



Concentric Technology Solutions Inc
Testing Solutions for the Wireless Industry

TC-5970D Shield Box



Features

- High RF Shielding
- Easy Opening/Closing of lid
- EMI filters on all Data and DC lines
- Customizable Data connections
- Door safety function when the door opens and closed
- High performance absorber for radiation testing

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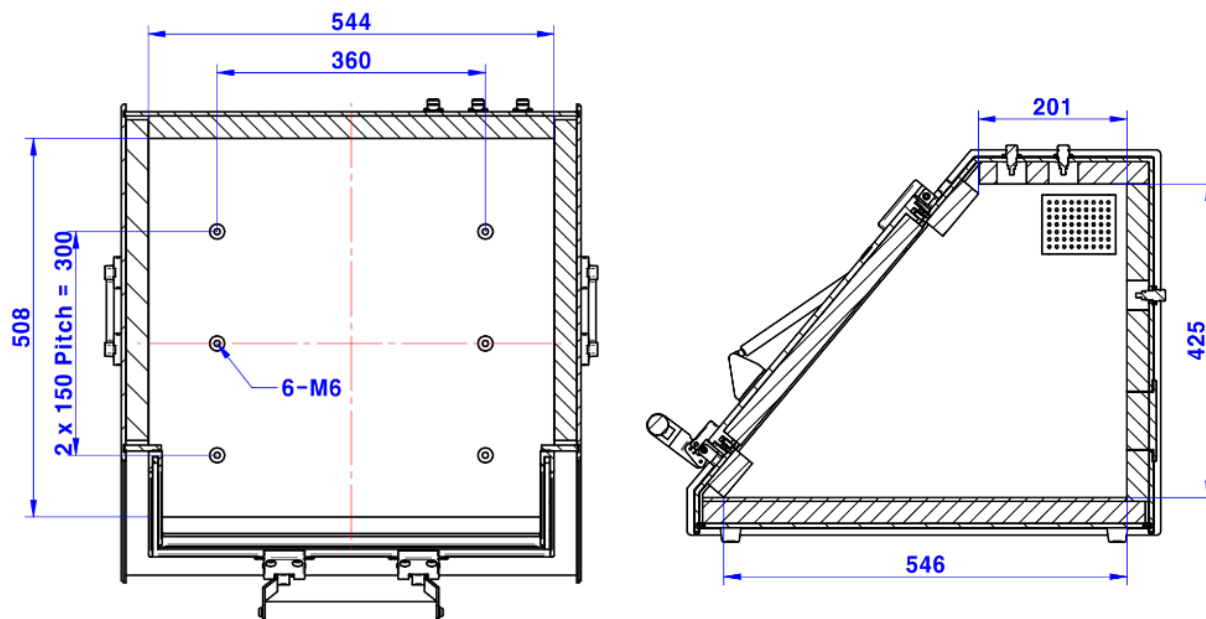
Specifications

Mechanical Specification

RF Connectors without I/O interface panel	
	six(6) N(f) outside and SMA(f) inside
Dimension	
Inside	544(W) x 546(D) x 425(H) mm, 201(D) mm Top side
Outside	662(W) x 703(D) x 537(H) mm, lid closed. 810(H) mm, lid open.
Weight	
TC-5970D	approx. 38 kg
*Packing	
Size	860(W) x 830(D) x 680(H) mm
Weight	approx. 54 kg
*The size or weight of a package may vary on how to pack a package.	

Dimensions

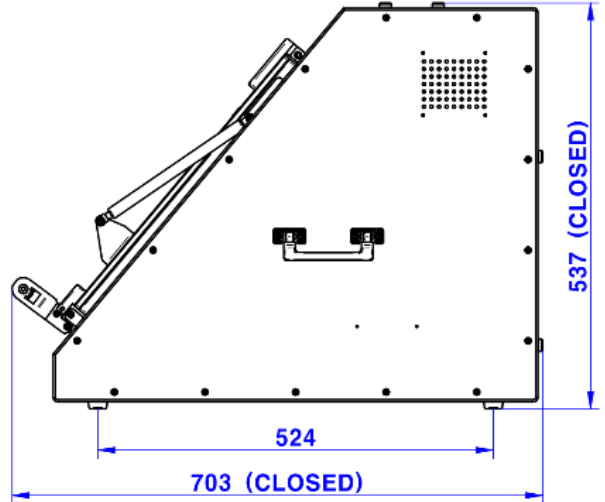
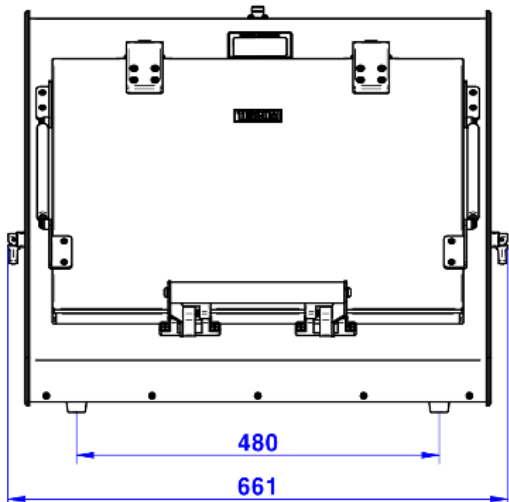
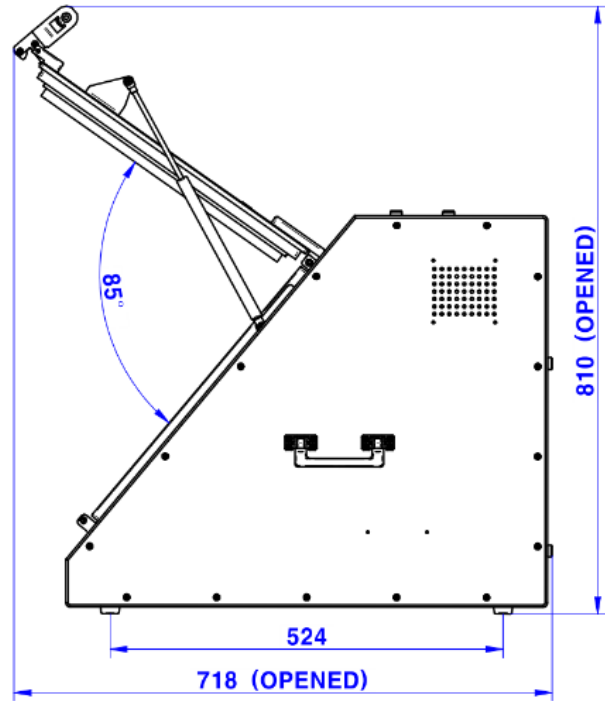
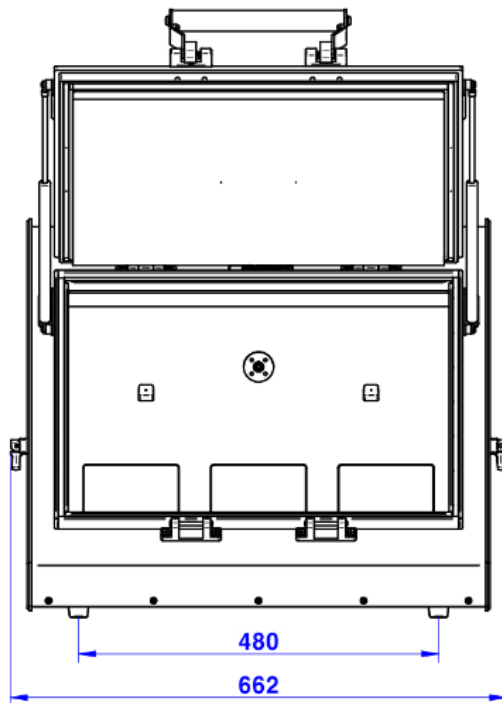
■ TC-5970D Inner Dimension



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■ TC-5970D Outer Dimension



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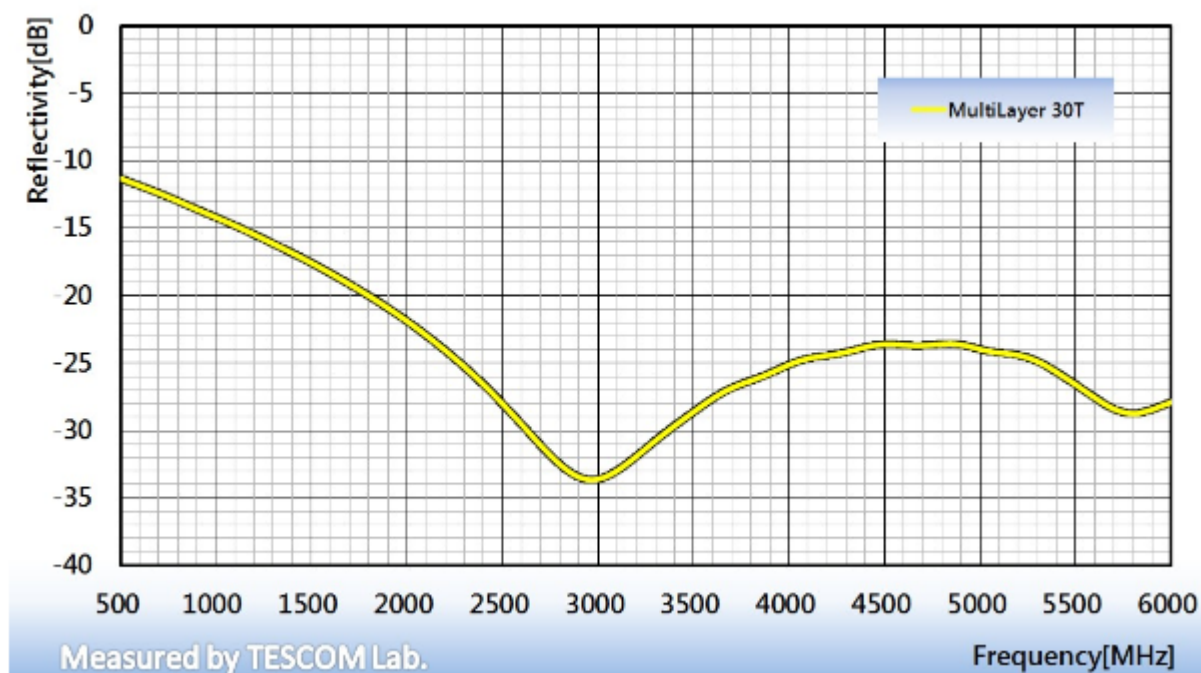
Typical RF Shielding

- 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.




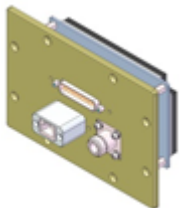
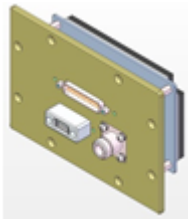
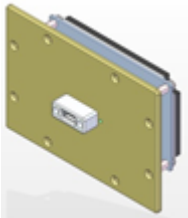
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Ordering Information


Order Number	Description
TC-5970D	Shield Box (including accessories below)
	Test Report
	RF Cable, SS-402, N(m) to N(m) 1 m, 1 pc

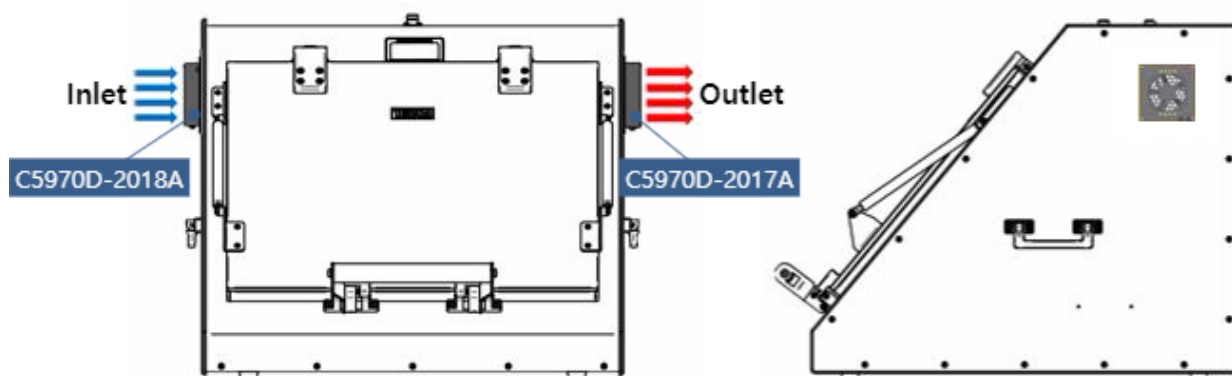
Pre-Configured I/O Interface Panel

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) insideone(1) RJ-45 outside and insideone(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) insideone(1) USB 2.0 outside and insideone(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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I/O Interface Panel	Order Number	Configuration
 Cooling Fan	C5970D-2017A C5970D-2018A	<ul style="list-style-type: none">• one(1) DC Fan Set, DC 24 V (One Pair)<ul style="list-style-type: none">◦ C5970D-2017A : Outlet◦ C5970D-2018A : Inlet◦ C5970D-2017A/C5970D-2018A are the same parts but the installation direction is different



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

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I/O Interface	Order Number	Typical Data Rate / Line Voltage	*Typical Shielding
 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
 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

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- 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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