# TRANSCOM INSTRUMENTS

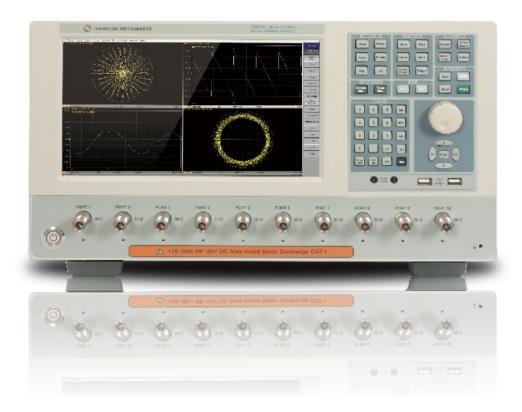
# **Product Brochure**







### Matrix Vector Network Analyzer T5845A



#### General

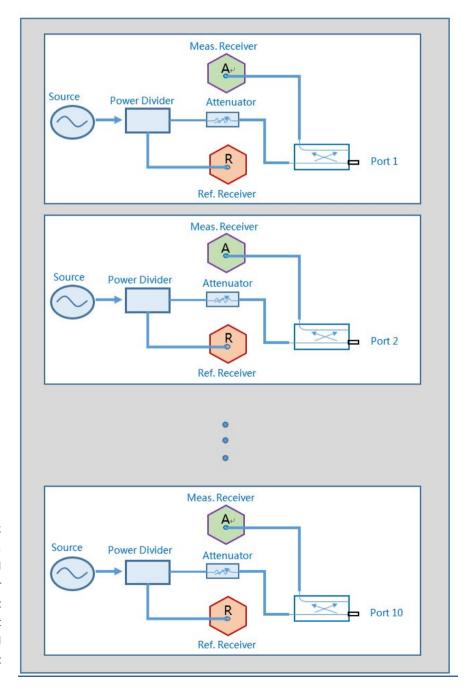
T5845A is a new generation of multiport matrix vector network analyzer developed by Shanghai Transcom Instrument Co., Ltd. It can be widely applied to the research, development and test of RF devices in the fields of communication, medical care, scientific research and electronics. The instrument has made a breakthrough in conventional multiport test scheme of 2/4 port VNA+matrix switch. It can carry out parallel test on DUT with 10 ports under standalone operation, thereby greatly improving test efficiency and reducing test cost.

#### Characteristics

- $\bullet$  Frequency range: 300kHz  $\sim$  4.5GHz
- Number of test ports: 2-port basic unit (2~10 ports to Trace noise: 0.002dBrms be selected arbitrarily)
- Dynamic range: >120dB (IFBW 10Hz) typ. 123dB
- Power range: -50~+10dBm
- Power accuracy: ±1.0dBm

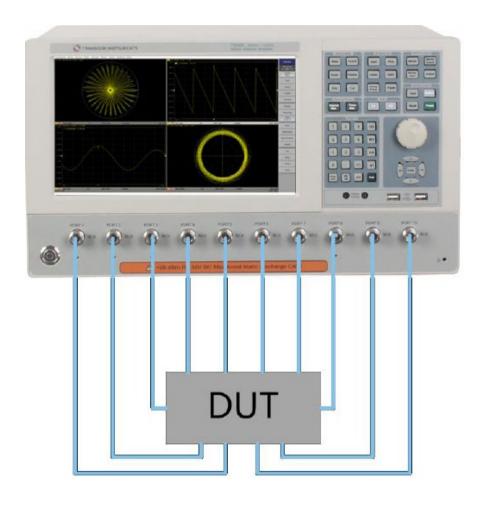
- IF bandwidths: 10Hz~100kHz
- Simple configuration of multiport measurements
- Up to 128 traces and channel
- It supports standard VISA remote control command and is compatible with test cases of products of the similar type

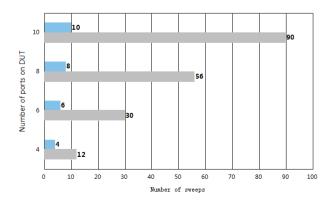
## Real Multiport Network Analyzer



T5845A is a real multiport network analyzer with independent source, independent reference receiver and independent measuring receiver equipped for each test port. It supports user-defined number of port and calibration of all N ports, and therefore is the most ideal multiport test solution.

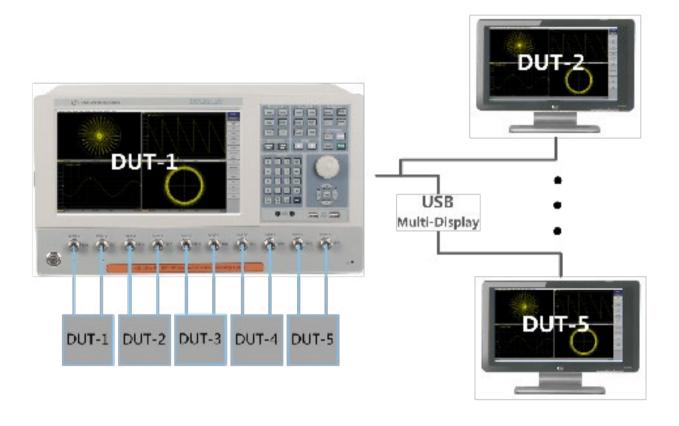
# Multiport All S Parameters Measurement



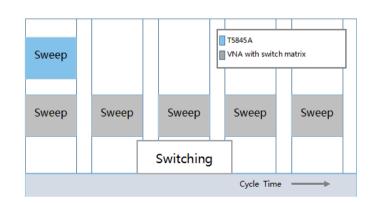


Compared to conventional multiport test scheme of VNA+matrix switch, T5845A not only eliminates the insertion loss between test port and receiver, but also eliminates the sweep test required for multiport DUT test, and thereby greatly shortens test time. With parallel signal acquisition and processing mechanism, T5845A can measure S parameters of multiport DUT and conduct real-time synchronization for multipath signals.

### Multi-DUT Test Measurement



Compared to conventional multiport test scheme of VNA+matrix switch, T5845A supports synchronous test of DUTs. Each DUT has its own test interface to achieve completely parallel operation. Therefore, the "multi-purpose" functions of T5845A are achieved without losing stability, accuracy and repeatability.



Basic Parameter	
Frequency range	300kHz ~ 4.5GHz
Impedance	50Ω、75Ω¹
Test port connector	N-Type, Female
Number of test	1 ~ 10
IF bandwidth	10Hz ~ 100kHz
Dynamic range	IFBW 3kHz: 300kHz ~ 10MHz: 80dB; 10MHz ~ 4.5GHz: 95dB IFBW 10Hz: 300kHz ~ 10MHz: 105dB; 10MHz ~ 4.5GHz: 123dB
Frequency accuracy	5.0 ppm

EFFECTIVE DATA	
Effective directivity	45 dB
Effective source match	40 dB

MEASUREMENT SPEED	
Measurement time per point	200us
Source to receiver port switchover time	10 ms
MEASUREMENT ACCURACY	
Trace noise magnitude	0.002dBrms (Typ.)
Trace noise phase	0.02°rms (Typ.)
Power range	-50 ~ +10dBm
Power accuracy	±1.0dBm
Power resolution	0.05 dB
Temperature Dependence	Magnitude: 0.006dB /°C

Phase: 0.15° /°C

GENERAL DATA	
Display Screen	300kHz ~ 4.5GHz
Input connector type	$50\Omega$ , $75\Omega^1$
Input reference connector type	N-Type, Female
Output reference connector type	1 ~ 10
Video output connector	DVI
USB connector	8 connectors (including 2 connectors with USB3.0); Female
LAN connector	10/100/1000 Base T Ethernet, 8-pin
Operating temperature range	+5 ~ +40°C
Storage temperature range	-45°C ~ +60 °C
Humidity	90% (22°C)
Atmospheric pressure	84 ~ 106.7kPa
Calibration interval	3year
Power supply	220±22V (AC) , 50Hz
Damage voltage on port	+26dBm, ±35V (DC)
Power consumption	260W
Dimensions (W*H*D) mm	470*257*360
Weight	22g

Ordering Information	
Model	Description
Host machine	
T5845A-P02	2 Ports Matrix Vector Network Analyzer
T5845A-P03	3 Ports Matrix Vector Network Analyzer
T5845A-P04	4 Ports Matrix Vector Network Analyzer
T5845A-P05	5 Ports Matrix Vector Network Analyzer
T5845A-P06	6 Ports Matrix Vector Network Analyzer
T5845A-P07	7 Ports Matrix Vector Network Analyzer
T5845A-P08	8 Ports Matrix Vector Network Analyzer
T5845A-P09	9 Ports Matrix Vector Network Analyzer
T5845A-P10	10 Ports Matrix Vector Network Analyzer

Calibration kits	
5301N50	High-precision 3G/50 $\Omega$ /N calibration kits (8 Nos.)
5601N50	High-precision $6G/50\Omega/N$ calibration kits (8 Nos.)
5901N50	High-precision 9G/50Ω/N calibration kits (8 Nos.)
5603S50	High-precision 6G/50 $\Omega$ /SMA calibration kits (8 Nos.)
5903S50	High-precision 9G/50 $\Omega$ /SMA calibration kits (8 Nos.)
5801N50E-80011	High-precision 8G/50 $\Omega/N$ (negative) electronic calibration kit
5801N50E-80012	High-precision 8G/50 $\Omega$ /N (positive) electronic calibration kit
5801S50E-80021	High-precision 8G/50 $\Omega$ /SMA (negative) electronic calibration kit
5801S50E-80022	High-precision 8G/50 $\Omega$ /SMA (positive) electronic calibration kit

## Keep innovating for excellence!

#### **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

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