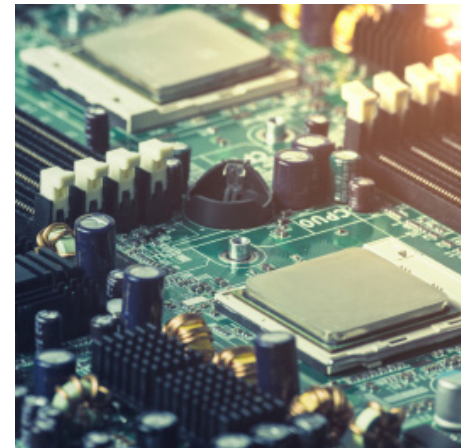
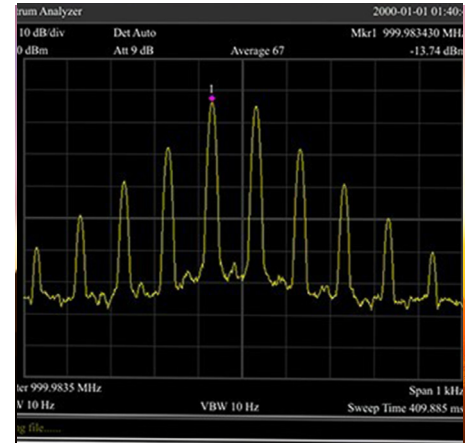


Model S1365 Spectrum Analyzer

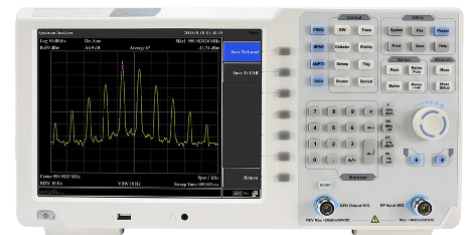


Features

- Frequency Range: 9 kHz-3.6 GHz
- Frequency Resolution: 1 Hz
- 150 dBm Displayed Average Noise Level
- Phase Noise: -85 dBc/Hz @1 Gz and offset at 10 kHz
- Total Amplitude Accuracy < 1.5 dB
- 10.4-inch display

Applications

- Electronic Circuit Debugging
- Education and Training
- Circuit Testing
- Design and Manufacture
- Automobile Maintenance and Testing



Model S1365 Datasheet V1.0
9 kHz to 3.6 GHz Spectrum Analyzer



Model S1365

Model S1365 Spectrum Analyzer

Description

The Model S1365 Spectrum Analyzer, 9KHz - 3.6GHz, with tracking generator kit offers a minimum bandwidth of 10Hz, allowing excellent signal resolution when separation of closely spaced signals is required. This model also offers a DANL (displayed average noise level) down to -130 dBm, which is able to measure smaller signals.

Performance Specifications

Frequency	
Range	9kHz-3.6 GHz
Resolution	1 Hz
Frequency span	
Range	0 Hz ,100 Hz to maximum frequency of device
Accuracy	\pm span / (swept points -1)
Internal reference	
Reference frequency	10.000000 MHz
Reference frequency accuracy	\pm [(days from last calibrate \times 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	\pm (freq indication \times freq reference uncertainty +1% \times span +10% \times resolution bandwidth + Marker Frequency Resolution)
Frequency counter	
Resolution	1 Hz,10 Hz,100 Hz, 1 kHz
Accuracy	\pm (marker freq \times freq reference uncertainty + counter resolution)
Bandwidth	
Resolution bandwidth (-3dB)	10Hz 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 (-3dB)	10Hz to 3MHz
Amplitude and electric level	
Amplitude measurement range	DANL to +20 dBm, close the preamplifier
Reference electric level	-80 dBm to +30 dBm, 0.1dBm steps
Preamplifier	20 dB, nominal, 9 kHz~1.5 GHz
Input attenuator range	0~39 dB, 3 dB steps
Max input DC voltage	50 VDC
Max continuous power	30dBm, average continuous power
Display average noise level (DANL)	
	Input attenuation 0 dB, 1Hz resolution bandwidth
Preamp off	1 MHz~10 MHz -130dBm (nominated)
	10 MHz~1GHz -130dBm (nominated)
	1GHz~3.6 GHz -128 dBm (nominated)





Model S1365 Spectrum Analyzer

Model S1365

Performance Specifications Cont.

Preamp On	1 MHz~10 MHz -150dBm (nominated)
	10 MHz~1GHz -150dBm (nominated)
	1GHz~3.6 GHz -148 dBm (nominated)
Phase noise	
	20°C ~30°C, fc=1 GHz
Phase noise	<-82 dBc/Hz @10 kHz offset
	<-100 dBc/Hz @100 kHz offset
	<-110 dBc/Hz @1 MHz offset
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	Clear write, Max Hold, Min Hold, View, Blank, Average
Frequency response	
	20°C ~30°C, 30%~70% relative humidity, 20 dB input attenuation, reference 50 MHz
Preamp Off	±0.8 dB ;
Preamp On	±0.9 dB ;
Accuracy	
Input Attenuation Switching	20°C ~30°C, fc=50 MHz, Preamplifier Off, 20dB RF attenuation, input signal 0~39 dB
Uncertainty	±0.5 dB
Absolute Amplitude Uncertainty	20°C ~30°C, fc=50 MHz, RBW=1 kHz, VBW=1 kHz, peak detector, 20 dB RF attenuation Preamplifier Off ±0.4 dB, input signal= -20dBm Preamplifier On ±0.5 dB, input signal= -40dBm
Uncertainty	input signal range 0dbm~-50dbm ±1.5 dB
VSWR	input 10 dB RF attenuation, 1 MHz~1.5GHz <1.5, nominal
Distortion and spurious response	
Second Harmonic distortion	fc ≥ 50 MHz, Preamp off, signal input -30 dBm, 0 dB RF attenuation, 20°C to 30°C -65dbc
Third-order intermodulation	fc ≥ 50 MHz +10 dBm
1 dB Gain Compression	fc ≥ 50 MHz, 0 dB RF attenuation, Preamp off , 20°C to 30°C +2 dBm, nominal
Residual response	connect 50 Ω load at input port, 0 dB input attenuation, 20°C to 30°C <-85dBm, nominated
Input related spurious	-30 dBm signal at input mixer, 20°C to 30°C <-60 dBc



Model S1365

Model S1365 Spectrum Analyzer

Performance Specifications Cont.

Sweep time and trigger	
Span range	100Hz ≤SPAN ≤3GHz 10ms to 3000s zero sweep width 1ms to 3000s
Mode	Continue, single
Trigger	Free run, video, external
Tracking generator	
Output frequency range	100 kHz~1.5 GHz
Output power level resolution	-30 dBm~0 dBm
Output power level resolution	1DB
Output flatness	+/-3 dB
Maximum safe reverse level	Average total power, 30 dBm, DC : ±50 VDCv
Input and Outputs	
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, REF and VGA
General technical specifications	
Display	TFT LCD, 10.4 inches
Weight (without package)	5 kg
Dimensions (W x H x D)	421 × 221 × 115 (mm)
Working temperature	0~40°C
Storage temperature	-20 °C to +60°C
Power	100V~240V 50/60Hz

