

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 and DC lines
- Easily customizable to meet various test needs
- Red and Green LED's for Pass/Fail indication
- RS-232C Remote Control
- High performance absorber for radiation testing

Specifications

Mechanical Specifications

RF Connectors without I/O interface panel	four(4) N(f) outside and SMA(f) inside
Line voltage	DC 24 V, 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
Dimension	
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 on how to pack a package.

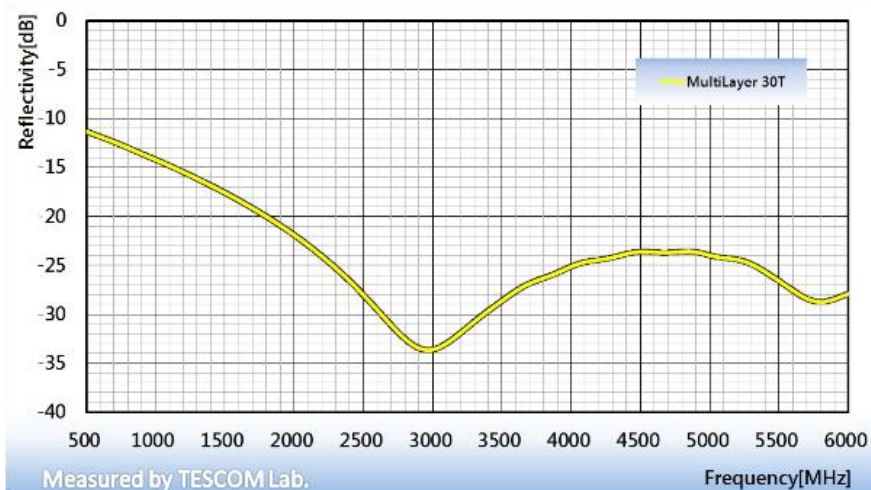
Typical RF Shielding

The shielding effectiveness below is measured when the blank panel is mounted; other I/O interface panel results a different shielding effectiveness of the shield box.

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

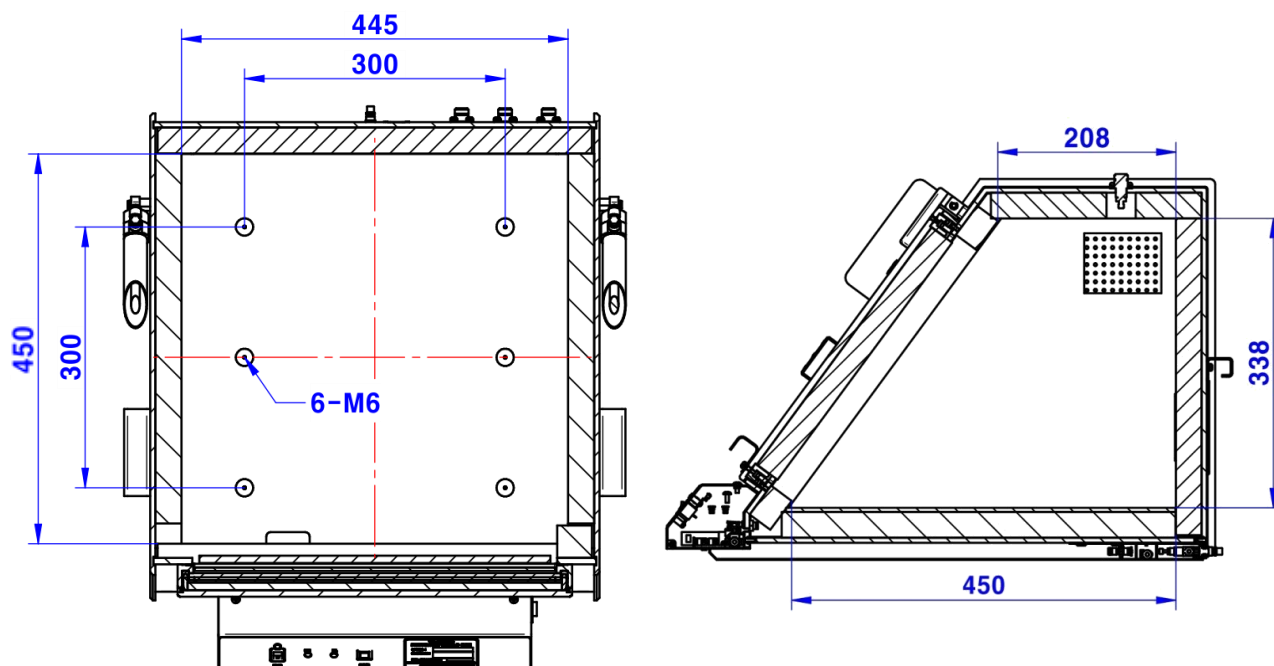
Absorber Reflectivity

- Measured the reflected signal from the absorber with metal plate using the Vector Network Analyzer.

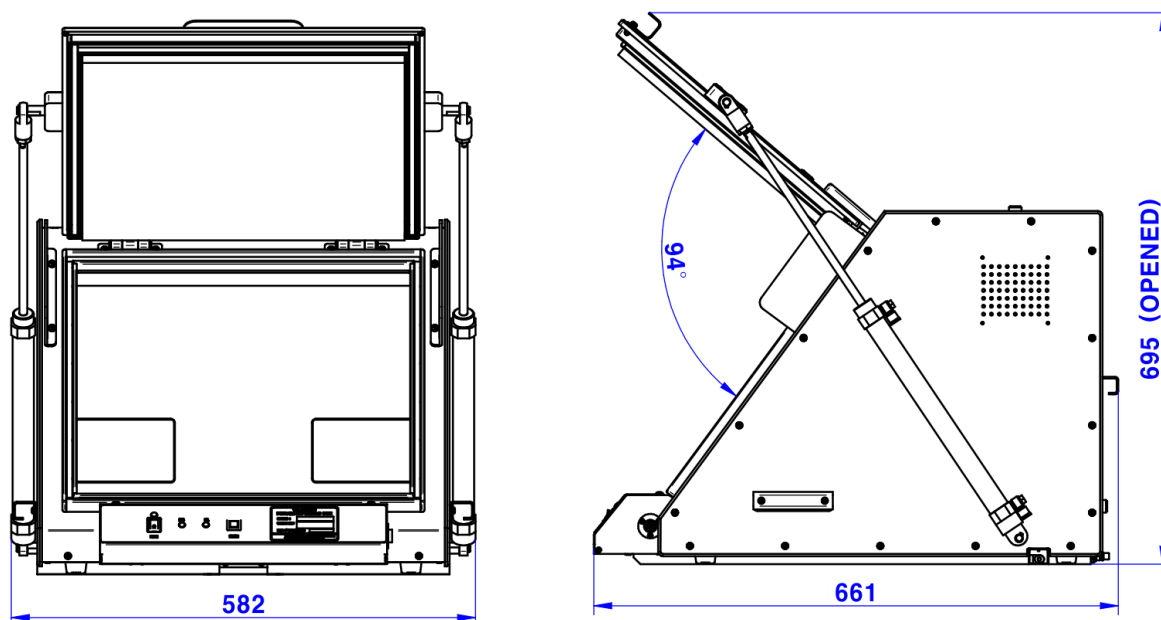


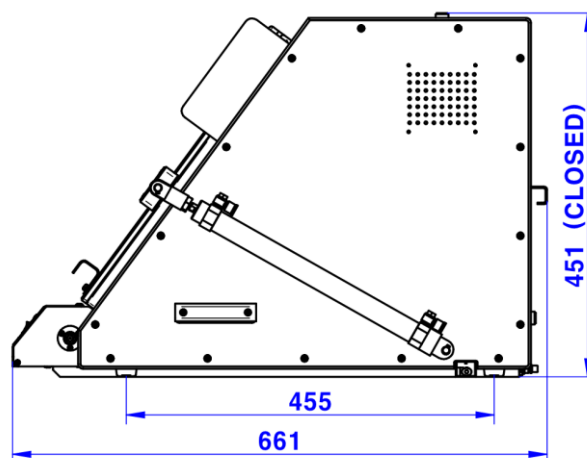
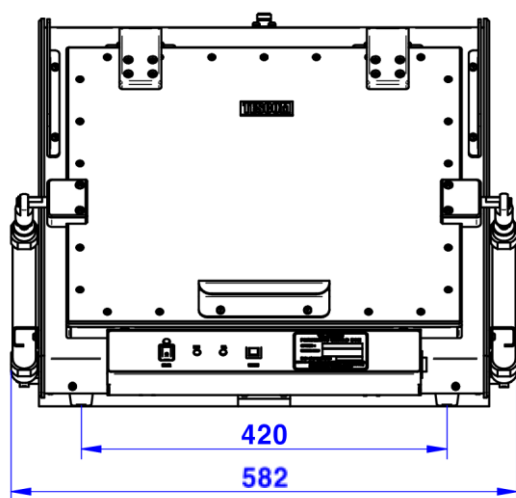
Dimensions

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



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

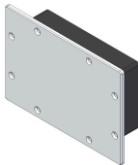
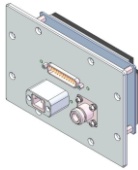


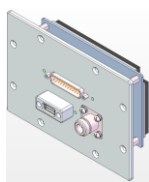


Ordering Information

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

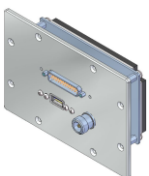
I/O Interface Panel	Order Number	Configuration
	M5970D01A	Blank module (Absorber)
Data Interface Panel		
	M5970C03A	- one(1) N(f) outside and SMA(f) inside - one(1) RJ-45 outside and inside - one(1) DB25(p) outside and DB25(s) inside, 1000 pF Pi filter
Data Interface Panel		



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 3.0 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



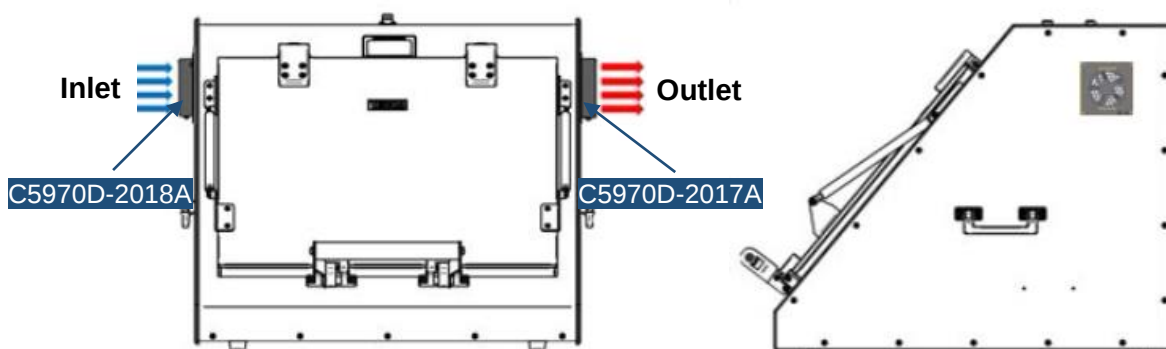
Cooling Fan

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 (Optional)



Custom I/O Interface Panel

- Customized I/O Interface Panel is available by selecting below I/O interfaces and combine.

Please contact Tescom sales team or your local distributor.

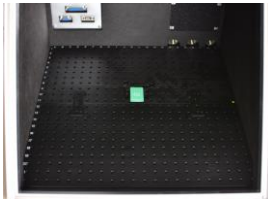
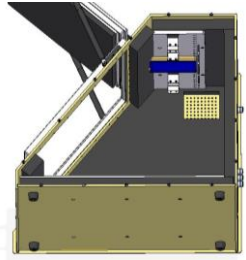
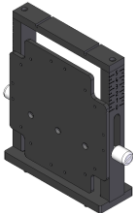
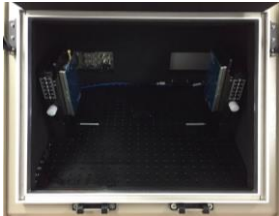
I/O Interface	Description / Order Number	Typical Data Rate / Line Voltage	*Typical Shielding
	DB25, 1000pF pi Filter / 3409-0009-1	3 Mbps / 100 VDC, 5 Amps max	>70 dB from 0.5 to 2 GHz >80 dB from 2 to 3 GHz >70 dB from 3 to 6 GHz
	DB25, 100pF pi Filter / 3409-0014-1	10 Mbps / 100 VDC, 5 Amps max	>50 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 3.0 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

- Each shielding effectiveness is measured when each I/O interface panel, which is shown above, is mounted.
- Above data was measured by Tescom, The Shielding Effectiveness might be different based on the measuring method and condition.
- This data has been measured under the condition that the cables are not connected to each filters. When the cables are connected it can affect the shielding performance.

Fixture

- Tescom offers flexible fixtures that can change the location of the DUT fixture block. Depending on the shape of DUT, users can create its own fixture using fixture blocks within seconds. Moreover, customized fixtures that meet the demands of customers can be manufactured and supplied if necessary.
- The various types of antenna coupler options with fixtures allow optimal measurement environment configuration that fits the characteristics of each DUT.

Fixture	Order Number	Description
 	F59725B	• Antenna Coupler fixed type fixture • Antenna Coupler(Optional): TC-93026A
 	F59724B	• TC-5972D Top Fixture • Antenna Coupler(Optional): TC-93061A
 	F59727A	• 5972D Side Fixture • Antenna Coupler(Optional): TC-93061A

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE