



Concentric Technology Solutions Inc

Testing Solutions for the Wireless Industry

TC-5972D 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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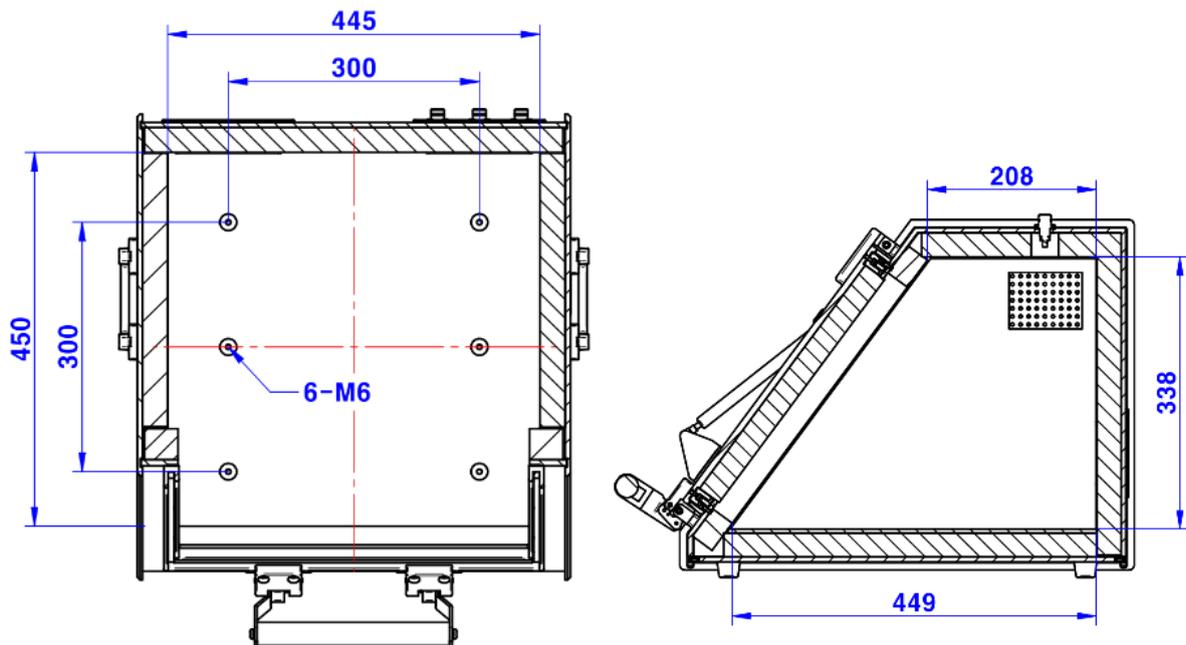
Specifications

Mechanical Specification

| | |
|---|---|
| RF Connectors without I/O interface panel | |
| | four(4) N(f) outside and SMA(f) inside |
| Dimension | |
| Inside | 445(W) x 450(D) x 338(H) mm, 208(D) mm Top side |
| Outside | 562(W) x 647(D) x 450(H) mm, lid closed. 715(H) mm, lid open. |
| Weight | |
| TC-5972D | approx. 28 kg |
| *Packing | |
| Size | 620(W) x 800(D) x 530(H) mm |
| Weight | approx. 36 kg |
| *The size or weight of a package may vary on how to pack a package. | |

Dimensions

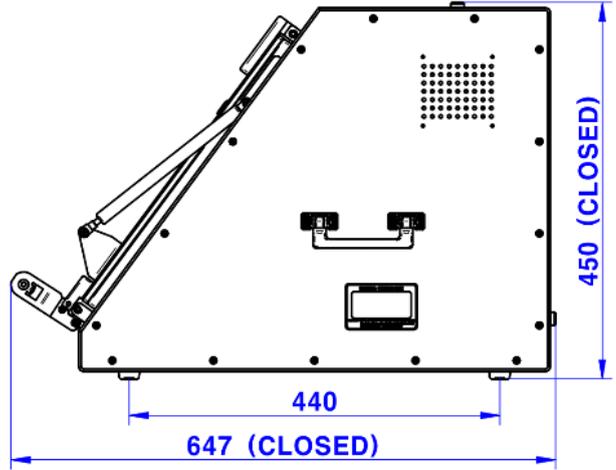
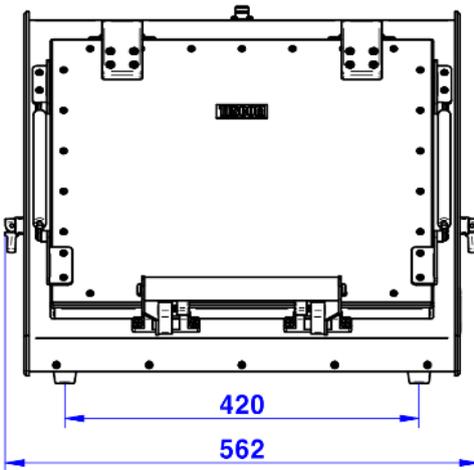
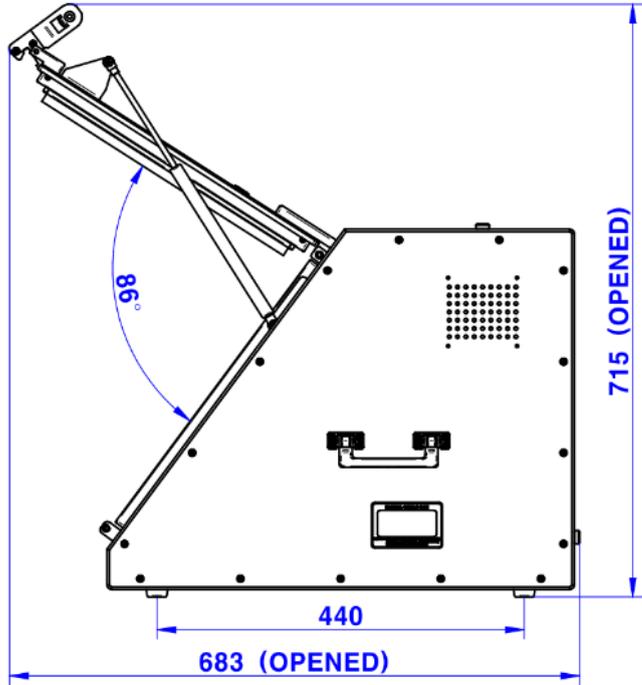
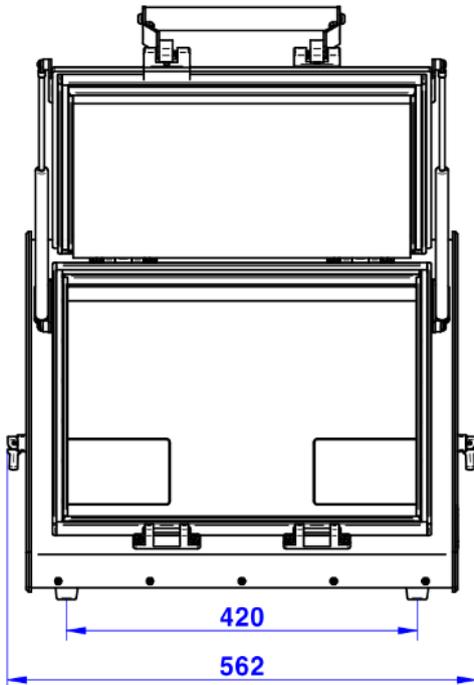
TC-5972D Inner Dimension



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TC-5972D Outer Dimension



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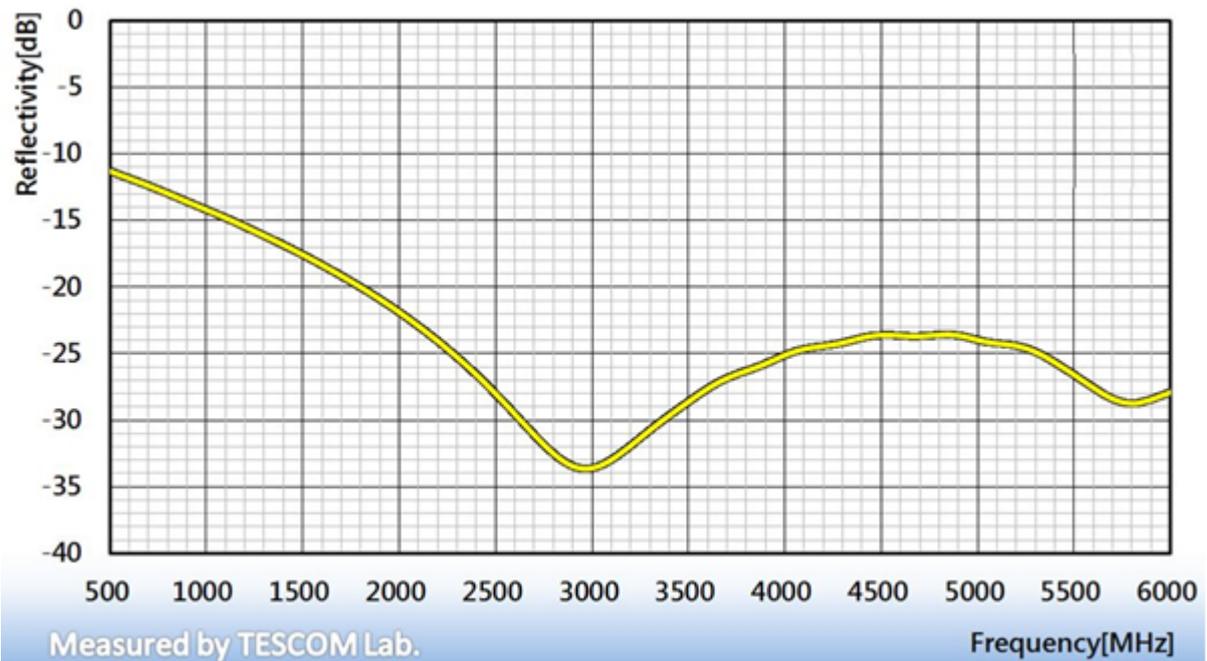
Typical RF Shielding

- 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.



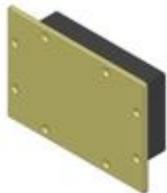
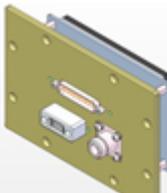
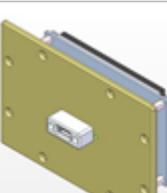
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Ordering Information

| Order Number | Description |
|--------------|--|
| TC-5972D | Shield Box (including accessories below) Test Report RF Cable, SS-402, N(m) to N(m) 1 m, 1 pc |

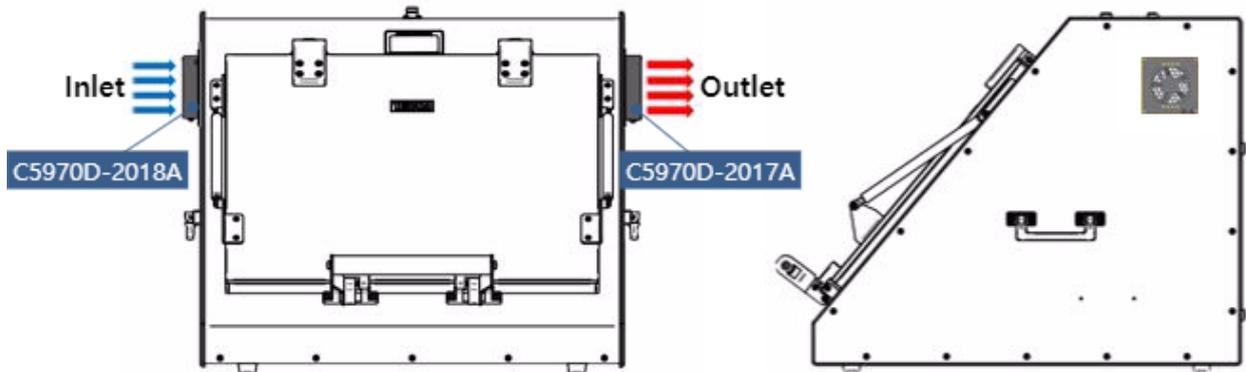
Pre-Configured I/O Interface Panel

| 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) 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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| 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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