

TC-5955AP 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

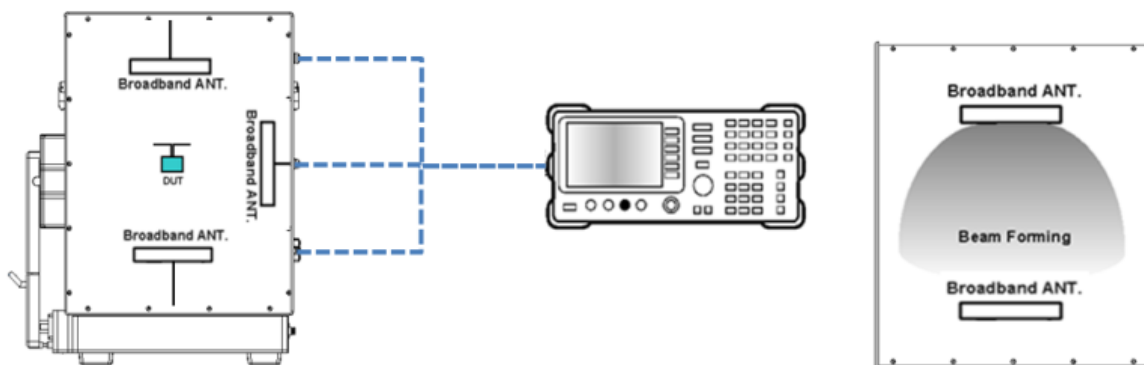
Introduction

TC-5955AP, 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-5955AP 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

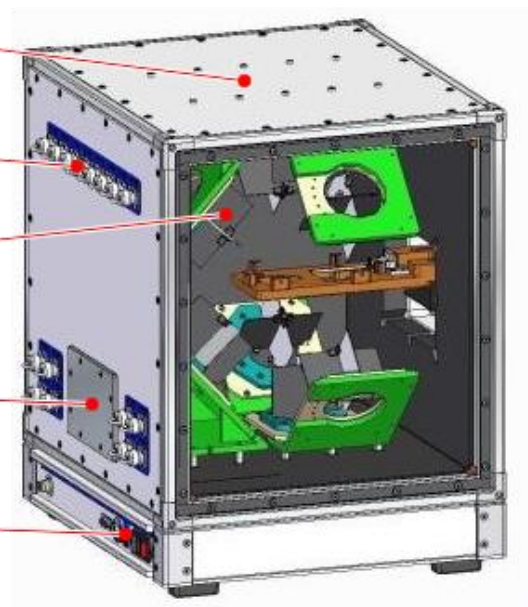
Ten(10) M5 tapped on top & bottom for mounting fixtures

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	534(W) x 526(D) x 583(H) mm Door Closed, 786(D) mm Door Open
Door Size	176(W) x 130(H) mm
Door Stroke (Open/Close)	260 mm
Weight	Approx. 39 kg
*Packing	
Size	680 (W) x 640(D) x 730(H) mm
Weight	Approx. 46 kg

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

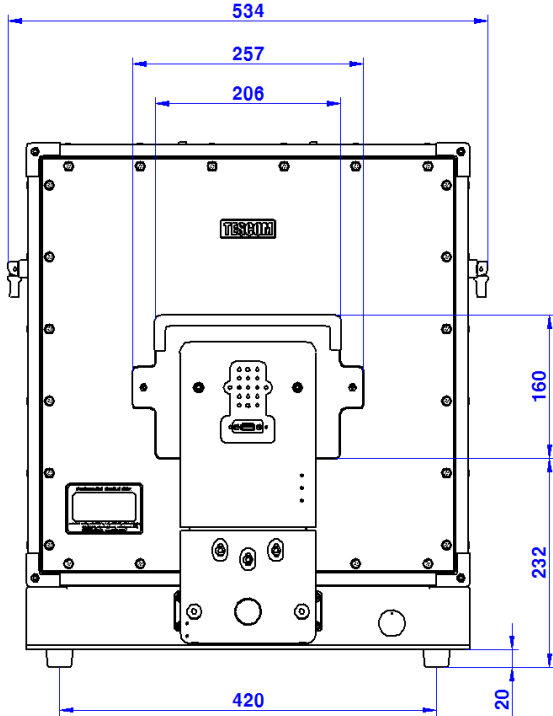
Typical RF Shielding

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

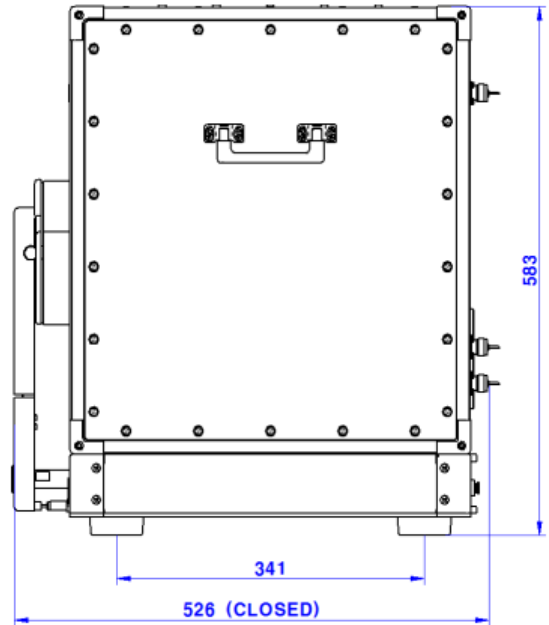
Frequency	Shielding Effectiveness (dB)
100 to 2000 MHz	> 70 dB
2000 to 3000 MHz	> 70 dB
3000 to 6000 MHz	> 60 dB

Dimensions

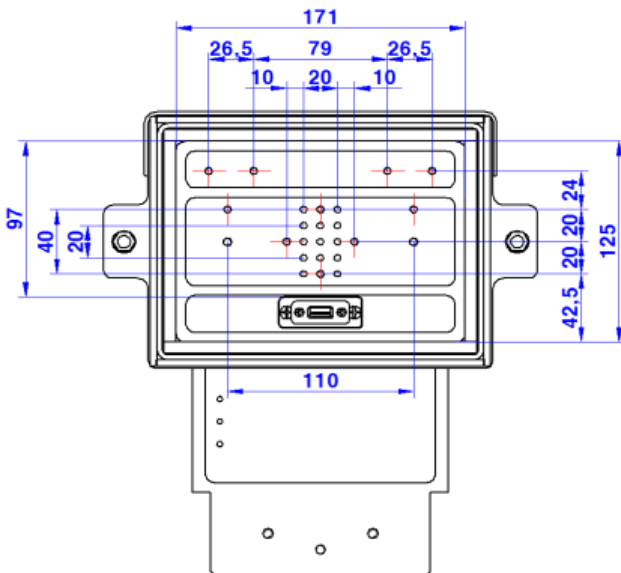
- TC-5955AP Outside Dimensions (WxDxH): 534(W) x 526(D) x 583(H) mm



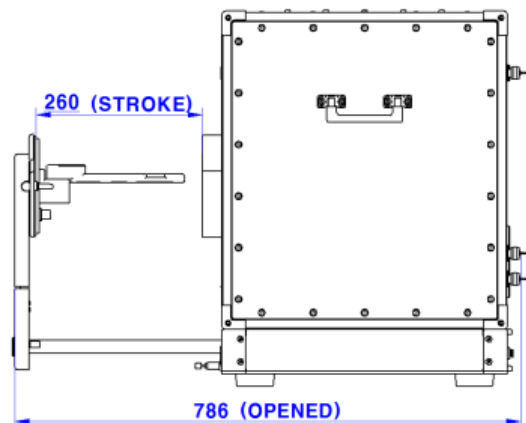
Front View



Side View(closed)

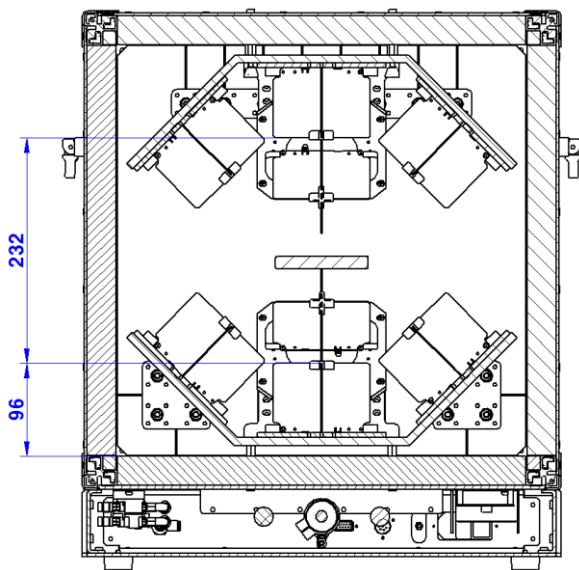


Door View

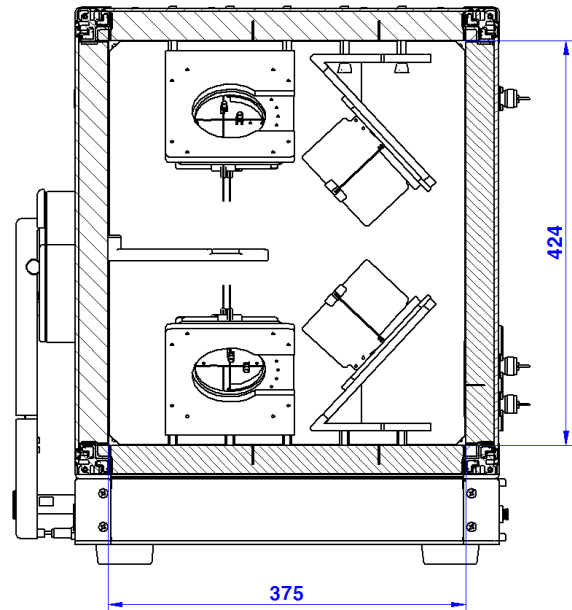


Side View(opened)

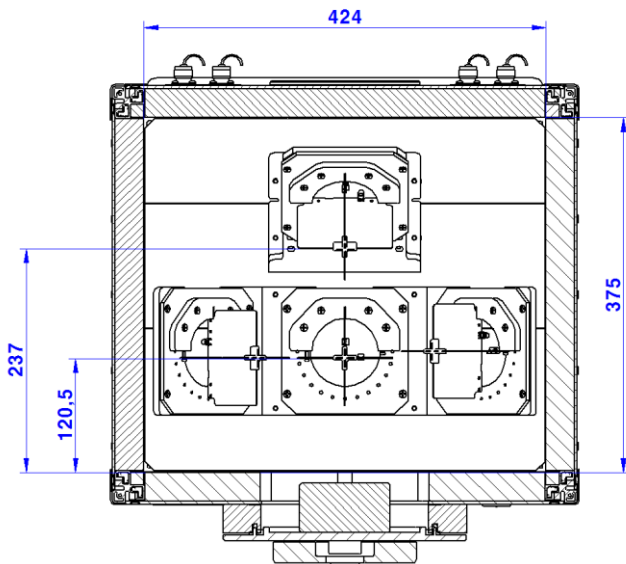
- TC-5955AP Inside Dimensions (WxDxH): 424(W) x 375(D) x 424(H)



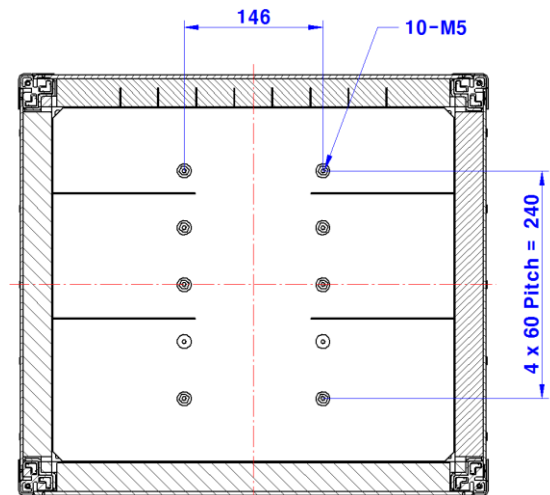
Front View



Side View



Bottom View (Ant. Mounted)




Top View (Ant. Removed)

Ordering Information





Order Number	Description
TC-5955AP	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

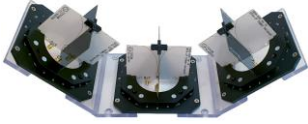

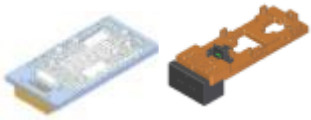
I/O Interface	Description / Order Number	Frequency Range / Impedance / V.S.W.R
	RF, N-SMA Connector / 3408-0038	From DC to 6 GHz / 50 Ω / 1.15 max
	RF, SMA-SMA Connector / 3408-0039	From DC to 8 GHz / 50 Ω / 1.15 max

- ***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 standard grid fixtures that can change the position of DUT holding blocks. An optimal fit for different shapes of DUT can be made within seconds. Also, fully customized fixtures can be manufactured and supplied if necessary to meet the customer's demands.
- In addition to the grid 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 - Grid Type / Custom Type

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE