



Concentric Technology Solutions Inc

Solutions for the Wireless Industry

TC-5915AU

Shield Box

Data Sheet



Concentric Technology Solutions, Inc.

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Introduction

The TC-5915AU provides shielding effectiveness with a frequency range of 0.1 GHz to 12 GHz.

TC-5915AU is designed to test Small-sized devices such as Smartphones, ear buds, etc...

The wide range of this box enables testing 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

RF Absorbing materials for stable and repeatable measurement results

EMI filters on all data ports and power lines

Easily customizable to suit various testing needs

Shock absorber on the lid



Mechanical Specifications

Standard RF Connector	None
Dimensions	
Inside	236(W) x 297(D) x 170(H) mm
Outside	309(W) x 473(D) x 221(H) mm, lid closed. 442(H) mm, lid open.
Weight	Approx. 9 kg
*Packing	
Size	460(W) x 530(D) x 340(H) mm
Weight	Approx. 11 kg

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

RF Specifications

Frequency Range	0.1 GHz to 12 GHz
Shielding Effectiveness (Typical)	
0.1 GHz to 3 GHz	> 70 dB
3 GHz to 6 GHz	> 60 dB
6 GHz to 12 GHz	> 60 dB

RF Absorber Reflectivity

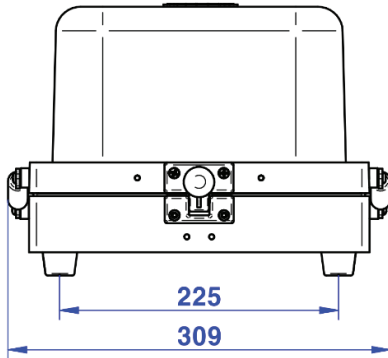
Referring to a metal plate (0 dB @ 0.5 GHz to 12 GHz), signal reduction is measured with the RF absorber inserted.

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

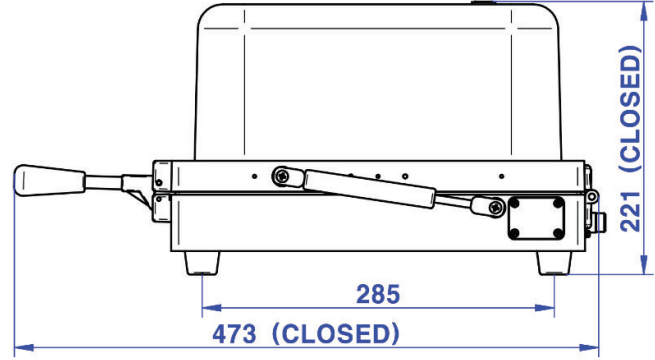


Outer Dimensions

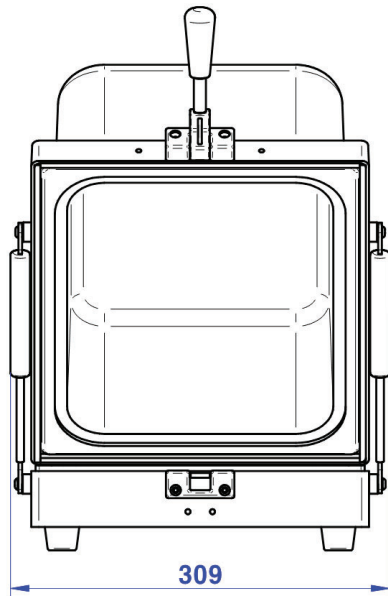
TC-5915AU Outer Dimensions (WxDxH): 309(W) × 473(D) × 221(H) mm, lid closed.



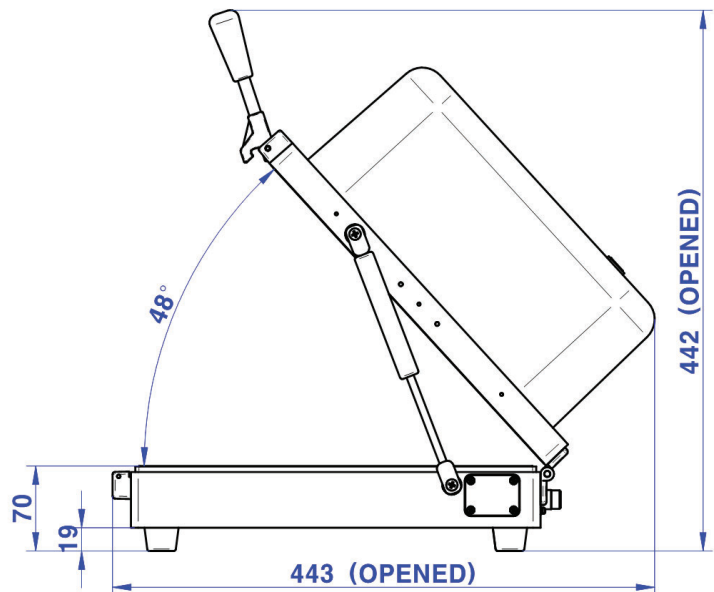
Front View (Closed)



Side View (Closed)



Front View (Opened)



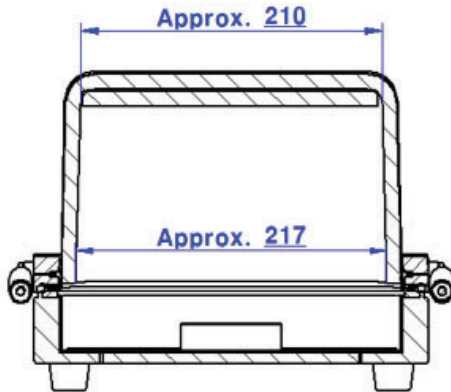
Side View (Opened)



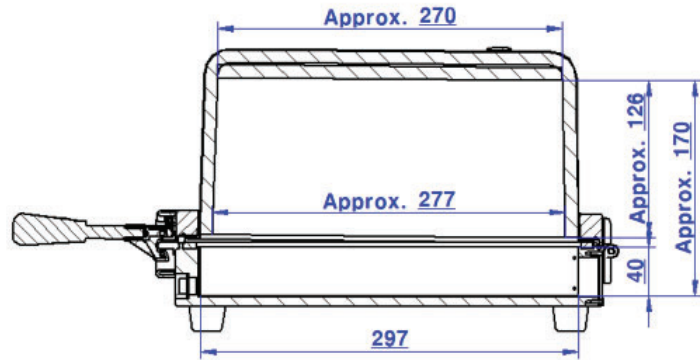
Inner Dimensions

TC-5915AU Inner Dimensions (WxDxH): 236(W) × 297(D) × 170(H) mm

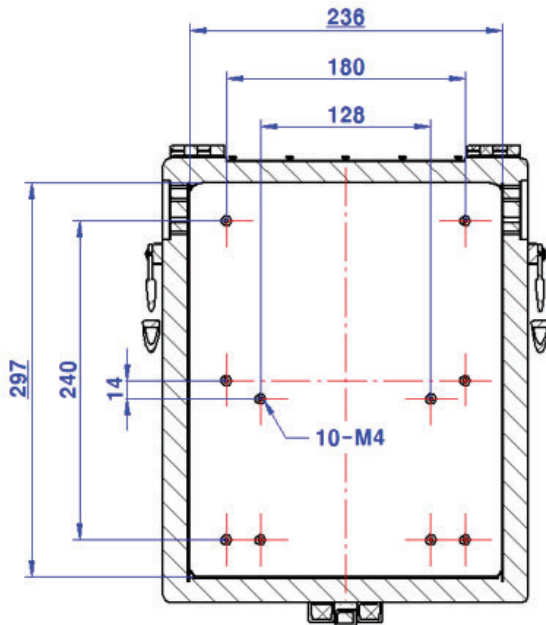
- Bottom : 236(W) x 297(D) x 40(H) mm
- Top : 210(W) x 270(D) x 126(H) mm



Rear View



Side View



Bottom View



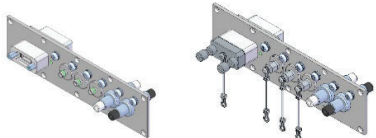
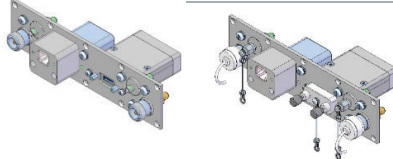
Ordering Information

Order Number	Product
TC-5915AU	Shield Box

Standard Accessories

Product	Description
4011-0144	SS-402, N (m) ST to N (m) ST, 1 m, 1 pc
Test Report	RF Isolation Test Report as configured with I/O interfaces.

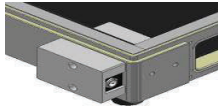
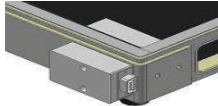
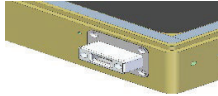
Pre-configured I/O Interface Panels

Product	Part Number	Configuration
 <p>Data Interface Panel</p>	M05009A	three (3), SMA (f) outside and SMA (f) inside one (1), USB 2.0 outside and inside one (1), Banana Jack type DC power adaptor
 <p>Data Interface Panel</p>	M05010A	two (2), N (f) outside and SMA (f) inside two (2), SMA (f) outside and SMA (f) inside one (1), USB 3.2 Gen1 Type-A outside and inside (USB3.0) one (1), RJ-45 outside and inside

**Customized I/O Interface Panels are available by selecting from the list below of available filtered connectors.
If something you are looking for is not listed, please ask us. Please contact our Sales Team.



Pre-configured Side I/O Interface Panels

Product	Part Number	Configuration
	M591532A	one (1), DC Power Jack Adaptor
DC Power Side Interface Panel		
	M591533A	one (1), DB9(p) outside and DB9(s) inside, 1000 pF pi filter
DB9 Side Interface Panel		
	M591534B	one (1), USB 2.0 outside and inside
Data Interface Panel		

Fixtures

Below are standard grid fixtures that can allow changing 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 requirements.

Using the fixture with our available antenna coupler options can form an ideal measuring environment for characteristics of each DUT.

Product	Part Number	Configuration
	F59154A	Antenna Coupler fixed type fixture Antenna Coupler (Optional): TC-93026A 300(W) x 270(D) x 22(H) mm



I/O Filters

I/O Filters	Part Number	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
	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
	3409-0022A 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



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Solutions for the Wireless Industry

	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 installed.

** 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 was measured using internal industry standards, and they may vary depending on the measuring method and environment.

Each shielding effectiveness is measured without any cable attached.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE