

TC-5977A Shield Box



Features

- Reliable High RF Shielding up to 6 GHz
- Specifically designed for various types of Large Device
- Easy Opening/Closing of lid
- EMI filters on all Data and DC lines
- Customizable Data connections
- Side Cooling Fans (Optional)

Specifications

Mechanical Specifications

RF Connectors without module	three(3) N (f) outside and SMA (f) inside
Dimension	
Inside	802(W) x 762(D) x 644(H) mm
Outside	916(W) x 940(D) x 871(H) mm
Door	588(W) x 588(H) mm
Weight	approx. 73 kg
*Packing	
Size	1100 (W) x 1100(D) x 1030(H) mm
Weight	approx. 93 kg

* The size or weight of a package may vary on how to pack a package.

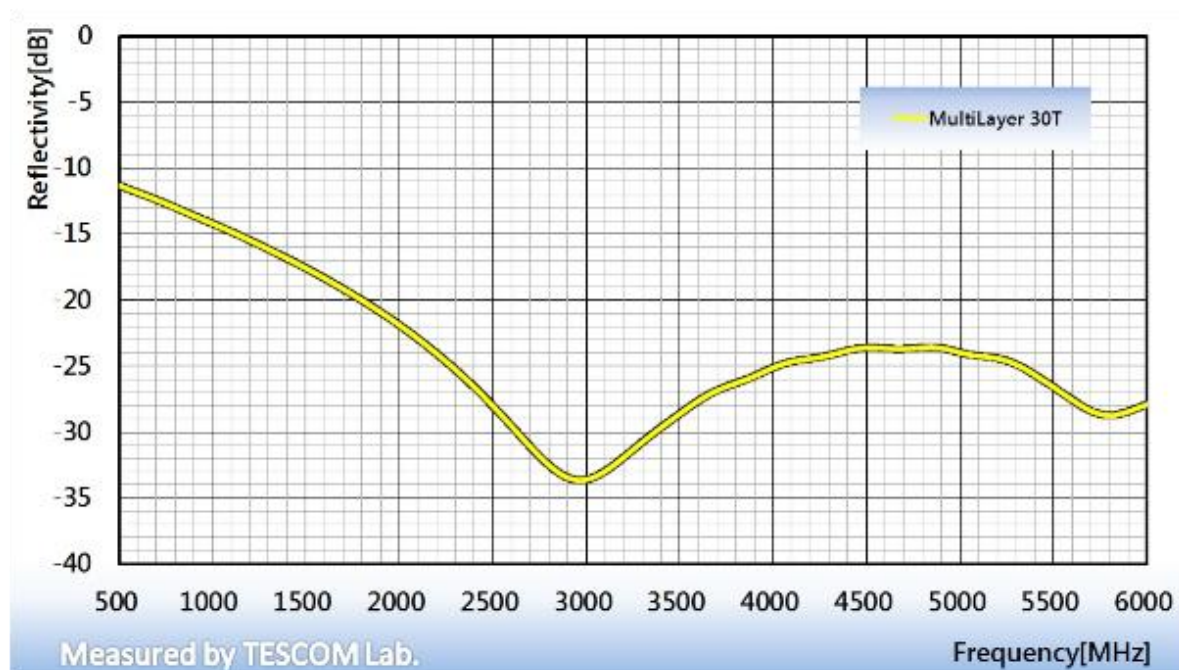
Typical RF Shielding

- 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

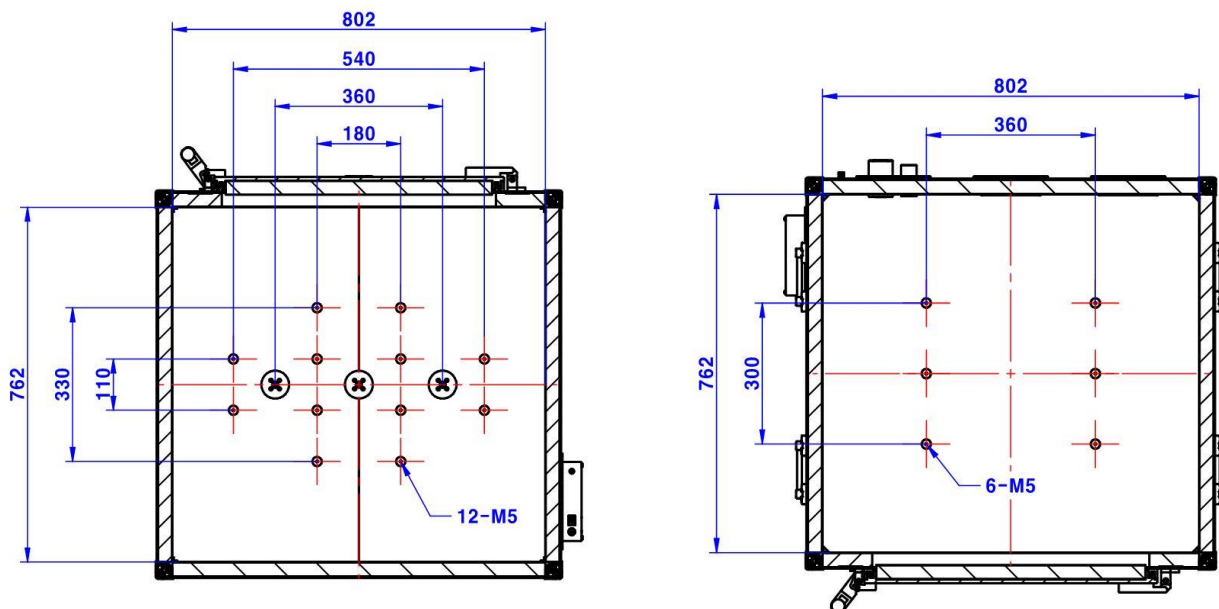
Absorber Reflectivity

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

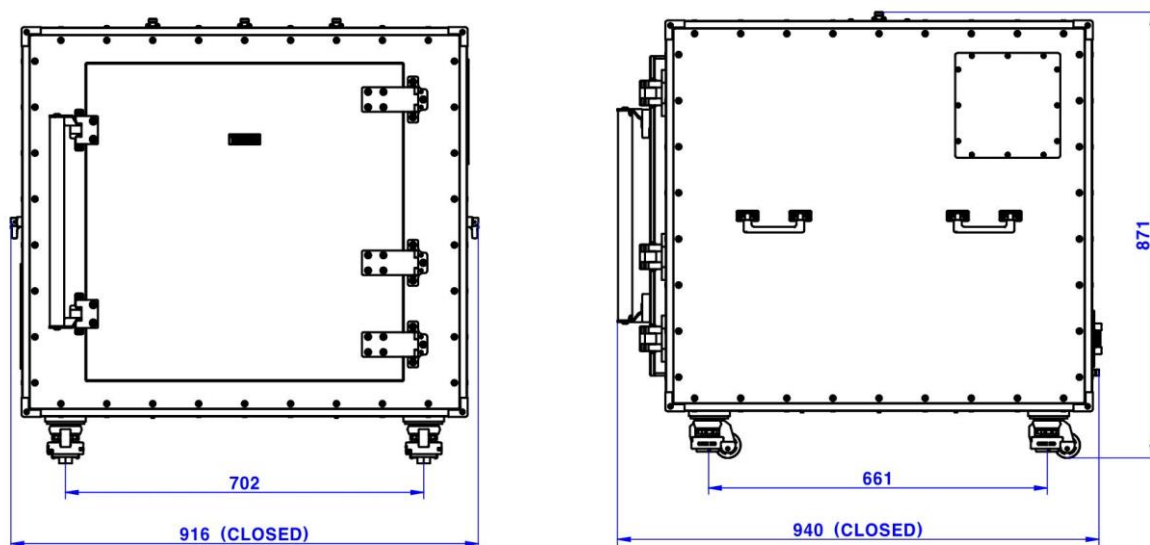


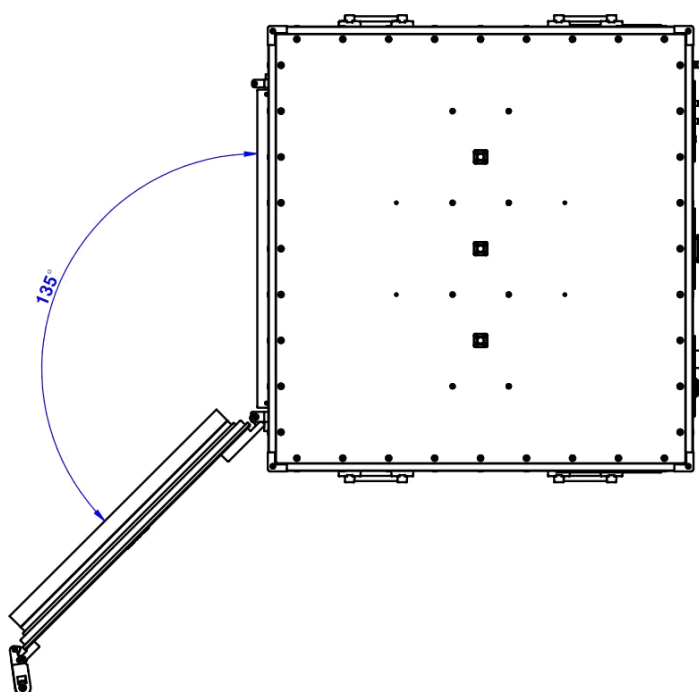
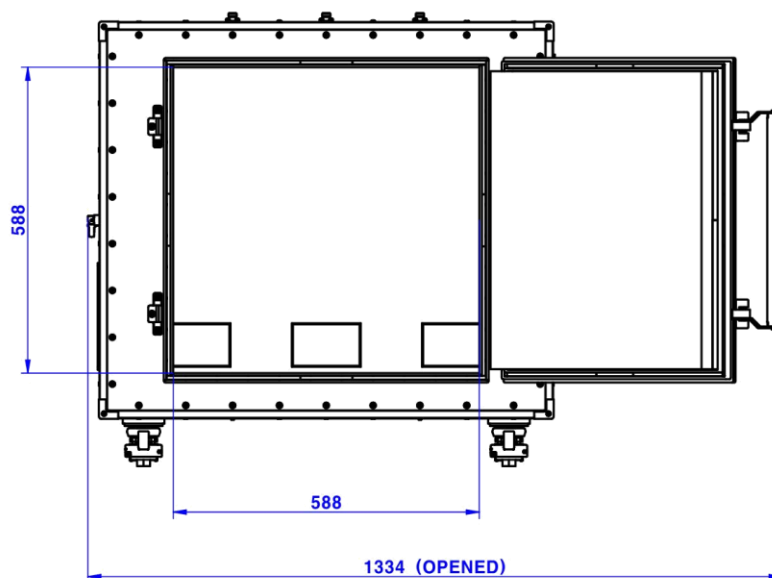
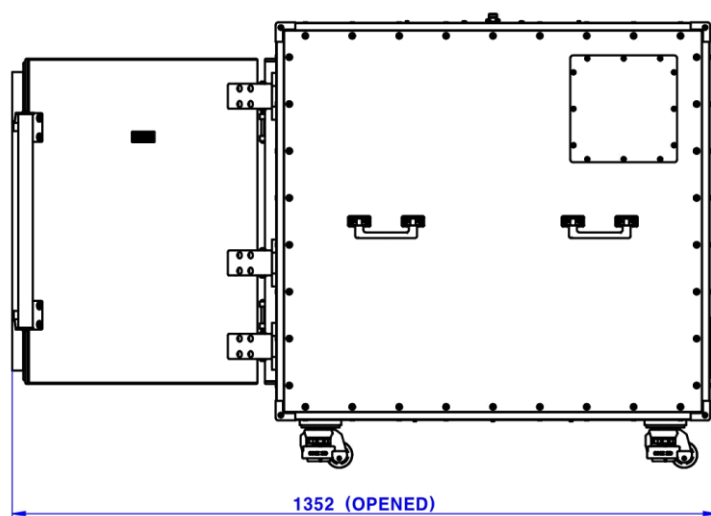
Dimensions

- TC-5977A Inner Dimension (WxDxH) : 802(W) x 762(D) x 644(H) mm



- TC-5977A Outer Dimension (WxDxH) : 916(W) x 940(D) x 871(H) mm, lid closed.

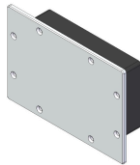
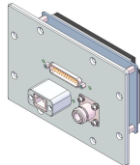
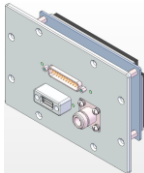
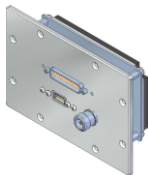




Ordering Information

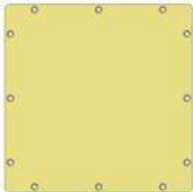
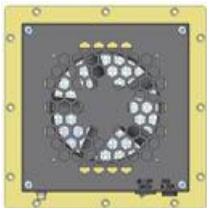
Order Number	Description
TC-5977A	Shield Box (including accessories below)
	Test Report
	RF Cable, SS-402, N(m) to N(m) 1 m, 3 pc

Pre-Configured I/O Interface Panel

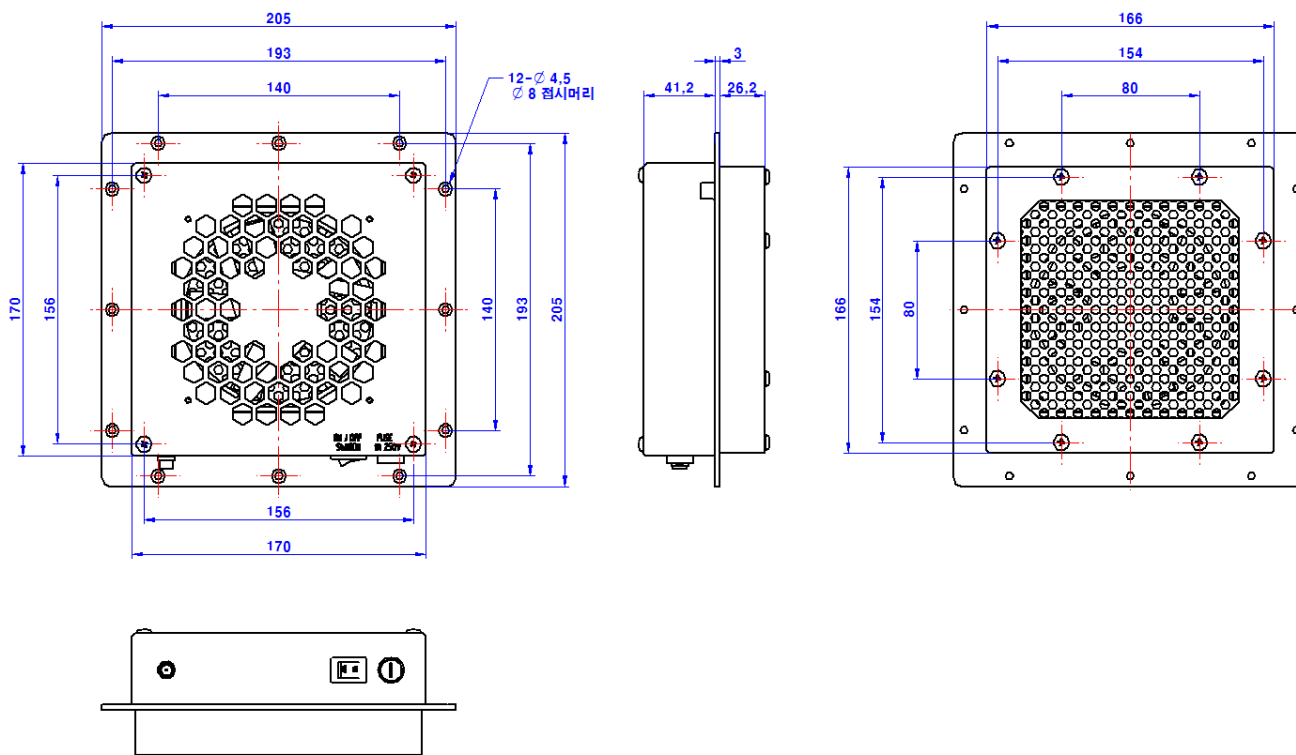
I/O Interface Panel	Order Number	Configuration
	M5970D01A	Blank module (Absorber)
Data Interface Panel		
	M5970C03A	- one(1) N(f) outside and SMA(f) inside - one(1) RJ-45 outside and inside - one(1) DB25(p) outside and DB25(s) inside, 1000 pF Pi filter
Data Interface Panel		
	M5970C04A	- one(1) N(f) 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		

Pre-Configured Side I/O Interface Panel

- Two optional Side I/O Interface Panel

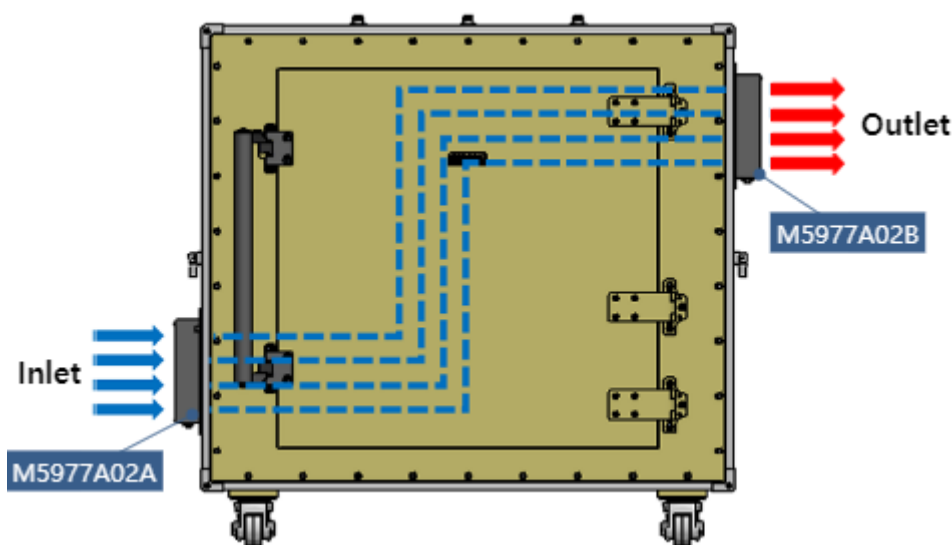
I/O Interface Panel	Order Number	Configuration
 Side Blank Panel	M5977A01A	Blank module
 Cooling Fan Panel	M5977A02A M5970A02B	- M5977A02A: Inlet (Left FAN) - M5977A02B: Outlet (Right FAN) - M5977A02A/M5977A02B are the same parts but the installation direction is different - Input voltage: 100 - 240 VAC, 50/60 Hz, 1.8 A - Output voltage: 24 VDC, 2.5 A - Including AC Adapter (Switching Mode Power Supply)

Dimension of cooling panel (Optional: M5977A02A/M5977A02B)



Air Flow Mechanism of Shield Box

- The location of the inlet cooling panel and the outlet cooling panel should be installed as shown below.



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

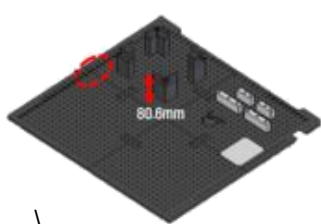
- Each shielding effectiveness is measured when each I/O interface panel, which is shown above, is mounted.
- Above data was measured by Tescom, The Shielding Effectiveness might be different based on the measuring method and condition.
- This data has been measured under the condition that the cables 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
	F59771A	- TC-5977A Top Fixture 620(W) x 130(D) x 12(H) mm - Fixture Motion: Position adjustment range: ± 190 mm from the center Antenna - Coupler(Optional): TC-93061A



F59772A

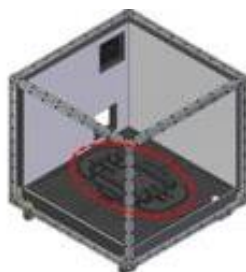
- Bottom Grid Fixture, 4 divisions
- 802(W) x 762(D) x 10 (H) mm
- Antenna Coupler(Optional): TC-93061A

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F59773A

- Side Fixture
- 150(W) x 44(D) x 460 (H) mm
- Fixture Motion: Position adjustment range: ± 190 mm from the center Antenna
- Antenna Coupler(Optional): TC-93061A

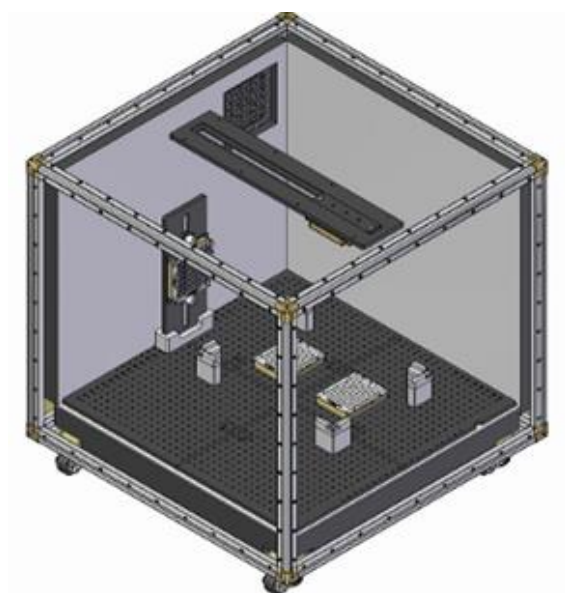


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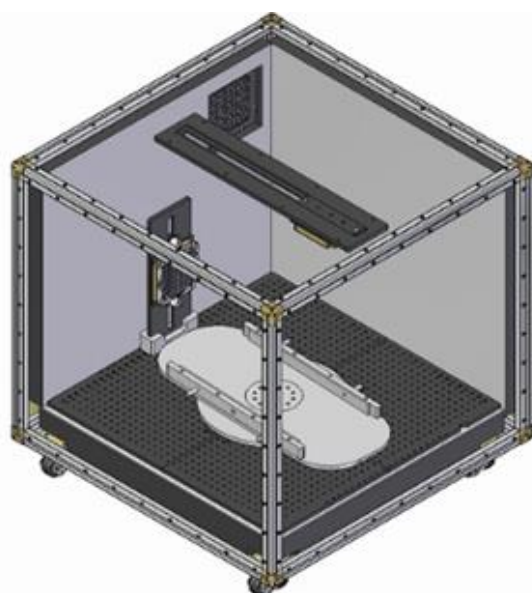
- Rotator Fixture
- 600(W) x 350(D) x 44 (H) mm

TC-5977A Fixture Configuration

[Bottom Fixture Concept]



[Rotator Fixture Concept]



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE