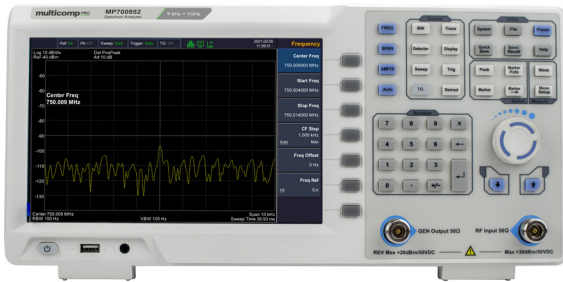


**RoHS
Compliant**



Features

- Frequency Range from 9 kHz up to 1 GHz
- -160dBm Displayed Average Noise Level
- Phase Noise -80dBc/Hz @1Gz and offset at 10KHz
- Total Amplitude Accuracy <0.7dB
- 1Hz Minimum Resolution Bandwidth (RBW)
- EMI pre-compliance test kit, optional EMC test software
- Standard tracking generator hardware, can be remotely upgraded according to needs
- 9 inches LCD

Performance Specifications

Model	MP700852	MP700853
Frequency		
Range	9kHz-1GHz	9kHz-500MHz
Resolution	1Hz	
Frequency span		
Range	0 Hz, 100 Hz to maximum frequency of device	
Accuracy	± span / (swept points -1)	
Internal reference		
Reference frequency	10 MHz	
Reference frequency accuracy	± [(days from last calibrate × freq aging rate)+ temperature stability + initial accuracy]	
Temperature stability	<0.5ppm (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	1 Hz, 10 Hz, 100 Hz, 1 kHz	
Accuracy	± (marker freq × freq reference uncertainty + counter resolution)	
Bandwidth		
Resolution bandwidth (-3 dB)	1Hz to 1MHz (in 1 to 10 sequence), 1MHz, 3MHz	
Resolution filter shape factor	<5 nominal (Digital implement, similar to Gauss Pattern)	
Accuracy	<5% nominal	
Video bandwidth (-3 dB)	1Hz to 1MHz	

Amplitude Specification

Amplitude and electric level	
Amplitude measurement range	DANL to +10 dBm, 100KHz to 10MHz, close the preamplifier DANL to +20 dBm, 10MHz to 1GHz, close the preamplifier
Max input DC voltage	50V DC
Max. continuous wave RF power	+20 dBm (100 mW), attenuation = 40 dB
Max. damage level	+30 dBm (1W)
Displayed average noise level (DANL) attenuation = 0 dB, RBW = VBW = 100 Hz, sample detector, trace average ≥ 50, 20°C to 30°C, input impedance = 50 Ω	
Preamp off	-95 dBm (typical), < -88 dBm (9 kHz to 1 MHz)
	-140 dBm (typical), <-130dBm (1MHz to 500MHz)
	-138 dBm (typical), <-128 dBm (500MHz to max)
Preamp on	-135 dBm (typical), <-128 dBm (9kHz to 1MHz)
	-160 dBm (typical), <-150 dBm (1MHz to 500MHz)
	-158 dBm (typical), <-148 dBm (500MHz to max)
Phase noise	20°C to 30°C, fc=1 GHz
Phase noise	<-80 dBc/Hz @10 kHz offset,
	<-100 dBc/Hz @100 kHz offset
	<-115 dBc/Hz @1 MHz -500MHz offset
Level display range	
Log scale coordinate	0.01dB to 255dB
Linear scale coordinate	0 to reference level
level unit	dBm, dBuW, dBpW, dBmV, dBuV, W,V
Points	760
Number of traces	5
Detectors	Positive-peak, negative-peak, sample, normal, RMS, Average, quasi-peak (with EMI option)
Trace functions	Clear write, Max Hold, Min Hold, View, Blank, Average, Trace math
Frequency response	
	20°C to 30°C, 30% to 70% relative humidity, 10 dB input attenuation, reference 50 MHz
Preamp off (fc≥9KHz)	<0.7dB;
Preamp on (fc≥9KHz)	<1.0 dB;
Accuracy	
RBW Switching Uncertainty	Relative to 10 kHz RBW <0.1 dB
Input Attenuation Switching Uncertainty	20°C to 30°C, fc=50 MHz, Preamplifier Off, 10dB RF attenuation, input signal 0~40 dB <0.5 dB
Absolute Amplitude Uncertainty	20°C to 30°C, fc=50 MHz, peak detector, 10 dB RF attenuation, preamplifier off, input signal level = -10 dBm <0.4 dB
Reference Level Range	-80 dBm to +30 dBm, in 1 dB step

Reference Level Resolution	Log scale 0.01 dB; linear scale 4 digits
Uncertainty	95% confidence level, S/N > 20 dB, RBW = VBW = 1 kHz, preamplifier off, attenuation = 10 dB, -50 dBm < input level ≤ 0 dBm, fc > 10 MHz, 20°C to 30°C
	<0.7 dB
VSWR	input ≥ 10 dB, 300 kHz to max;
	<1.5, nominal
Distortion and spurious response	
Second harmonic distortion	fc ≥ 50 MHz, Preamp off, signal input -20 dBm, 10 dB RF attenuation, 20°C to 30°C
	>+45 dBm
Third-order intermodulation	fc ≥ 50 MHz, two -20 dBm tones at input mixer spaced by 200 kHz, attenuation = 0 dB
	>+10 dBm
1 dB Gain Compression	fc ≥ 50 MHz, 0 dB RF attenuation, Preamp off, 20°C to 30°C
	>0 dBm, nominal
Residual response	connect 50 Ω load at input port, 0 dB input attenuation, 20°C to 30°C
	<-90dBm, nominated
Intermediate frequency	<-60 dBc
System related sidebands	Referenced to local oscillators, referenced to A/D conversion, referenced to subharmonic of first LO, referenced to harmonic of first LO
	<-60 dBc
Input related spurious	-30 dBm signal at input mixer, 20°C to 30°C
	<-60 dBc
Sweep time and triggering	
Sweep time	SPAN ≥ 100 Hz 10ms to 3000s zero sweep width 10ms to 3000s
Sweep time uncertainty	SPAN ≥ 100 Hz 5% (nominal) zero sweep (Sweep time >1 ms) 5% (nominal)
Mode	Continue, single
Trigger	Free run, video, external
External trigger level	5 V TTL level
Tracking generator	
Output frequency range	100 kHz to 1.5 GHz (Tracking generator)
Output power level range	-40 dBm to 0 dBm
Output power level resolution	1dB
Output flatness	±3dB
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 source to input terminal isolation	-60 dB (Tracking generator output power 0 dBm)
Maximum safe reverse level	Average total power: +30 dBm, DC : ±50V DC
Inputs and Outputs	
Front panel RF input connector	50 Ω, N-type female

Front panel track generator output	50 Ω, N-type female
Internal/ External Reference	50 Ω, N-type female
External Trigger Input	50 Ω, N-type female
Communication port	USB HOST, USB DEVICE, LAN, earphone port, HDMI
General technical specification	
Display	TFT LCD, 9 inches (1280*800)
Weight (without package)	About 3.7 kg
Dimension (W × H × D)	375mm*185mm*120mm
Working temperature	0°C to 40°C
Storage temperature	-20 °C to +60 °C
Power	100V - 240V 50/60Hz
Warranty	03 years

Part Number Table

Description	Part Number
Spectrum Analyser, 9kHz to 1GHz	MP700852
Spectrum Analyser, 9kHz to 500MHz	MP700853

Important Notice : This data sheet and its contents (the "Information") belong to the members of the AVNET group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp Pro is the registered trademark of Premier Farnell Limited 2019.