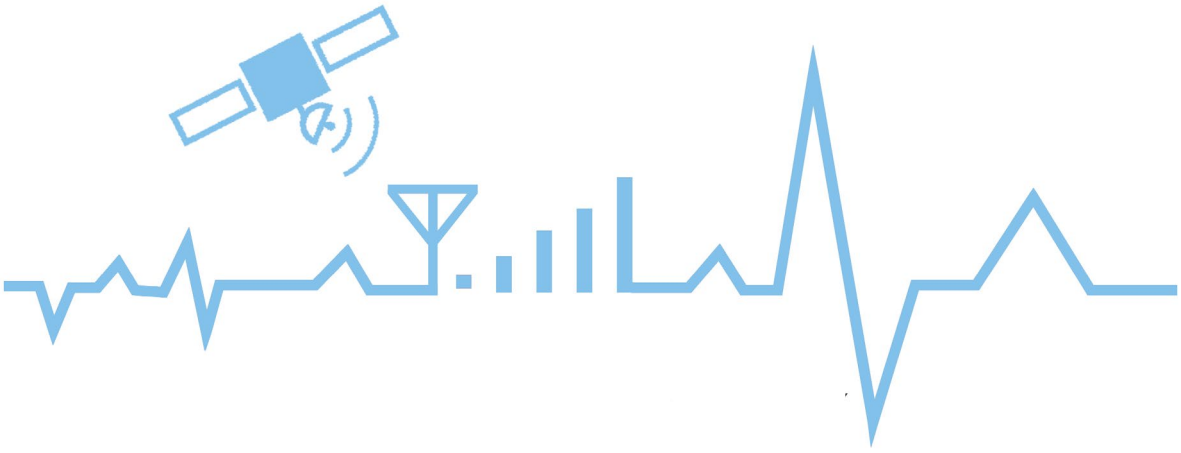
TRANSCOM INSTRUMENTS
Product Brochure



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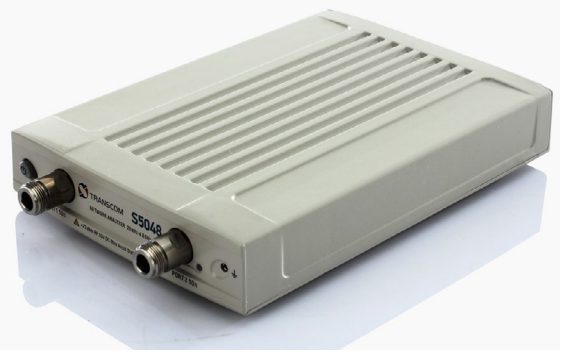
INSTRUMENTS

Compact VNA S5048/S7530/T1300



Overview

The compact VNA is an S-parameter vector network analyzer designed for operation with an external PC. It connects to any Windows-based computer via USB and delivers accurate testing and measurement through a platform that can keep up with constant advancements aswell as be remotely accessed. This analyzer is an excellent solution for performing the full range of magnitude and phase measurements over the frequency from 20 kHz up to 4.8GHz with 50 and 75Ω version.

Features

- Frequency Range：20kHz~4.8GHz/20kHz~3GHz/300kHz~1.3GHz
- Large Dynamic Range：>120 dB (IFBW=10 Hz), 123dB typical
- Low Noise Level：<-120 dB (IFBW=10 Hz)
- Low Trace Noise：2 mdB rms (IFBW=3 kHz)
- Measurement Speed：150 μs/point (IFBW=30 kHz)
- High Effective directivity：>45 dB
- Remote Controll：LabView
- Low Power Consumption：12W

Measurement Range			
Product Model	S5048	S7530	T1300
Impedance	50Ω	75Ω	50Ω
Test port Connector N-type, female	N-type, female		
Number of Test Ports	2		
Frequency Range	20kHz ~ 4.8GHz	20kHz ~ 3.0GHz	300kHz ~ 1.3GHz
Full CW Frequency Accuracy	$\pm 5\times10^{-6}$		
Frequency Setting Resolution	10Hz	10Hz	1Hz
Number of Measurement Points	2 ~ 200001		2 ~ 10001
Measurement Bandwidth	1Hz to 30kHz (in 1 / 1.5 / 2 / 3 / 5 / 7 steps)		1Hz to 30kHz (in 1 / 3 steps)
Dynamic Range（IFBW 10Hz）			
20kHz ~300kHz	100dB, typ.110 dB	110dB, typ.120 dB	
300kHz~1.3GHz/3GHz/4.8GHz	120dB, typ.123 dB		130dB, typ.135 dB
S-Parameter	S_{11}, S_{21}, S_{12}, S_{22}		S_{11}, S_{21},

Measurement Accuracy			
Product Model	S5048	S7530	T1300
Measurement Accuracy(magnitude / phase)			
+5 dB to +10 dB	0.2dB/2º		0.2dB/2º (+10dB to +13dB)
-50 dB to +5 dB	0.1dB/1º		0.1dB/1º (-50dB to +10dB)
-70dB to -50dB	2.5dB/11º（20kHz to 300kHz） 0.5 dB/3º（300kHz to 4.8GHz）	1.5 dB/10º（20kHz to 300kHz） 0.2 dB/2º（300kHz to 3GHz）	0.2 dB/2º
-90dB to -70dB	2.5 dB/11º（300kHz to 4.8GHz）	1.0 dB/6º（300kHz to 3GHz）	1.0 dB/6º
Accuracy of Reflection Measurements （magnitude / phase）			
-15dB to 0dB	0.4dB/3º		0.4dB/4º
-25dB to -15dB	1.0dB/6º		1.5 dB/7º
-35dB to -25dB	3.0dB/20º		4.0 dB/22º
Trace Stability			
Trace Noise（IFBW 3kHz）	5 mdB rms（20kHz to 300kHz） 2 mdB rms（300kHz to 4.8GHz）	5 mdB rms（20kHz to 300kHz） 2 mdB rms（300kHz to 3GHz）	2 mdB rms
Temperature dependence	0.02dB		

Effective System Data[1]	
Effective Directivity	45 dB
Effective source match	40 dB

1 applies over the temperature range of 73°F ± 9 °F (23°C ± 5 °C) after 40 minutes of warming-up, with less than 1 °C deviation from the one-path two-port calibration temperature, at output power of -5 dBm, and 10 Hz IF bandwidth.*All technical specifications apply to all devices that have been factory calibrated in 2013 and after.

Test Port Output			
Product Model	S5048	S7530	T1300
Match (without system error correction)	22 dB	18 dB	18 dB
Power Range	-50 dBm to +5 dBm	-50 dBm to +5 dBm	-55 dBm to +3 dBm
Power Accuracy	±1.0 dB	±1.5 dB	±1.5 dB
Power Resolution	0.05dB		

Test Port Input			
Product Model	S5048	S7530	T1300
Match (without system error correction)	22 dB	18 dB	28 dB
Damage Level	+23 dBm	+23 dBm	+26 dBm
Damage DC voltage	+35 V	+35 V	+35 V
Noise Level （IF bandwidth 10Hz）	-95 dBm（20kHz to 300kHz） -115 dBm（300kHz to 4.8GHz）	-105 dBm（20kHz to 300kHz） -120 dBm（300kHz to 3GHz）	-127dBm

General Data	
External Reference Input	BNC female ; 10 MHz; 2 dBm ± 3 dB
External Reference Output	BNC female ; 10 MHz; 3 dBm ± 2 dB
Operating Temperature Range	+5°C ~ +40°C
Storage Temperature Range	-45°C ~ +55°C
Humidity	90% (25°C)
Atmospheric Pressure	84 to 106.7 kPa
Calibration Interval	3 year
Power Supply AC Circuit (via adapter)	220 ± 22 V (AC), 50 Hz
Power Consumption AC Circuit	12W
Dimensions (L x W x H)	267 ×160 ×44(S5048/S7530) 284 ×142×40(T1300)
Weight	1.5 kg

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About Transcom

Shanghai Transcom Instrument Co., Ltd. (NEEQ: 831961), established in 2005, independently research and develop high-end radio frequency communication testing instruments and is a professional provider of overall testing solutions. Starting from 2009, Transcom, titled as National High-Tech Enterprise and the fostered enterprise by Shanghai Little Giant Project, has undertaken the tasks of development for National "New-Generation Broadband Wireless Mobile Communication Network" and the construction of Shanghai Engineering Research Center for Wireless Communication Testing Instruments.

In 2015, Transcom officially announced its new five-year development strategy "1+3" . In detail, Transcom will continue to enhance its potential to be the national team for domestic wireless communication instruments, and develop security software for mobile communication network (network communication/data mining), wireless signal (spectrum monitoring/situation analysis) and Beidou navigation (signal monitoring for satellite navigation/mobile anti-jam verification platform). The strategy has now been implemented systematically with progressive achievements in Shanghai, Guangdong and other cities.

Keep innovating for excellence!

ISO9001 ISO14001

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