidth: 100MHz • signal strength approaching, GPS, electronic compass, angle-of- arrival (AoA) triangulation • 5G-NR, TDD-LTE, FDD-LTE, 3G WCDMA, 2G GSM demodulation analysis	ES805 • frequency range: 9kHz to 9GHz • Sweep speed: 10GHz/s@25kHz • IF bandwidth: 20MHz • signal strength approaching, GPS, electronic compass, angle-of-arrival (AoA) triangulation
Takeoff Weight/ Payload Weight	takeoff weight: 9kg payload weight: 2.5kg	takeoff weight: 4.3kg payload weight: 0.8kg - 1kg
Service Ceiling Above Sea Level Visual Flight Distance	service ceiling above sea level:300 meters visual flight distance: 1000 meters	service ceiling above sea level: 200 meters visual flight distance: 1000 meters
Max. Flight Time	25 min (Full Load 2500g)	15 min (Full Load 800g -1000g)
Ground Orientation System	Directional antenna ET30 series Constructional antenna ET30 series Constructional antenna ET30 series Construction analyzer E8800 series Construction Spectrum analyzer E8800 series	c probe TS series

### Integrated Air-and-Ground Wireless Monitoring System Reference Table

## EM860 Frequency & Code Selective EMF Analyzer

### Key Benefits

- Optional probe: HTS-250M (9kHz~250MHz), TS-8G (200MHz~8GHz), TS2-8G(9kHz-8GHz), TS3-8G (30MHz-8GHz), TS4-8G (400MHz-8GHz);
- Multi applications of Scene Recorder, Safety Evaluation, Field strength and Spectrum analysis;
- 3G-UMTS/4G-LTE/5G NR code selective EMF measurement;
- 5G NR Beam Statistic, RE Statistic and RB Vs Time;
- Up to 100MHz real-time analysis bandwidth;
- Configurable service provider and CBW channel table, recording and playback, screen capture and recording, wireless and wired network communication;
- Built-in hygrograph, GPS, LAN, USB, AUX professional interface, external WiFi module (10.1 inch LCD);
- Double battery working time is more than 5 hours;
- Attach Field Strength Calibrator EM20 as standard.

### Measurements

### **Null** Swept Fieldmeter

All the signal field intensities in the selected frequency range can be recorded, and the general situation of the measured spectrum can be obtained or the maximum value can be determined.

			RT	OO		ົ				• •		
	Terro Par		Gatter	100		0.04						
										Field	Anter Spec	W Result
291-04/01		Car	5 100124					WI.			Children and	Wite
		fee.							1.000890	Million	427 (By V.M.	O
												Mex
Amp												00.0
												Ang.
Read In												
10W												
Senice												
						~		<u> </u>			s	
	9441	LNL CARP			-	Careta	0100				GMELLIN COL	() Average
freque		14	LO DV						tar.		Acres and	(a survey)

### Field Meter Scope

The time domain waveform signal can be displayed as an oscilloscope. Customers can choose common, gated scanning slots or other trigger mode.



### Safety Evaluation

Measure the exposure levels in the user defined frequency range which can preset as several CBWs in one service tables, do evaluation according to common human safety standards.

						• •	0 2021-01-34
ME						Safety Assess	mant * Juerage
							Acc Augmote Mare lines Aug Nam 30 Aug Timo 3200 ec Aug gen 01 59d
	et and						• • <u>•</u>
	store and the st	Fmin	East)Cator Fmax	Service of Canon Charles	e /~a		
	telet Lid Croup at Meas Set	Fmin 213.8 Mg	EadyLaroe Fmax 7210 Mit	Service IS Genue Londo Canoni Cha 66.4173 dilyichi	۲ ۸۰۰		
	telect List Group JEE Meas Set LITCHO DCT elekore LITCHO DCT elekore	Fmin 713.8 Mig 768.8 Mig	East/Carole East/Carole Fmax 7210 Mits 7760 Mits	Service B Genup Load/Canon Cra 66.4173 dijuktin 202.56/6 dijuktin	e Avg		• <u>9</u>
	telest List Croup All Meas Set LICTIO DCTriekow LICTIO DCTriekow LICTIO DCTriekow	Fmin 713.8 Mig 76.8 Mig 721.8 Mig	7210 Mig 7310 Mig 7310 Mig	Service S Service S 64.4773 dBalcin 302.966 dBalcin 87.4662 dBalcin	4 /vg		- ~ <u>~</u>
	41.090 Select Set Croop All Meas Set LTC100 DCTelekor LTC100 DCTelekor LTC100 DCTelekor LTC100 Videlore Do.	Fmin 2133 Mil 253 Mil 253 Mil 273 Mil 273 Mil	10011000 Fmax 7210 Mrg 7760 Mrg 7110 Mrg 7110 Mrg 7110 Mrg	Service B Benet Destruction 66.4773 dijuton 302.566 dijuton 57.4673 dijuton 56.8704 dijuton	e /vg		~ 2
	et organisation of the second	Fmin 2133 Mil 2038 Mil 2038 Mil 2138 Mil 2188 Mil 2058 Mil 2058 Mil	2110 000 Fmax 2210 M/Q 7760 M/Q 7110 M/Q 7110 M/Q 7110 M/Q	54773 digitin 64.4773 digitin 952.566 digitin 127.462 digitin 65.5793 digitin	l Aug		~ 9

## LTE code selective EMF measurement

Measurement values of an LTE PCI, synchronized signal and referenced signal power of multiple Cells in the same frequency are counted and displayed. Including PSS, SSS and RS real-time value (Act), maximum value (Max), average value (Avg.) and the total power of all cells are listed.



### Scene Recorder

With an editable and stored service provider name and its channel (CBW) table, the analyzer can quickly complete an electromagnetic radiation power test of the base station, can be evaluated against work order parameters, records uploaded or exported in a report.



### 5G NR RE Statistic

Users can obtain the distribution of all resource elements (RE) power in one 5G NR on the air frame with 150dB measurement range, the max Value of measurement range and step are set by users.





### Level Recorder

The measurement results are displayed by digital and transverse histogram, direct display of the time characteristics of a signal at a settable fixed bandwidth up to 100MHz.

		+ 9100 git	2003-43-49
hojOrt		Level Recor	der <sup>® MR</sup>
Ma Freq/CBW:	1.828 GHz / 200.	0 kHz	MR 1400 etgenn Level Office
ew Peak:		107.8 dBµV/	m Level Office
	Max:	111.1 dBµV,	m ua
	M.S. 10.8 10.4 17		Epon.
RMS:		100.6 dBµV/	m
	Max:	103.3 dBµV,	'm
573 4831 774			
	No. of Avg	300-946	
Finquency MR & BW	leat	Mean out	

## 5G RB vs Time

Users can visualize the 5G NR signal strength distribution in a 100MHz band with different colours indicating spectrum density. It can also display synchronization information and 5G NR parameters such as PCI, beam index.



### Specifications

Frequency range	9kHz-9GHz	Interfaces	USB2.0x2, USB3.0, LAN, WIFI, HDMI, SD card, aviation 9-core interface
IF bandwidth	100MHz	Display	10.1-inch 1280x800 color touch screen
Sweep Speed	80GHz/s@25kHz	Operation time	>5 hours (with spare battery)
Frequency accuracy	±1ppm	Dimensions (L x W x H)	292mm x 210mm x 82mm
Amplitude accuracy	±1.5dB	Weight	3.7kg

## EM560/EM560B Frequency & Code Selective EMF Analyzer

## Key Benefits

- Optional probe: HTS-250M (9kHz~250MHz), TS-8G (200MHz~8GHz), TS2-8G (9kHz-8GHz), TS3-8G (30MHz-8GHz), TS4-8G (400MHz-8GHz);
- Multi applications of Scene Recorder, Safety Evaluation, Field strength and Spectrum analysis;
- Support 5G NR, 4G LTE and 3G UMTS mobile communication system code selective EMF measurement;
- Automatic export of test reports, recording and playback, wireless and wired network communication, screen capture and screen recording;
- Can set their own monitoring service providers and CBW channel table, simple work, high efficiency;
- Built-in hygrograph, GPS, LAN, USB, AUX professional interface, external WiFi module;
- More than 5 hours of working time, 7 "touch LCD, weight 2.5kg;
- Attach Field Strength Calibrator EM20 as standard.

### Measurements

### Swept Fieldmeter

The high performance spectrum analysis functions can display the spectrum, average power, signal strength in user selected sweep span, time, resolution, amplitude reference, frequency range.



### Field Meter Scope

The time domain waveform signal can be displayed as an oscilloscope. Customers can choose common, gated scanning slots or other trigger mode.



### Safety Evaluation

Exposure levels in a user defined frequency range can be saved as several CBWs in one service tables, and evaluated according to human safety standards.



## 5G NR code selective EMF measurement

The 5G NR code selective EMF measurement mode shows the field strength values in 5G NR band, the different PCI and field strength values in each PCI respectively, so that users can analyze the contribution rate of each base station to the total field strength.





With an editable and stored service provider name and its channel (CBW) table, the analyzer can quickly complete an electromagnetic radiation power test of the base station, can be evaluated against work order parameters, records uploaded or exported in a report.



## LTE code selective EMF measurement

In LTE code selective EMF measurement mode, the results shows different PCI, Act(PSS), Max(PSS), Avg(PSS), Act(SSS), Max(SSS),Avg(SSS), Act(SSS), Max(RS), and Avg(RS), etc. in the same LTE frequency band.





#### The measurement results are displayed in a digital and transverse histogram, direct display of the time characteristics of a signal at a settable fixed bandwidth up to 20MHz/100MHz.



## 36 UMTS code selective EMF measurement

In 3G UMTS code selective EMF measurement mode, the instrument gets to work on different UMTS scrambling and CPICH channel power, Act(CPICH), Max(CPICH), Min(CPICH), Avg (CPICH) and total values in the same UMTS frequency band.



### Specifications

Model	EM560/EM560B	Positioning	GPS and Beidou
Frequency range	9kHz-6GHz/9GHz	Interfaces	USB2.0 × 2, LAN, AUX, HDMI, Type-C, SD Card
IF bandwidth	20MHz/100MHz	Display	7 inches capacitive touchscreen
Frequency accuracy	±1ppm	Operation time	5 hours
Amplitude accuracy	±1.5dB	Dimensions (L x W x H)	255mm x 179mm x 71mm
Sweep Speed	20GHz/s@25kHz	Weight	2.5kg

## EM9N/EM9D **Broadband Electromagnetic Field Meter**

## **Key Benefits**

- Optional probe: T-400K (1Hz-400kHz), T-8G (100kHz-8GHz), T-40G (20MHz-40GHz);
- Built-in GPS/ Beidou, electronic compass, temperature and humidity sensor, laser height measurement 2m, camera;
- Built-in 4G mobile phone card (optional), direct access to base station ID information (optional), and communication function;
- Bluetooth WIFI interface communication, Type-C;
- Base station work order mode: can comprehensively plan and implement the detection work of base stations;
- Environmental monitoring mode: can take on-site photos, data screenshots, screen recording, reporting, etc., is a favorable tool for law enforcement monitoring;
- Built-in battery supports 8-hour "radiant gauge" monitoring;
- 5.5-inch touch LCD, weight 0.5kg;
- Attach Field Strength Calibrator EM20 as standard.

### EM9N

### 1. Time-Average Field Strength:

Real-time field intensity display, spectral line mode and measuring cylinder mode.

Test record query





#### 3. Spatial: Spatial average. Multiple spatial averages can be combined and saved

**Test report** 

1

0.30 0.315 V/m into a single record file for easy viewing

## EM9D

Power

field

### 4. Spectrum:



### **Report export**



## EM9N (single channel) / EM9D (dual channel)

Backend Server - Work Order Management

Test record details

Frequency Range	DC to 40GHz (probe dependent)	Measurement Mode	Broadband (DC) sampling or FFT Spectrum analysis (dual channel)
Display Range	0.001 to 999 V/m	Magairamant Ilait	Electric Field - kV/m, V/m, mV/m, W/m², mW/cm², µW/cm²
Interface	12-pin aviation socket, USB-C, AC/DC power adapter	measurement unit	Magnetic Field – Τ, mΤ, μΤ, nΤ, pΤ, fΤ, A/m, mA/m, μA/m, nA/m, G, mG, μG, nG
Built-in Sensor	GPS/Beidou, Wi-Fi, Bluetooth, electronic compass, temperature, humidity, and laser height measurer	Memory	4G RAM/16G ROM up to thousands of pictures and video clips
Power Supply	DC 12V/2A adapter	Operating Hours	>10 hours
	Li-Ion battery 7.4V/5A (37W)	Operating Temperature	-10°C to +50°C

## Antenna List

## 1. RF antenna

Name	Model / Type	Picture	Frequency Range	Connector
Omnidirectional antenna	ET101		500MHz-3000MHz (Included)	SMA/N
	ET103		30MHz-6000MHz (support AF antenna factor)	SMA
	Magnetic Mount Antenna ET104		700MHz-3800MHz (Customized by frequency band)	Ν
	Fiberglass Antenna ET105		400MHz-6000MHz (Customized by frequency band)	Ν
Directional antenna	Passive straight handle ET20	and the second sec		SMA
	Active L-type antenna handle ET30 (Switch, amplifier, GPS, compass, altimeter)	Ó	9kHz-18GHz	SMA To N
	Directional antenna (ET8000M/ ET18G, ET500M, ET250M, ET20M)	ETRODOMETING ETSOM ET250M ET20M		SMA
	Straight handle ET40G horn antenna		6GHz-40GHz	SMA
	Directional antenna ET6G-2/ ET18G-2		600MHz-6GHz 600MHz-18GHz	SMA
RF cable	1m to 1.5m, SMA RF cable	$\bigcirc$	DC-18G	SMA(M)- SMA(M)
	1m,2.92m,RF cable	$\bigcirc$	DC-40GHz	SMA(M)- SMA(M)
Adapter	N(M)-SMA(F) adapter		DC - 12.4 GHz	N(M)- SMA(F)
	N(M)-SMA(M) adapter		DC-12GHz	N(M)- SMA(M)
Others	6G Radio Beacon MD-001 6G		55MHz-6GHz Level: -10dBm-15dBm	SMA

## 2. EMF antenna

Frequency selective probe	TS-8G		200MHz-8GHz	Ν
	T\$2-8G		9kHz-8GHz	
	152.00			
	133-8G		30/MHZ-8GHZ	
	TS4-6G		400MHz-6GHz	SMA/N
	HTS-250M		9kHz-250MHz	Ν
Broadband	T-400k		1Hz-400kHz	
	T-8G		100kHz-8GHz	Aviation plug
	T-6G		100kHz-6GHz	
	T-40G		20MHz-40GHz	



## **Cable & Antenna and Network Analyzers**



### E7000L Cable & Antenna Analyzer

- Cable and Antenna Analyzer, 2 MHz to 4.4 GHz
- Internal E-Calibration Module, 2 MHz to 4.4 GHz
- Internal RF Power Meter Module, 20 MHz to 4.4 GHz
- Fiber Inspection Scope option
- Built in Optical Power Meter and VFL module
- External GPS option



### E7040B/E7060B Cable & Antenna Analyzer

- Cable and Antenna Analyzer, 2 MHz to 4.4G Hz/6.1 GHz
- External precision "Y" Open/Short/Load Calibration Combination N(m), DC-6GHz and E-Calibration Module
- External In-line Power Sensor
- External Terminal Power Meter
- External GPS option



## E7042B/E7062B Signal PROFILER RF Analyzer

- Cable and Antenna Analyzer, 2 MHz to 4.4 GHz/6.1 GHz
- Spectrum Analyzer, 9 kHz to 4 GHz/6 GHz
- External precision "Y" Open/Short/Load Calibration Combination N(m), DC-6GHz and E-Calibration Module
- Interference Analyzer
- Fiber Inspection Scope option
- External GPS option

## NA7700A 14/20GHz 2/4-Port Vector Network Analyzer

- 12.1 inch 1280 x 800 TFT touchscreen
- Wide frequency range: 300 kHz to 20 GHz
- High dynamic range: >130 dB
- Very low noise floor: <0.005 dB rms (at 3 kHz IFBW)
- Fast measurement speed: 40 µsec/point
- Accurate error correction and calibration function
- Connect with other systems via USB, LAN and GPIB ports
- Connect with MES system enables automated factory production testing





## NA7662E/NA7692E 2/4-Port Vector Network Analyzers

- Frequency range:100 kHz to 9 GHz
- High dynamic range: >138 dB
- Very low noise floor: <0.005 dB rms (at 3kHz IFBW)
- Fast measurement speed: 40 µsec/point
- Accurate error correction and calibration function
- Connect with other systems via USB, LAN and GPIB ports
- Software-enabled updates and measurement options can be processed without the need to return to the factory or a factory authorized service center
- Connect with MES system enables automated factory production testing

## TV/Cable/Satellite Signal and Spectrum Analyzers



## S7200 Series TV Signal Spectrum Analyzer

- All-in-one Digital TV Spectrum Analyzer, 4 to 2150MHz
- DVB-C/C2, DVB-T/H/T2, ATSC, ISDB-T, DTMB, DVB-S/S2, DAB/DAB+ demodulation
- Decodes multiple video standards: MPEG-2/4, H.264/H.265, VC-1, AVS/AVS+
- Compatible with 4k, 1080p, 720p and 576i
- Support DVB-CI and BISS 1/E
- Transport Stream Analysis: RF, ASI, and IP input
- IPTV Analysis
- Optical power meter and optical receiver
- Capacitive touchscreen

## DS2831 Digital TV Spectrum Analyzer

- Real spectrum analyzer performance from 4 MHz 1.22 GHz (optional extension to 2.15 GHz)
- Fast Spectrum Analyzer: detect and troubleshoot ingress with exceptional sensitivity of -63.5dBmV @ 300KHz RBW.
- Non-intrusive, colour-coded spectral density persistence test, showing transient noise hiding under upstream bursty signalling
- MER Measurement: to 47 dB + MER with 48 hours statistical recording @ 1 second resolution
- Analog TV, SC-QAM & OFDM/A: troubleshoot typical analog interference and distortions as well as SC-QAM, OFDM & OFDMA performance
- Time-Domain EVS Measurements: uncover interference from LTE signals under downstream SC-QAM carriers with no service interruptions
- Characterize OFDM/A carrier performance and DOCSIS 3.1 cable modem performance
- 7" Capacitive Touchscreen: with excellent touch response and 7 hours of operating time







## DS2500Q/DS2600C Digital TV QAM Analyzer

- Frequency range: 4 MHz to 1.0GHz (DS2500Q) 2.15 GHz (optional on DS2600C)
- High-speed Spectrum Analysis: 4 to 1.0 GHz, (optional extension to 2.15 GHz, DS2600C only)
- Integrated DOCSIS 3.0 Cable Modem
- Integrated Upstream Signal Generator (no FEC)
- Supports ITU-T J.83 Annex A/B/C
- Error Vector Spectrum: identifies interference signals under SC-QAM carriers, with no service interruptions
- Spectrum Persistence Analysis
- Auto Test



## DS2400 series/DS2460Q QAM Analysis Meter

- Frequency range: 5 MHz to 1000 MHz
- Digital TV tests include Average Power, MER, BER, BER Statistics, Constellation
- Analog TV measurements include: Level, V/A, HUM, C/N
- Auto-generates and saves up to 20 custom channel plans from a cable drop
- Auto test with pass/fail limits speeds up tests and simplifies results interpretation
- USB Micro 2.0 port for PC data transfer, PING test
- Optical Power Meter and VFL module option (DS2460Q only)
- TDR option (DS2460Q only)



### C1200+ DVB-C Meter

- Frequency range: 5MHz to 1010MHz(Analog),46MHz to1010 MHz(Digital).
- Analog TV Analysis: Level,V/A,Tilt,C/N,Scan and Trunk Voltage
- Digital TV Analysis: Power, MER and BER
- 128×64 pixels back-light LCD
- Large lithium battery capacity, over 4 hours working time
- Software upgrade and channel plan edit via USB interface















Headquarter - Design and Manufacturing (23000 m²)

