DEVISER®

Smart Radio Interference Detection

E801

Key Benefits

- Integrated Spectrum Analyzer and Interference Detector;
- Frequency Range 9 kHz to 6 GHz/9 GHz;
- Internal Preamplifier leads to -165dBm/Hz DANL that can detect weak signal;
- IF Bandwidth 20MHz/100MHz;
- Sweep Speed 10GHz@25kHz;
- USB (Type-C) Interface, support API development and remote control.

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- USB (Type-C) interface, support API development and remote control;
- Spectrum Analysis include Channel Power, Adjacent Channel Power Ratio (ACLR), Occupied Bandwidth (OBW), N dB Bandwidth, Spectrogram and DPS;
- Interference hunting include Orientate and AoA Signal Location;
- MSCAN mode can help GNSS signal quality measurement and for emergency communication;
- Work with Deviser Lark series drone system to do interference hunting rapidly and efficiently;
- Base station demodulation include 2G/3G/4G/5G (Option);
- Indoor and outdoor signal coverage mapping measurement and spectrum approval measurement;
- Record and replay function help work efficiently;
- Communication channel information edit, analysis and management.

Overview

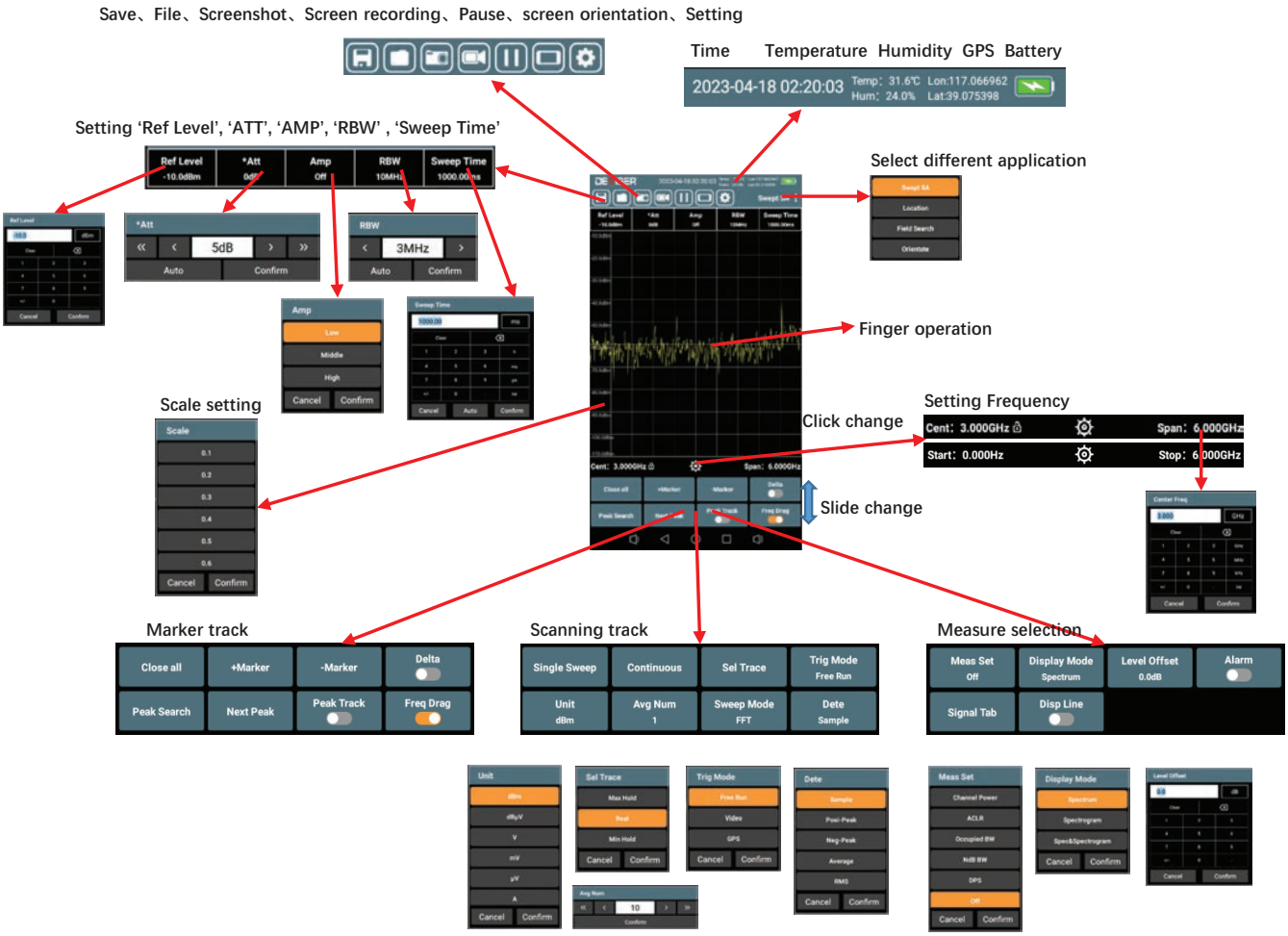
Deviser Instruments is proud to introduce the E80, the first Android hand-held spectrum analyzer ever made. The E80's main features include high testing sensitivity, compact light weight and portable design. The Android operating system and high resolution touch screen allows for user-friendly testing and measurement function. The E80's excellent performance characteristics meet the most discriminating RF signals testing and measurement requirements.

ES802 Smart Spectrum Analyzer Module

Key Benefits

- Frequency range 9 kHz to 6 GHz/9 GHz with 1Hz resolution;
- Sweep speed 10 GHz@25 kHz
- IP3 to +15 dBm
- USB (Type-C) interface, support API development and remote control
- Total power consumption: 12 W
- Power Supply: 220V AC to DC 12V/2A
- Weight 1 kg
- Size: 224×119×61 mm

Quick Operation of E80



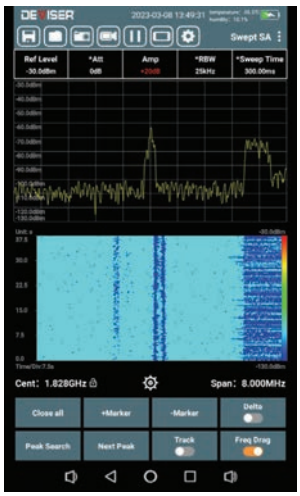
E80 Smart Spectrum Analyzer

E801 Smart Radio Interference Detection

Key Measurements

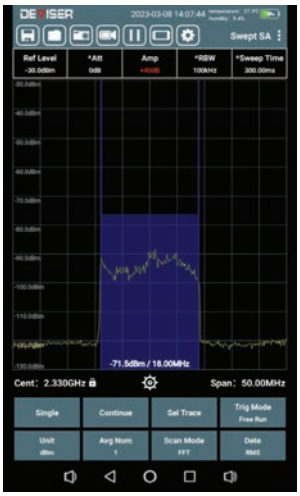
1. Spectrum analysis and Waterfall measurement

Using the spectrum analysis and waterfall functions, users can easily visualizes interference signals and identify/capture in which frequency bands any narrow band signals may be present.



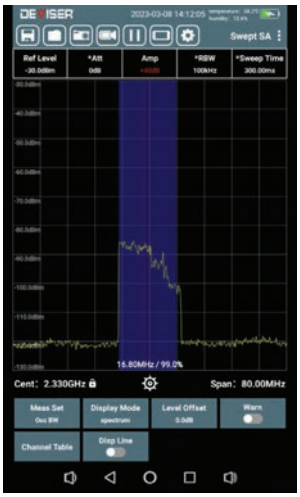
2. Channel Power measurement

The channel power measurement function refers to the RF power and power spectral density of a particular channel bandwidth. The E80 can automatically test the channel power of any user defined spectrum bandwidth.



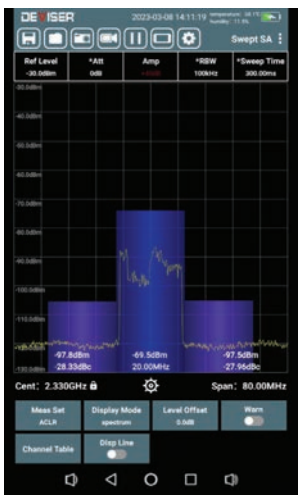
3. Occupied Bandwidth (Occ BW) measurement

With the E80 OBW measurement function, users can easily measure the signal channel bandwidth which include 99% of its power.



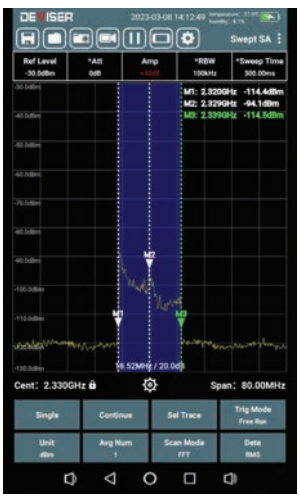
4. Adjacent Channel Leakage Ratio (ACLR) measurement

The adjacent channel leakage ratio (ACLR) measurement function helps check for signal leakage, identify and control sources of interference. The E80 can execute an automated adjacent channel power ratio measurement.



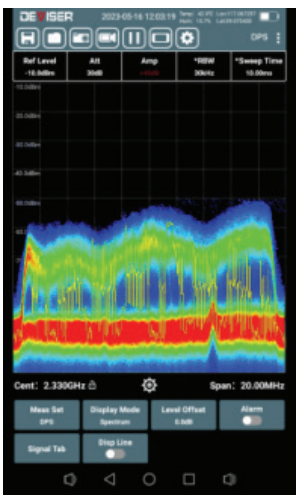
5. NdB BW measurement

NdB Bandwidth is mainly the resolution bandwidth of the measuring instrument, which is only used in the logarithmic state. For example, if the NdB bandwidth is set to -3dB, the frequency difference between two points is 3dB lower than the maximum value.



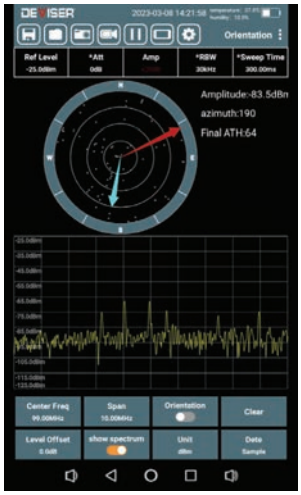
6. DPS

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



7. Orientation measurement

Using the Orientation measurement function, users can easily observe the interference signal direction.



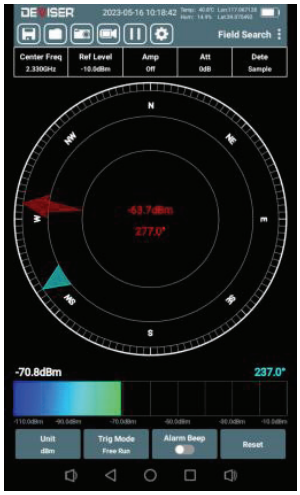
8. Location

Using directional antenna, GPS, electronic compass, electronic map, through the angle of arrival (AoA) direction finding method, locate the interference source;

In each test point, the directional antenna is used to test the interference signal, which direction appears the strongest signal.

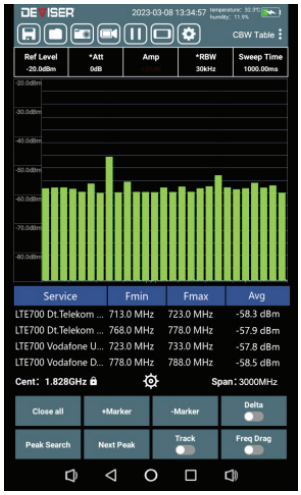
9. Manual direction finding

Using the integrated directional antenna and the built-in tone function, continuous unwanted emissions can be detected and manually located based on the received signal level in indoor and outdoor area.



10. Channel Scanner

The field strength ratio of each service is represented in the form of a column diagram.



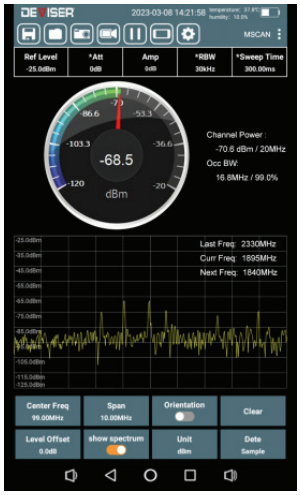
11. MSCAN

When detecting unknown signals or monitoring known signals, the spectrum analyzer offers a MSCAN(memory scan) scan mode.

In MSCAN mode, there are totally 200 channels. User can edit different center frequency, BW, threshold level, dwell times for each channel.

When work, the spectrum analyzer scan each channels one by one according to the memory list uesr defined. In each channel, the spectrum analyzer do spectrum monitor, calculate channel power and also occupied bandwidth.

Using this mode, user can do signal quality measurement such as GNSS signal quality measurement for different frequency band GNSS signal. And also can do signal occupied analysis for emergency communication.

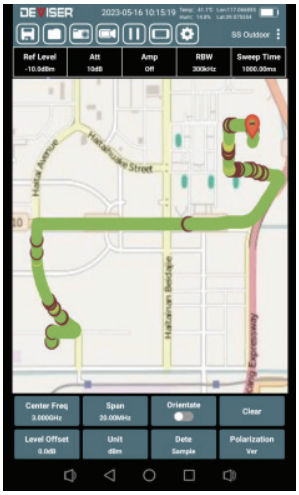


12. Spectrum Approval Measurement Outdoor

Spectrum approval measurement will effectively scan the existing interference signals in specific band in the area before the base station is established.

13. SS Outdoor

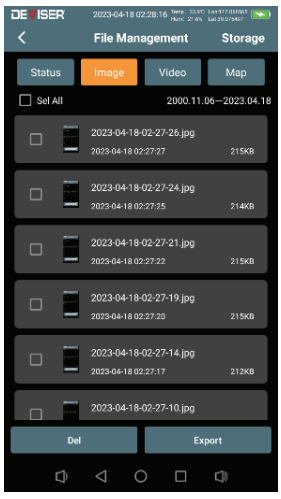
Using the internal GPS module, E80 can do outdoor mapping test for signal strength coverage measurement or base station coverage measurement (Option). Also E80 can do indoor coverage measurement.



Recording and Playback

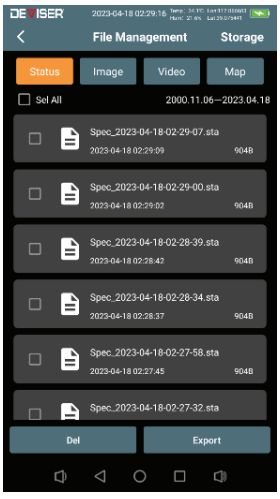
1. Screen Capture

User can save the information on screen.



2. Screen Recording

User can save the recording video, the device also supports video playback



3. Status and Trace

Use can select the Status to save the measurement screen or select Trace to record the spectrum trace. Power level vs.

frequency can then be analyzed offline.

LAN Connection

Use the USB-C to LAN cable to connect the instrument to a PC to realize remote control.

E80 Specifications

Technical parameter	
Frequency Range	9kHz ~ 6GHz/9GHz
IF Bandwidth	20MHz/100MHz
Frequency Stability	±1ppm
Resolution Bandwidth	10Hz ~ 10MHz
Sweep Speed	10GHz/s@25kHz
Attenuator Range	0 ~ 30dB
Display Average Noise Level(DANL)@1GHz	-165dBm/Hz (High sensitivity mode)
Third Order Cutoff	+15dBm
The SSB Phase Noise @1GHz	-100dBc/Hz@100kHz
Amplitude accuracy	±1.5dB
Gerneral	
Display	5.5in, 720×1280
OS	Android
Interface	USB(Type-C)
Battery	7.4V / 5Ah
Operating Time	3 hours
Size	215.4 x 94.7 x 55.5 mm
Weight	0.91kg

E801 Specifications

Base Unit	
Model	E80
Directional Antenna	
Model	ET2-6G/-18G
Frequency Range	600MHz-6G/18GHz
Gain	>5dbi
VSWR	≤1.25dB
Antenna Factor	20-50dB/m
RF Connector	50Ω/SMA
Weight	<300g
Size	350*200*25mm
MD001 Radio Beacon	
Frequency range	55MHz to 6000MHz
Output Level	power large than 0dBm
Step	1MHz

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