

XSA800 Series Spectrum Analyzer Specifications

All technical specifications are guaranteed when the following conditions are met, unless otherwise stated:

- The instrument has been preheated for 30 minutes before use.
- The instrument is in the calibration cycle and has been self-calibrated.

"Typical" and "nominal" for this product are defined as follows

- Typical: Refers to the performance of the product under certain conditions.
- Nominal: Refers to the approximate value under product application process.

Frequency			
Frequency Range	XSA805 (TG)	9 kHz to 500.009 MHz	
	XSA810 (TG)	9 kHz to 1.000009 GHz	
	XSA815 (TG)	9 kHz to 1.500009 GHz	
Frequency Resolution	1 Hz		
Frequency Span			
Span Range	0 Hz, 100 Hz to max frequency of instrument		
Span Uncertainty	± span / (sweep points-1)		
SSB Phase Noise(20°C to 30°C,fc=1 GHz)			
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		
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,10 MHz to 1.5 GHz, 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 ≥ 50, 20°C to 30°C, input impedance = 50 Ω)			
Preamp Off	9 kHz to 1 MHz		-95 dBm (Typical), <-88 dBm
	1 MHz to 500 MHz		-140 dBm (Typical), <-130 dBm
	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
Frequency response (20°C to 30°C, 30% to 70% relative humidity, input attenuation=10 dB, reference frequency= 50 MHz)			

Preamp Off ($f_c \geq 9\text{kHz}$)	< 0.7 dB	
Preamp On ($f_c \geq 50\text{ MHz}$)	< 1.0 dB	
Difference and Accuracy		
Uncertainty	fc = 50 MHz, peak detector, preamplifier off, attenuation = 10 dB, input signal level = -10 dBm, 20°C to 30°C	
	< 0.4 dB	
Tracking Generator (optional)		
Frequency Range	XSA805 (TG)	100 kHz to 500.009 MHz
	XSA810 (TG)	100 kHz to 1.000009 GHz
	XSA815 (TG)	100 kHz to 1.500009 GHz
Output power level range	-40 dBm to 0 dBm	
Output level resolution	1 dB	
Output flatness	Relative to 50 MHz	
	$\pm 3\text{ dB}$	
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)	
USB		
USB Host		
Connector	A Plug	
Protocol	USB 2.0	
USB Device		
Connector	B Plug	
Protocol	USB 2.0	
Display		
Type	TFT LCD	
Resolution	1280*800	
Size	9 inches	
Color	65536	
Remote Control		
LAN	10/100Base,RJ-45	
HDMI	Connector	A Plug
	Protocol	Version 1.4
Appearance		
Dimensions	375 mm (W) × 185 mm (H) × 120 mm (D)	
Weight	Approx. 3.7 kg (without package)	



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V1.0.0