

DSA800 Series Spectrum Analyzer



► Features and Benefits

- 9 kHz to 1.5 GHz Frequency Range
- Typical -135 dBm Displayed Average Noise Level (DANL)
- -80 dBc/Hz @10 kHz offset Phase Noise
- Total Amplitude Uncertainty <1.5 dB
- 100 Hz Minimum Resolution Bandwidth (RBW)
- EMI Filter & Quasi-Peak Detector Kit (optional)
- VSWR Measurement Kit (optional)
- Standard with Preamplifier and AM/FM Demodulation Function
- Plenty of measurement functions (optional)
- 1.5 GHz Tracking Generator (optional)
- 8 inch (800x480 pixels) high-definition display with clear, vivid, and easy to use graphical interface
- Complete connectivity with standard interfaces such as LAN, USB Host, USB Device and GPIB (optional)
- Compact size, light weight (9.4 lbs)



Product Dimensions: Width X Height X Depth = 361.6 mm x 178.8 mm x 128 mm
Weight: 4.25kg (9.4lbs)

Frequency

Frequency		
Frequency Range	DSA815	9 kHz to 1.5 GHz
Frequency Resolution		1Hz
Internal Frequency Reference		
Reference Frequency		10 MHz
Aging Rate	20°C to 30°C	<2 ppm/year
Temperature Stability		<2 ppm
SSB Phase Noise		
Carrier Offset	10 kHz offset	<-80 dBc/Hz
Bandwidths		
Resolution Bandwidth (-3dB)		100 Hz to 1 MHz, in 1-3-10 sequence
Resolution Bandwidth (-6dB)	Opt	200 Hz, 9 kHz, 120 kHz
RBW Uncertainty		<5%, nominal
Resolution Filter Shape Factor (60dB: 3dB)		<5, nominal
Video Bandwidth (-3dB)		1 Hz to 3 MHz, in 1-3-10 sequence

Amplitude

Measurement Range		
Range		DANL to +20 dBm
Maximum rated input level		
DC Voltage		50 V
CW RF Power	RF attenuation = 30dB	+20 dBm (100mW)
Max. Damage Level		+30 dBm (1W)

Note: When input level >+25dBm (PA Off) or +5dBm (PA On), the protection switch will be on.

Displayed Average Noise Level (DANL)		
0 dB RF Attenuation, RBW=VBW=100 Hz, Sample Detector, Trace Average ≥ 50, Normalize to 1Hz		
DANL (Preamp Off)	100 kHz to 1 MHz	<-90 dBm, typ. -110 dBm
	1 MHz to 1.5 GHz	<-110 dBm+6 x (f/1GHz) dB, typ. -115 dBm
DANL (Preamp On)	100 kHz to 1 MHz	<-110 dBm typ. -130 dBm
	1 MHz to 1.5 GHz	<-130 dBm+6 x (f/1 MHz) dB, typ. -135 dBm

Level Measurement Uncertainty		
Level Measurement Uncertainty	95% confidence level, S/N>20 dB, RBW=VBW=1 kHz, preamplifier off, 10 dB RF attenuation, -50 dBm<reference level<0, 10 MHz<fc<1.5 GHz, 20 °C to 30 °C	<1.5 dB, nominal

Tracking Generator (Option for DSA815)

TG Output		
Frequency Range		9 kHz to 1.5 GHz
Output Level		-20 dBm to 0 dBm, in 1 dB steps
Output Flatness	1 MHz to 1.5 GHz, referenced to 50 MHz	±3 dB

► Ordering Information

	Description	Order Number
Mode	Spectrum Analyzer, 9 kHz to 1.5 GHz (with preamplifier)	DSA815
Standard Accessories	Quick Guide (Hard Copy)	QGD03X00
	CDROM (User's Guide, Programming Guide)	-
	Power Cable	-
Options	EMI Filter & Quasi-Peak Detector Kit (DSA815 only)	DSA800-EMI
	VSWR Measurement Kit (DSA815 only)	DSA800-VSWR
	VSWR Bridge	VB1020
	Advanced Measurement Kit (DSA815 only)	DSA800-AMK
	1.5 GHz Tracking Generator (DSA815 only)	DSA800-TG
	RF Demo Kit (Transmitter)	TX1000
	USB to GPIB Interface Converter for Instrument	USB-GPIB
Optional Accessories	DSA Accessories Package Including: N-SMA Cable, BNC-BNC Cable, N-BNC Adapter, N-SMA Adapter, 75Ω-50Ω Adapter, Antenna 2 (900MHz/1.8GHz), Antenna 2 (2.4GHz)	DSA Utility Kit
Orderable Manuals (Hard Copy)	Quick Guide, Chinese& English	QGD03X00
	User's Guide, Chinese	UGD03000
	User's Guide, English	UGD03100
	Programming Guide, Chinese	PGD03000
	Programming Guide, English	PGD03100