# **TRANSCOM INSTRUMENTS**

# **Product Brochure**







## Universal Wireless Communication Test Set



### Overview

The Universal Wireless Communication Test set T6280A supports 70-3300MHz. The Test set evaluating the key Tx/Rx characteristic for LTE(FDD/TDD), TD-SCDMA/HSPA, GSM/GPRS/EGPRS, WCDMA/HSPA and CMMB mobile terminals. With the powerful SDR platform which supports customized functions.

### **Key Features**

- •LET(TDD/FDD)
- •TD-SCDMA/HSPA
- •GSM/GPRS/EDGE
- •WCDMA/HSPA/HSPA+
- Fast Calibration Support
- •Non Signalling Test

### **Applications**

- •Cellular phone manufacturers
- •Cellular phone repairing
- Chipset manufacturers

RF Generator	
Frequency Range	70MHz to 3300 MHz
Adjust Step	1Hz
	RF In/Out (N type female)
Output Ports	RF Out (N type female)
Output Impedance	50 Ω
	RF IN/OUT Port: -130 to -20 dBm
CW Output Level Range	RF OUT Port: -110 to 0 dBm
Level Uncertainly	< ±1 dB
Level Setting Resolution	0.1 dB
Power Repeatability	< ±0.05dB
Channel Bandwidth (1dB)	21MHz
	70MHz to 3000MHz: < 1.3:1
VSWR(RF In/Out Port)	3000MHz to 3300MHz: <1.6:1
Harmonics Spurious	< -30 dBc
Non-harmonics Spurious	< -40 dBc
RF Analyzer	
Frequency Range	70MHz to 3300 MHz
Adjust Step	1Hz
Input Port	RF In/Out (N type female)
Input Impedance	50 Ω
Input Level Range	< +33 dBm
Measurement Accuracy	< ±1 dB
Meas.Repeatability	< ±0.1dB
Measurement Resolution	0.01 dB
Channel Bandwidth (1dB)	21MHz
Frequency Meas.Range	±200KHz
Freq.Meas.Resolution	1Hz
Freq.Meas.Accuracy	±2Hz

Audio	
Input Ports	Audio In (Front)/MIC (Rear)
Input Impedance	> 10K Ω
Output Ports	Audio Out (Front)
Output Impedance	< 20 Ω
Freq.Response.Flatness	< 1dB (100Hz to 20KHz)

Timebase	
Reference Frequency	10MHz
Aging Rate	< ±0.1 ppm/year
Temperature Stability	< ±0.01 ppm
Accuracy	±[Aging + Stability]
Reference Input Range	10MHz ± 5 ppm
Input Port	Ref Input (BNC)
Input Level	0 to +10 dBm(Sine/TTL)
Input Impedance	50Ω
Output Port	Ref Out (BNC)
Output Level	0 to +10 dBm
Output Impedance	50 Ω

Control Ports	
Remote Programming	GPIB (IEEE 488.2) /LAN
USB-A	5 USB2.0 ports
Trigger Output	BNC female (TTL)
Trigger Input	BNC (TTL)
Bi-directional	DB9 (5 TTL)
System Sync	20 pairs LVDS
Displayer Port	VGA/DVI-D

General	
Operating Temperature	+10 ~ +40 °C
Storage Temperature	−20 ~ +65 °C
Humidity	20% to 80%
Dimensions(HxWxD)	222 x 426 x 533 mm
AC Power Input	100 to 240V, 50 to 60 Hz
Displayer	10.4 inch XGA (1024 x 768)
Touch Panel	4096x4096 resistor touch
Operating System	Windows XP
AC Power Consumption	< 450 W
Weight	< 25 Kg
Warm Up Time	30 minutes
Calibration Interval	1 year

Options	
T6280-Base	T6280 base platform,required option
T6280-TD	TD-SCDMA testing software,including calibration and signaling-mode tests
T6280-TFDT	TD-SCDMA fast calibration option (T6280-TD option is required)
T6280-TNST	TD-SCDMA non-signaling-mode test option (T6280-TD option is required)
T6280-TD-HSPA	TD-HSDPA/HSUPA testing software (T6280-TE option is required)
T6280-GSM	GSM testing software,including calibration and signaling-mode tests
T6280-GFDT	GSM fast calibration option (T6280-GSM option is required)
T6280-GNST	GSM non-signaling-mode test option (T6280-GSM option is required)
T6280-GGE	GPRS/EGPRS testing software,including calibration,FDT,signaling-mode tests
T6280-WCDMA	WCDMA testing software,includinng calibration,WCDMA-FDT,signaling-mode
T6280-WFDT	WCDMA fast calibration option (T6280-WCDMA option is required)
T6280-WNST	WCDMA non-signaling-mode test option (T6280-WCDMA option is required)
T6280-W-HSPA	WCDMA-HSDPA/HSUPA testing software (T6280-WCDMA option is required)
T6280-W-HSPA+	WCDMA-HSPA+ testing software (T6280-W-HSPA option is required)
T6280-LTE-TDD	LTE-TDD testing software
T6280-LTE-FDD	LTE-FDD testing software
T6280-Cal-Report	the third-party calibration report

## 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



Headquarter

6F,Buliding29,No.69 Guiqing Road,Xuhui District, SHANGHAI, PRC. 200233

Tel:+86 21 6432 6888 Fax:+86 21 6432 6777 Hotline: 400 6778077 Mail:info@transcom.net.cn www.transcom.net.cn

Beijing office

Room 512,513,geology building, No.13 Peace Street,

Chaoyang District, BEIJING, PRC. 100013

Tel:010-84263611 Fax:010-82051758 Guangzhou office

Room 1004, Houhe building, No.77 Zhongshan Road, Tianhe

District, GUANGZHOU, PRC. 510630 Tel:020-38846191/38846192/38846190

Fax:020-38846191-603

Shenzhen office

Room 726, Lankun Building, No. 213 Minkang Road, Nanshan

District, SHENZHEN, PRC. 518131

Tel:0755-26509997 Fax:0755-26509995 Chendu office

Room 403, Unit 1, Keller international Building 3, No.14 Ninehing Road, Hi Tech District, CHENGDU, PRC. 610042

Tel:028-83227390 Fax:028-85120797

Xi'an office

Room 1101, Jiatian building 2, Kechuang Road, Yanta

District, XI'AN, PRC. 710065 Tel:029-88240745 Fax:029-88227690





company profile

wechat

# **TRANSCOM INSTRUMENTS**

# **Product Brochure**







### RFID Tester T8601



### Overview

This RFID tester is a custom design to suit your products or semi-finished products testing needs. Voltage monitor, current detection, spectrum analysis and transmission are combine into one unit. With flexible, reliable, powerful and expendable, this tester fill up the gap in the RFID testing equipment market.

### **Features**

- Combined spectrum, simulator and supply in one unit
- Spectrum function for transmission monitoring
- Simulate RFID transmitter signal
- Power supply provide voltage and current testing for the DLIT
- Powerful customize testing software
- Flexible and scalable

### Advantage

- Highly integration
- Customized software testing procedure
- Flexible testing frequency range
- Single button solutions

Specifications	
Frequency Range	5700MHz~5900MHz (selectable and expendable)
Display Power Range	-80dBm~+10dBm (RBW @1KHz)
Accuracy	±1dB
Resolution Bandwidth	100Hz to 5MHz 1/2/3/5/10 steps
Speed	spectrum: 50ms~1000s
Speed	time domain: 25us~1000s
Function	maximum hold,average
runction	ACP、OBW
Signal Generator	
Frequency Range	5700MHz~5900MHz (adjustable)
Resolution	10KHz
Phase Noise	<-80dBc/Hz @10KHz
Accuracy	5ppm
Output Power Range	-80dBm~0dBm
Output Power Accuracy	±1dB
	amplitude modulation: sine wave,square wave (max 400kbps)
Modulation Type	pulse modulation:adjustable pulse wide (max 500kbps)
	digital modulation (option)
Voltage and Current Testing	
Output Voltage	DC 1.5V-5.5V (0.1V step)
Voltage Testing Range	DC 1.5V-5.5V
Testing Ports	3 ports (port 1 and 2 is voltage testing; port 3 is current testing)
Output Current	<1A
Voltage Accuracy	0.1V
Current Testing Range	1uA-1A
	>1mA ±5%
Current Testing Accuracy	<1mA ±10%
Port Switching Time	<100ms
Others	
Data Ports	support GPIB,Ethernet,USB and VGA
Operating Temperature	0 - 35°C

## 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

### Headquarter

6F,Buliding29,No.69 Guiqing Road,Xuhui District,SHANGHAI,PRC.200233

Tel:+86 21 6432 6888 Fax:+86 21 6432 6777 Hotline:400 6778077 Mail:info@transcom.net.cn www.transcom.net.cn

### Beijing office

Room 512,513,geology building, No.13 Peace Street,

Chaoyang District, BEIJING, PRC. 100013

Tel:010-84263611 Fax:010-82051758 Guangzhou office

Room 1004, Houhe building, No. 77 Zhongshan Road, Tianhe

District, GUANGZHOU,PRC.510630 Tel:020-38846191/38846192/38846190

Fax:020-38846191-603

Shenzhen office

Room 726,Lankun Building,No.213 Minkang Road, Nanshan

District, SHENZHEN, PRC. 518131

Tel:0755-26509997 Fax:0755-26509995 Chendu office

Room 403,Unit 1,Keller international Building 3, No.14 Ninehing Road,Hi Tech District, CHENGDU,PRC.610042

Tel:028-83227390 Fax:028-85120797

Xi'an office

Room 1101, Jiatian building 2, Kechuang Road, Yanta District, XI'AN, PRC. 710065

Tel:029- 88240745 Fax:029- 88227690





company profile

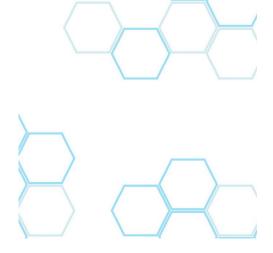
wechat

## TRANSCOM INSTRUMENTS

# **Product Brochure**







## MIMO Channel Simulator



### Overview

MIMO (Multiple Input Multiple Output) has become the key technology of next generation of communication due to the capacity advantage. The space characteristics can be fully utilized in MIMO to increase the system capacity while the transmission power and bandwidth are maintained.

The complex  $8 \times n$  and 801.11ac technology may result in a number of problems in the laboratory. As they are sensitive to the phase, engineers must accept large errors of accuracy or spend hours in manual calibration and re-calibration of RF simulation environment. The MIMO channel simulation test system of TRANSCOM can help to realize the automation of calibration and provide the required precision and efficiency. The system or terminal performance test can be done indoors by presenting the fading characteristics of spatial transmission of wireless signals in the instrument.

### Main advantages:

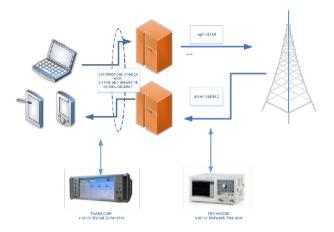
• Simplify the test

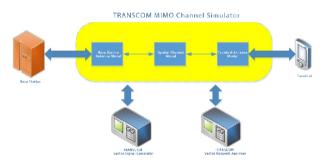
The complicated procedures which may easily result in errors in the accurate test of complex RF signals can be simplified and optimized.

- Create a real world in the laboratory
- TRANSCOM can bring the real RF scene into the laboratory, including the captured driving test scene and complex MIMO scene.
- Maximize the efficiency of resources

Even the most inexperienced member can rapidly and correctly establish and call the most complex test case. Main characteristics:

- The control process can be simplified even in the complex MIMO environment, due to the touch screen type graphical user interface.
- $\bullet$  Automatic phase calibration of higher time efficiency can be realized in the 8  $\times$  n/TD-LTE/802.11ac test.





- Support key channel simulation characteristics of TRANSCOM.
- Dynamic environment emulation (DEE).
- Extensible bandwidth (up to 70MHz).
- Enhanced power output and dynamic range.

### **Features**

- Provide four MIMO wireless channel simulator prototypes.
- a) Support the signal bandwidth of 70MHz and simulation of 4x4 MIMO channels.
- b) The modular architecture can be extended to simulation of 4x4 channels.
- c) Flexible simulation interfaces, including RF and DBB (digital baseband).
- d) Complex multi-path (48 paths) fading in each channel.
- e) RF channel system covering the frequency range of 400MHz to 6GHz.
- f) The low-distortion channel supports high-order modulation (such as 64QAM).
- g) Implementation technology for high-speed baseband signal processing.
- h) Self-correction of MIMO channel simulation system.
- i) Support multi-functional interfaces, including RF, analog baseband and digital baseband.
- j) Flexible application architecture, supporting two-way synchronous test.

- MIMO channel simulation algorithm and implementation technology
- a) Simulation of large and small channel parameter.
- b) Support the typical/customized channel fading model.
- c) Support the MIMO-based channel model.
- d) Support the high-speed mobile environment.
- e) Support AWGN digital noise adding to provide the accurate C/N or SNR.
- f) Support the carrier aggregation and CoMP test.
- g) Support rapid dynamic control of channel parameters and realize dynamic environment emulation (DEE). The controlled parameters include the status duration, channel output level, relative path power, etc.
- Provide the open development interface for the user to program the test function according to the equipment and test requirements. Parameter configuration and channel characteristic simulation are integrated in the test environment.
- Support the data acquisition, playback and offline analysis of channel simulation. Apply the complete information analysis function, and realize information output to the terminal.

output level, relative path power, etc.	
RF Transmitter	
Frequency Range	400MHz to 6000 MHz
Frequency Resolution	10Hz
Output Port	RF OUT N type (female)
Output Impedance	50 Ω
CW Output Power Range	RF OUT port: -80 to -10 dBm
CW Output Power Accuracy	< ±1 dB
CW Power Setting Step	1 dB
Output Gain Flatness	1dB@70MHz
Channel Bandwidth(1dB)	70MHz
Out-of-band Stray	< -30 dBc
RF Receiver	
Frequency Range	400MHz to 6000 MHz
Frequency Resolution	10Hz
Input Port	RF OUT N type (female)
Input Impedance	50 Ω
Input Power Range	-40 to 10 dBm
Power Setting Step	1 dB
Passband Flatness	1dB@70MHz
Channel Bandwidth(1dB)	70MHz
Out-of-band Stray	< -30 dBc
RF to RF Interface Specification	
Chnanels	1-4
(per)Channel Order	48
Minimum Delay	2μs
Amplitude Flatness	±1dB(70MHz bandwidth)
Channel Group Delay	±0.25μs (50MHz bandwidth);
±0.5μs (100MHz bandwidth)	< ±1 dB
Parasitism Caused By Aliasing	-60 dBc
RF Local Oscillator	
Frequency Range	400MHz to 6000 MHz
Frequency Resolution	10Hz
SSB Phase Noise	
1000MHz	-75dBc/Hz @1kHz offset carrier -95dBc/Hz @20kHz
2500MHz	-70dBc/Hz @1kHz offset carrier -100dBc/Hz @100kHz
5000MHz	-60dBc/Hz @1tokniz -60dBc/Hz @1tokniz -95dBc/Hz @100kHz
Sideband Parasitism	<-60dBc (±100kHz carrier)
VSWR	<2:1

Channel Interfrence Specification	
Channel Interfrence Specification  Numbers of Interfrence Signal (each channel)	1-5
Frequency Range	400MHz ~ 6000MHz
Frequency Offset Range	-50 ~ +50 MHz
Frequency Resolution	10kHz
Frequency Accuracy <sup>1</sup>	±1kHz
Frequency Accuracy <sup>2</sup>	±0.1kHz
C/R Ratio	0.1dB
Interfrence Level Range	-35 ~ -10dBm
Interfrence Level Resolution	0.1dB
Interfrence Level Accuracy	±1dB
Noise Power [1HZ bandwidth]	<-130dBm/Hz
>+/-500kHz >+/-700kHz	
	<-132dBm/Hz
>+/-1500kHz	<-135dBm/Hz
Harmonic/Stray Signal	, 004P-
>+/-500kHz	<-80dBc
>+/-700kHz	<-85dBc
>+/-1500kHz	<-95dBc
Remote Control Port	LAN
USB-A	5 USB2.0
Trigger Signal Output Port	BNC female (TTL)
Trigger Signal Input Port	BNC (TTL)
Bidirectional Programmable Port	DB9 (5 TTL)
System SYNC Port	20 pairs LVDS
Display Port	VGA/DVI-D
·r · r · · · ·	1 - 1 - 1 - 1
Time Base Specification	
	100MHz
Time Base Specification	
Time Base Specification  Reference Clock Frequency	100MHz
Time Base Specification  Reference Clock Frequency  Aging Ratio	100MHz < ±0.1 ppm/year < ±0.01 ppm -75dBc/Hz @1kHz
Time Base Specification  Reference Clock Frequency  Aging Ratio  Temperature Stability(reference +25 °)	100MHz < ±0.1 ppm/year < ±0.01 ppm -75dBc/Hz @1kHz -95dBc/Hz @20kHz
Time Base Specification  Reference Clock Frequency  Aging Ratio  Temperature Stability(reference +25 °)  Output Frequency Accuracy (after warm-up 30 min)	100MHz  < ±0.1 ppm/year  < ±0.01 ppm  -75dBc/Hz @1kHz -95dBc/Hz @20kHz aging shift + stability
Time Base Specification  Reference Clock Frequency  Aging Ratio  Temperature Stability(reference +25 °)  Output Frequency Accuracy (after warm-up 30 min)  External Reference Frequency Range	100MHz  < ±0.1 ppm/year  < ±0.01 ppm  -75dBc/Hz @1kHz  -95dBc/Hz @20kHz  aging shift + stability  100MHz ± 5 ppm
Time Base Specification  Reference Clock Frequency  Aging Ratio  Temperature Stability(reference +25 °)  Output Frequency Accuracy (after warm-up 30 min)  External Reference Frequency Range  Input Port	100MHz  < ±0.1 ppm/year  < ±0.01 ppm  -75dBc/Hz @1kHz -95dBc/Hz @20kHz aging shift + stability  100MHz ± 5 ppm  REF Input(BNC female)
Time Base Specification  Reference Clock Frequency  Aging Ratio  Temperature Stability(reference +25 °)  Output Frequency Accuracy (after warm-up 30 min)  External Reference Frequency Range  Input Port  Input Level	100MHz  < ±0.1 ppm/year  < ±0.01 ppm  -75dBc/Hz @1kHz  -95dBc/Hz @20kHz  aging shift + stability  100MHz ± 5 ppm  REF Input(BNC female)  0 to +10 dBm(Sine/TTL)
Time Base Specification  Reference Clock Frequency  Aging Ratio  Temperature Stability(reference +25 °)  Output Frequency Accuracy (after warm-up 30 min)  External Reference Frequency Range  Input Port  Input Level  Input Impedance	100MHz  < ±0.1 ppm/year  < ±0.01 ppm  -75dBc/Hz @1kHz  -95dBc/Hz @20kHz  aging shift + stability  100MHz ± 5 ppm  REF Input(BNC female)  0 to +10 dBm(Sine/TTL)
Time Base Specification  Reference Clock Frequency  Aging Ratio  Temperature Stability(reference +25 °)  Output Frequency Accuracy (after warm-up 30 min)  External Reference Frequency Range  Input Port  Input Level  Input Impedance  Output Port	100MHz  < ±0.1 ppm/year  < ±0.01 ppm -75dBc/Hz @1kHz -95dBc/Hz @20kHz aging shift + stability  100MHz ± 5 ppm  REF Input(BNC female)  0 to +10 dBm(Sine/TTL)  50Ω  REF Out (BNC female)
Time Base Specification  Reference Clock Frequency  Aging Ratio  Temperature Stability(reference +25 °)  Output Frequency Accuracy (after warm-up 30 min)  External Reference Frequency Range  Input Port  Input Level  Input Impedance  Output Port  Output Level	100MHz  < ±0.1 ppm/year  < ±0.01 ppm  -75dBc/Hz @1kHz  -95dBc/Hz @20kHz  aging shift + stability  100MHz ± 5 ppm  REF Input(BNC female)  0 to +10 dBm(Sine/TTL)  50Ω  REF Out (BNC female)  0 to +10 dBm
Time Base Specification  Reference Clock Frequency  Aging Ratio  Temperature Stability(reference +25 °)  Output Frequency Accuracy (after warm-up 30 min)  External Reference Frequency Range  Input Port  Input Level  Input Impedance  Output Port  Output Level  Output Level  Output Impedance	100MHz  < ±0.1 ppm/year  < ±0.01 ppm  -75dBc/Hz @1kHz  -95dBc/Hz @20kHz  aging shift + stability  100MHz ± 5 ppm  REF Input(BNC female)  0 to +10 dBm(Sine/TTL)  50Ω  REF Out (BNC female)  0 to +10 dBm
Time Base Specification  Reference Clock Frequency Aging Ratio  Temperature Stability(reference +25 °) Output Frequency Accuracy (after warm-up 30 min) External Reference Frequency Range Input Port Input Level Input Impedance Output Port Output Level Output Impedance General	100MHz $< \pm 0.1 \text{ ppm/year}$ $< \pm 0.01 \text{ ppm}$ $-75dBc/Hz @1kHz$ $-95dBc/Hz @20kHz$ aging shift + stability $100MHz \pm 5 \text{ ppm}$ REF Input(BNC female) $0 \text{ to } +10 \text{ dBm(Sine/TTL)}$ $50\Omega$ REF Out (BNC female) $0 \text{ to } +10 \text{ dBm}$ $50 \Omega$
Time Base Specification  Reference Clock Frequency Aging Ratio  Temperature Stability(reference +25 °)  Output Frequency Accuracy (after warm-up 30 min)  External Reference Frequency Range  Input Port  Input Level  Input Impedance  Output Port  Output Level  Output Impedance  General  Operationg Temperature	100MHz $ < \pm 0.1 \text{ ppm/year} $ $ < \pm 0.01 \text{ ppm} $ $ -75dBc/Hz @1kHz $ $ -95dBc/Hz @20kHz $ aging shift + stability $ 100MHz \pm 5 \text{ ppm} $ REF Input(BNC female) $ 0 \text{ to } +10 \text{ dBm(Sine/TTL)} $ $ 50\Omega $ REF Out (BNC female) $ 0 \text{ to } +10 \text{ dBm} $ $ 50 \Omega $ $ +10 \sim +40 ^{\circ}\text{C} $
Time Base Specification  Reference Clock Frequency Aging Ratio  Temperature Stability(reference +25 °)  Output Frequency Accuracy (after warm-up 30 min)  External Reference Frequency Range  Input Port  Input Level  Input Impedance  Output Port  Output Level  Output Level  Output Impedance  General  Operationg Temperature  Storage Temperature	100MHz $< \pm 0.1 \text{ ppm/year}$ $< \pm 0.01 \text{ ppm}$ $-75dBc/Hz @1kHz$ $-95dBc/Hz @20kHz$ aging shift + stability $100MHz \pm 5 \text{ ppm}$ REF Input(BNC female) $0 \text{ to } +10 \text{ dBm(Sine/TTL)}$ $50\Omega$ REF Out (BNC female) $0 \text{ to } +10 \text{ dBm}$ $50 \Omega$ $+10 \sim +40 \text{ °C}$ $-20 \sim +65 \text{ °C}$
Time Base Specification  Reference Clock Frequency Aging Ratio  Temperature Stability(reference +25 °) Output Frequency Accuracy (after warm-up 30 min) External Reference Frequency Range Input Port Input Level Input Impedance Output Port Output Level Output Impedance  General Operationg Temperature Storage Temperature Humidity	$100 \text{MHz}$ $< \pm 0.1 \text{ ppm/year}$ $< \pm 0.01 \text{ ppm}$ $-75 \text{dBc/Hz} @1 \text{kHz}$ $-95 \text{dBc/Hz} @20 \text{kHz}$ $\text{aging shift} + \text{stability}$ $100 \text{MHz} \pm 5 \text{ ppm}$ REF Input(BNC female) $0 \text{ to } +10 \text{ dBm(Sine/TTL)}$ $50 \Omega$ REF Out (BNC female) $0 \text{ to } +10 \text{ dBm}$ $50 \Omega$ $+10 \sim +40 \text{ °C}$ $-20 \sim +65 \text{ °C}$ $20 \% \sim 80 \%$
Time Base Specification  Reference Clock Frequency Aging Ratio  Temperature Stability(reference +25 °)  Output Frequency Accuracy (after warm-up 30 min)  External Reference Frequency Range  Input Port  Input Level Input Impedance  Output Port  Output Level Output Level  Output Impedance  General  Operationg Temperature  Humidity  Dimensions(HxWxL)	$100 \text{MHz}$ $< \pm 0.1 \text{ ppm/year}$ $< \pm 0.01 \text{ ppm}$ $-75 \text{dBc/Hz @1kHz}$ $-95 \text{dBc/Hz @20kHz}$ $aging shift + stability$ $100 \text{MHz} \pm 5 \text{ ppm}$ REF Input(BNC female) $0 \text{ to } +10 \text{ dBm(Sine/TTL)}$ $50 \Omega$ REF Out (BNC female) $0 \text{ to } +10 \text{ dBm}$ $50 \Omega$ $+10 \sim +40 ^{\circ}\text{C}$ $-20 \sim +65 ^{\circ}\text{C}$ $20\% \sim 80\%$ $222 \times 426 \times 533 \text{ mm}$
Time Base Specification  Reference Clock Frequency Aging Ratio  Temperature Stability(reference +25 °) Output Frequency Accuracy (after warm-up 30 min) External Reference Frequency Range Input Port Input Level Input Impedance Output Port Output Level Output Impedance  General Operationg Temperature Storage Temperature Humidity Dimensions(HxWxL) AC Power	$100 \text{MHz}$ $< \pm 0.1 \text{ ppm/year}$ $< \pm 0.01 \text{ ppm}$ $-75 \text{dBc/Hz} @1 \text{kHz}$ $-95 \text{dBc/Hz} @2 \text{OkHz}$ $\text{aging shift} + \text{stability}$ $100 \text{MHz} \pm 5 \text{ ppm}$ REF Input(BNC female) $0 \text{ to} +10 \text{ dBm(Sine/TTL)}$ $50 \Omega$ REF Out (BNC female) $0 \text{ to} +10 \text{ dBm}$ $50 \Omega$ $+10 \sim +40 ^{\circ}\text{C}$ $-20 \sim +65 ^{\circ}\text{C}$ $20\% \sim 80\%$ $222 \times 426 \times 533 \text{ mm}$ $100 \sim 240 \text{ VAC, } 50 \sim 60 \text{ Hz}$
Time Base Specification  Reference Clock Frequency Aging Ratio  Temperature Stability(reference +25 °)  Output Frequency Accuracy (after warm-up 30 min)  External Reference Frequency Range Input Port Input Level Input Impedance Output Port Output Level Output Level Output Impedance  General Operationg Temperature  Storage Temperature Humidity Dimensions(HxWxL)  AC Power  LCD Touch Screen	100MHz $ < \pm 0.1 \text{ ppm/year} $ $ < \pm 0.01 \text{ ppm} $ $ -75dBc/Hz @1kHz $ $ -95dBc/Hz @20kHz $ $ aging shift + stability $ $ 100MHz \pm 5 \text{ ppm} $ REF Input(BNC female) $ 0 \text{ to } +10 \text{ dBm(Sine/TTL)} $ $ 50Ω $ REF Out (BNC female) $ 0 \text{ to } +10 \text{ dBm} $ $ 50 Ω $ $ +10 \sim +40 \text{ °C} $ $ -20 \sim +65 \text{ °C} $ $ 20% \sim 80\% $ $ 222 \times 426 \times 533 \text{ mm} $ $ 100 \sim 240 \text{ VAC, } 50 \sim 60 \text{ Hz} $ $ 10.4 \text{ inch } XGA (1024 \times 768) $ $ 4096 \times 4096 \text{ resistive} $
Time Base Specification  Reference Clock Frequency Aging Ratio  Temperature Stability(reference +25 °)  Output Frequency Accuracy (after warm-up 30 min)  External Reference Frequency Range Input Port Input Level Input Impedance Output Port Output Level Output Impedance  General Operationg Temperature Humidity Dimensions(HxWxL)  AC Power LCD Touch Screen Operating System	$100 \text{MHz}$ $< \pm 0.1 \text{ ppm/year}$ $< \pm 0.01 \text{ ppm}$ $-75 \text{dBc/Hz} @1 \text{kHz}$ $-95 \text{dBc/Hz} @2 \text{0kHz}$ $aging shift + stability$ $100 \text{MHz} \pm 5 \text{ ppm}$ REF Input(BNC female) $0 \text{ to} +10 \text{ dBm(Sine/TTL)}$ $50 \Omega$ REF Out (BNC female) $0 \text{ to} +10 \text{ dBm}$ $50 \Omega$ $+10 \sim +40 ^{\circ}\text{C}$ $-20 \sim +65 ^{\circ}\text{C}$ $20\% \sim 80\%$ $222 \times 426 \times 533 \text{ mm}$ $100 \sim 240 \text{ VAC, } 50 \sim 60 \text{ Hz}$ $10.4 \text{ inch } \text{XGA} (1024 \times 768)$ $4096 \times 4096 \text{ resistive}$ Windows XP
Time Base Specification  Reference Clock Frequency Aging Ratio  Temperature Stability(reference +25 °)  Output Frequency Accuracy (after warm-up 30 min)  External Reference Frequency Range Input Port Input Level Input Impedance Output Port Output Level Output Impedance  General Operationg Temperature Humidity Dimensions(HxWxL)  AC Power LCD Touch Screen Operating System Consumption	100MHz  < ±0.1 ppm/year  < ±0.01 ppm -75dBc/Hz @1kHz -95dBc/Hz @20kHz aging shift + stability  100MHz ± 5 ppm  REF Input(BNC female) 0 to +10 dBm(Sine/TTL)  50Ω  REF Out (BNC female) 0 to +10 dBm  50 Ω  +10 ~ +40 °C -20 ~ +65 °C  20% ~ 80%  222 x 426 x 533 mm  100 ~ 240 VAC, 50 ~ 60 Hz  10.4 inch XGA (1024 x 768)  4096x4096 resistive  Windows XP  < 450 W
Time Base Specification  Reference Clock Frequency Aging Ratio  Temperature Stability(reference +25 °)  Output Frequency Accuracy (after warm-up 30 min)  External Reference Frequency Range Input Port Input Level Input Impedance Output Port Output Level Output Impedance  General Operationg Temperature Humidity Dimensions(HxWxL)  AC Power LCD Touch Screen Operating System	$100 \text{MHz}$ $< \pm 0.1 \text{ ppm/year}$ $< \pm 0.01 \text{ ppm}$ $-75 \text{dBc/Hz} @1 \text{kHz}$ $-95 \text{dBc/Hz} @2 \text{0kHz}$ $aging shift + stability$ $100 \text{MHz} \pm 5 \text{ ppm}$ REF Input(BNC female) $0 \text{ to} +10 \text{ dBm(Sine/TTL)}$ $50 \Omega$ REF Out (BNC female) $0 \text{ to} +10 \text{ dBm}$ $50 \Omega$ $+10 \sim +40 ^{\circ}\text{C}$ $-20 \sim +65 ^{\circ}\text{C}$ $20\% \sim 80\%$ $222 \times 426 \times 533 \text{ mm}$ $100 \sim 240 \text{ VAC, } 50 \sim 60 \text{ Hz}$ $10.4 \text{ inch } \text{XGA} (1024 \times 768)$ $4096 \times 4096 \text{ resistive}$ Windows XP

## 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



### Headquarter

6F,Buliding29,No.69 Guiqing Road,Xuhui District,SHANGHAI,PRC.200233

Tel:+86 21 6432 6888 Fax:+86 21 6432 6777 Hotline:400 6778077 Mail:info@transcom.net.cn www.transcom.net.cn

Beijing office

Room 512,513,geology building, No.13 Peace Street,

Chaoyang District, BEIJING, PRC. 100013

Tel:010-84263611 Fax:010-82051758 Guangzhou office

Room 1004, Houhe building, No. 77 Zhongshan Road, Tianhe

District, GUANGZHOU,PRC.510630 Tel:020-38846191/38846192/38846190

Fax:020-38846191-603

Shenzhen office

Room 726,Lankun Building,No.213 Minkang Road, Nanshan

District, SHENZHEN, PRC. 518131

Tel:0755-26509997 Fax:0755-26509995 Chendu office

Room 403, Unit 1, Keller international Building 3, No.14

Ninehing Road, Hi Tech District, CHENGDU, PRC.610042

Tel:028-83227390 Fax:028-85120797

Xi'an office

Room 1101, Jiatian building 2, Kechuang Road, Yanta

District,XI'AN,PRC.710065 Tel:029- 88240745 Fax:029- 88227690





company profile

wechat