



Concentric Technology Solutions Inc

Solutions for the Wireless Industry

TC-5972DU Shield Box



Features

- Reliable RF shielding from 0.1 GHz to 12 GHz
- High performance absorber for radiation testing
- Easy open/close
- EMI filters on all data ports and power lines
- Customizable I/O interface panels



Specifications

RF Specifications

Frequency Range 0.1 GHz to 12 GHz

***Shielding Effectiveness**

0.5 GHz to 3 GHz	> 70 dB (meas.)
3 GHz to 6 GHz	> 70 dB (meas.)
6 GHz to 12 GHz	> 60 dB (meas.)

* Shielding effectiveness is measured with blank panels installed; other I/O interface panels may result in different shielding effectiveness.

Mechanical Specifications

Basic RF Connector Four(4) N (f) outside and SMA (f) inside

Dimensions

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 Approx. 28 kg

***Packing**

Size	640(W) x 830(D) x 580(H) mm
Weight	Approx. 36 kg

* The size or weight of a package may vary depending on how the product is packed.

Absorber Reflectivity

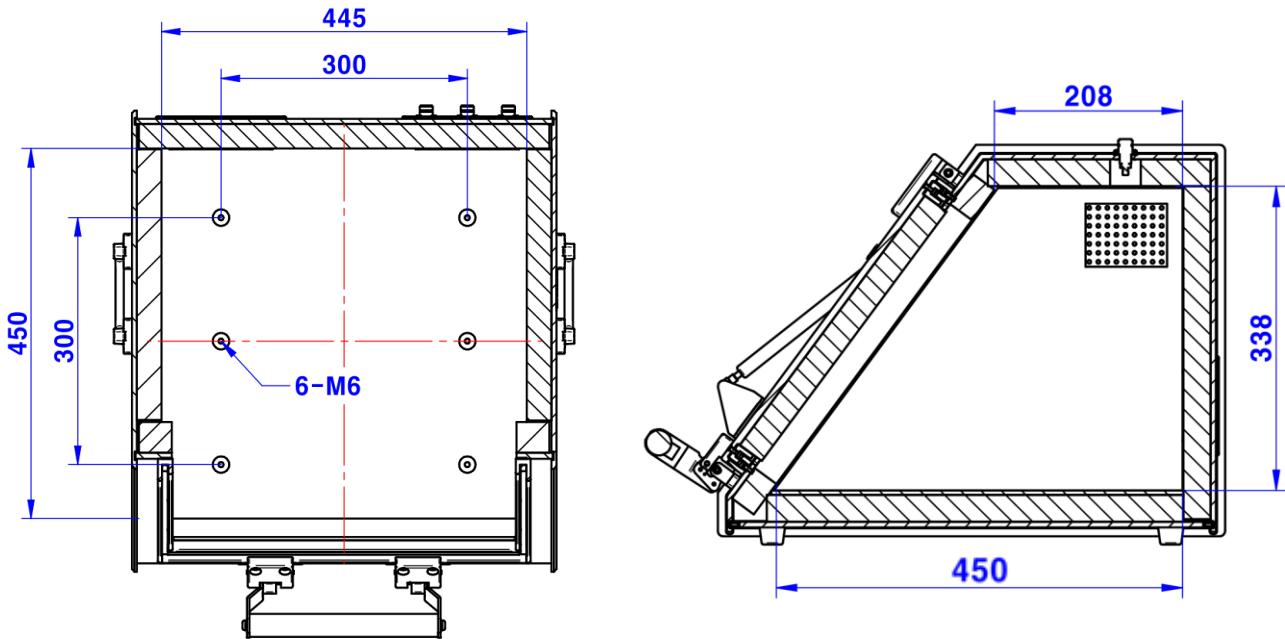
Referring to a metal plate (0 dB @ 0.5 GHz to 12 GHz), signal reduction is measured with the RF absorber is inserted.

Frequency	Reflectivity [dB]
0.5 GHz to 2 GHz	10 dB (Typ.)
2 GHz to 12 GHz	20 dB (Typ.)

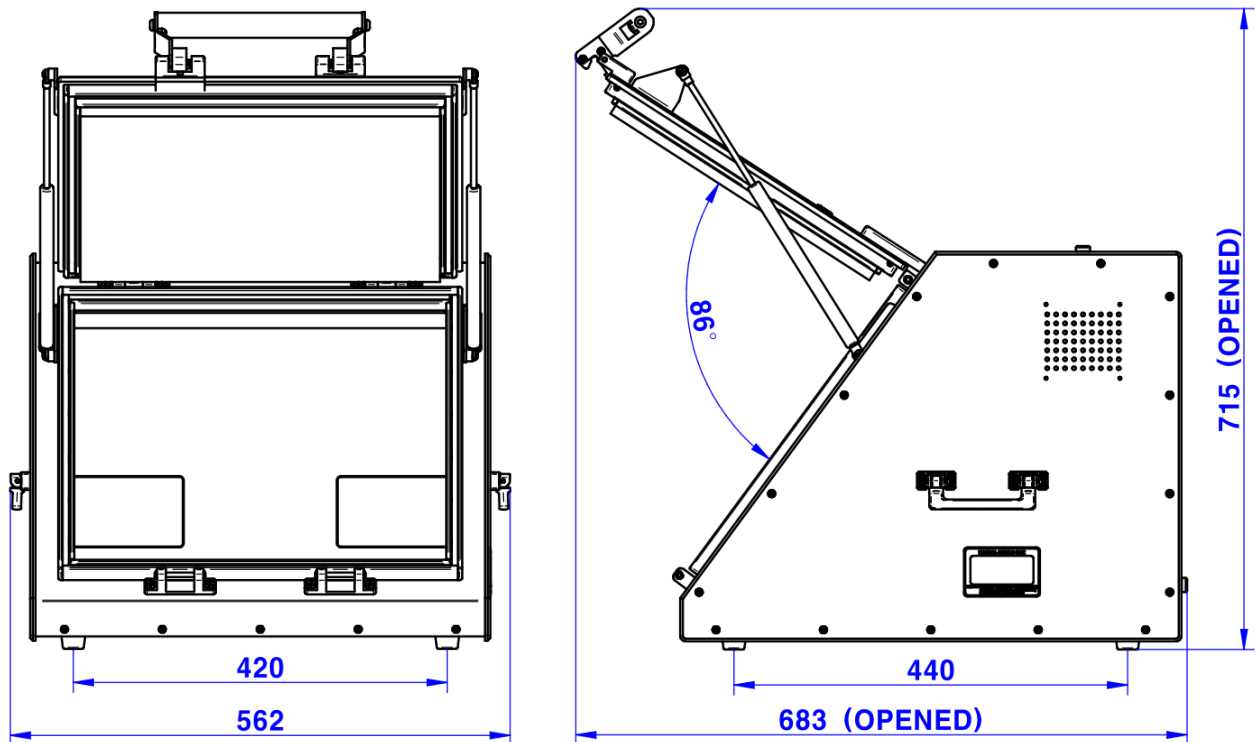


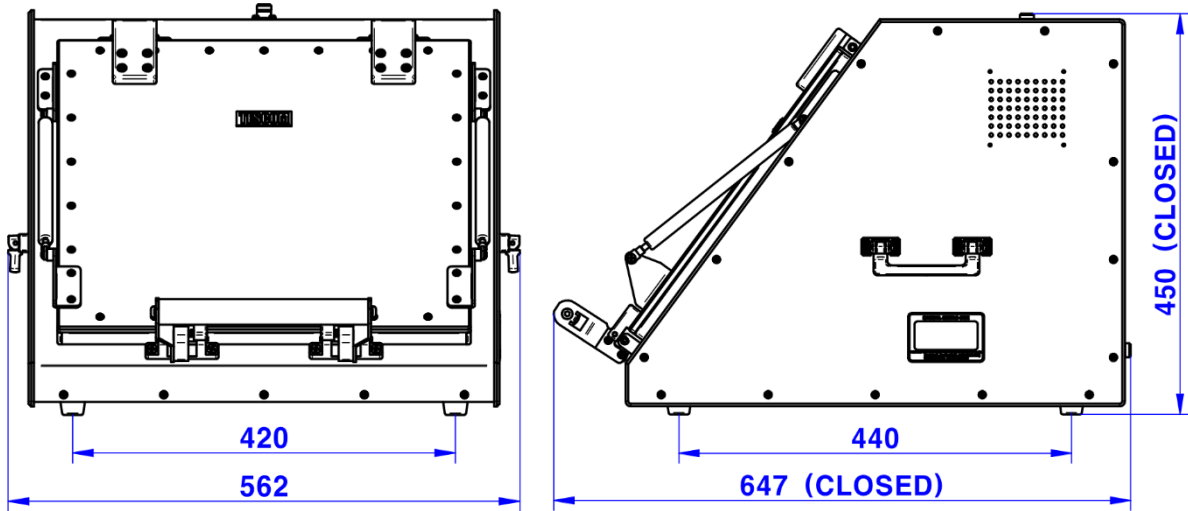
Dimensions

- TC-5972DU Inner Dimensions (WxDxH) : 445(W) x 450(D) x 338(H) mm



- TC-5972DU Outer Dimensions (WxDxH) : 562(W) x 647(D) x 450(H) mm, lid closed.

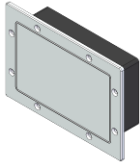
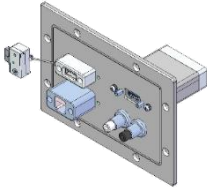




Ordering Information

Order Number	Description
TC-5972DU	Shield Box (including accessories below)
	Test Report



Pre-Configured I/O Interface Panels

I/O Interface Panel	Order Number	Configuration
	M5570A10A	<ul style="list-style-type: none"> • Blank panel (with absorber)
Data Interface Panel		
	M5570A07A	<ul style="list-style-type: none"> • One(1) USB 2.0 outside and inside • One(1) USB 3.0 outside and inside • One(1) RJ-45 outside and inside • One(1) Banana Jack outside and inside
Data Interface Panel		



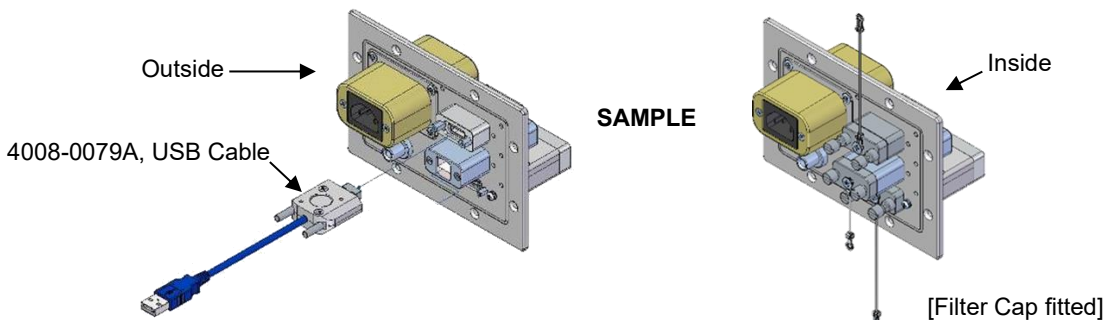
■ Custom RF Connector Panel





- Custom RF Connector Panel is available by selecting or combining the RF Connectors below.

RF Connector	Description / Order Number	Frequency Range / Impedance / V.S.W.R
	RF, N-SMA 4H Connector / 3407-0028	From DC to 18 GHz / 50 Ω / 1.3 max
	RF, SMA-SMA 4H Connector / 3408-0098	From DC to 18 GHz / 50 Ω / 1.3 max

■ Custom I/O Interface Panel

- Customized I/O Interface Panels are available by selecting the connectors from the list below. Please contact your CTS sales team.



I/O Interface	Description / Order Number	Typical Data Rate / Line Voltage	Typical Shielding ^(*)
	USB 2.0 Filter / 3409-0018A-3 ^(a)	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 >70 dB from 6 to 12 GHz
	USB 3.1 Gen 1 Filter (Active) /3409-0042A-2 ^(a)	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 >55 dB from 6 to 12 GHz
	RJ-45 Filter / 3904-0296A	RJ45 Filter: 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 >60 dB from 6 to 12 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 >70 dB from 6 to 12 GHz



	DC Power Adaptor (Banana Jack Type) 3406-0005A-1 (Black) 3406-0006A-1 (White)	50 VAC, 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 >70 dB from 6 to 12 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 >70 dB from 6 to 12 GHz

- ^(a) : Exclusive cables should be used.
(USB Cable, 4008-0079A, 2 M, USB 3.0 A(M) - USB 3.0 A(M), Housing: Aluminum)
- ***Typical Shielding** is an estimated value with I/O interface applied.
- The data above were measured by internal standards, and they may be different depending on the measuring method and environment.

Fixture

- We offer standard grid fixtures that allows changing the placement of DUT holding blocks. An optimal fit for different shapes of DUT can be made within seconds. Also, fully customized fixtures can be manufactured and supplied if necessary to meet the customer’s requirements.
- In addition to the fixture, various types of antenna coupler options are available and can form an ideal measuring environment for characteristics of each DUT.

Fixture	Order Number	Description
	F59725B	<ul style="list-style-type: none"> • Antenna Coupler fixed type fixture • Antenna Coupler(Optional): TC-93026A
	F59724B	<ul style="list-style-type: none"> • TC-5972D Top Fixture • Antenna Coupler(Optional): TC-93061A
	F59727A	<ul style="list-style-type: none"> • 5972D Side Fixture • Antenna Coupler(Optional): TC-93061A

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE