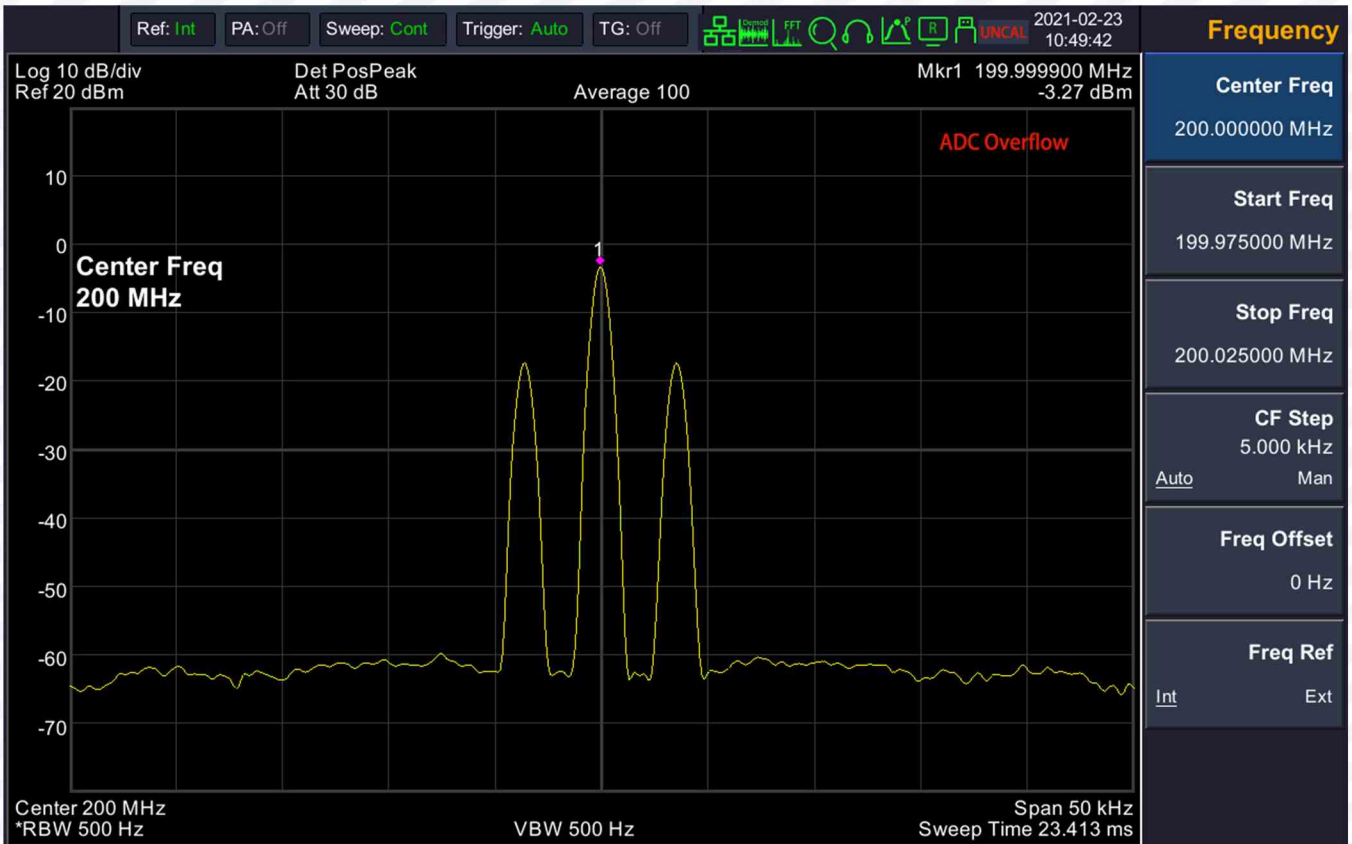


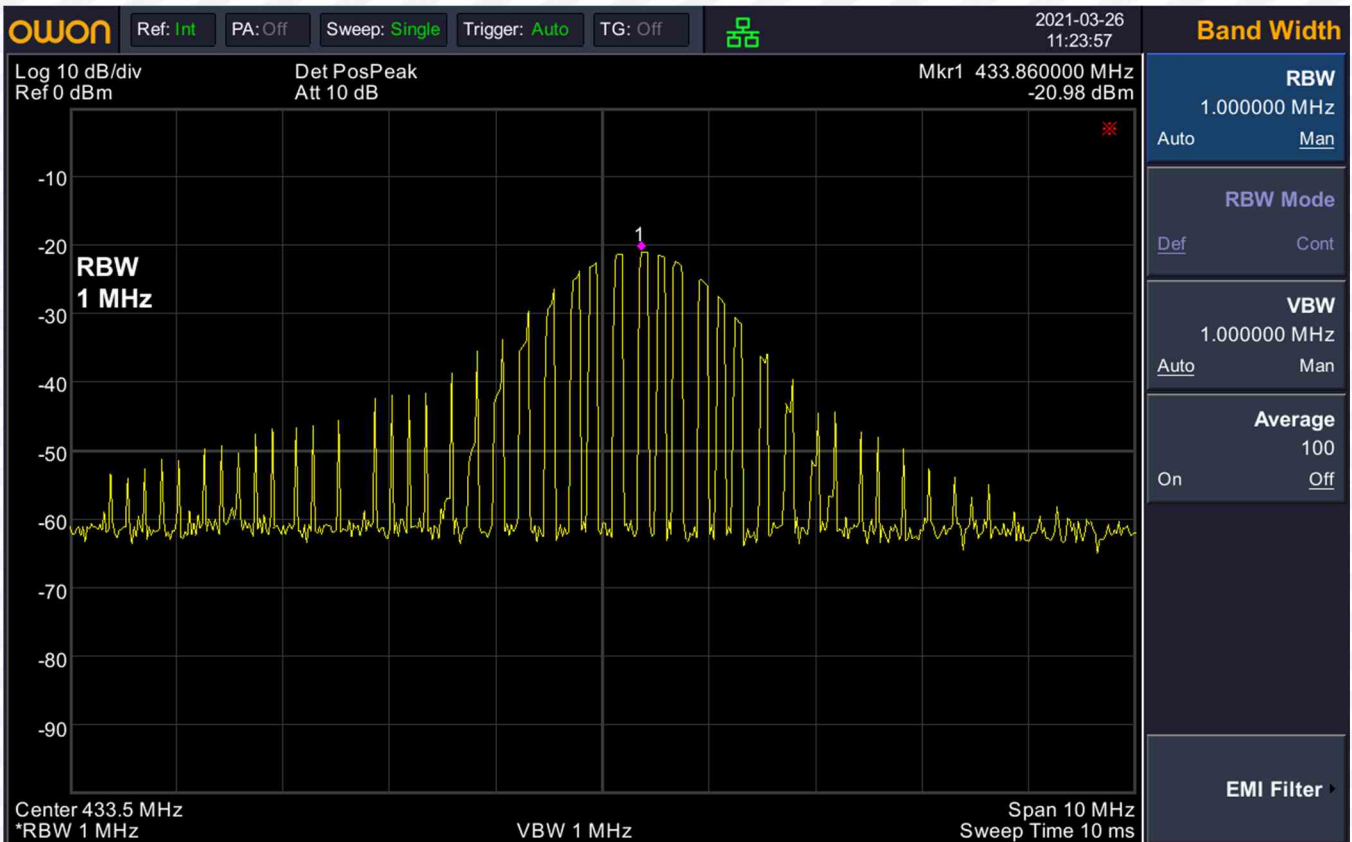
## XSA800 Series Spectrum Analyzer

- Frequency range 9kHz - 1.5GHz
- -160 dBm Displayed Average Noise Level (DANL)
- Phase noise -80 dBc/Hz @1GHz and offset at 10 kHz
- Total amplitude accuracy <0.7 dB
- 1 Hz minimum resolution bandwidth (RBW)
- EMI pre-compliance test kit, optional EMC test software
- Optional tracking generator (standard tracking generator hardware, can be remotely upgraded according to needs)
- Waterfall plot graphic, modulation signal quality analysis, audio demodulation, ect. multiple general and extended test functions.
- Standard Pass/Fail on-site test and alert function
- Adopt all-digital intermediate frequency technology
- Multiple interfaces: USB Host, USB Device, LAN, earphone interface, HDMI
- 9-inch LCD, high resolution 1280 × 800 pixels

1Hz minimum resolution bandwidth (RBW), effectively distinguishing the nearby signals



Quick capture function



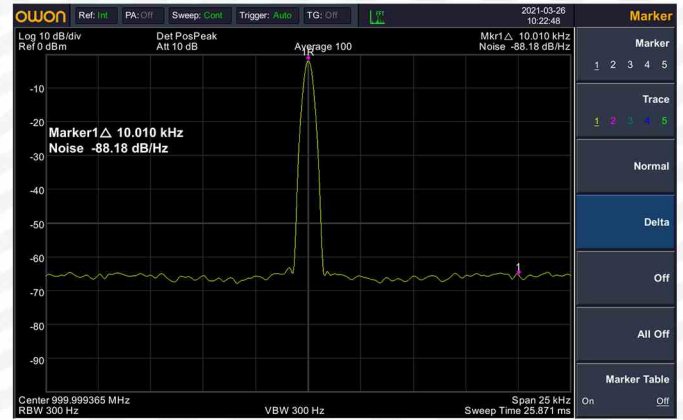
Car remote keys, TPMS tire pressure modules and small wireless modules usually use ASK/FSK modulation. XSA800 can complete the capture of ASK/FSK signals, and directly obtain its center frequency, power and offset parameters.

## Excellent small signal measurement capability



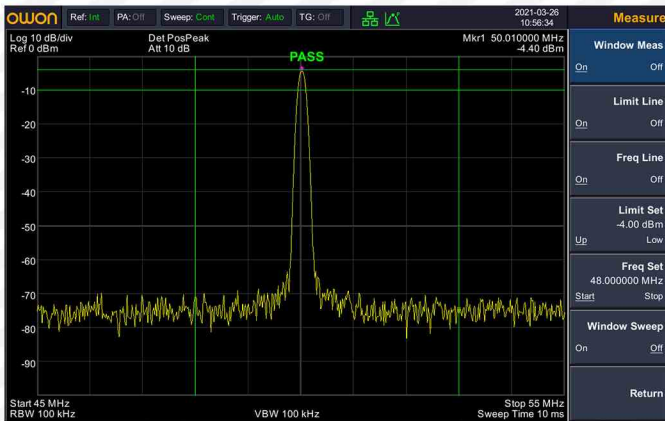
-160 dBm DANL (Displayed Average Noise Level), can observe weaker small signals

## More accurate low-noise measurements



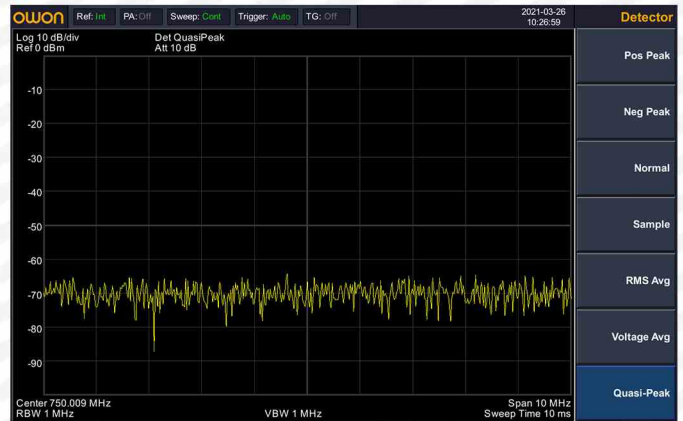
Phase Noise < -80 dBc/Hz @1GHz at 10 kHz offset

## Pass/Fail function



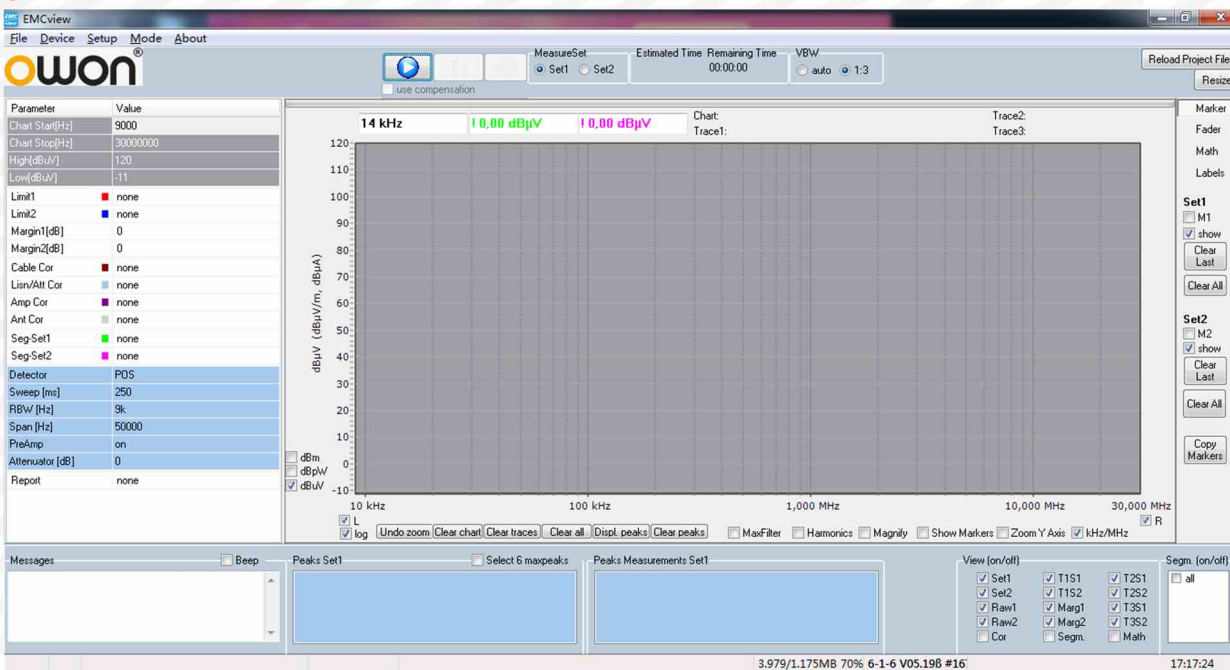
Quickly determine if the test results pass

## Provides EMI pre-compliance test function



Equipped with EMI filter (6dB) and quasi-peak detector as standard, it is more accurate for EMI pre-test and diagnosis, and complete testing and production report can be completed by using supporting software.

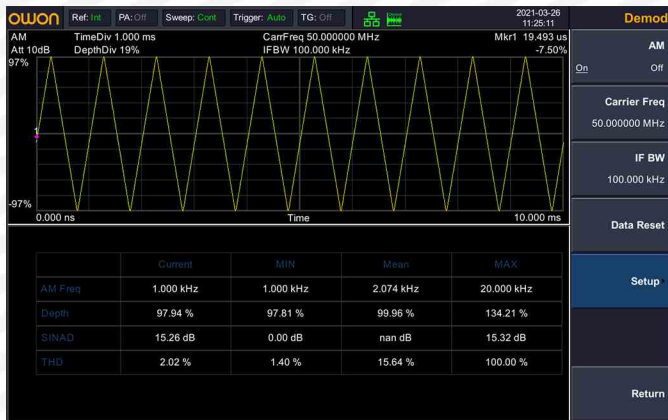
## Provide EMC test function (requires optional software)



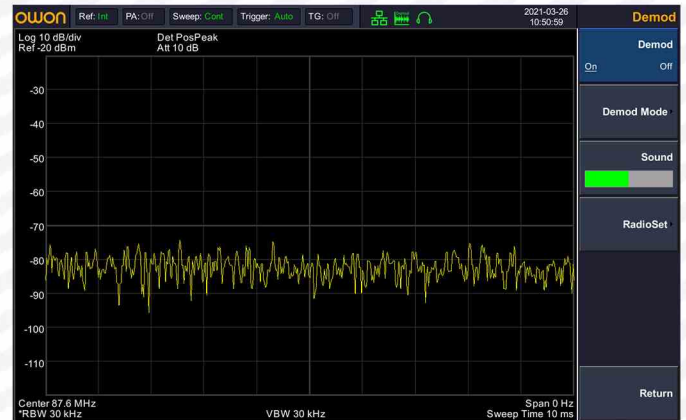
Built-in more than 200 mainstream EMC test standards and regulations templates. The user selects the corresponding template, and the software automatically sets the spectrum analyzer and records the test data. The data and regulations can be compared on the same screen. Users can also customize regulations for comparative analysis.

## Provide multiple extended function modes

Standard modulation signal quality analysis, audio demodulation, field strength measurement, channel measurement and frequency counter, ect. multiple general and extended test functions.



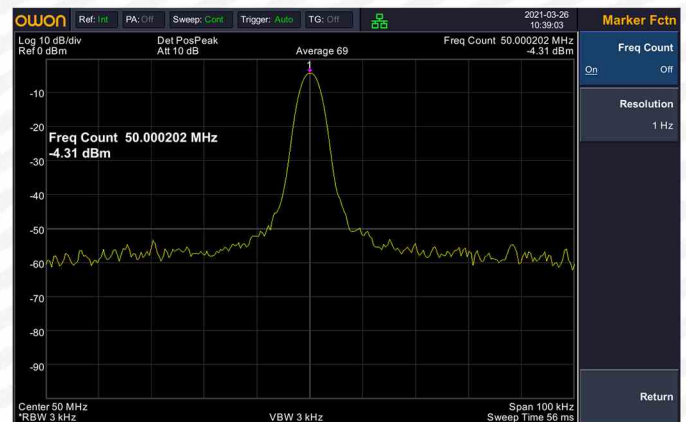
modulation signal quality analysis



audio demodulation

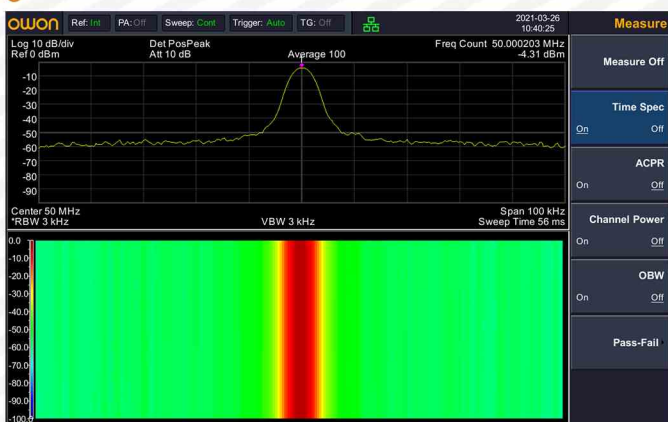


channel measurement

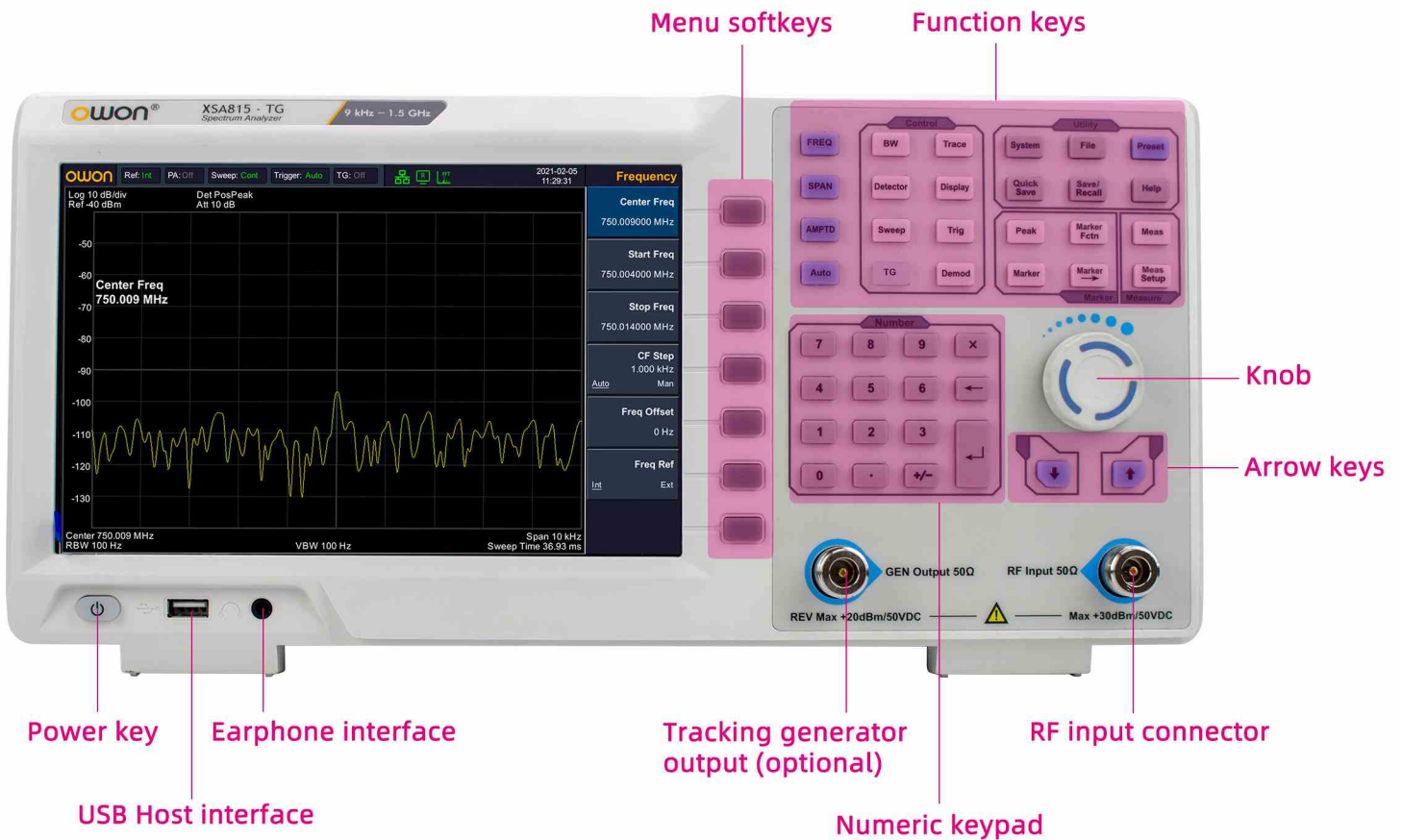


frequency counter

## Waterfall plot graphic



View the behavior of varying signal parameters over time, track the frequency and power behavior over the time, particularly intermittent signals. The user can use waterfall plot graphic to analyze the stability of a signal over the time, or to identify intermittent interference signals in communications systems.



**Weight: Approx. 3.7 kg (main device)**  
**Dimensions: 375 mm (W) × 185 mm (H) × 120 mm (D)**

## Frequency

Frequency Range	XSA805 (TG)	9 kHz to 500 MHz
	XSA810 (TG)	9 kHz to 1 GHz
	XSA815 (TG)	9 kHz to 1.5 GHz
Frequency Resolution	1 Hz	
Reference frequency aging rate	< 1 ppm/year	

## Frequency Span

Span Range	0 Hz, 100 Hz to max frequency of instrument	
Span Uncertainty	$\pm$ span / (sweep points-1)	

## SSB Phase Noise(20°C to 30°C, $f_c = 500$ MHz)

Carrier Offset	10 kHz	< -80 dBc/Hz
	100 kHz	< -100 dBc/Hz
	1 MHz	< -115 dBc/Hz

## Bandwidth

Resolution Bandwidth (-3 dB)	1 Hz to 1 MHz, in 1-3-5-10 sequence	
Resolution Bandwidth (-6 dB) (EMI)	200 Hz, 9 kHz, 120 kHz, 1 MHz	
RBW Accuracy	< 5% typical	
Resolution Filter Shape Factor (60 dB : 3 dB)	< 5 typical	
Video Bandwidth (-3 dB)	10 Hz to 1 MHz, in 1-3-5-10 sequence	

## Amplitude and level

Amplitude measurement range	DANL to +10 dBm, 100 kHz to 10 MHz, Preamp Off DANL to +20 dBm, $f_c \geq 10$ MHz, Preamp Off	
Reference Level	-80 dBm to +30 dBm, 0.01 dB by step	
Preamp	20 dB, nominal, 100 kHz to 1.5 GHz	
Input Attenuator	XSA805 (TG) XSA810 (TG) XSA815 (TG)	0 to 40 dB, 1 dB by step

## Display Average Noise Level (Input attenuation = 0 dB, RBW = VBW = 100 Hz, sample detector trace average $\geq 50$ , 20°C to 30°C, input impedance = 50 $\Omega$ )

Preamp Off	9 kHz to 1 MHz		-95 dBm (Typical), <-88 dBm
	1 MHz to 500 MHz		-140 dBm (Typical), <-130dBm
	XSA810(TG)	500 MHz to 1 GHz	
	XSA815(TG)	500 MHz to 1.5 GHz	-138 dBm (Typical), <-128 dBm
Preamp On	100 kHz to 1 MHz		-135 dBm (Typical), <-128 dBm
	1 MHz to 500 MHz		-160 dBm (Typical), <-150 dBm
	XSA810(TG)	500 MHz to 1 GHz	
	XSA815(TG)	500 MHz to 1.5 GHz	-158 dBm (Typical), <-148 dBm

## Level Display

Trace detectors	positive-peak, negative-peak, normal, sample, RMS, voltage average, quasi-peak
Trace functions	clear write, max hold, min hold, average, view, blank, trace math
Units of level axis	dBm, dBμW, dBpW, dBmV, dBμV, W, V

## Frequency response

( $f_c \geq 100$  kHz,  $20^\circ\text{C}$  to  $30^\circ\text{C}$ , 30% to 70% relative humidity, input attenuation=10 dB, reference frequency= 50 MHz)

Preamp Off	<0.7 dB
Preamp On	<1.0 dB

## Difference and Accuracy

Uncertainty	$f_c = 50$ MHz, peak detector, preamplifier off, attenuation = 10 dB, input signal level = -10 dBm, $20^\circ\text{C}$ to $30^\circ\text{C}$
	< 0.4 dB

## Level Measurement Uncertainty

Level measurement uncertainty	95% confidence level, S/N > 20 dB, RBW = VBW = 1 kHz, preamplifier off, attenuation = 10 dB, $-50$ dBm < input level $\leq 0$ dBm, $f_c > 10$ MHz, $20^\circ\text{C}$ to $30^\circ\text{C}$
	< 0.7 dB

## Tracking Generator (optional)

Frequency Range	XSA805 (TG)	100 kHz to 500 MHz
	XSA810 (TG)	100 kHz to 1 GHz
	XSA815 (TG)	100 kHz to 1.5 GHz
Output power level range	-40 dBm to 0 dBm	
Output level resolution	1 dB	
Output flatness	Relative to 50 MHz	
	$\pm 3$ dB	
Tracking generator spurious	Harmonic spurious	-30 dBc (Tracking generator output power -10 dBm)
	Non-harmonic spurious	-40 dBc (Tracking generator output power -10 dBm)
Tracking generator to input terminal isolation	-60 dB (Tracking generator output power 0 dBm)	

## Interface

USB Host, USB Device, LAN, earphone interface, HDMI

## Display

9-inch TFT LCD, 1280 x 800 pixels

## Appearance

Dimensions	375 mm (W) × 185 mm (H) × 120 mm (D)
Weight	Approx. 3.7 kg (main device)

## + Accessories

The accessories subject to final delivery.



Power Cord



USB Cable



Quick Guide

## Optional Accessories



N-N Cable



N-SMA Cable



SMA-SMA Cable



SMA Adaptor



N-SMA Adaptor

- ◀ Near Field Probe includes:  
Four near-field probes, N-SMA adapter, SMA-SMA cable,  
( Frequency range: 30MHz - 3GHz)