



**Concentric Technology Solutions Inc**

Solutions for the Wireless Industry

**TC-5901CU**

**Pneumatic Shield Box**

**Data Sheet**



## Features

Reliable RF shielding from 0.1 GHz to 12 GHz

Pneumatic control of lid operation and optional automatic test fixture motions

EMI filters on all data ports and power lines

Remote operation by RS-232C

Modular I/O design for possible customization of data and RF connection

Fixture-control air outputs for custom test fixture

Red and green LED's for pass/fail indication

Dual pressure control and lid down sensor for safety

## Mechanical Specifications

Line Voltage	100 - 240 VAC, 50/60 Hz, 15 watt max.
Data Line Capacity	100 VDC, 3 Amps max.
Remote Control	RS-232C, 3 wire, DB9(s)
Air Connection	
Main Connection	6 mm OD hose, one-touch push-on fitting
Fixture Control Connection	4 mm OD hose, one-touch push-on fitting
Input Air Pressure	5 to 10 bar
Dimensions	
Inside	407(W)x 206(D)x 133(H) mm
Outside	459(W)x 300(D)x 300(H) mm: lid closed, 449(H) mm: lid open
Weight	Approx. 17 kg
*Packing	
Size	620(W)x 430(D)x 440(H) mm
Weight	Approx. 21 kg

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

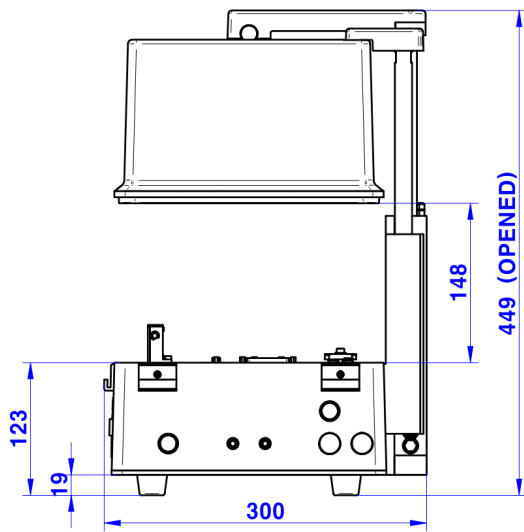
## RF Specifications

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

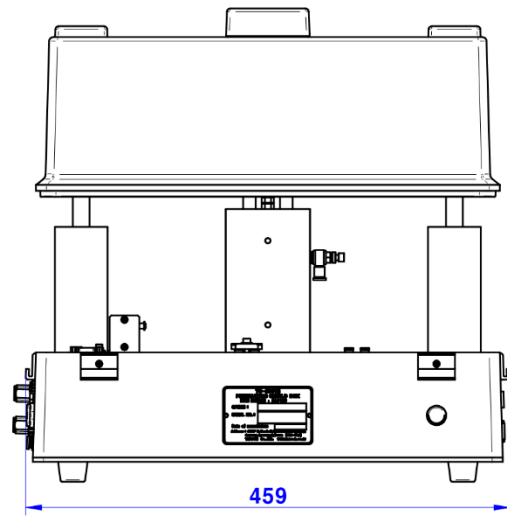
Frequency Range	0.1 GHz to 12 GHz
*Shielding Effectiveness (Typ.)	
0.5 GHz to 3 GHz	> 60 dB
3 GHz to 6 GHz	> 60 dB
6 GHz to 12 GHz	> 60 dB

## Outer Dimensions

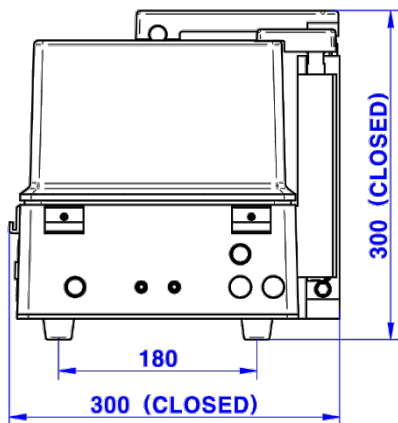
TC-5901CU Outer Dimensions (WxDxH): 459(W) x 300(D) x 300(H) mm



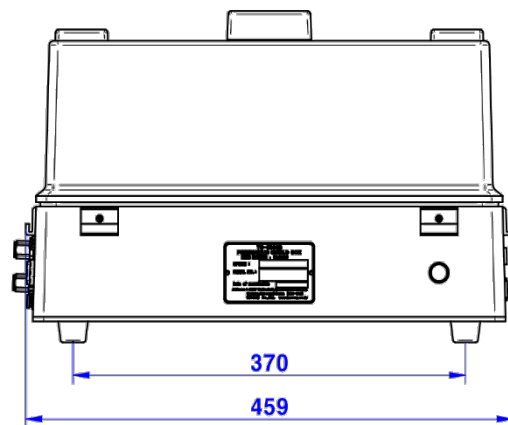
Front View (Opened)



Side View (Opened)



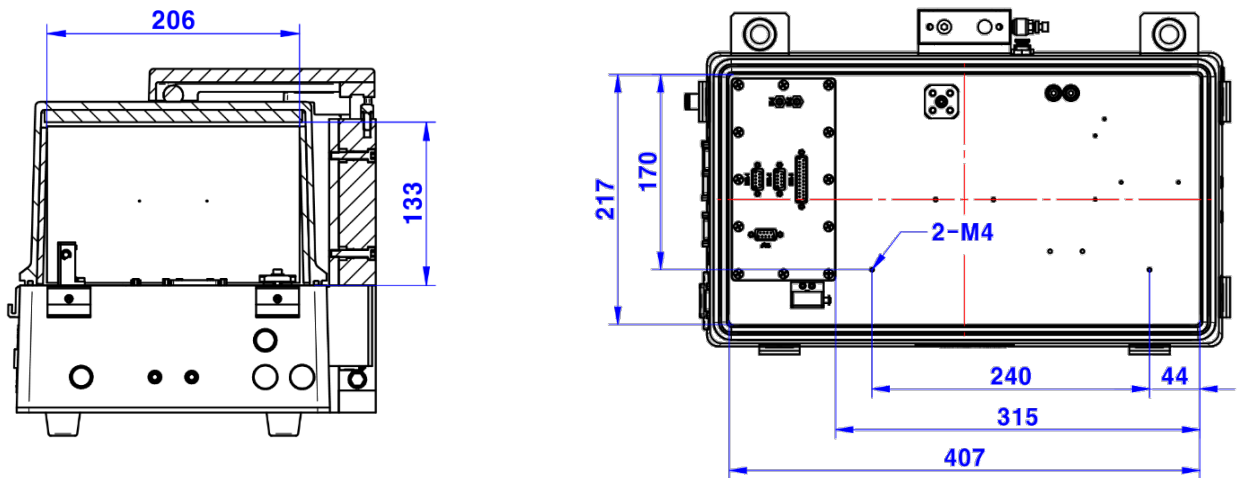
Front View (Closed)



Side View (Closed)

## Inner Dimensions

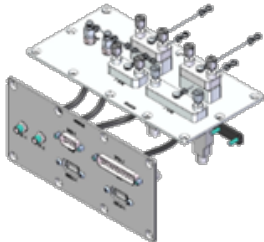
TC-5901CU Inner Dimensions (WxDxH): 407(W) x 206(D) x 133(H) mm



## Ordering Information

Order Number	Product
TC-5901CU	<b>Pneumatic Shield Box</b> (including accessories below) Test Report RF Cable, SS-402, N (m) to N (m) 1m, 1pc Data Cable, Db9 (p) to DB9 (s) cable 2m, 1pc Lid Stopper, 1pc Hand Valve, 1pc Power Cable, 220V, 1pc







## Pre-configured I/O Interface Panels

Product	Code	Configuration
	M13001A	Two (2) SMA (f) outside and SMA (f) inside One (1), DB25 (p) outside and DB25 (s) inside, 100 pF Pi filter One (1), DB9 (p) outside and DB9 (s) inside, 100 pF Pi filter Two (2), USB 2.0 outside and inside

Data Interface Panel

Customized IO Interface Panels are available by selecting the connectors from the available connectors below. Please let your sales representative know.

## Custom I/O Filters

I/O Filters	Code	Description	*Typical Shielding
	<b>3409-0018A-3<sup>(**)</sup></b> 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
	<b>3904-0296A</b> 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
	<b>3406-0004A</b> 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
	<b>3406-0005A</b> (Black) <b>3406-0006A</b> (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
	<b>3408-0100</b> RF, N-SMA Connector	From DC to 12 GHz 50 Ω / 1.3 max	N/A
	<b>3408-0101</b> 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 internal standards, and they may be different depending on the measuring method and environment.

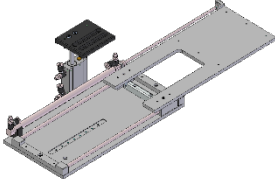
Each shielding effectiveness is measured without any cable, so it will be likely affected when a cable is connected.

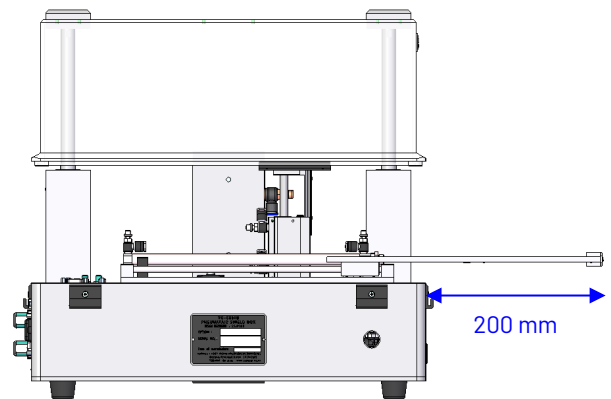
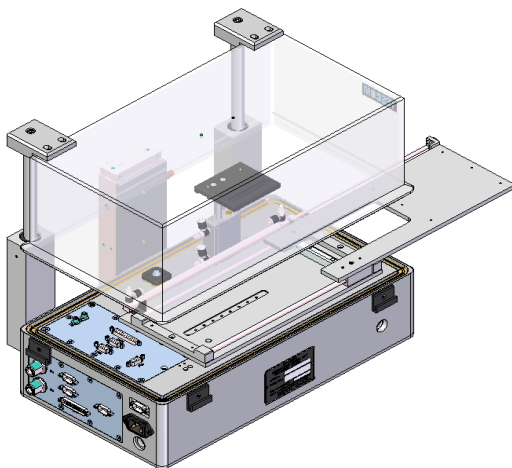
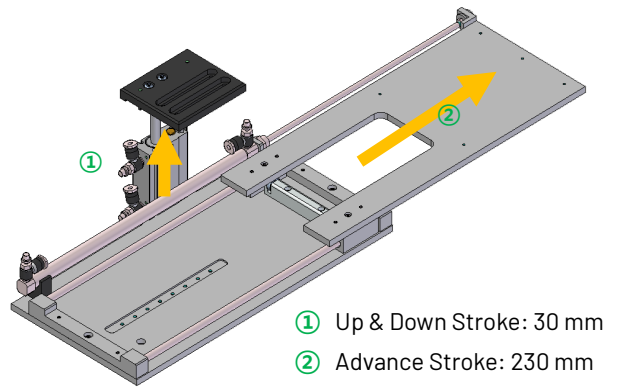
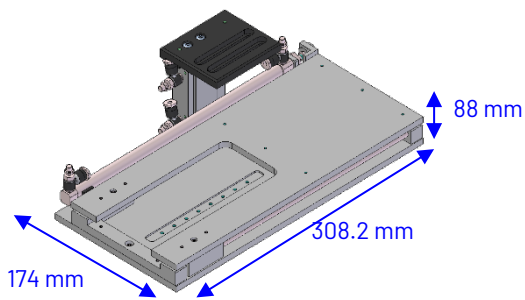
Also, it may vary depending on the type of cable.

## Optional Fixture

The F59014C is an exclusive fixture for the TC-5901CU and can be used to accommodate your DUT and custom fixture. The F59014C is comprised of Horizontal movement(In/Out) and Vertical movement handler(Up/Down) for probes. We can customize the F59014C to suite customer needs based on the DUT.

Please ask your sales representative for details.

Product	Code	Configuration
	F59014C	Fixture for TC-5901CU



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

