

VNA Frequency Extenders TR-R and TR-TR Sets

General Features

- Frequency Coverage: 50 – >500 GHz in standard waveguide bands
- Broadband high output power with low ripple
- Full 2-way S parameters with 2 x TR modules or economical TR-R combinations
- Compatible with standard benchtop microwave VNA / PNA test equipment
- Customizable for antenna test and other applications
- State of art dynamic range
- Optional level set attenuators
- Flexible height and levelling adjustments

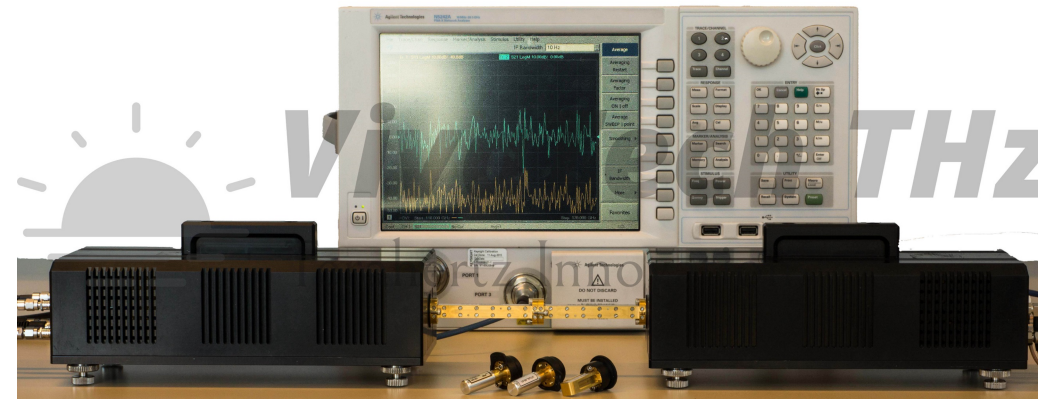
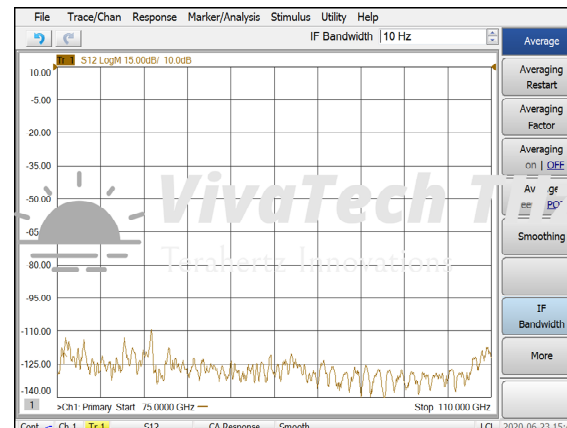


Fig 1 VNA Extenders TR-TR Configuration

Typical Performance



50-75 GHz TR-TR Dynamic Range



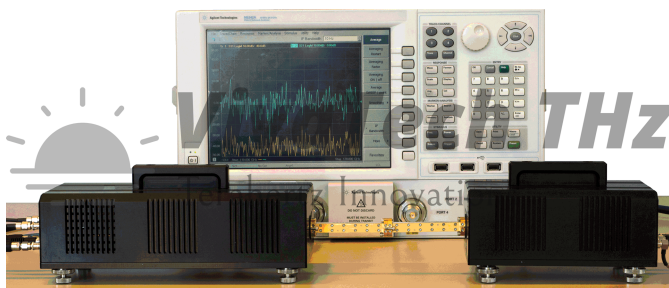
75-110 GHz TR-TR Dynamic Range



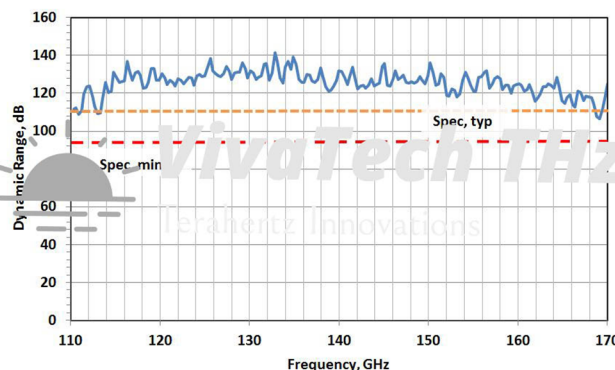
110-170 GHz TR-TR Dynamic Range

VNA Frequency Extenders TR-R and TR-TR Sets (Cont')

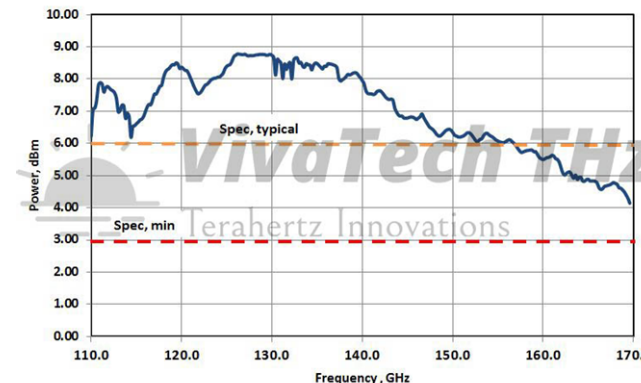
Fig 2 Configuration THZWR06-TR-R



Dynamic Range
TR Module SN2016008/006



Test Port Power Output, dBm



Specifications

Performance Specification of TR Modules						
TR, Transceivers	THZWR15-TR	THZWR10-TR	THZWR06-TR	THZWR05-TR	THZWR03-TR	THZWR2.2-TR
RF Frequency (GHz)	50 – 75	75 – 110	110 – 170	140 – 220	220 – 330	330-500
Test Port Output Power (dBm)	13; minimum 15; typical	8; minimum 10; typical	+3; minimum +6; typical	-10; typical	-15; typical	-25 typical
Coupler Directivity (dB)	35; minimum > 40; typical		34; minimum >36; typical	30; minimum >35; typical		> 30 typical

Performance Specification of R Module and TR-R Combination						
R, Receiver	THZWR15-R	THZWR10-R	THZWR06-R	THZWR05-R	THZWR03-R	THZWR2.2-R
RF Frequency (GHz)	50 – 75	75 – 110	110 – 170	140 – 220	220 – 325	330-500
Test Port Input Power 1 dB GCP (dBm)	+3; typical	0; typical	-10; typical			-20
Dynamic Range (dB) ⁻¹ ; min, typical	110 – 120		105 – 120	85 – 105	95-105	80-90
Attenuator Adjustment (dB); min			30 [Option : can be fitted to one or both modules]			

Notes

- Dynamic range refers to TR_TR pair for S-parameter measurement, including typical noise in user instruments. Measured with 10 Hz IF BW
- An external interface module is required with some VNA / PNA models. Consult us for details
- Standard product dimensions are 140 x 100 x 160 mm [R Module] and 230 x 100 x 308 mm [TR Module]
- How to make a request:** Select Model above, specify manufacturer, model number and options of the PNA/VNA to be used, email to: sales@vivatechthz.com