Measurement Settings

Meas

Provides swept SA and VSWR, as well as multiple advanced measurement functions, including time-domain power, adjacent channel power, multi-channel power, occupied bandwidth, emission bandwidth, C/N ratio, harmonics, and TOI.

Swept SA

Measures with swept analysis (frequency-domain), FFT analysis (frequency-domain), or zero span analysis (time-domain).
After you select **Swept SA**, the advanced measurement function (AMK) is off by default. Press **Meas Setup** to set the corresponding parameters for swept SA.

Advanced Measurement Function (AMK)

This function is an option for RSA5000, and the function is only available when the advanced measurement kit (AMK) is installed. When you enable the measurement function, the screen is divided into two windows, with the upper window (the basic measurement window) displaying the sweep trace and the lower window displaying the measurement results.

1. **Meas Off**
   Disables the advance measurement function and returns to the swept SA interface in GPSA mode.

2. **T-Power**
   The system enters the zero span mode and calculates the power within the time domain. The available power types include Peak, Average, and RMS.
   Select **T-Power** and then press **Meas Setup** to set the corresponding parameters.

3. **ACP**
   Measures the power of the main channel, the power of adjacent channels, and the power difference between the main channel and each of the adjacent channels. When this function is enabled, the span and resolution bandwidth of the analyzer will be adjusted to smaller values automatically.
   Select **ACP** and then press **Meas Setup** to set the corresponding parameters.

4. **Multichan Pwr**
   Measures the power and power density of multiple channels or that of the specified channel bandwidth. When this function is enabled, the span and

resolution bandwidth of the analyzer will be adjusted to smaller values automatically.
Select **Multichan Pwr** and then press **Meas Setup** to set the corresponding parameters.

5. Occupied BW

Integrates the power within the whole span and then calculates the bandwidth occupied by this power according to the specified power ratio. The OBW function also indicates the difference (namely "Transmit Freq Error") between the center frequency of the channel and the center frequency of the analyzer.
Select **Occupied BW** and then press **Meas Setup** to set the corresponding parameters.

6. Emission BW

Measures the bandwidth between two points on the signal which are X dB below the highest point within the span.
Selects **Emission BW** and then press **Meas Setup** to set the corresponding parameters.

7. C/N Ratio

Measures the power of the carrier and that of the noise with the specified bandwidth, as well as their power ratio.
Select **C/N Ratio** and then press **Meas Setup** to set the corresponding parameters.

8. Harmo Dist

Measures the power of each order of harmonic and THD (total harmonic distortion) of the carrier. The highest order of harmonics for measurement is 10. The fundamental harmonic amplitude of the carrier signal must be greater than -50 dBm; otherwise the measurement will be invalid.
Select **Harmo Dist** and then press **Meas Setup** to set the corresponding parameters.

9. TOI

Measures the third-order intercept (TOI) of a two-tone signal (with the same amplitude and similar frequency), including the frequencies and amplitudes of Lower Tone, Upper Tone, Lower 3rd TOI, and Upper 3rd TOI, as well as the intercept points of both the Lower 3rd TOI and Upper 3rd TOI.
Select **TOI** and then press **Meas Setup** to set the corresponding parameters.
Restart