



Concentric Technology Solutions Inc

Testing Solutions for the Wireless Industry

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

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Concentric Technology Solutions, Inc.

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Specifications

Mechanical Specifications

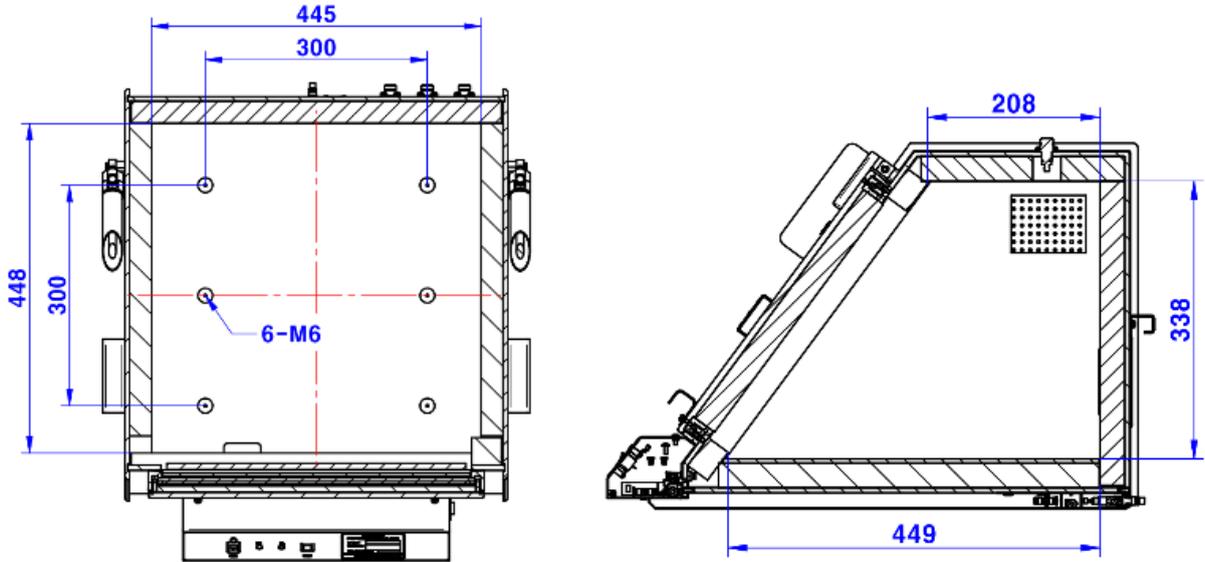
RF Connectors without I/O interface panel	
	four(4) N(f) outside and SMA(f) inside
Line voltage	
	DC 24 V, Max. 2 A.
Remote control	
	RS-232C, 3 wire, DB9(s)
Air connection	
Main connector	6 mm OD hose, one-touch push-on fitting
Fixture control connector	4 mm OD hose, one-touch push-on fitting
Input air pressure	5 to 10 bar
Dimension	
Inside	445(W) x 449(D) x 338(H) mm, 208(D) mm top side
Outside	582(W) x 661(D) x 451(H) mm
Weight	
TC-5972DP	approx. 32 kg
*Packing	
Size	830(W) x 700(D) x 555(H) mm
Weight	approx. 42 kg
*The size or weight of a package may vary on how to pack a package.	

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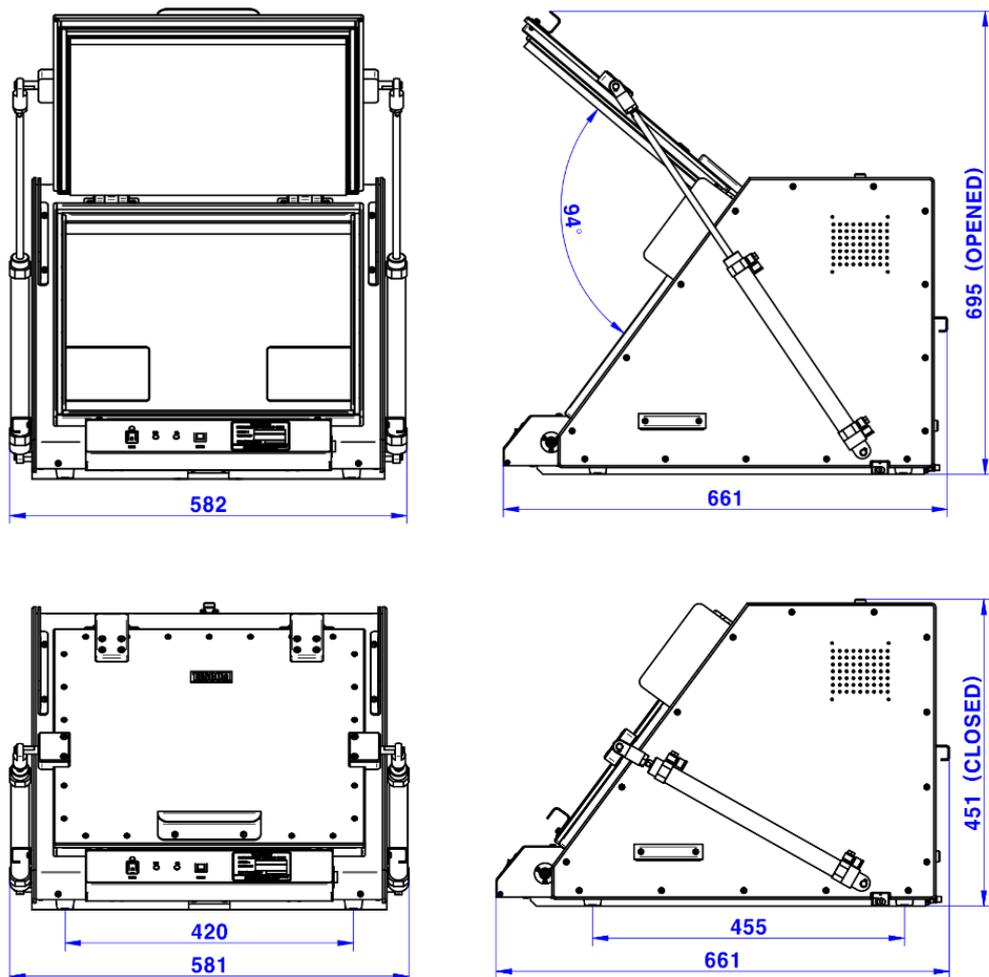


Dimensions

TC-5972DP Inner Dimension



TC-5972DP Outer Dimension



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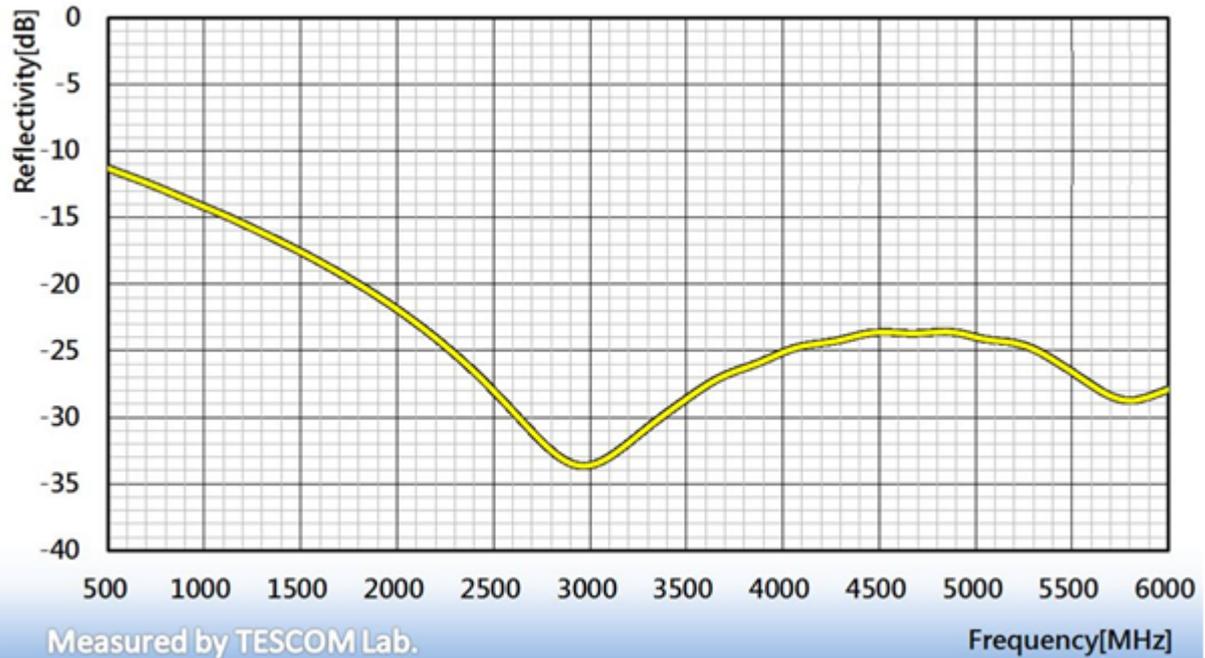
Typical RF Shielding

- 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 VNA.



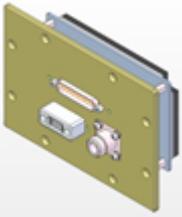
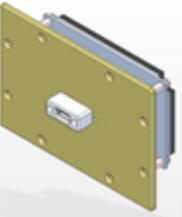
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Ordering Information

Order Number	Description
TC-5972DP	<p>Pneumatic Shield Box (including accessories below)</p> <p>Test Report</p> <p>RF Cable, RG-400S, N(m) to N(m) 1 m, 1 pc</p> <p>DATA Cable, DB9(p) to DB9(s) 2 m, 1 pc</p> <p>Air Coupler, 1 pc</p> <p>Switching Power Supply, 1 pc</p>

Pre-Configured I/O Interface Panel

I/O Interface Panel	Order Number	Configuration
 Blank Panel	M5970D01A	<ul style="list-style-type: none"> Blank module (Absorber)
 Data Interface Panel	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
 Data Interface Panel	M5970C04A	<ul style="list-style-type: none"> 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	M5970C08A	<ul style="list-style-type: none"> one(1) USB 2.0 outside and inside

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Custom I/O Interface Panel

- Customized I/O Interface panels are available. Please contact Tescom sales team or your local distributor.

I/O Interface	Order Number	Typical Data Rate / Line Voltage	*Typical Shielding
 DB37, 1000pF pi Filter	3409-0012-1	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, 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: 5A	>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-1	5000 Mbps / 5 V, 900 mA / Max Current: 1.5 A	>70 dB from 0.5 to 2 GHz >70 dB from 2 to 3 GHz >55 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

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I/O Interface	Order Number	Typical Data Rate / Line Voltage	*Typical Shielding
 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
 RF, N-SMA Connector	3408-0038		>60 dB from 0.5 to 2 GHz >70 dB from 2 to 3 GHz >70 dB from 3 to 6 GHz
 RF, SMA-SMA Connector	3408-0039		>60 dB from 0.5 to 2 GHz >70 dB from 2 to 3 GHz >70 dB from 3 to 6 GHz

- 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.

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