

device connected for precision leveling where its shape and labeling clearly differentiate the input and output ports.

Figure 4 shows another power divider device connected for this same application of establishing a precision level for spectrum analyzer calibration. However, it is easy to confuse the device port configuration and reverse the source and power sensor connections as shown in the right in figure 4. This confusion is reportedly a common mistake made with this particular style of splitter device, because the incorrect connection appears to offer opportunity to more easily support the power sensor when the setup is made close to the edge of the bench. Mistakes can be avoided and measurement errors reduced by employing an RF reference source which delivers an accurate input directly to the UUT (for example, the Fluke Calibration 96270A or 96040A.)

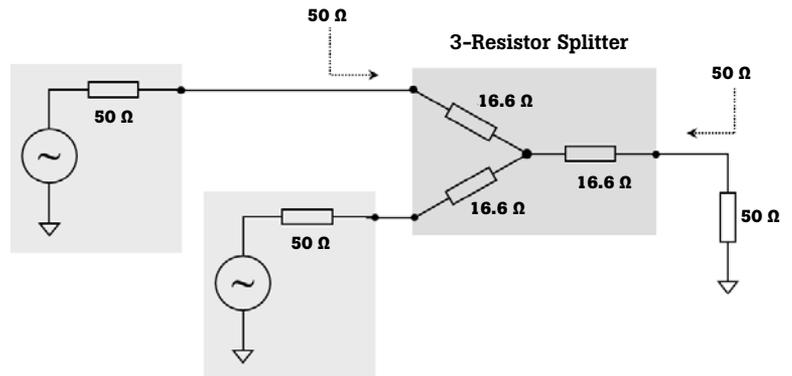


Figure 2. Power divider (3-resistor divider) employed for combining signals from two sources, also showing typical example devices.



Figure 3. An example of a power splitter employed for precision levelling in a spectrum analyzer calibration application where the device shape and labelling help to easily identify its port configuration.

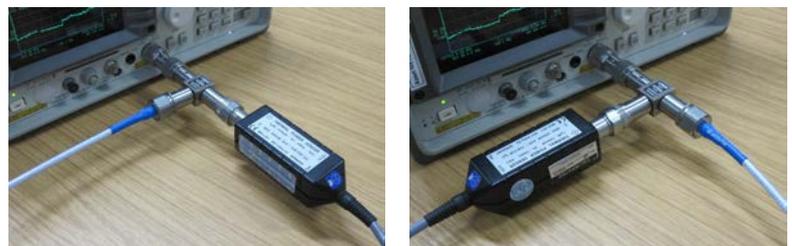


Figure 4. A power splitter correctly configured (left) and incorrectly configured (right) for precision levelling.



Figure 5. Using an RF reference source like the Fluke Calibration 96270A can help you avoid mistakes and reduce measurement errors. The 96270A delivers an accurate input directly to the UUT up to 27 GHz with its unique "What you set is what you get" feature and ability to "self-characterize" or profile its output to account for losses and attenuation of system components like cables, attenuators, splitters, and connectors, effectively creating a signal reference plane at the UUT input connection.

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