

CT840a Large 2D-Turntable LANforge Chamber

The CT840a RF Chamber is used to isolate WiFi and other RF equipment from the outside environment. This allows more repeatable testing options. In addition, when combined with RF attenuators and WiFi traffic generators, chambers can be used to create emulated mesh and mobility scenarios, including the TR-398 automated test suite. The CT840a offers 85+ dB of isolation for excellent performance even in noisy environments, 2D turn-table for antenna orientation testing, and other features expected in quality chambers.



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Hardware Specification

- 1. Large 2D turn-table RF Shield Chamber
- 2. Isolation: 70+ dB Example Isolation Test Results
- 3. Frequency(GHz): 0.8 to 8GHz
- 4. Standard Interfaces: 16x SMAs, USB 3.0, USB-C, 3x 10G Ethernet, 4K HDMI, RF Coax, Fiber, fan, DC power, universal A/C power strip. Other options available. HDMI filter does not have great RF isolation so it is not installed by default. RF-Pipe for coax/fiber passthrough is not installed by default either to protect from shipping damage. Both filters may be installed by customer with help from Candela support staff.
- 5. RF Absorber material: -10dB to -20dB RF Absorber spec sheet.
- 6. Directional Antenna Spec Sheet
- 7. Includes built-in 2D turn-table with software automation support.
- 8. Inside Dimension(mm): 890(W) 660(D) 510(H) Inches: 35(W) 26(D) 20(H)
- 9. Outside Dimension(mm): 1092(W) 900(D) 940(H) Inches: 43(W) 35.5(D) 37(H)
- 10. Weight: 150kg
- 11. Working Temperature: Normal room temperature

List Price: \$21,000 List Price with 1 Year support (17%): \$24,570

Additional Feature Upgrades

Unless otherwise noted in the product description, these features usually cost extra:

- Compare with other Chamber offerings
- LANforge WiFi test systems and automation software.
- Programmable Attenuators
- RF Splitter Combiners and cables

• Different Interface options are available

1.

Configuring the CT840a

A. The CT840a requires a network connection. Plug an Ethernet cable into the Control LAN port at the bottom rear of the chamber.

Depending on the date manufacture, these ports might be labeled differently.

- A. The chamber controller and lights are powered via AC cords at the outside bottom rear of the CT840a chamber.
- B. The **Chamber Power** or *DC* port is for 12v or other power required by devices inside the chamber. This runs below the turntable.
- C. The **Turnable Power** or *Plate DC* port is for a 12v or other power required by the DUT on the turntable. This is run up to the top of the turntable.
- D. Accessories or DUTs can be cabled to the **Device USB** port, or USB port.
- E. The USB camera has a dedicated USB port, Camera USB or Camera USB port.
- F. Below the turntable is an Ethernet jack for the DUT to use. That comes out at the **Turnable Eth** or *Plate LAN* port. It should be run up to the top of the turntable with the 12v power cord.
- G. The chamber controller is accessed on the network via the **Chamber Eth** or *Control LAN* port.

B. Use the front touch screen to set an IP address

- C. Make sure you can ping the chamber from your laptop and/or the machine running LANforge server. The LANforge server will communicate over the network to the *Chamber Eth* port.
- D. The rear ports are all accessory ports for the chamber.

A. 120v AC cord for internal power strip.

- I. This power plug provides power to the chamber modbus controller and the chamber lights.
- II. The turn table power cord plugs into the power strip.
- B. Pass-through DC barrel connectors. Use these for 12v (or other) power needed by devices in the chamber.
- C. SMA connectors. Seal these with terminators when not in use.
- D. Ethernet ports
- E. USB 3-A and USB C port
- F. Type F Coax port. Seal this with terminators when not in use.
- G. Fiber-optic pass-through. Seal this with screw-caps when not in use.
- H. HDMI ports
- 2.

Configuring the Chamber in LANforge

A. In the Chamber View window, right-click on the main window and select New Chamber

	Chamber View
Scena	ario Configuration
LF-1	New Chamber New DUT New Profile New Traffic Profile Play All Paths

B. You will see the *Create/Modify Chamber* window.

0	Create/Modify Chamber						×					
Name:	<auto create="" name="" new=""></auto>		Width:	150		Height:	150					
Chamber Type	Unknown (0)	-	Isolation	80		Speed (rpm)						
Turntable Type	CT850A (0)	•	Turntable			Position (deg)		Tilt (deg)				
Managed By:	None		•			Virtual	🔲 Open					
DUT-1		-	DUT-2		-							
DUT-3		-	DUT-4		-							
LANforge-1	None	•	LANforge-2	None	-							
LANforge-3	None	•	LANforge-4	None	· · · · · · · · · · · · · · · · · · ·							
Int CX A	Int CX B		Int Atten	Ext CX	X A	Ext CX B	Ext Atten	Atten Floor		Zero-Atten RSSI 2.4Ghz		Zero-Atten RSSI 5Ghz
	-	•	· 🔽		~	-		Cable (100 ddB)	-	None (0 ddB)	-	None (0 ddB)
			· 🗸		•	-		Cable (100 ddB)	•	None (0 ddB)	-	None (0 ddB)
	*	-	· ·		•			Cable (100 ddB)	•	None (0 ddB)	-	None (0 ddB)
·	-	-	· 🔽		-	-		Cable (100 ddB)	-	None (0 ddB)	-	None (0 ddB)
-		-	-		-	-		Cable (100 ddB)	-	None (0 ddB)	-	None (0 ddB)
	•		-		•	-		Cable (100 ddB)	-	None (0 ddB)	-	None (0 ddB)
	·	•	· ·		•			Cable (100 ddB)	-	None (0 ddB)	-	None (0 ddB)
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	-	•	· ·		•			Cable (100 ddB)	-	None (0 ddB)	-	None (0 ddB)
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•	-	-	-		•	-	-	Cable (100 ddB)	-	None (0 ddB)	-	None (0 ddB)
	•	-	-		•	-		Cable (100 ddB)	-	None (0 ddB)	-	None (0 ddB)
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	-	-	-		-	-	-	Cable (100 ddB)	-	None (0 ddB)	-	None (0 ddB)
	-		-		-	-	-	Cable (100 ddB)	-	None (0 ddB)	-	None (0 ddB)
	-		-		-	-	-	Cable (100 ddB)	-	None (0 ddB)	-	None (0 ddB)
					Sync Apply OK	Cancel						

C. Select the chamber and turntable type:

0		
Name:	Chamber-0	١
Chamber Type	2D Large (3) 🗸 🗸	ŀ
Turntable Type	CT840A (2) 🗸	٦
Managed By:	<custom> CT850A (0)</custom>	٦
DUT-1	ComXim (1)	٦
DUT-3	CT840A (2)	C

- A. For Chamber Type, select 2D Large
- B. For Turntable Type, select CT840A
- C. For *Turntable*, put in the IP address of the chamber

•			Create/M	lodify Chamber	
Name:	Chamber-0	Width:	150	Height:	150
Chamber Type	2D Large (3)	 Isolation 	80	Speed (rpm)	0.0
Turntable Type	CT840A (2)	Turntable	192.168.100.10	Position (deg)	0.0
Managed By:	l (vm-48e4)	 Turntable Rpt: Positi 	ion: 0.0 Tilt: 0.0 RPM: 0.0		

D. Select your LANforge server resource that manages the turntable

•			Create/M	lodify Chamber	
Name:	Chamber-0	Width:	150] Height:	150
Chamber Type	2D Large (3)	Isolation	80	Speed (rpm)	0.0
Turntable Type	CT840A (2)	Turntable	192.168.100.10	Position (deg)	0.0
Managed By:	1 (vm-48e4)	Turntable Rpt: Positi	on: 0.0 Tilt: 0.0 RPM: 0.0		

E. Click **OK**

D. You will see a new chamber, **C0** in the *Chamber View* window.

	Chamber View	
LF-1	Scenario Configuration	
E. In the	Chamber View window, right-click of	on the chamber CO and select Me
F. Use th	ne <i>Speed</i> and <i>Position</i> fields to adjust	t the turntable.
Speed (rpm)	0.0	

G. Click **Apply** to send the configuration.

0.0

Position (deg)

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