



Concentric Technology Solutions Inc

Solutions for the Wireless Industry

TC-5922BU-01

Shield Box

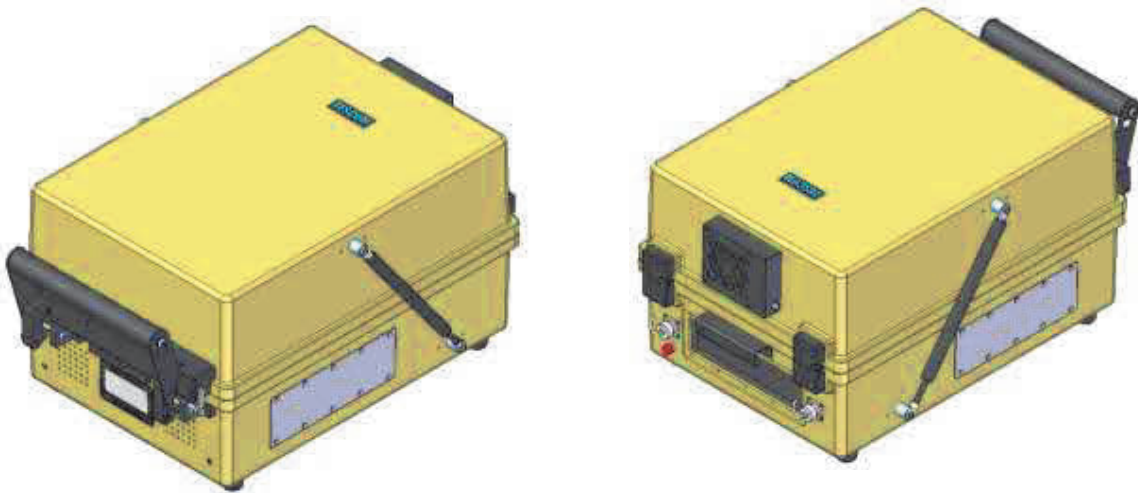
Data Sheet



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

Concentric Technology Solutions, Inc.

TEL: 817-503-8862 FAX: 817-503-8866 Email: CTS-Sales@ctscorp-usa.com WWW.RFSHIELDBOX.COM



Introduction

The TC-5922BU provides shielding effectiveness with a frequency range of 0.1 GHz to 12 GHz.

TC-5922BU is designed to test Small to Medium-sized devices such as Smartphones and Tablets.

The wide range of this box enables testing on traditional technologies like Wifi, Bluetooth, Zigbee, as well as on forward-looking wireless communication technologies like 5G, UWB, and Wi-Fi 6E.

Features

Reliable high RF shielding from 0.1 GHz to 12 GHz

Easy opening /closing

Absorbing materials for stable measurement results

EMI filters on all data ports and power lines

Easily customizable to suit various test needs

Shock absorber on the lid

Rear cooling fan (optional)

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

Concentric Technology Solutions, Inc.

TEL: 817-503-8862 FAX: 817-503-8866 Email: CTS-Sales@ctscorp-usa.com WWW.RFSHIELDBOX.COM

Mechanical Specifications

| | |
|-----------------------|---|
| Standard RF Connector | Two(2), N(f) outside and SMA(f) inside |
| Dimensions | |
| Inside | 296(W) x 435(D) x 238(H) mm |
| Outside | 377(W) x 577(D) x 290(H) mm, lid closed. 601(H) mm, lid open. |
| Weight | Approx. 22 kg |
| *Packing | |
| Size | 560(W) x 820(D) x 470(H) mm |
| Weight | Approx. 28 kg |

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

RF Specifications

*The shielding effectiveness is measured with blank panels mounted; other I/O interface panel may result in different shielding effectiveness.

| | |
|---------------------------------|-------------------|
| Frequency Range | 0.1 GHz to 12 GHz |
| *Shielding Effectiveness (Typ.) | |
| 0.1 GHz to 3 GHz | > 70 dB |
| 3 GHz to 6 GHz | > 60 dB |
| 6 GHz to 12 GHz | > 60 dB |

Absorber Reflectivity

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

| Frequency | Reflectivity (Typ.) |
|------------------|---------------------|
| 0.1 GHz to 3 GHz | 3 dB |
| 3 GHz to 6 GHz | 6 dB |
| 6 GHz to 12 GHz | 10 dB |

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

Concentric Technology Solutions, Inc.

TEL: 817-503-8862 FAX: 817-503-8866

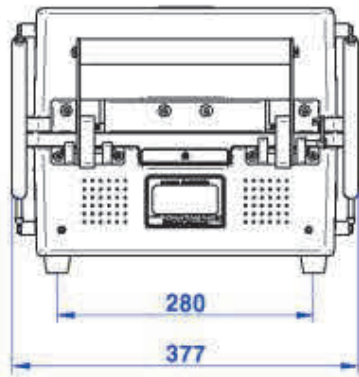
Email: CTS-Sales@ctscorp-usa.com

WWW.RFSHIELDBOX.COM

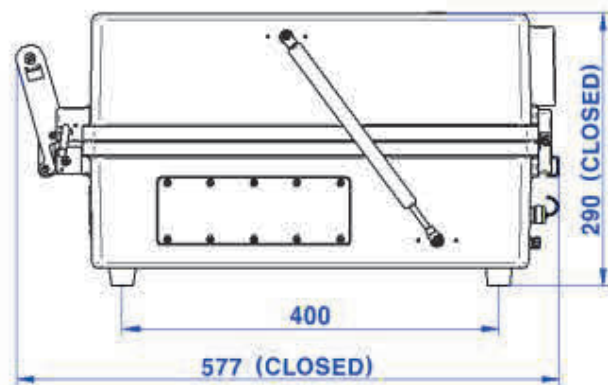
TC-5922BU-01 Datasheet 3

Outer Dimensions

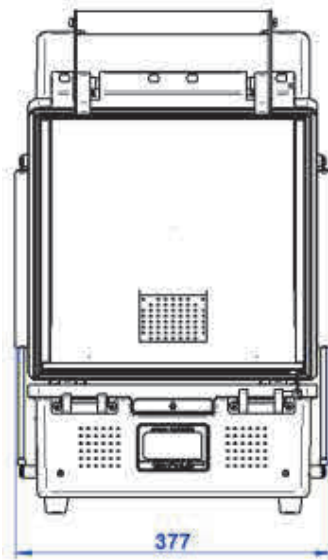
TC-5922BU-01 Outer Dimensions (WxDxH): 377(W) x 577(D) x 290(H) mm, lid closed. 601 mm, lid open.



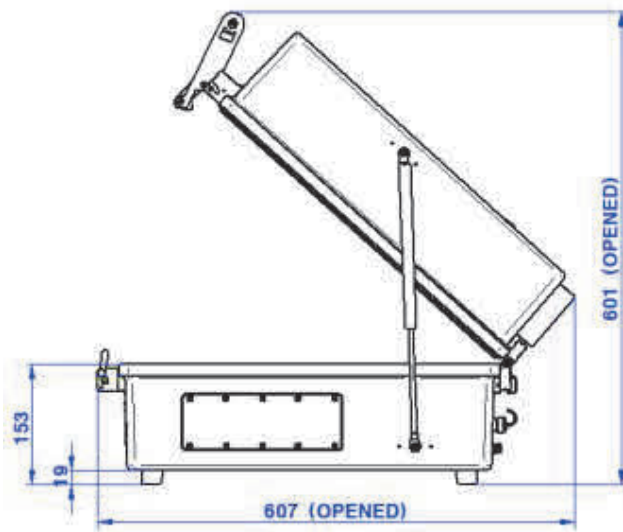
Front View (Closed)



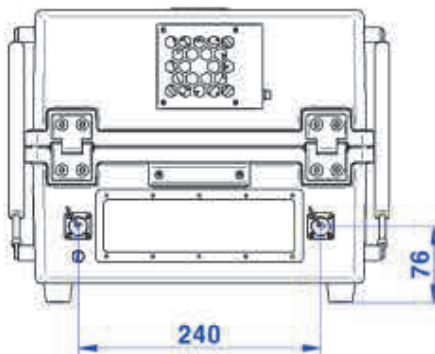
Side View (Closed)



Front View (Opened)



Side View (Opened)



Rear View

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

Concentric Technology Solutions, Inc.

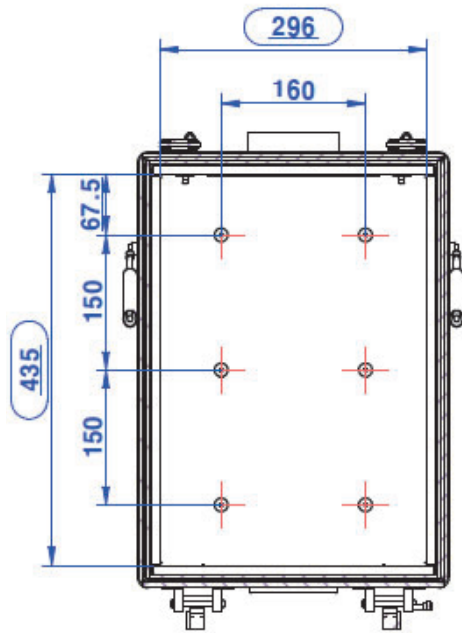
TEL: 817-503-8862 FAX: 817-503-8866

Email: CTS-Sales@ctscorp-usa.com

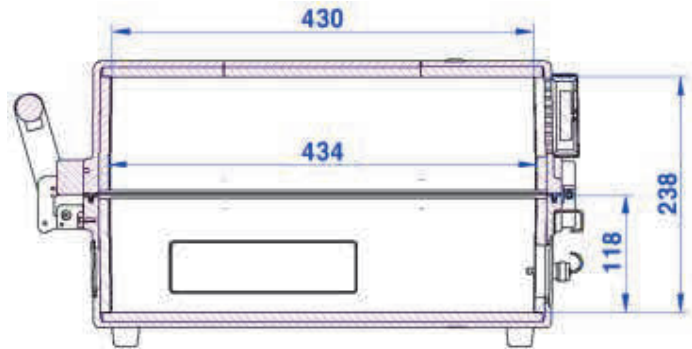
WWW.RFSHIELDBOX.COM

Inner Dimensions

TC-5922BU-01 Inner Dimensions (WxDxH): 296(W) x 435(D) x 238(H) mm



Bottom Inner View



Side Inner View

Ordering Information

| Order Number | Product |
|--------------|------------|
| TC-5922BU-01 | Shield Box |

Standard Accessories

| Product | Description |
|-------------|------------------------------------|
| 4011-0144 | SS-402, N(m)ST to N(m)ST, 1 m, 1pc |
| Test Report | |

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

Concentric Technology Solutions, Inc.

TEL: 817-503-8862 FAX: 817-503-8866

Email: CTS-Sales@ctscorp-usa.com


WWW.RFSHIELDBOX.COM

TC-5922BU-01 Datasheet 5

Pre-configured I/O Interface Panels

| Product | Code | Configuration |
|---|--------------|---|
|  <p>Data Interface Panel</p> | M06022A | twelve (12), SMA (f) outside and SMA (f) inside one (1), DB25(p) outside and DB25(s) inside, 1000 pF Pi filter one (1), USB 2.0 outside and inside |
|  <p>Data Interface Pane</p> | M06025A | one (1), SMA (f) outside and SMA (f) inside one (1), USB 3.2 Gen1 Type-A outside and inside (USB3.0) one (1), USB 3.2 Gen2 Type-C outside and inside one (1), RJ-45 outside and inside one (1), Banana Jack type DC power adaptor |
|  <p>Cooling Fan</p> | C5930A-2032A | one (1), Fan DC 24V (Exhaust) |

Pre-configured Side I/O Interface Panels

| Product | Code | Configuration |
|---|---------|---------------|
|  <p>Data Interface Panel</p> | M06063A | Blank Module |

Customized I/O Interface Panel is available by selecting below I/O Filters and combine.
Please contact Tescom sales team or your local distributor.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

Fixtures

We offers standard grid fixtures that can change the position 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 demands.

In addition to the fixture, various types of antenna coupler options can form an ideal measuring environment for characteristics of each DUT.

| Product | Code | Configuration |
|---|---------|---|
|  | F59222A | Antenna Coupler movable type fixture Antenna Coupler (Optional): TC-93026A 280(W) x 390(D) x 52(H) mm |

I/O Filters

| I/O Filters | Code | Description | *Typical Shielding |
|---|---|--|---|
|  | 3409-0009-1 DB25, 1000pF pi Filter | 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 |
|  | 3409-0014-1 DB25, 100pF pi Filter | 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 |
|  | 3409-0008-1 DB9, 1000pF pi Filter | 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 |
|  | 3409-0010-1 DB9, 100pF pi Filter | 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 |
|  | 3409-0018A-3^(*) USB 2.0 Filter | 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 |
|  | 3409-0042A-2^(*) USB 3.2 Gen 1, Type A Filter (Active) | 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 |

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

Concentric Technology Solutions, Inc.

TEL: 817-503-8862 FAX: 817-503-8866 Email: CTS-Sales@ctscorp-usa.com WWW.RFSHIELDBOX.COM

TC-5922BU-01 Datasheet 7

| I/O Filters | Code | Description | *Typical Shielding |
|-------------|--|--|---|
| | 3409-0046A USB 3.2 Gen 2, Type C Filter (Active) | 10 Gbps / 4 - 22V Max Current: 5 A | >70 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 |
| | 3904-0296A RJ-45 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 |
| | 3406-0004A DC Power Adaptor | 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 |
| | 3406-0005A (Black) 3406-0006A (White) DC Power Adaptor (Banana Jack Type) | 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 >70 dB from 6 to 12 GHz |
| | 3103-0009A AC Power Adaptor | 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 |
| | 3408-0100 RF, N-SMA Connector | From DC to 12 GHz 50 Ω / 1.3 max | N/A |
| | 3408-0101 RF, SMA-SMA Connector | From DC to 18 GHz 50 Ω / 1.3 max | N/A |

*Typical Shielding is an estimated value with I/O interface applied.

** Exclusive cables should be used. (USB Cable, 4008-0079A, 2 M, USB 3.0 A(M) - USB 3.0 A(M), Housing: Aluminum)

The data above were measured by TESCO standards, and they may be different depending on the measuring method and environment. Shielding effectiveness was measured without any cable, so it will be likely affected when a cable is connected.

Also, it may vary depending on the type of cable.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

Concentric Technology Solutions, Inc.
TEL: 817-503-8862 FAX: 817-503-8866 Email: CTS-Sales@ctscorp-usa.com WWW.RFSHIELDBOX.COM

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE