



## XSA1000-TG Series - Features and Benefits



- 10.4 inches TFT LCD resolution 600\*480
- Frequency Range from 9 kHz up to 3.6 GHz
- 150dBm Displayed Average Noise Level
- 10Hz Minimum Resolution Bandwidth (RBW)
- EMI Pre-compliance Test Kit
- Max. to 3.6 GHz Tracking Generator Kit
- Standard Interface:USB HOST, USB DEVICE, LAN, Earphone Port and VGA



Models		XSA1015-TG	XSA1032-TG	XSA1036-TG
Frequency	Range	9kHz-1.5 GHz	9kHz-3.2 GHz	9kHz-3.6 GHz
	Resolution	1Hz		
Frequency span	Range	0 Hz,100 Hz to maximum frequency of device		
	Accuracy	± span /(swept points-1)		
Internal reference	Reference frequency	10.000000 MHz		
	Reference frequency accuracy	±[(days from last calibrate × freq aging rate)+ temperature stability + initial accuracy ]		
	Temperature stability	<2.5ppm(15°C to 35°C)		
	Aging rate	<1ppm/year		
Readout	Marker frequency resolution	span/(the number of sweep points-1)		
	Uncertainty	±(freq indication × freq reference uncertainty+1%×span+10%×resolution bandwidth + Marker Frequency Resolution)		
Frequency counter	Resolution	1Hz,10Hz,100Hz,1kHz		
	Accuracy	±(marker freq × freq reference uncertainty + counter resolution)		
Bandwidth	Resolution bandwidth (-3 dB)	1Hz to 500kHz(in 1 to 10 sequence),1MHz,3MHz		
	Resolution filter shape factor	<5:1 nominal(Digital implement, similar to Gauss Pattern)		
	Accuracy	<5% nominal		
	Video bandwidth (-3 dB)	10Hz to 3MHz		
<b>Amplitude Specification</b>				
Amplitude and electric level	Amplitude measurement range	DANL to +20 dBm,close the preamplifier		
	Reference electric level	-80dBm to +30dBm,0.1dBm steps		
	Preamplifier	20dB,nominal,9kHz~1.5GHz		
	Input attenuator range	0~39 Db,3dB steps		
	Max input DC voltage	50 VDC		
	Max continuous power	27dBm,average continuous power		
Displayed average noise level(DANL) (Input attenuation 0dB, 1Hz resolution bandwidth)	Preamp off	1 MHz~10 MHz -130dBm(nominated)		
		10 MHz~1GHz -130dBm(nominated)		
		1GHz~1.5 GHz -128 dBm(nominated)		
	Preamp on	1 MHz~10 MHz -150dBm(nominated)		
		10 MHz~1GHz -150dBm(nominated)		
		1GHz~1.5 GHz -148 dBm(nominated)		
Phase noise (20°C ~30°C,fc=1 GHz)	30 kHz offset	<-90 dBc/Hz		
	100 kHz offset	<-100 dBc/Hz		
	1 MHz offset	<-110 dBc/Hz		
Level display range	Log scale coordinate	1dB ~255dB		
	Linear scale coordinate	0 to reference level		
	level unit	dBm,dBuW,dBpW,dBmV,dBuV, W,V		
	Points	201~1001		
	Number of traces	5		
	Detectors	Positive-peak, negative-peak, sample, normal, RMS		
	Trace functions	[1 ←→ 2],[2-DL→ 2] [2 ←→ 3] [1 → 3] [2 → 3]		



## Specification

Models	XSA1015-TG	XSA1032-TG	XSA1036-TG
Frequency Range	9kHz~1.5 GHz	9kHz~3.2 GHz	9kHz~3.6 GHz
<b>Frequency response (20°C ~30°C,30%~70% relative humidity,20dB input attenuation,reference 50MHz)</b>			
Preamp off	±0.8 dB		
Preamp on	±0.9 dB		
<b>Amplitude Accuracy</b>			
Input Attenuation Switching Uncertainty	20°C ~30°C,fc=50MHz,Preamplifier Off,20dB RF attenuation,input signal 0~39dB ±0.5dB		
Absolute Amplitude Uncertainty	20°C ~30°C,fc=50 MHz,RBW=1kHz,VBW=1kHz,peak detector,20dB RF attenuation Preamplifier Off ±0.4dB,input signal=-20dBm		
	Preamplifier On ±0.5 dB,input signal= -40dBm		
Uncertainty	input signal range 0dbm~-50dbm		
	±1.5 dB		
VSWR	input 10dB RF attenuation,1MHz~1.5GHz		
	<1.5,nominal		
<b>Distortion and spurious response</b>			
Second harmonic distortion	fc ≥ 50 MHz,Preamp off,signal input -30dBm,0dB RF attenuation,20°C ~30°C -60dbc		
Third-order intermodulation	fc ≥ 50 MHz +13 dBm		
1dB Gain Compression	fc ≥ 50 MHz,0dB RF attenuation,Preamp off,20°C ~30°C +7 dBm, nominal		
Residual response	connect 50 Ω load at input port,0dB input attenuation,20°C ~30°C <-85dBm,nominated		
Input related spurious	-30 dBm signal at input mixer,20°C ~30°C <-60 dBc		
<b>Sweep time and triggering</b>			
Span range	100Hz≤SPAN≤3GHz 10ms to 3000s		
	zero sweep width 1ms to 3000s		
Mode	Continue, single		
Trigger	Free run, video, external		
<b>Tracking Generator</b>			
Output frequency range	100 kHz~1.5 GHz	100 kHz~3.2 GHz	100 kHz~3.6 GHz(tracking generator); 35 MHz~3.6 GHz(signal generator)
Output power level range	-30 dBm~0 dBm		
Output power level resolution	1DB		
Output flatness	±3dB		
Maximum safe reverse level	Average total power:30dBm,DC:±50VDC		
<b>Inputs and Outputs</b>			
Front panel RF input connector	50 Ω,N-type female		
Front panel track generator output	50 Ω,N-type female		
10 M reference input	50 Ω,N-type female		
Communication port	USB HOST, USB DEVICE, LAN, Earphone Port and VGA		
<b>General Specification</b>			
Display	10.4 inches TFT LCD resolution 600*480		
Weight	5 kg		
Working temperature	0~40°C		
Storage temperature	-20°C~60°C		
Power	100V~240V 50/60Hz		