

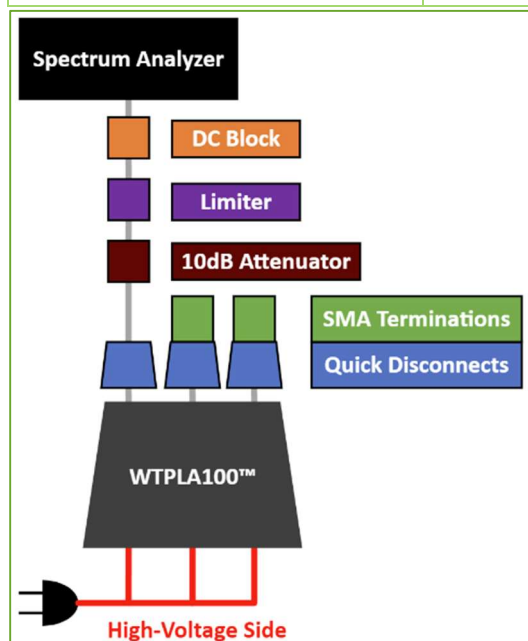
Technical Note #1

We bring you this technical note to provide recommendations that could improve measurement accuracy and protect your equipment. After gathering user feedback and our own experiences in using the WTPLA100™ Power Line Adapter, we suggest the following actions:

Suggestion	Reasoning
Terminate any unused SMA output ports using 50Ω terminators.	<ul style="list-style-type: none"> - Improve measurement accuracy - Provides better RF performance
Use a limiter on the front-end of the spectrum analyzer for initial connections until you verify there are no harmful level RF signals on the powerline. After ensuring levels are safe and won't damage the device, you may want to remove the limiter to observe the low end (30kHz – 30MHz). If observing the high-end, the limiter can stay in place to protect devices.	<ul style="list-style-type: none"> - Found signals on power line that may exceed the safe input levels of the spectrum analyzer
Use a DC block on the front end of the spectrum analyzer when using USB-powered or transformer-powered analyzers.	<ul style="list-style-type: none"> - Avoid voltage differentials

While we do not necessarily endorse the following components or their respective companies/manufacturers, we have found acceptable options:

SMA 50Ω Terminator	Limiter	DC Block
ANNE-50+ (Mini-Circuits)	VLM-83-2W-S+ (Mini-Circuits)	BLK-89-S+ (Mini-Circuits)



The schematic on the below illustrates how we recommend utilizing these components. The schematic also includes other components we recommend using with your set-up for ease of testing and better results.

Our accessory kit includes:

- ♦ 2 – SMA Terminators,
- ♦ 1 – Limiter,
- ♦ 1 – DC Block,
- ♦ 3 – Quick Disconnects,
- ♦ 1 – 10dB Attenuator, and
- ♦ 1 – 6' SMA Test Cable

If you would like to purchase an accessory kit or for any general inquiries, please contact us at designs@woodsong.tech.