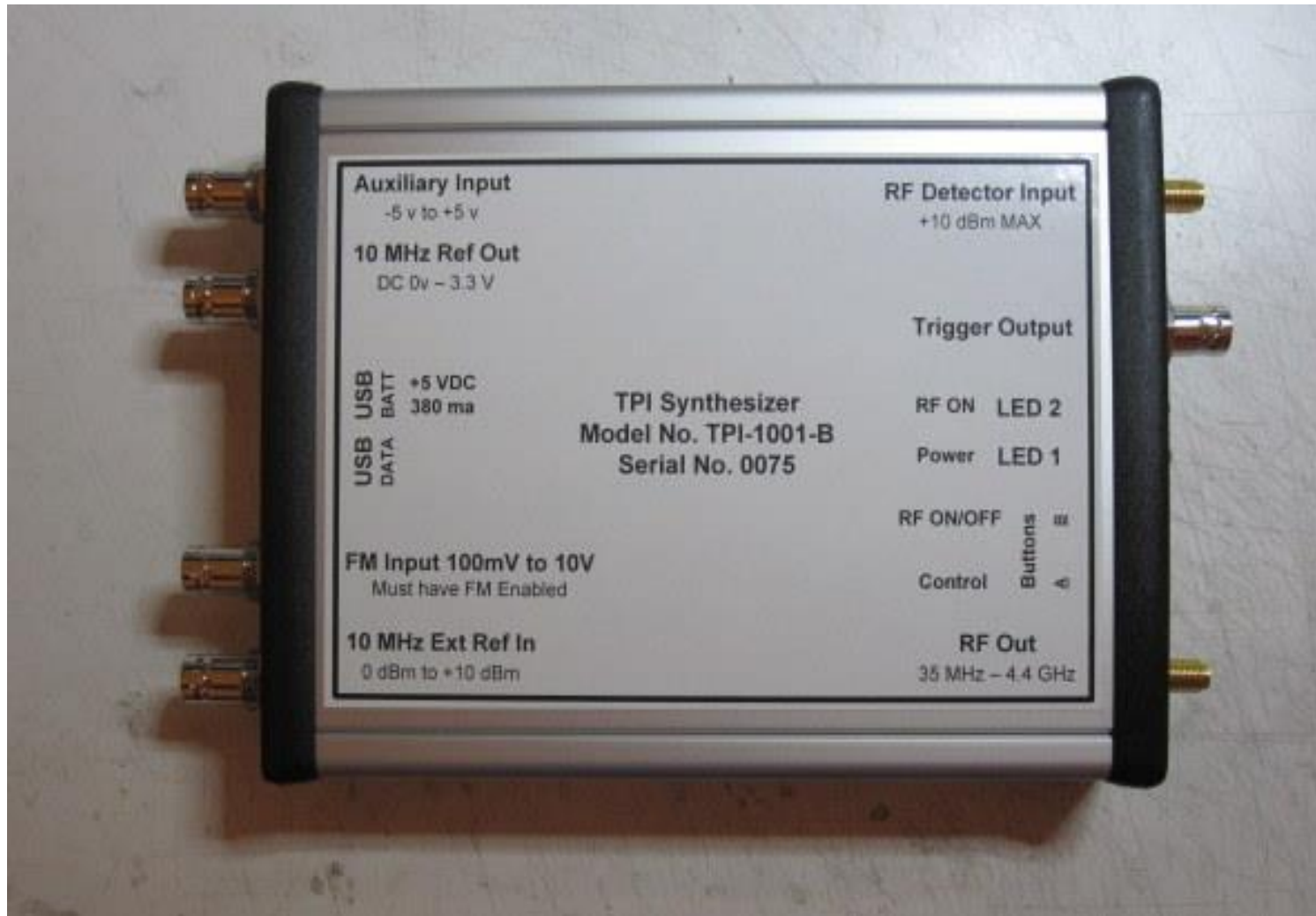


Product review: Trinity Power USB Signal Generator Model TPI-1001-B 35 MHz to 4400 MHz with Scalar Analyzer: W0ZQ



Digitally Controlled RF Signal Generator

- 35 MHz to 4.4 GHz in 1 KHz steps (based on ADF4351)
- Internal TCXO or external 10 MHz reference
- Calibrated levels of +10 dBm to -80 dBm in 1 dB steps
- FM modulation using external analog signal
- CW beacon mode

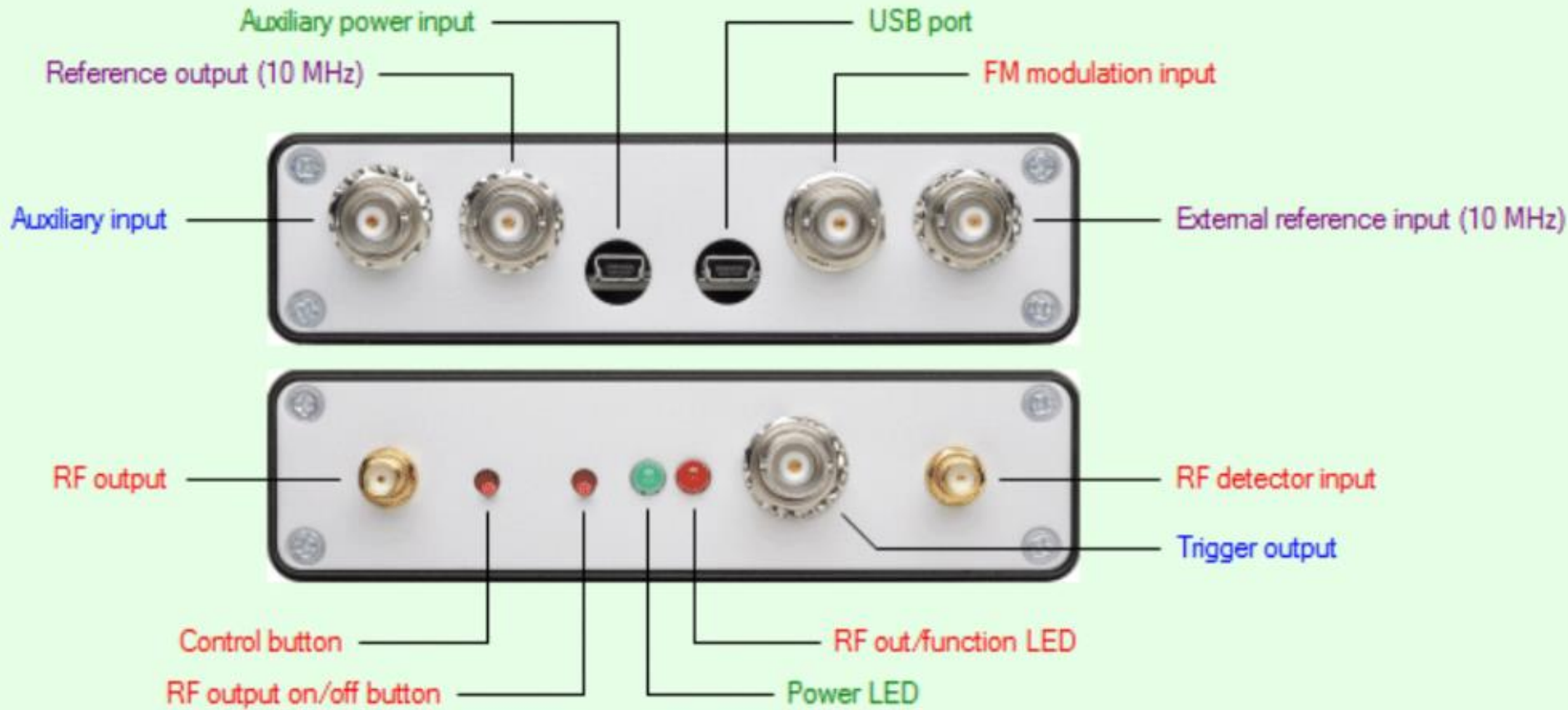
Wideband RF Detector Input

- Calibrated from +10 dBm to -60 dBm.
- Resolution to 0.1 dB, accurate to +/- 1 dB. No DC bias !
- Analyzer tab plots detected RF level as the RF output is swept
- “Forward” and “Reflected” (using directional coupler) modes

USB/GUI PC Interface

- Powered through USB connection
- Configures and operates the unit
- Standalone capability

TPI-1001-B Inputs, Outputs and Controls



Digitally Controlled RF Signal Generator

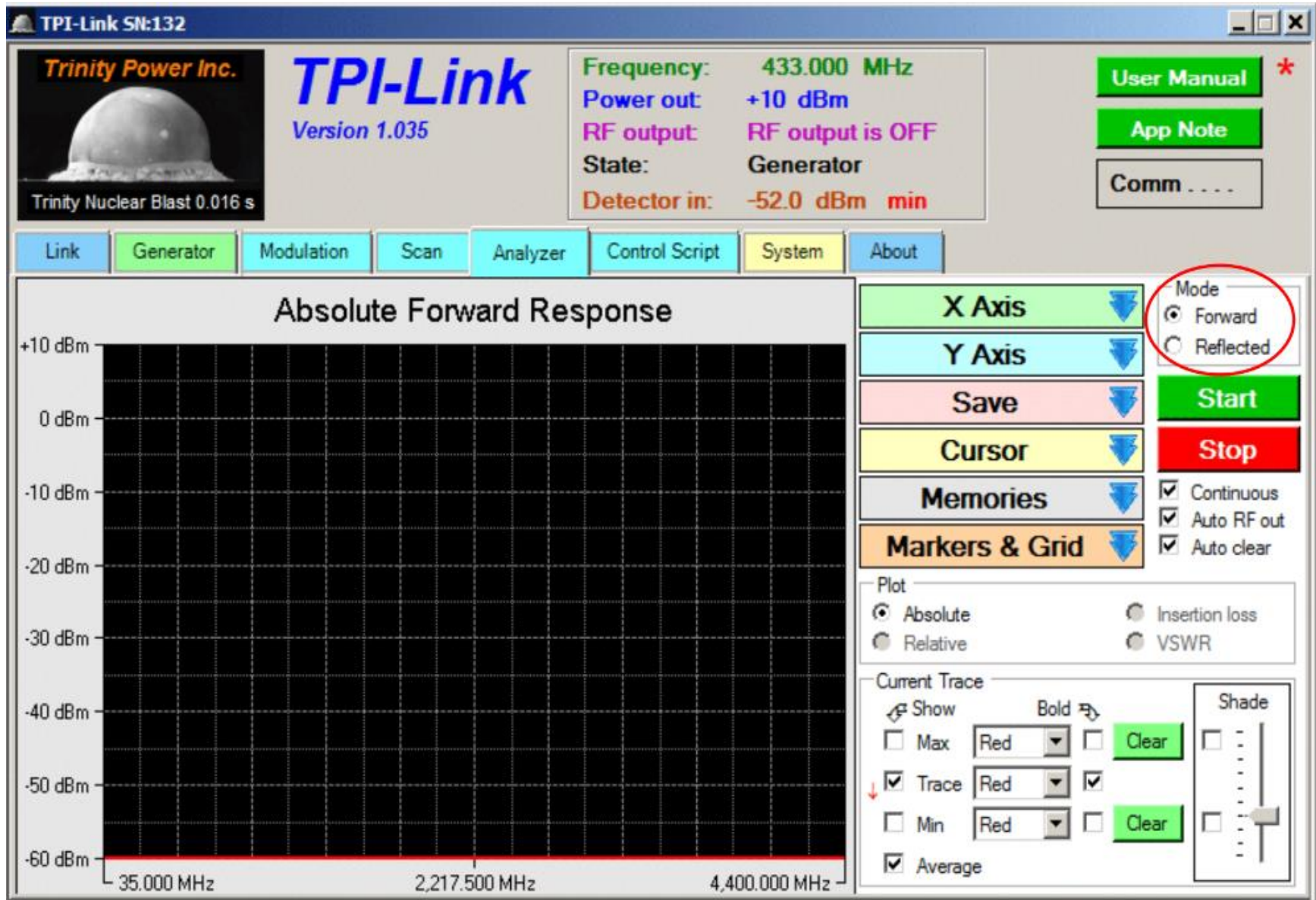
- 50 ohm SMA connector
- RF output is AC coupled (5 Vdc max)
- Can operate both open and shorted

Click to toggle

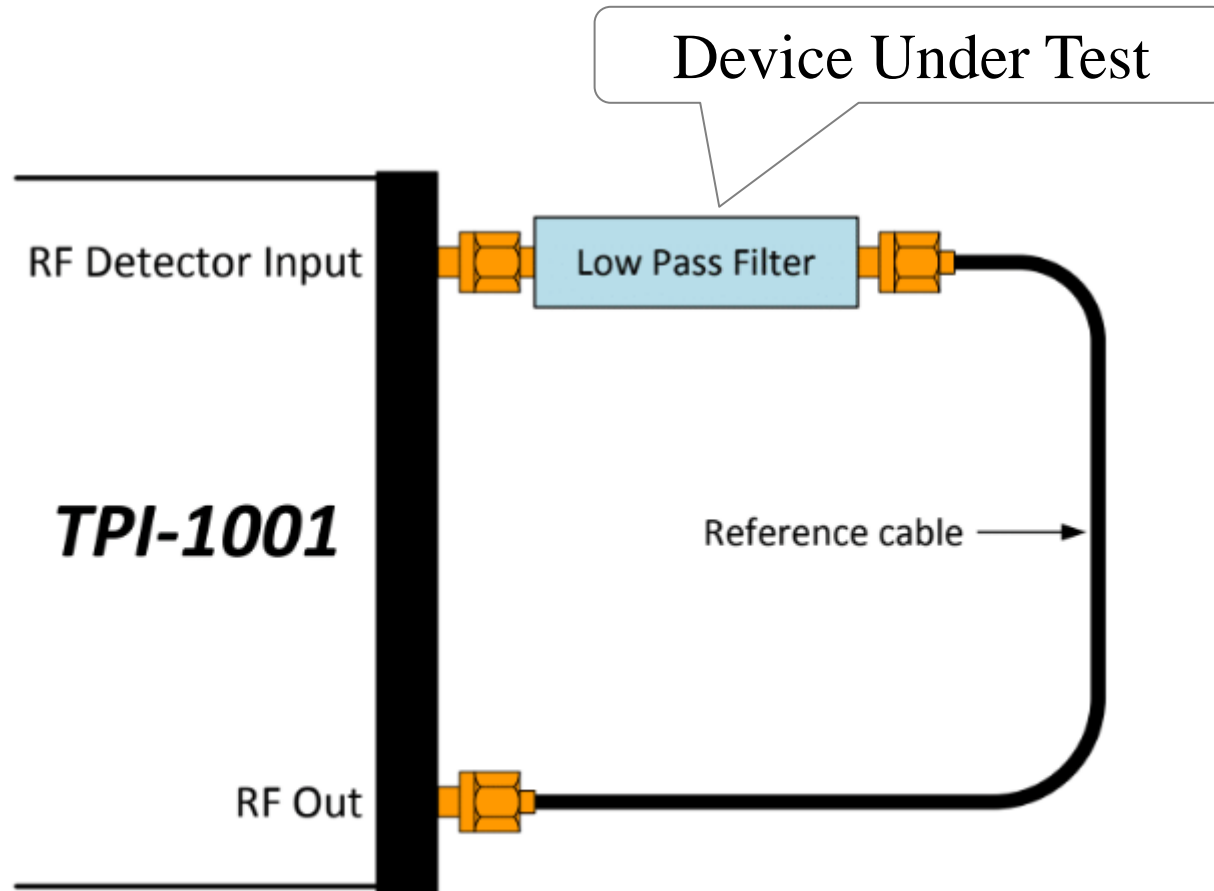
The screenshot displays the TPI-Link software interface for a Trinity Power Inc. device (SN:113, Version 1.027). The interface is divided into several sections:

- Header:** Includes the company logo, version information, and a "User Manual" button.
- Status Panel:** Shows key parameters: Frequency: 2440.000 MHz, Power out: 0 dBm, RF output: RF output is OFF, State: Generator, and Detector in: Detector is OFF (circled in red).
- Navigation:** A set of tabs for Link, Generator, Modulation, Scan, Analyzer, Control Script, System, and About.
- Frequency Control:** A large display for 2440.000 MHz with an increment of 1.000 MHz and a "Frequency is locked" indicator. A list of preset frequencies is provided below.
- Level Control:** A display for 0 dBm with an increment of 1 dB and a list of level settings.
- RF Output and VCO Control:** Includes a toggle for "RF is OFF" and "RF output on/off", and radio buttons for "VCO always on" (selected) and "Power down VCO when RF off".
- Reference and Performance:** Options for "Internal Reference" (selected) and "External Reference", and "Maximize Performance" settings for "Low noise mode" and "Low spur mode" (selected).

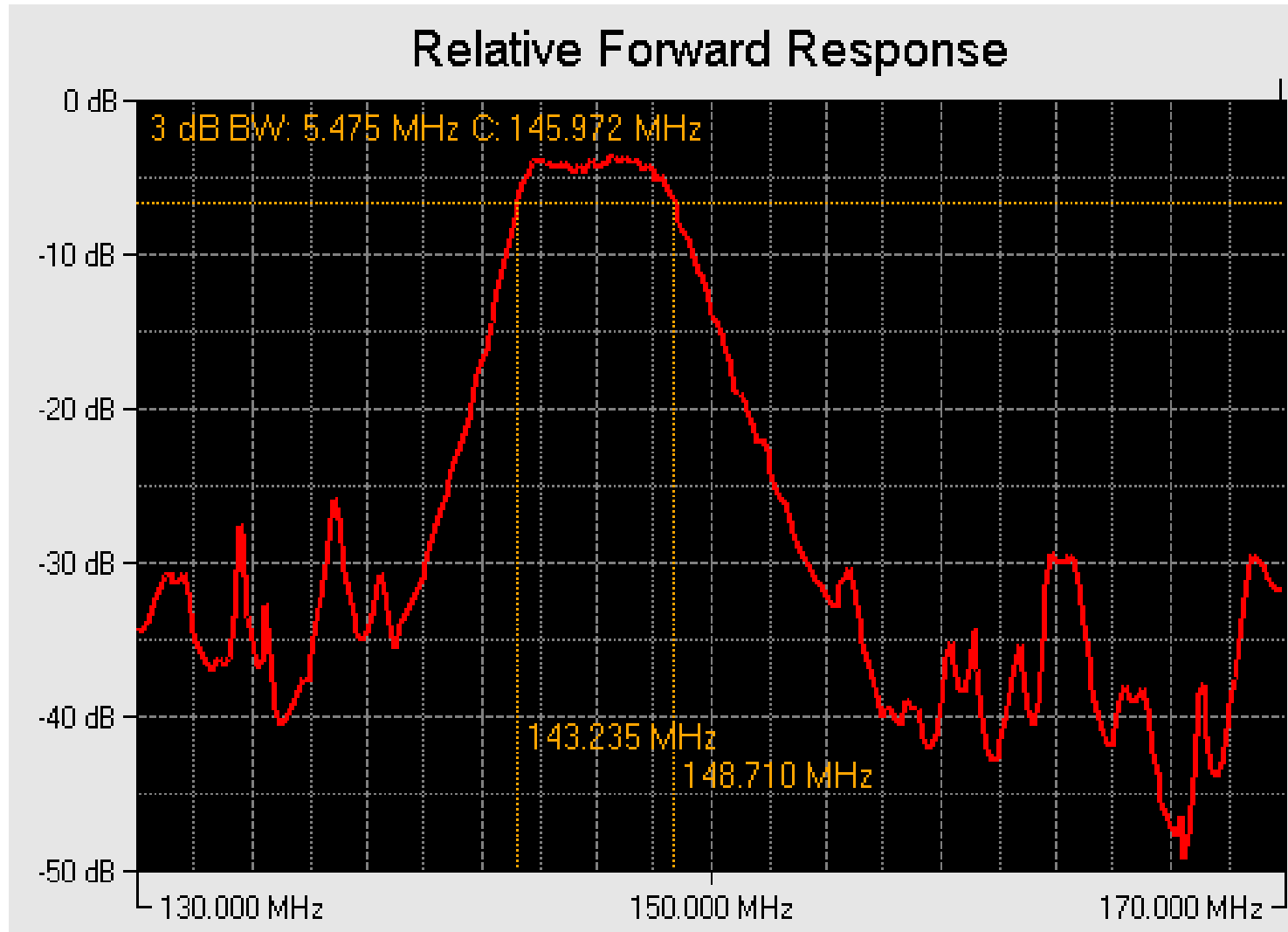
Analyzer Mode



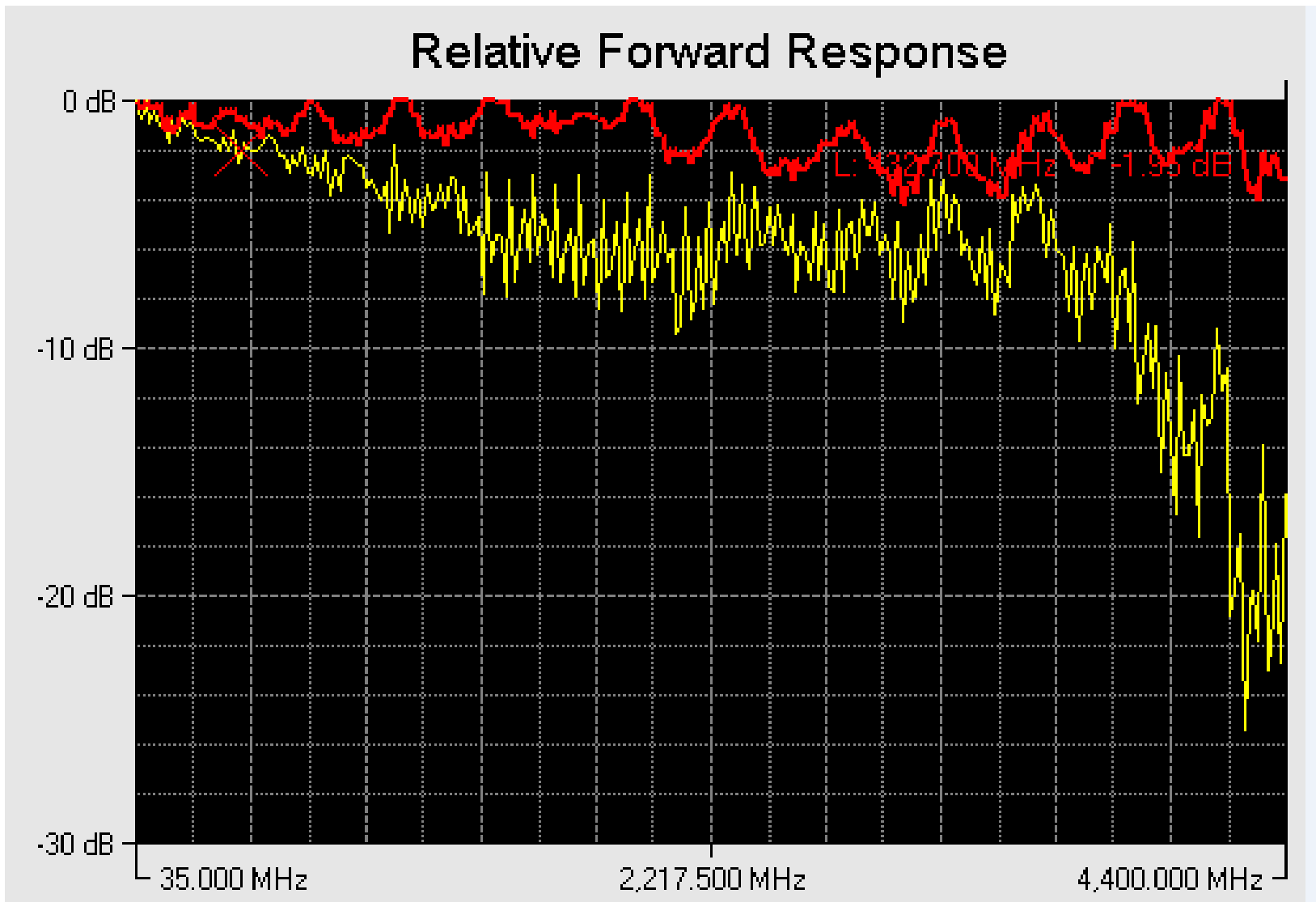
Forward Mode



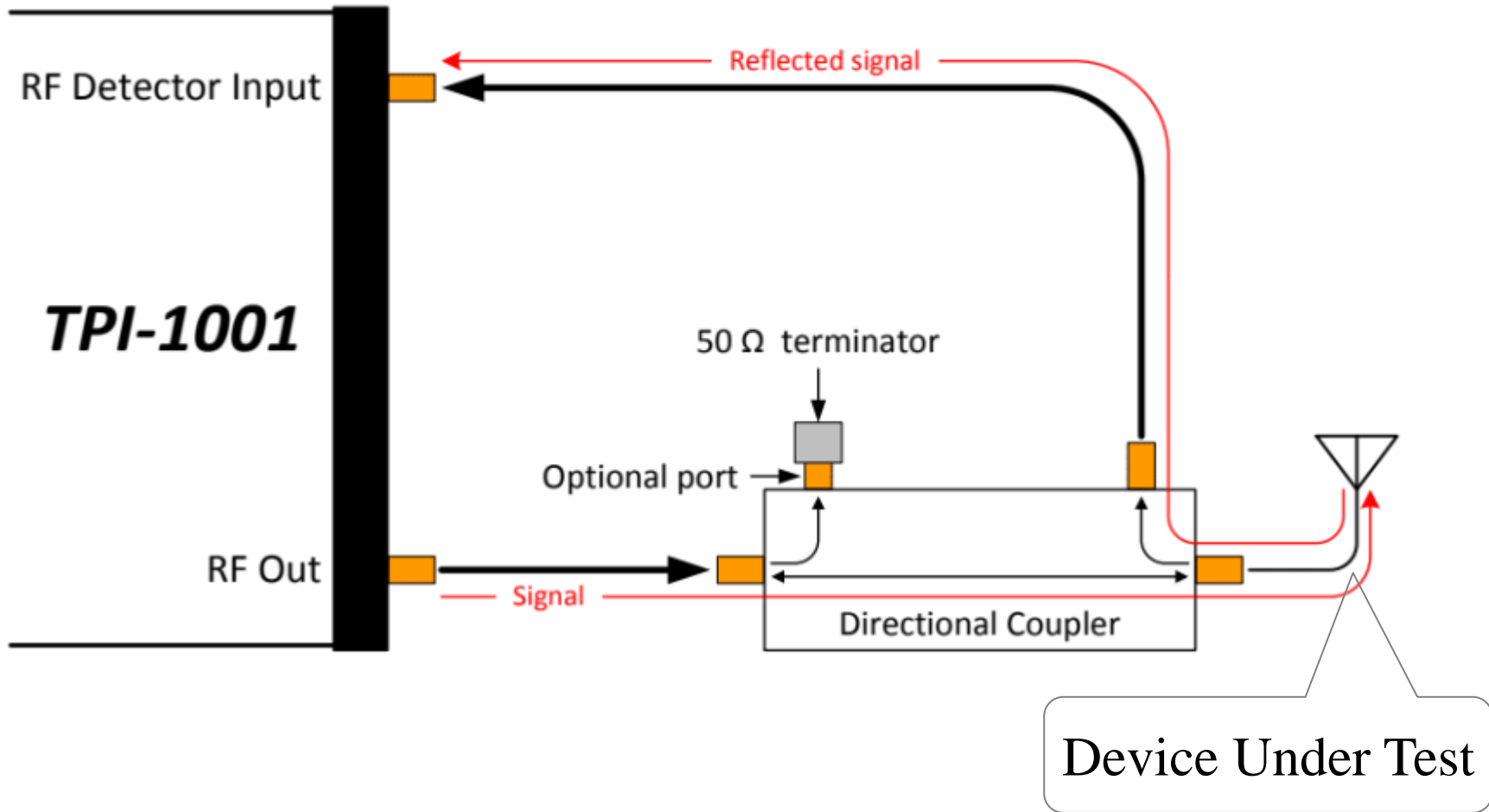
Forward Mode Example #1: 2M Cavity Filter



Forward Mode Example #2 : Comparing Two Jumper Cables



Reflected Mode



Reflected Mode Example: VJB 2 to 11 GHz LPA

