

## SA-26E Handheld Spectrum Analyzer

### 1.0 Description:

This product is aimed for general microwave link installation/system work, and for service/repair applications. The product may also be used to help trace and locate the source of interference to radio communication systems. It is designed primarily to perform very basic RF signal level and frequency measurements quickly and easily with its simple easy-to-use operation. This makes it ideal for microwave link alignment.

### 2.0 Features and Benefits:

- Wide frequency range of 5.9 GHz to 26.5 GHz
- Robust, compact and lightweight
- Stores up to 100 screen images
- Charges through USB connector or from external +5 V adaptor
- Good sensitivity
- Simple to operate
- Excellent visibility under all lighting conditions from transreflective LCD screen with low power back light
- Event triggered frequency and level recording
- Fixed resolution bandwidth for simple operation
- Max hold and normal trace mode
- Channel power measurement
- User configurable presets center frequency/span
- Full frequency span option for total band visibility
- Single marker to indicate level and frequency
- Selectable dBm or dBuV units
- Auto power off after 3 minutes, or disable
- Real time clock

### 3.0 Applications:

- Microwave link alignment
- Interference tracing
- Electronic equipment fault locating and service
- Radio system commissioning, site investigations and monitoring
- Antenna testing

## 4.0 Specification:

- Frequency range: 5.9 GHz – 26.5 GHz
- Frequency accuracy: +/- 30 ppm
- RBW: 2 MHz Fixed
- Level measurement range: -35 dBm to < -95 dBm (typical)
- Level accuracy +/- 2.0 dB, 5.9 – 20.0 GHz. +/-4.0 dB, 20.0 – 26.5 GHz \* Note 1
- Level linearity: +/- 1.5 dB
- Display range: 80 dB
- Residual responses: None.
- 3<sup>rd</sup> order IMD: < -55 dBc \* Note 2
- 2<sup>nd</sup> order distortion: < 50 dBc \* Note 3
- Other spurious responses: < - 70 dBc
- Sweep time: 220 ms, 100 MHz span
- Event Capture: Records frequency, level, date, time and duration of up to 10 intermittent events.
- Battery: Internal 3.7V 1800 mAh 103450 LiPo
- Current consumption: 560 mA (typical)
- Operation time after charging: 2.5 – 3.0 hr
- Charging current: 0.5 A
- Stored screen images: 272 x 144 pixel .bmp
- RF connector: 50 ohm SMA female
- DC connector: 2.1 mm for 5 V +/- 0.25 V 1.0 A PSU or adaptor
- Operating temperature range: 0 – 45 degree Celsius
- Dimensions: 155 mm x 96 mm x 30 mm
- Weight: 350 g
- USB 2.0
- Windows 7,8 and 10 compatible
- CE compliant

Note 1: Test condition: Input -40 dBm, Temperature: 22 +/- 5 deg C.

Note 2: Test condition: Two tones -40 dBm, 12000 MHz and 12010 MHz

Note 3: Test condition: Single tone -40 dBm, 12000 MHz.

## 5.0 Operation:

This product is very easy to operate. Equipment settings are configured by navigating a simple menu based user interface, and selecting the desired option.

Once displaying the frequency spectrum it is possible to position the marker automatically on the signal peak with the up arrow key. The span width can then be widened or narrowed progressively around the frequency of this peak using the up and down arrow keys. First press of the up key sends the marker to the peak, second press widens the span. First press of the down key, centralizes the signal, second press narrows the span. Using only these two keys, the span width can be varied quickly within the range 5.9 GHz to 26.5 GHz and the signal centralized. This process quickly becomes very intuitive.

The marker can also be positioned as desired using the left and right arrow keys.

It is often useful to select Full Span initially and then zoom onto the desired signal with the up and

down keys.

It is also possible to record the frequency, level, date, time and duration of intermittent signals for up to 10 events. This is useful when attempting to identify and locate interfering signals. To do this, set-up the required frequency range and reference level. After this, select Event Capture from the Utilities menu, and set the signal threshold level. Press the Enter button. Signal excursions over the threshold level are then recorded. To exit this mode, press Enter again and then exit.

## 6.0 Charging:

Charge by connecting the unit to a PC or other USB charging device.

The unit may also be charged by connecting to a 5 V 1 A Regulated PSU adapter with 2.1 mm plug.

Only charge the battery when the ambient temperature is between 10 and 35 deg C

As with all Lithium Polymer batteries, the product should not be left unattended when charging.

## 7.0 Up-loading/Deleting Screen Image Files With PC (Personal Computer):

Connect the product via a USB cable to the PC. The product screen will then show USB Connected. (If this is the first time the product is connected to the PC, the PC will automatically search for a driver. It should find one automatically)

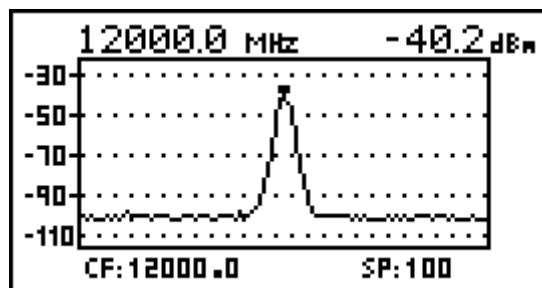
Go to the PC and look for external devices. (Start, then My Computer for Windows Systems).

The product will appear as an external device on the PC labelled with the product name e.g. SA-26E

Click on the device icon to see files. These may be copied, moved to a folder on the PC or viewed in the usual manner (double click on file).

Please note that files can only be erased from the product (Utilities, then Delete Files, then select Yes or No).

Typical Up-loaded Screen Image:



## 8.0 Reset:

Holding down the PWR key and the down arrow key together for 3 seconds restores the default settings of the instrument.



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