

TC-5955AR Pneumatic Shield Box



Features

- High RF shielding up to 6 GHz
- Designed for long life
- Specifically designed for various types of mobile phones
- Pneumatic control of lid open/close
- Absorbing materials for stable measurement results
- EMI filters on all data ports and power lines
- Remote operation by RS-232C or PLC

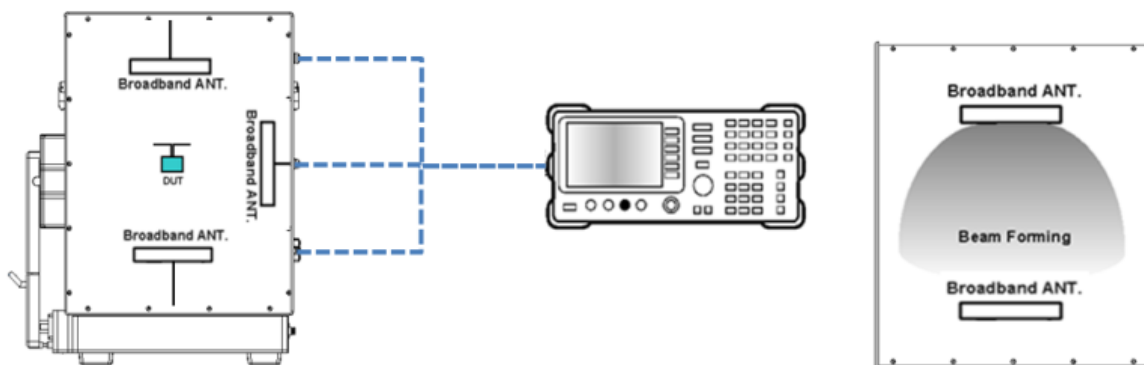
Introduction

TC-5955AR, Pneumatic Shield box generates the Electro-Magnetic field for testing small RF devices such as Mobile Phones, Bluetooth, WLAN, Zigbee, etc. An external test signal applies through the input port of TC-5955AR generates a consistent and predictable test field inside.

The unique compact and economical design is optimized for medium accuracy measurements.

Applications

- Receiver sensitivity testing, Transmitter radiated power testing.
- Mobile Phones, WLAN, Bluetooth, LTE, GNSS.



Test Configuration

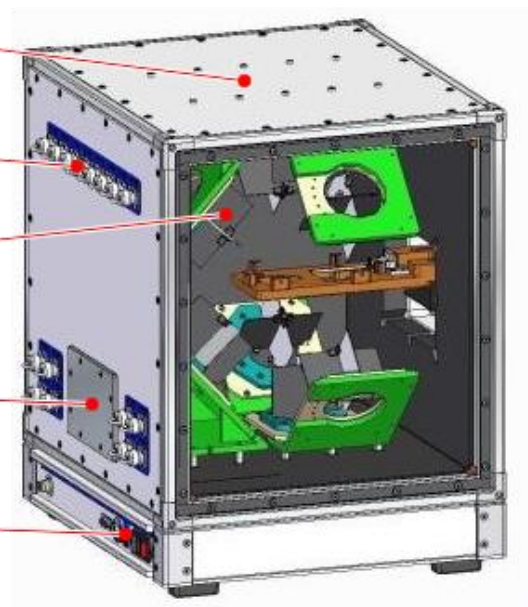
Ten(10) M5 tapped on top & bottom for mounting fixtures

Sixteen(16) RF connectors

Eight(8) Tescom DPV antenna fixtures (optional)

Customizable I/O interface (optional)

RS-232C data port & PLC connector



Basic Features (Cross-Section)

Specifications

Mechanical Specifications

Basic RF Connector	Ver. 00: sixteen(16) SMA(f) outside and SMA(f) inside Ver. 01: sixteen(16) N(f) outside and SMA(f) inside
Basic Data Connector	One(1) USB 2.0 outside and inside
Remote Control	RS-232C, PLC, Dual Remote Switch
Air Connection	
Main Connection	6 mm OD hose, one-touch fitting
Input Air Pressure	5 to 10 bar
Dimensions	
Outside	536(W) x 587(D) x 583(H) mm Door Closed, 867(D) mm Door Open
Door Size	176(W) x 130(H) mm
Door Stroke (Open/Close)	280 mm
Weight	Approx. 39 kg
*Packing	
Size	726(W) x 636(D) x 699(H) mm
Weight	Approx. 46 kg

* The size or weight of a package may vary depending on how the product is packed.

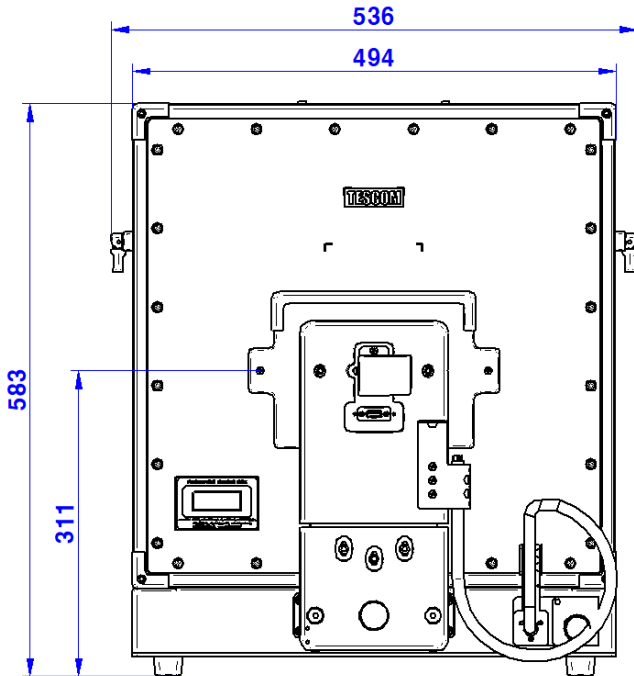
Typical RF Shielding

The shielding effectiveness below is measured with blank panels mounted. Other I/O interface panel may result in different shielding effectiveness.

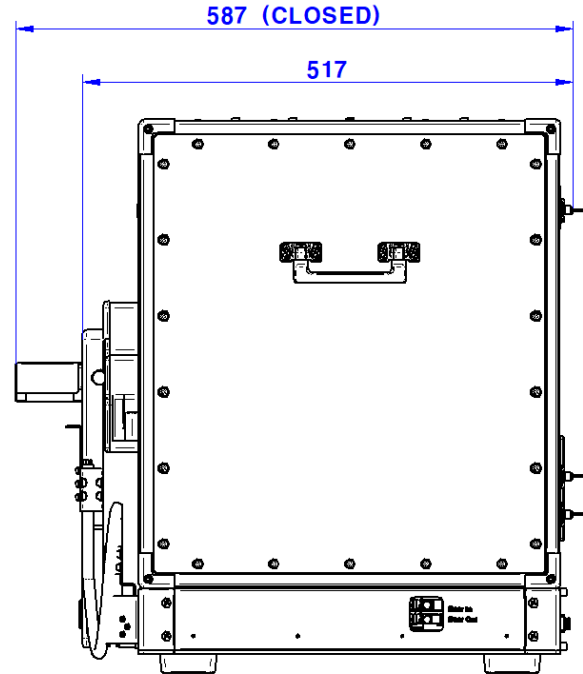
Frequency	Shielding Effectiveness (dB)
100 to 2000 MHz	> 70 dB
2000 to 3000 MHz	> 70 dB
3000 to 6000 MHz	> 60 dB

Dimensions

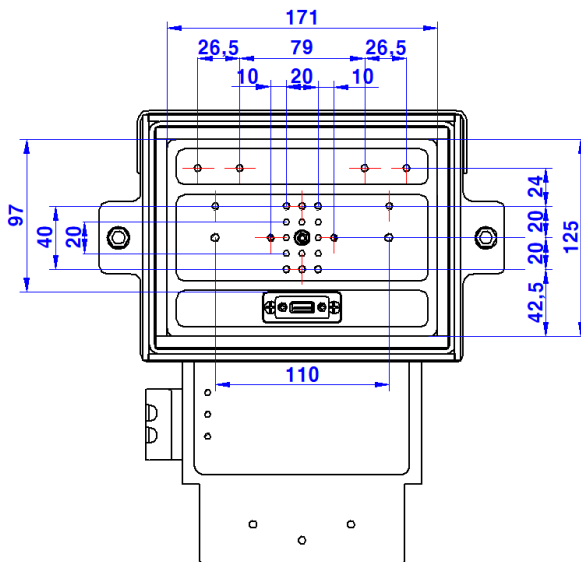
- TC-5955AR Outer Dimensions (WxDxH): 536(W) x 587(D) x 583(H) mm



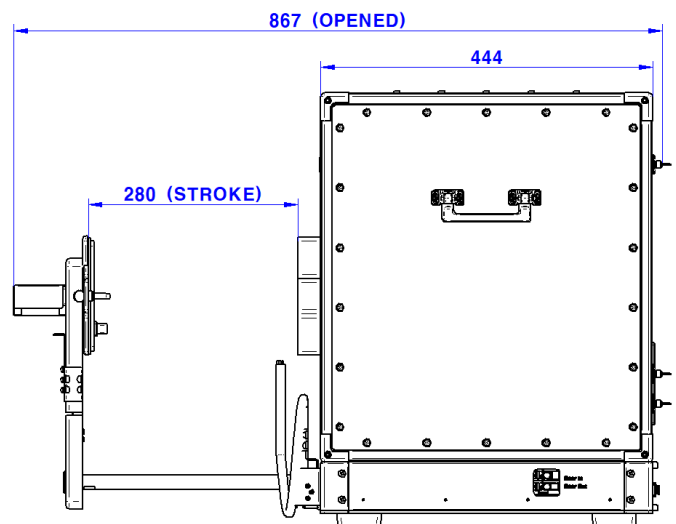
Front View



Side View(closed)

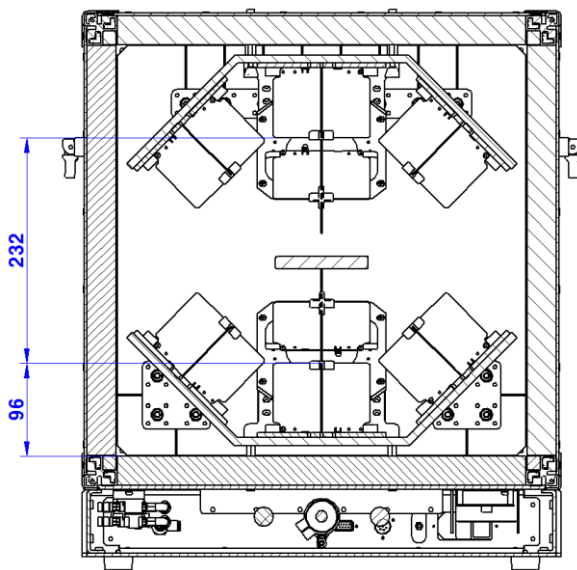


Door View

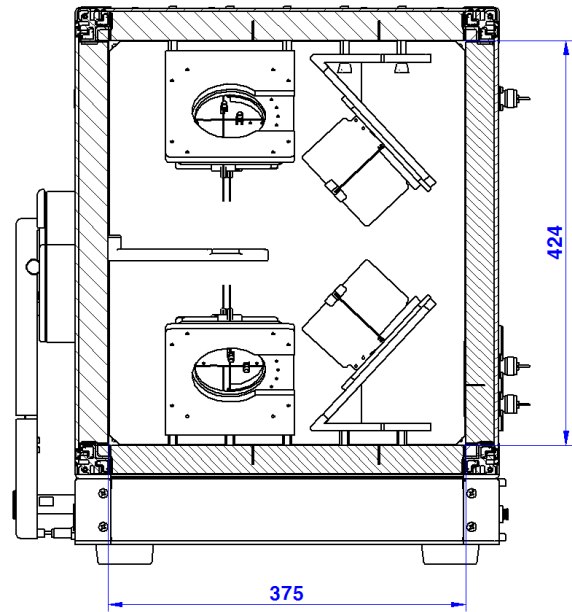


Side View(opened)

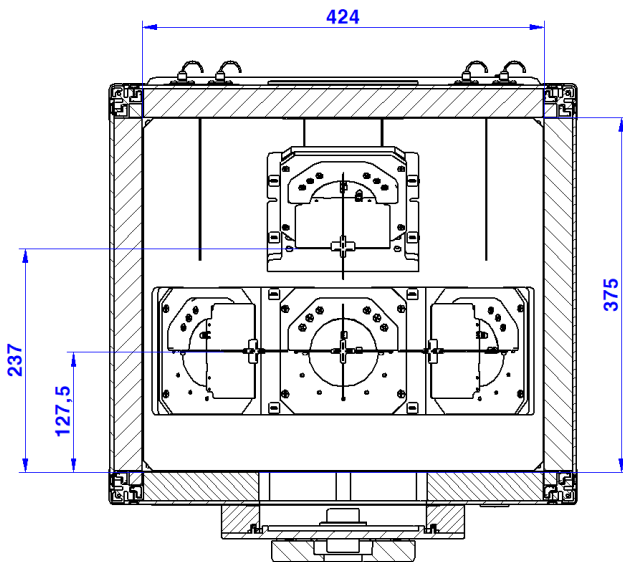
- TC-5955AR Inner Dimensions (WxDxH): 424(W) x 375(D) x 424(H)



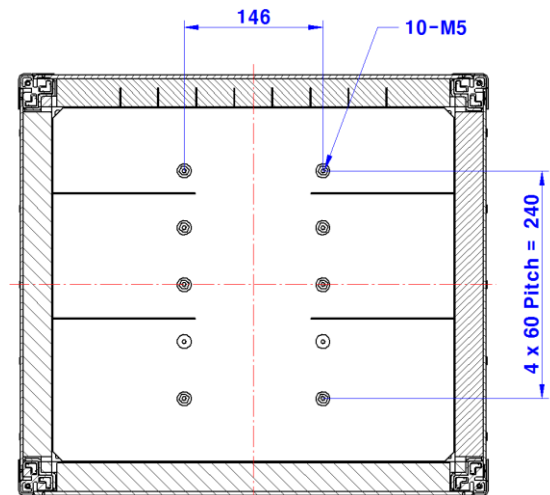
Front View



Side View



Bottom View (Ant. Mounted)




Top View (Ant. Removed)

Ordering Information





Order Number	Description
TC-5955AR	Pneumatic RF Test Cell (including accessories below)
	Test Report
	Power Cable, 220 V, 1.5 m, 1 pc
	Remote Switch, 2 m, 1 pc
	USB to RS-232(m) Converter, 2 m, 1 pc
	8-pin PLC Cable, 2 m, 1 pc
	SS402, Ver. 00: SMA(m) to SMA(m) 1.8 m, 1 pc Ver. 01: N(m) to N(m), 2 m, 1 pc







Pre-Configured I/O Interface Panel



I/O Interface Panel	Order Number	Configuration
 <p>Data Interface Panel</p>	M5970D01A	<ul style="list-style-type: none"> Blank module (Absorber)

Custom I/O Interface Panel

- Customized I/O interface panel is available by selecting and arranging I/O interfaces below. Please contact TESCOM sales team or your local distributor.

I/O Interface	Description / Order Number	Typical Data Rate / Line Voltage	*Typical Shielding
	DB25, 1000pF Pi Filter / 3409-0009-1	3 Mbps / 100 VDC, 5 Amps max	>70 dB from 0.5 to 2 GHz >80 dB from 2 to 3 GHz >70 dB from 3 to 6 GHz
	DB25, 100pF Pi Filter / 3409-0014-1	10 Mbps / 100 VDC, 5 Amps max	>50 dB from 0.5 to 2 GHz >60 dB from 2 to 3 GHz >60 dB from 3 to 6 GHz
	DB9, 1000pF Pi Filter / 3409-0008-1	3 Mbps / 100 VDC, 5 Amps max	>70 dB from 0.5 to 2 GHz >80 dB from 2 to 3 GHz >70 dB from 3 to 6 GHz
	DB9, 100pF Pi Filter / 3409-0010-1	10 Mbps / 100 VDC, 5 Amps max	>50 dB from 0.5 to 2 GHz >60 dB from 2 to 3 GHz >60 dB from 3 to 6 GHz

	USB 2.0 Filter / 3409-0018A-3	480 Mbps / 5 V, 500 mA / Max Current: 5 A	>60 dB from 0.5 to 2 GHz >70 dB from 2 to 3 GHz >70 dB from 3 to 6 GHz
	USB 3.1 Gen1 Filter (Active) / 3409-0042A-2	5000 Mbps/ 5 V, 600 mA / Max Current: 1.5 A	>80 dB from 0.5 to 2 GHz >80 dB from 2 to 3 GHz >75 dB from 3 to 6 GHz
	RJ-45 Filter / 3409-0022A	1 Gbit/s Copper-Line Ethernet (1000 BASE-T)	>60 dB from 0.5 to 2 GHz >70 dB from 2 to 3 GHz >70 dB from 3 to 6 GHz
	DC Power Adaptor / 3406-0004A	50 VDC, 3 Amps max	>70 dB from 0.5 to 2 GHz >80 dB from 2 to 3 GHz >80 dB from 3 to 6 GHz
	DC Power Adaptor (Banana Jack Type) / 3406-0005A, 3406-0006A	50 VDC, 10 Amps max	>70 dB from 0.5 to 2 GHz >80 dB from 2 to 3 GHz >80 dB from 3 to 6 GHz
	AC Power Adaptor / 3103-0009A	250 VAC, 7 Amps max	>70 dB from 0.5 to 2 GHz >80 dB from 2 to 3 GHz >80 dB from 3 to 6 GHz

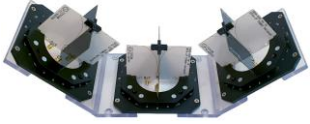

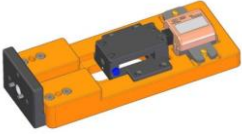
I/O Interface	Description / Order Number	Frequency Range / Impedance / V.S.W.R
	RF, N-SMA Connector / 3408-0038	From DC to 6 GHz / 50 Ω / 1.15 max
	RF, SMA-SMA Connector / 3408-0039	From DC to 8 GHz / 50 Ω / 1.15 max

- ***Typical Shielding** is an estimated value with I/O interface applied.
- The data above were measured by TESCOM standards, and they may be different depending on the measuring method and environment.
- Each shielding effectiveness is measured without any cable, so it will be likely affected when a cable is connected. Also, it may vary depending on the type of cable.

Fixture

- TESCOM offers fully customized DUT guide fixture to fit a specific DUT with automated connection by the door fixture cylinder.
- In addition to the fixture, DPVA (dual polarized Vivaldi antenna) fixture options can form an ideal measuring environment for characteristics of each DUT.

■ Optional Fixtures

I/O Interface Panel	Order Number	Configuration
	C93076A C5955AP-2040A C7011AP-2014-1	<ul style="list-style-type: none"> ● Antenna Fixture Set - TC-93076A: DPV Antenna, 0.7 GHz to 6 GHz - C5955AP-2040A: DPV Antenna Fixture Ass'y - C6011AP-2014-1: Antenna Mounting Bracket (135°)
	C93076A C5955AP-2040A C7011AP-2021-1	<ul style="list-style-type: none"> ● Antenna Fixture Set (Angular Type) - TC-93076A: DPV Antenna, 0.7 GHz to 6 GHz - C5955AP-2040A: DPV Antenna Fixture Ass'y - C6011AP-2021-1: Antenna Mounting Bracket (47°)
	DUT Cradle	<ul style="list-style-type: none"> ● DUT Guide Fixture - Custom Type

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE