

TC-5972DP Pneumatic Shield Box



Features

- High RF shielding
- Pneumatic control of lid open/close and optional test fixture motions
- EMI filters on all data ports and power lines
- Easily customizable to suit various test needs
- Red and green LEDs for PASS/FAIL indication
- RS-232C remote control
- High performance absorber for radiation testing

Specifications

Mechanical Specifications

Basic RF Connector	Four(4) N(f) outside and SMA(f) inside
Line Voltage	24 VDC, Max. 2 A
Remote Control	RS-232C, 3 wire, DB9(s)
Air Connection	
Main Connector	6 mm OD hose, one-touch push-on fitting
Fixture Control Connector	4 mm OD hose, one-touch push-on fitting
Input Air Pressure	5 to 10 bar
Dimensions	
Inside	445(W) x 450(D) x 338(H) mm, 208(D) mm top side.
Outside	582(W) x 661(D) x 451(H) mm
Weight	Approx. 32 kg
*Packing	
Size	850(W) x 720(D) x 590(H) mm
Weight	Approx. 42 kg

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

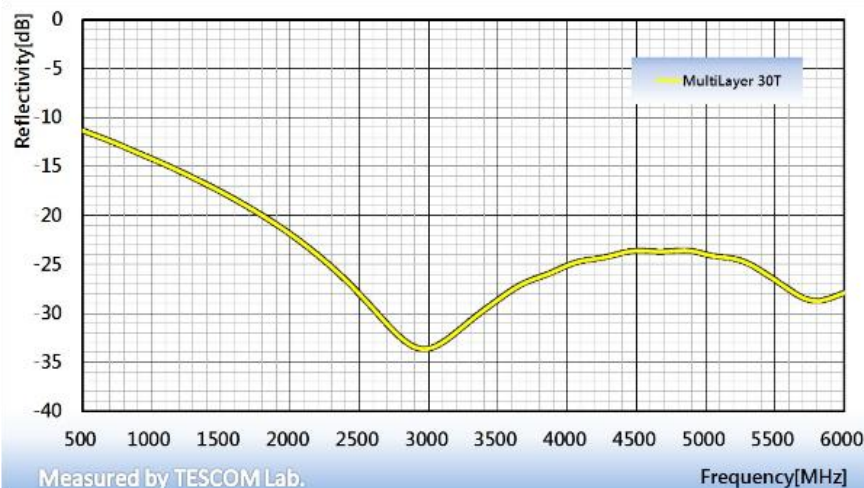
Typical RF Shielding

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

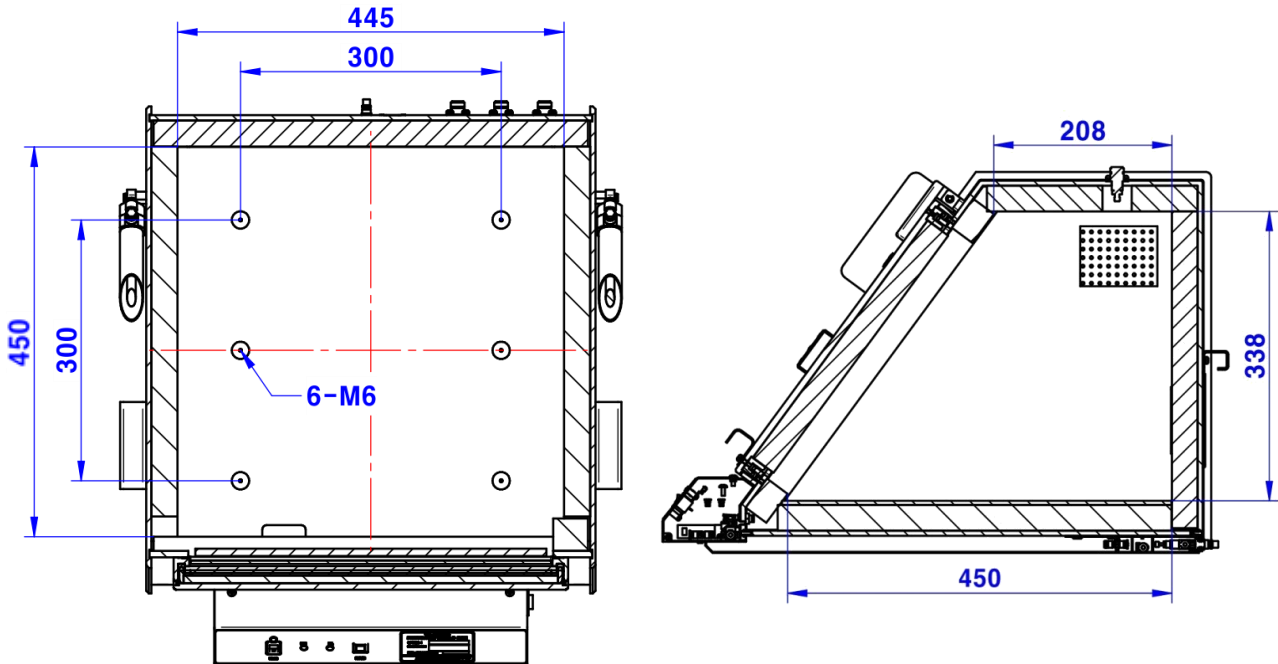
Absorber Reflectivity

- Referring to a metal plate (0 dB @ 0.5 GHz to 6 GHz), signal reduction is measured with a vector network analyzer when the RF absorber is inserted.

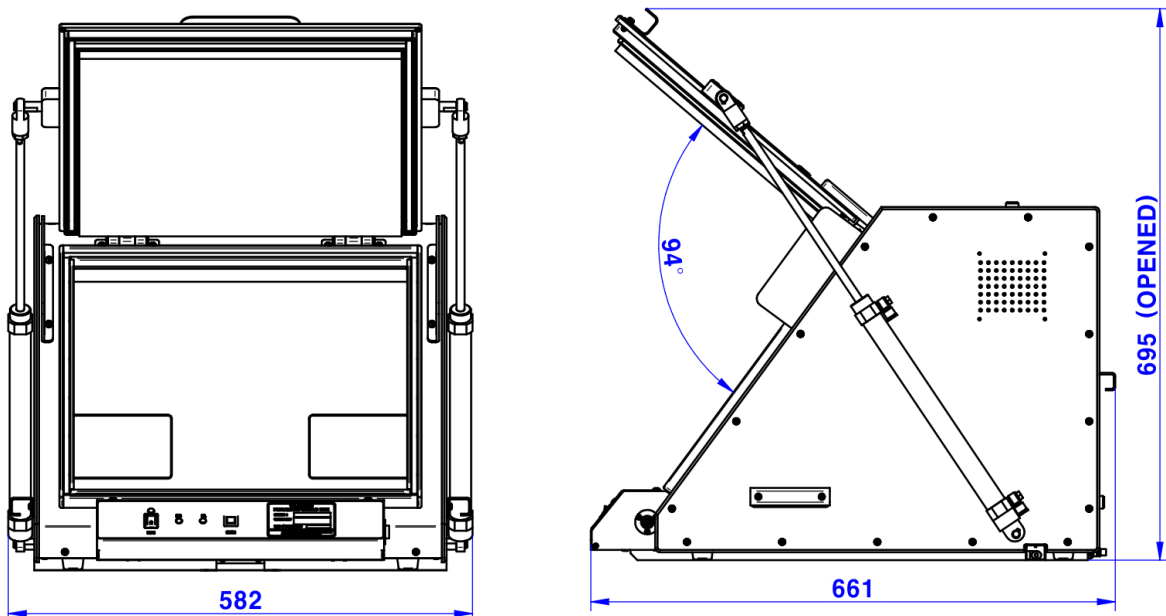


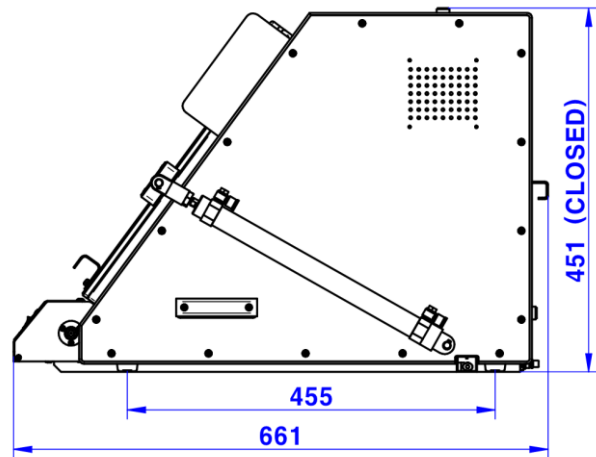
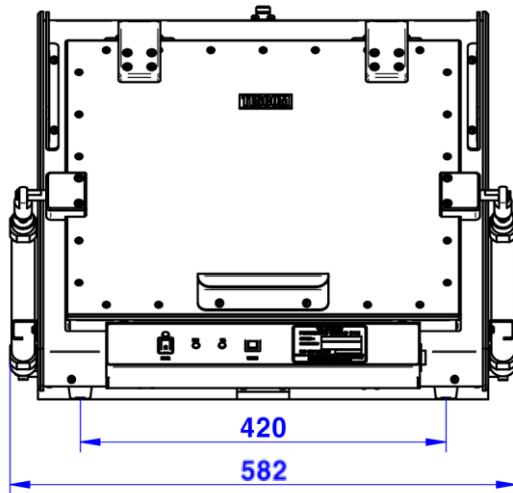
Dimensions

- TC-5972DP Inner Dimensions (WxDxH) : 445(W) x 450(D) x 338(H) mm, 208(D) mm top side



- TC-5972DP Outer Dimensions (WxDxH) : 582(W) x 661(D) x 451(H) mm, lid closed.

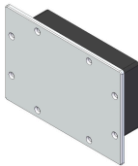
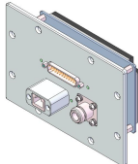


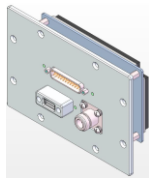


Ordering Information

Order Number	Description
TC-5972DP	Pneumatic Shield Box (including accessories below)
	Test Report
	RF Cable, SS-402, N(m) to N(m) 1 m, 1 pc
	Data Cable, DB9(p) to DB9(s) cable 2 m, 1 pc
	Air Coupler, 1 pc
	Switching Power Supply, 1 pc
	Box Remote Switch Cable 2 m, 1 pc

Pre-Configured I/O Interface Panel

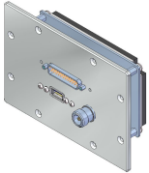
I/O Interface Panel	Order Number	Configuration
 <p>Data Interface Panel</p>	M5970D01A	<ul style="list-style-type: none"> Blank module (Absorber)
 <p>Data Interface Panel</p>	M5970C03A	<ul style="list-style-type: none"> One(1) N(f) outside and SMA(f) inside One(1) RJ-45 outside and inside One(1) DB25(p) outside and DB25(s) inside, 1000 pF pi filter



M5970C04A

- One(1) N(f) outside and SMA(f) inside
- One(1) USB 2.0 outside and inside
- One(1) DB25(p) outside and DB25(s) inside, 1000 pF pi filter

Data Interface Panel



M5970C04B

- One(1) N(f) outside and SMA(f) inside
- One(1) USB 3.1 Gen 1 outside and inside
- One(1) DB25(p) outside and DB25(s) inside, 1000 pF pi filter

Data Interface Panel



M5970C12A

- One(1) USB 2.0 outside and inside
- One(1) DB9(p) outside and DB9(s) inside, 100 pF pi filter
- One(1) DB25(p) outside and DB25(s) inside, 100 pF pi filter

Data Interface Panel



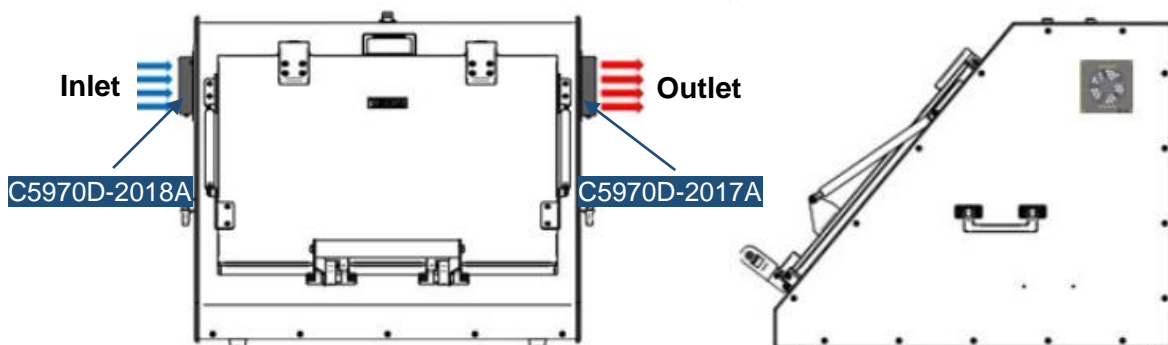
C5970D-2017A

C5970D-2018A

- One(1) DC Fan Set, DC 24 V (One Pair)
 - C5970D-2017A: Outlet
 - C5970D-2018A: Inlet
 - C5970D-2017A / C5970D-2018A are the same parts but the installation direction is different.

Cooling Fan



Cooling Fan (Optional)



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.

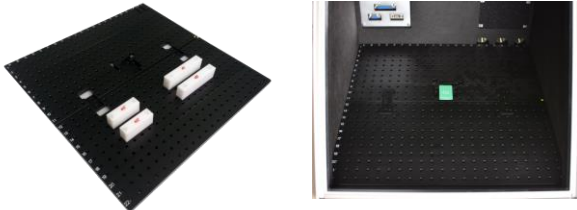
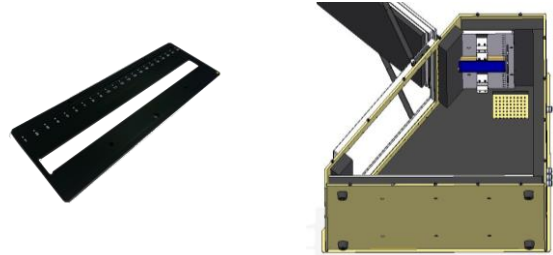

I/O Interface	Description / Order Number	Typical Data Rate / Line Voltage	*Typical Shielding
	DB25, 1000pF Pi Filter / 3409-0009-1	3 Mbps / 100 VDC, 5 Amps max	>70 dB from 0.5 to 2 GHz >80 dB from 2 to 3 GHz >70 dB from 3 to 6 GHz
	DB25, 100pF Pi Filter / 3409-0014-1	10 Mbps / 100 VDC, 5 Amps max	>50 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
	USB3.1 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 fixture, various types of antenna coupler options can form an ideal measuring environment for characteristics of each DUT.

Fixture	Order Number	Description
	F59725B	<ul style="list-style-type: none"> • Antenna Coupler fixed type fixture • Antenna Coupler(Optional): TC-93026A
	F59724B	<ul style="list-style-type: none"> • TC-5972D Top Fixture • Antenna Coupler(Optional): TC-93061A
	F59727A	<ul style="list-style-type: none"> • 5972D Side Fixture • Antenna Coupler(Optional): TC-93061A

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE