



Concentric Technology Solutions Inc

Solutions for the Wireless Industry

TC-5916AU Shield Box



Features

- Reliable high RF shielding from 0.1 GHz to 12 GHz
- Easy Opening/Closing
- Absorbing materials for stable repeatable measurement results
- EMI filters on all data ports and power line
- Customizable I/O interface panels
- Dampening struts installed on lid to easily open lid and holds lid in open position

Concentric Technology Solutions, Inc.

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Specifications

RF Specifications

Frequency Range	100 MHz to 12 GHz
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*** Shielding Effectiveness (Typ.)**

0.1 GHz to 3 GHz	> 70 dB
3 GHz to 6 GHz	> 70 dB
6 GHz to 12 GHz	> 70 dB

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

Mechanical Specifications

Basic RF Connector	Two(2) N (f) outside and SMA (f) inside
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Dimensions

Inside	328(W) x 298(D) x 206(H) mm
Outside	399(W) x 473(D) x 239(H) mm, lid closed. 495(H) mm, lid open.

Weight	Approx. 10 kg
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***Packing**

Size	460(W) x 530(D) x 340(H) mm
Weight	Approx. 11 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 inserted.

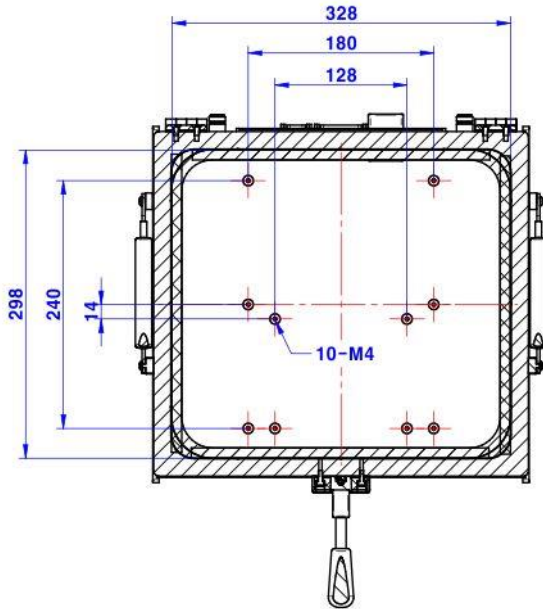
Frequency Range	Reflectivity (Typ.) [dB]
0.5 GHz to 3 GHz	3 dB
3 GHz to 6 GHz	6 dB
6 GHz to 12 GHz	10 dB



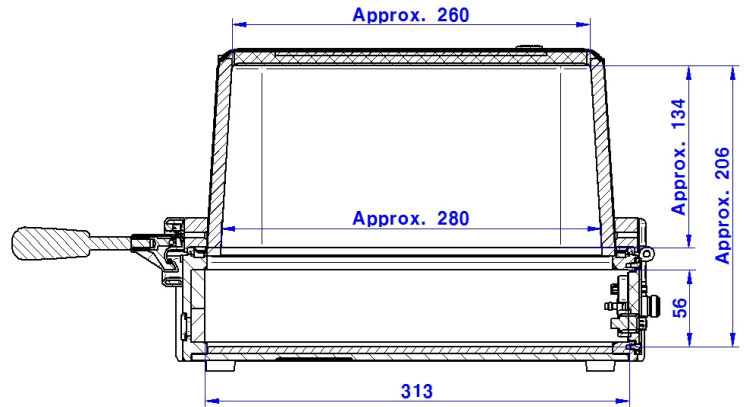
Dimensions

- TC-5916AU Inner Dimensions (W×D×H) : 328(W) × 298(D) × 206(H) mm

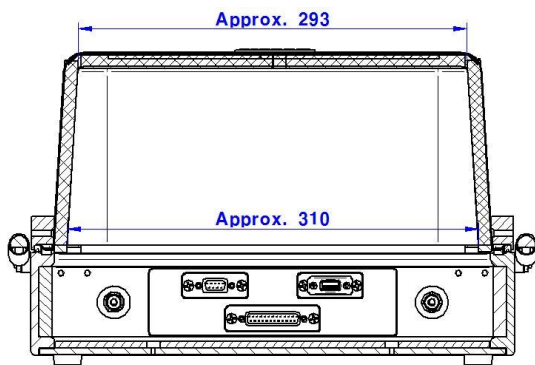
(Internal dimensions may vary by lot.)



Bottom Inner View



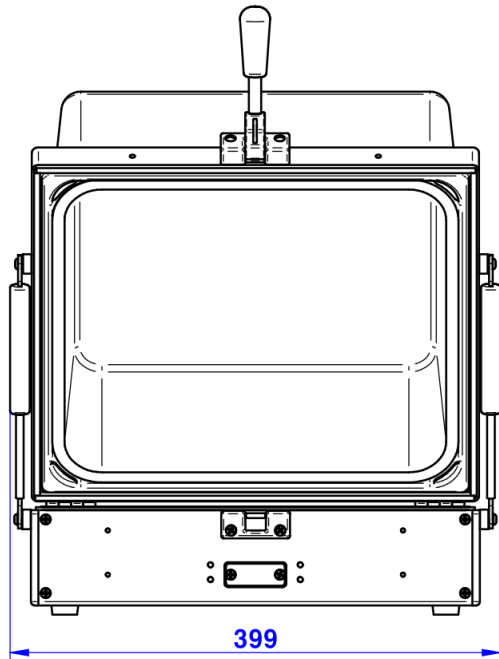
Side Inner View (Closed)



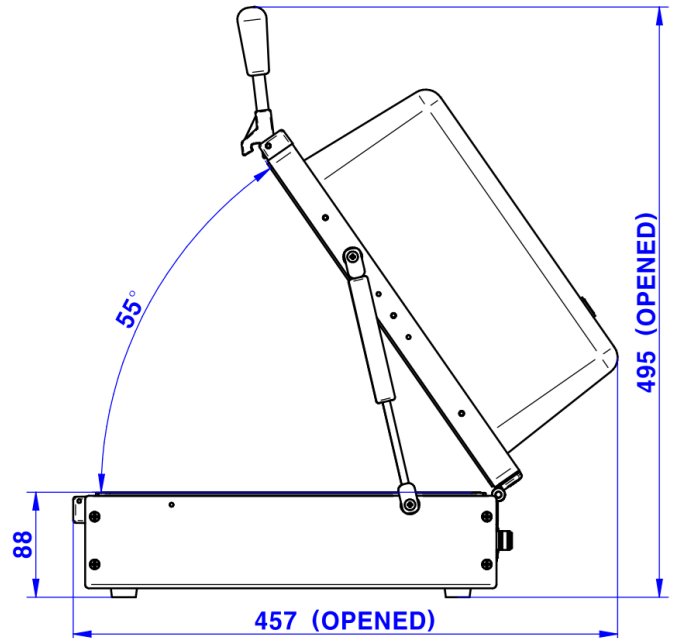
Rear Inner View



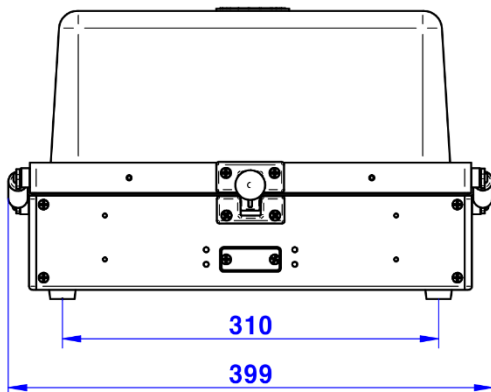
- **TC-5916AU Outer Dimensions (W×D×H) : 399(W) × 473(D) × 239(H) mm, lid closed.**
495(H) mm, lid open.



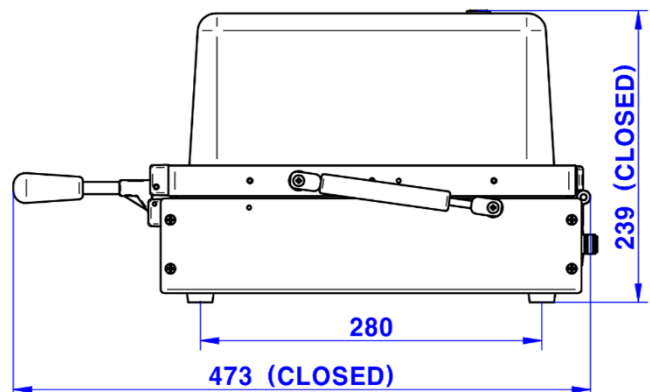
Front View (Opened)



Side View (Opened)



Front View (Closed)



Side View (Closed)




Ordering Information

Order Number	Description
	Shield Box (including accessories below)
TC-5916AU	Test Report

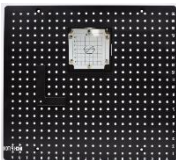

Optional I/O Interface Panel

■ Pre-Configured I/O Interface Panel

I/O Interface Panel	Order Number	Configuration
	TBD	Blank Panel (with absorber)

Optional Antenna Coupler Fixture



- We offer standard grid fixtures that allows changing the position of DUT holding blocks in seconds to enable optimal fit for different shapes of DUT. 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 can form an ideal measuring environment for characteristics of each DUT.

Antenna Coupler	Order Number	Configuration
	Grid Fixture(TBD) TC-93160A	Antenna Coupler fixed grid fixture <ul style="list-style-type: none">• Antenna Coupler(Optional): TC-93160A<ul style="list-style-type: none">- Frequency range: 6 GHz ~ 12 GHz- RF connector type: SMA female• RF Cable: 4011-0123<ul style="list-style-type: none">- Frequency range: DC to 18 GHz- SS-405, SMA(M) R/A -SMA(M) R/A, 80 cm
	F59166A TC-93061A	Antenna Coupler fixed type grid fixture <ul style="list-style-type: none">• Antenna Coupler(Optional) : TC-93061A<ul style="list-style-type: none">- Frequency range: 800 MHz ~ 6 GHz- RF connector type: SMA female• RF Cable: 4011-0076<ul style="list-style-type: none">- Frequency range- SS-405, SMA(M) - SMA(M), 50 cm









■ Custom RF Connector Panel

- Custom RF Connector Panels are available by selecting or combining the RF connectors listed 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 from the list of I/O interfaces below. Please contact our sales team for any questions.

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 was measured by our internal standards, and they may be different depending on the measuring method and environment.
- Each shielding effectiveness is measured without any cables installed, so it will likely be affected when a cable is connected. Also, it may vary depending on the type of cable.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE