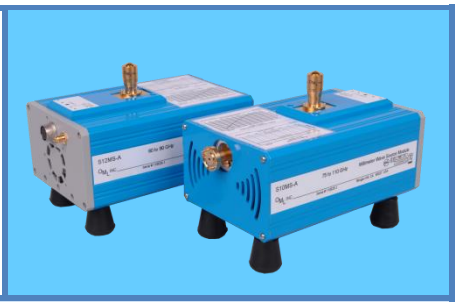
S08MS Series
WR08 Frequency Extension Modules
90 to 140 GHz

DESCRIPTION

The S08MS Series will expand your existing microwave Signal Generator capabilities to conduct measurements in WR-08 (90-140 GHz). These frequency extension modules easily connect to the output of a signal generator providing a high performance source for DUT characterization activities. Characterize the DUT with the confidence that it will produce accurate results with superior performance of output power, spurious and harmonics. Specialized part numbers are available to avoid using an external power supply.



HIGHLIGHTS

- Modular design
- High Output Power of -1 dBm
- Microwave synthesizer determines frequency accuracy and resolution
- Phase noise adheres to 20 log (n) degradation
- Adjustable Height Control
- Optional power supply configuration for PSG
- Full continuous waveguide band coverage
- RoHS compliant

APPLICATIONS

- Maximum power with close proximity connections
- Ample power for most test conditions
- Precise setting of mm-wave frequencies
- Spectral purity enables phase noise measurements
- Convenient connections to DUT on test benches
- Simplify setup by using synthesizer as power supply
- Flexibility to handle multiple applications
- Environmentally friendly

ELECTRICAL AND PERFORMANCE SPECIFICATIONS (+25°C)

After a 0.5 hour warm-up period, the S08MS module will satisfy the following specifications.

Electrical Characteristics[1]	MIN	TYP	MAX
System Operating Frequency	90	--	140
RF out (dBm) typ. [2]	-4	-1	+3
Higher order output harmonics (dBc) typ.[3]	--	< -20	--
In-Band Spurious (dBc) typ.[4]	--	≤ -20	--
RF in VSWR	--	≤ 2.0	--
RF out VSWR	--	≤ 1.7	--
Operating Temperature Range	+20° C	+25° C	+30° C

Module Characteristics[1]	Description
Test Port, System Output Interface[5]	WR-08
RF System Input	SMA(f)
RF Input Frequency	11.2 to 17.5 GHz
RF Input Power	+10 dBm ± 1.5 dB
RF Input Damage Level	+20 dBm
RF Multiply Factor	x8
DC (+12 VDC) Power Requirements	+1.5 A, typ.
Size (L x W x H)[6]	5.33" × 4.25" × 2.70"
Weight	< 2 lbs

[1] Specifications are typical and subject to change without notice
[2] As there are no internationally recognized power standards above 110 GHz, any power data supplied above 110 GHz is traceable only to OML's Calorimeter
[3] As relates to the desired output frequencies. Applicable only with Keysight PSG & 8360 series synthesizers and Anritsu MG36xx, 68xxx/69xxx & 67xx series synthesizers.
[4] In-band mixing products. Typically ≤-15 dBc in the lower 10% of the waveguide band. Applicable only with Keysight PSG & 8360 series synthesizers and Anritsu MG36xx, 68xxx/69xxx & 67xx series synthesizers.
[5] Test Port Flange Configuration is compatible with MIL-DTL-3922/67E (UG387/U-M)
[6] Height excludes the adjustable rubber feet length and depth dimension excludes the output waveguide length

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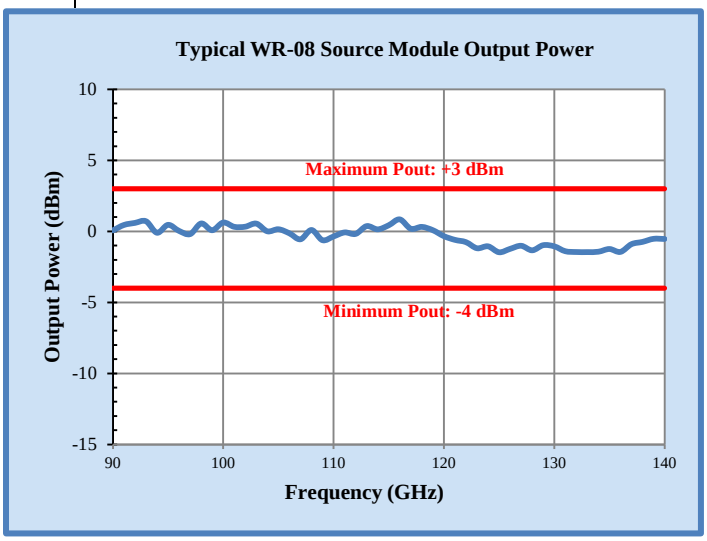
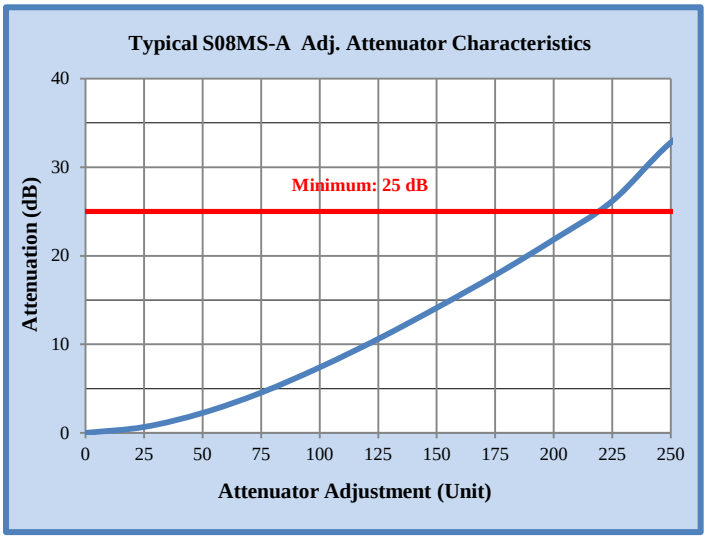
TYPICAL PERFORMANCE

The following typical performance is possible with the S08MS Series modules.





ORDER INFORMATION

Model	Description
S08MS	WR-08 Source Module Accessories: DC power cable, Dual Banana Plug to 7 Pin Circular Bayonet Plug (V00DCBC1)
S08MS –AG	WR-08 Source Module, Option AG (Keysight DC power cable) Accessories: DC power cable (V00DCDC2), RF Cable SMA (m/m) (V00LOIF)

Options	
–A	Adds 0 to 25 dB Manual Adjustable Attenuator to the RF Path

Standard Accessories	
V00DCBC1[1]	Dual Banana Plug to 7 Pin Circular Bayonet Plug DC power cable, 3 ft
VDCPW12-5[1]	Dual Banana Plug to 7 Pin Circular Bayonet Plug DC power cable, 3 ft
V00DCDC2[2]	D connector plug to 7 pin Circular Bayonet Plug DC power cable, 6 ft (Keysight PSG series with "Source module interface" output)
VDCPW09-4[3]	DC Power Supply (7-Pin Output Circular Jack & US AC Power Cord), 9VDC 4.5A Output.
V00LOIF	Test Port Ext. Cable, DC to 18 GHz, 3 ft, SMA(m) - SMA(m), 50 Ohm

[1] Applicable to SxxMS models only
[2] Applicable to SxxMS-AG models only
[3] Required for Keysight PSG series signal generator **without "Source module interface" output** to energize OML source module

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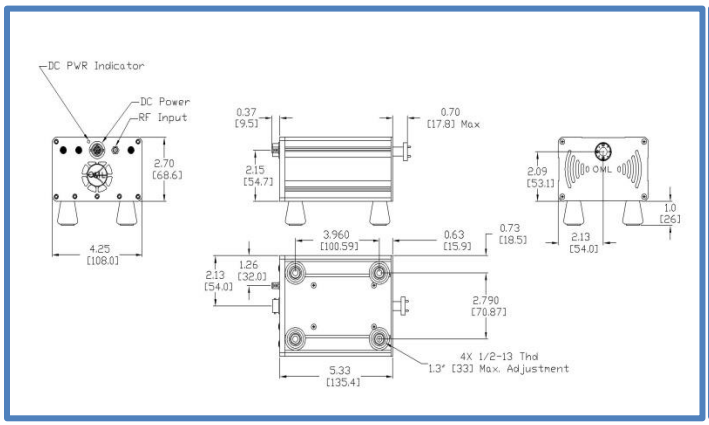
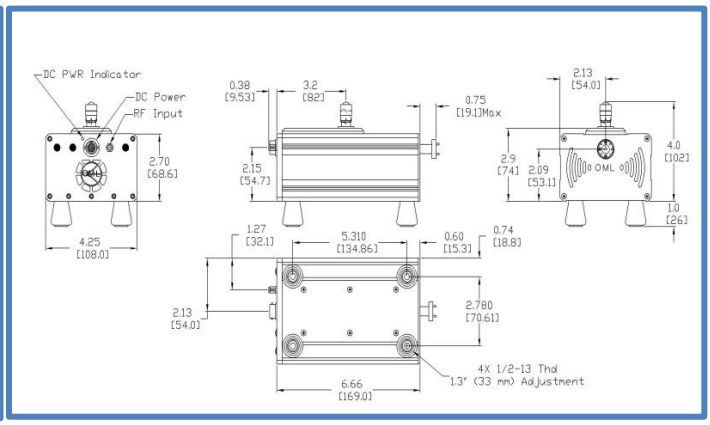
MECHANICAL DIMENSIONS (If necessary, contact OML for more detailed drawings)





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