Agilent E8241A/44A/51A/54A PSG Series Performance Signal Generator

Product Note

Easy frequency extension to 110 GHz using Agilent's 83550 series Millimeter-Wave Source Modules

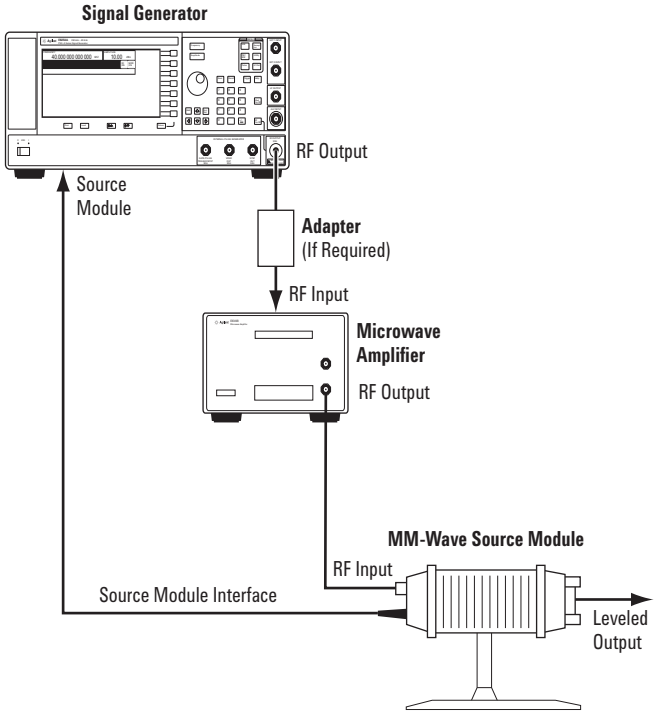
Agilent Technologies

Millimeter-Wave Source Module

Required equipment

* Agilent 83550 Series millimeter-wave source module
* Agilent 8349B microwave amplifier (required for signal generators without Option 1EA)
* cables and adapters as required

Figure 1-1
External Millimeter-wave source module without Option 1EA

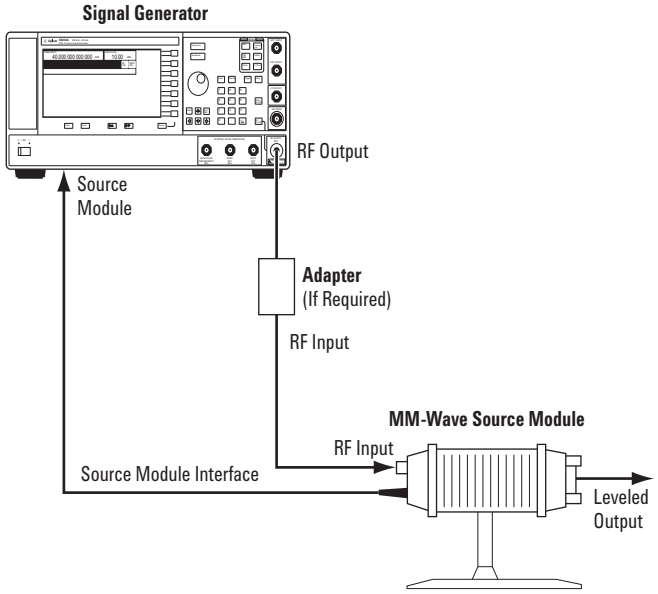


Connect the equipment

CAUTION To prevent damage to the signal generator, turn off the line power to the signal generator before connecting the source module interface cable to the rear panel source module interface connector.

Command	Note
1. Turn off the signal generator's line power.	
2. Connect the equipment as shown. Use the setup in Figure 1-1 for signal generators without Option 1EA. Use the setup in Figure 1-2 for Option 1EA signal generators. Option 1EA signal generators can drive the output of millimeter-wave source modules to maximum specified power without a microwave amplifier.	NOTE To ensure adequate RF amplitude at the mm-wave source module RF input when using Option IEA signal generators, maximum amplitude loss through the adapters and cables between the signal generator's RF output and the wave source module's RF input should be less than 1.5 dB.

Figure 1-2
External Millimeter-wave source module with Option 1EA



Configure the signal generator

Command	Note
1. Turn on the signal generator's line power.	Upon power-up, the signal generator automatically senses the mm-wave source module, switches the signal generator's leveling mode to external/source module, sets the mm-wave source module frequency and amplitude to the source module's preset values, and displays the RF output frequency and amplitude values available at the mm-wave source module output. The *MMMOD* indicator in the *FREQUENCY* area and the *MM* indicator in the *AMPLITUDE* area of the signal generator's display indicate that the mm-wave source module is active.
	NOTE Refer to the mm-wave source module specifications for the specific frequency and amplitude ranges.
2. If the *RF OFF* annunciator is displayed, press [RF On/Off].	Leveled power is now available at the output of the millimeter-wave source module. To obtain flatness-corrected power, refer to "Obtain Flat-Port Power with Agilent's PSG User Flatness Correction," or External Leveling Functions Product note 5988-2410EN.

To find out more visit:
www.agilent.com/find/psg

Related Agilent literature

PSG Series Product Overview
literature number 5988-2411EN

PSG Series Data Sheet
literature number 5988-2412EN

PSG Series Product Note: User Flatness Correction
literature number 5988-2410EN

PSG Series Product Note: Self Guided Demo
literature number 5988-2414EN

PSG Series Configuration Guide
literature number 5988-2413EN

PSG Series Product Note: Programming Conversion Guide
literature number 5988-2568EN

Warranty

The standard warranty is three years. An extended five-year warranty is available with Option W50.

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