

# PT50 Small-size Reverberation Chamber

Production Testing of cellular and wireless technologies

690 MHz to 6 GHz



## Main Features

- Production Testing (non-signalling)
- 1600 mm (H) x 600 mm (W) x 950 mm (L)
- Largest DUT dimension: 15 cm
- Maximum DUT weight: 5 kg
- Up to 8 DUTs simultaneous testing
- WLAN 802.11, GSM, WCDMA, LTE, 5G NR
- Communication to/from DUT via Bluetooth
- Pneumatic door-drawer available (optional)
- Automated DUT line control through barcode reader
- Automated Test Cell control
- Fully automated tests with R&S, NI and Anritsu instruments
- Simple Production-Engineer Test Mode
- Portable System with reduced size and wheels
- RPI available for remote control
- Customized test script design available
- Mains power: 100-240 VAC 50-60 Hz
- Data interface: USB
- RF isolation (shielding): ~ 80 dB

## Measurement system

The PT50 small-size Reverberation Chamber Series is the fastest OTA test chamber in the market. With smart-stirring and capable of simultaneously testing up to 8 DUTs of up to 15cm and 5kg, the PT50 is intended for Production OTA Testing in non-signalling mode, providing unheard-of extremely-fast test times with good accuracy and repeatability and the smallest footprint on the market.

```
PT50_1072016-11-11-2017_111218.txt
```

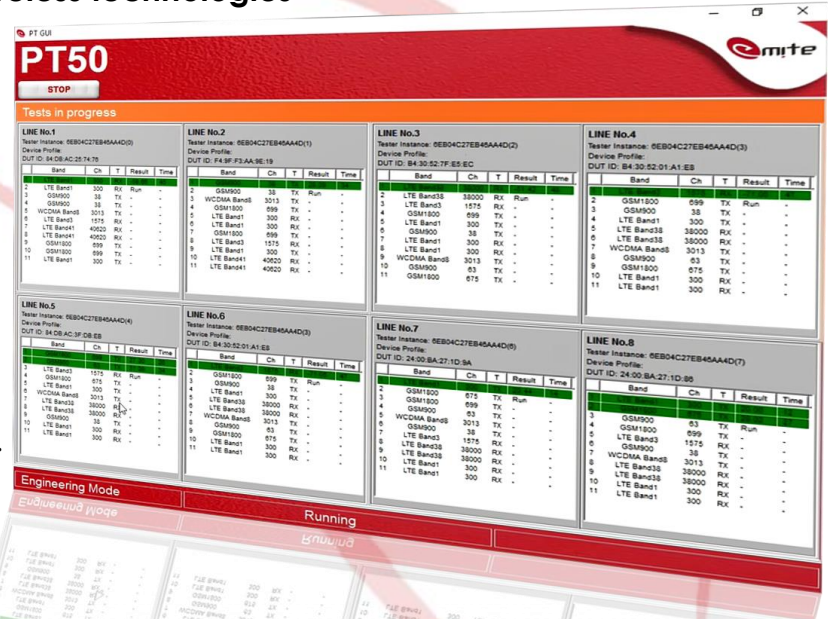
No.	TestItem	Result	Min	Max	Result
13	Chipset Profile: XXXX				
14	DUT ID: 84:DB:AC:26:74:76				
15	DUT IMEI: XXXX				
16	Elapsed Time (s): 317				
17	Test File: C:\Users\EMITE\Desktop\PT50v1.3 (Release-Dev)\tests\Line1084DBAC257476-11-11-2017_111218.txt				
18					
19	No. TestItem	Result	Min	Max	Result
20	-----				
21	1 LTE Band1 Ch=300 Exi Rk Rssi	-65.96	-67.39	-63.39	Pass
22	2 LTE Band1 Ch=300 Div Rk Rssi	-71.15	-73.10	-69.10	Pass
23	3 Modem1 GSM GSM900 Ch=38 Tx Pow	28.12	27.13	31.13	Pass
24	4 GSM GSM900 Ch=38 Tx Pow	29.26	27.13	31.13	Pass
25	5 WCDMA Band8 Ch=2788 Tx Pow	19.76	17.72	21.72	Pass
26	6 LTE Band3 Ch=1575 Exi Rk Rssi	-66.89	-68.68	-64.68	Pass
27	7 LTE Band41 Ch=40620 Exi Rk Rssi	-64.07	-64.43	-62.43	Pass
28	8 LTE Band41 Ch=40620 Div Rk Rssi	-75.44	-77.66	-73.66	Pass
29	9 GSM GSM1800 Ch=699 Tx Pow	27.41	25.29	29.29	Pass
30	10 Modem1 GSM GSM1800 Ch=699 Tx Pow	27.99	25.29	29.29	Pass
31	11 LTE Band1 Ch=18300 Tx Pow	22.22	20.33	24.33	Pass
32	-----				
33					
34	LINE PRODUCTION No.2				
35	-----				
36	Tester: 6EB04C27EB46AA4D(1)				
37	Chipset Profile: XXXX				
38	DUT ID: F4:9F:F3:AA:9E:19				
39	DUT IMEI: XXXX				
40	Elapsed Time (s): 316				
41	Test File: C:\Users\EMITE\Desktop\PT50v1.3 (Release-Dev)\tests\Line20F49FF3AA9E19-11-11-2017_111218.txt				
42					
43	No. TestItem	Result	Min	Max	Result
44	-----				
45	1 Modem1 GSM GSM900 Ch=38 Tx Pow	29.04	27.13	31.13	Pass
46	2 GSM GSM900 Ch=38 Tx Pow	29.39	27.13	31.13	Pass
47	3 WCDMA Band8 Ch=2788 Tx Pow	19.15	17.72	21.72	Pass
48	4 GSM GSM1800 Ch=699 Tx Pow	27.11	25.29	29.29	Pass
49	5 LTE Band1 Ch=300 Exi Rk Rssi	-65.55	-67.39	-63.39	Pass

TxPower, RSSI and other non-signalling SISO OTA figures of merit for all cellular and wireless technologies, including Main/Diversity/All antenna switching.

# PT50 Small-size Reverberation Chamber

Production Testing of cellular and wireless technologies

690 MHz to 6 GHz



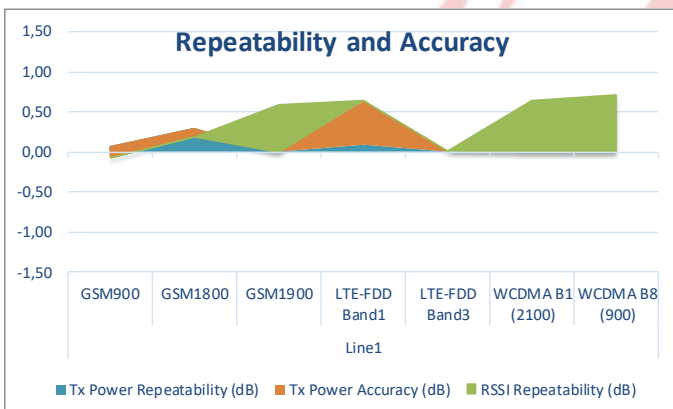
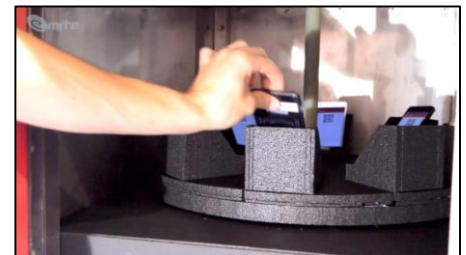
With unprecedented parallel OTA testing (up to 8 DUTs simultaneously) including batch and user-defined API list of tests with pass/fail criteria set and evaluation, PT50 is perfect for Production Testing in limited spaces.

With user-selectable technology, band, channel, bandwidth, antennas, and other parameters in an individual manner for each test, a batch of tests can be run overnight in an unsupervised manner, something that only the Test Systems from EMITE can do. The PT50 makes use of an 8-DUT carousel on an internal turn table for extremely-fast testing of devices, providing an unheard-of and unique test capability for production lines in limited spaces. Profiles definition by user for proprietary chipset confidential AT commands is optional.

Typical non-signalling complete batch testing times for 8 DUTs are around 300s. Typical 1 dB STD accuracy and repeatability (1.5 dB for 690 to 860 MHz). With up to 8 DUTs parallel testing capabilities, automated detection and usage of any LTE eNB/5G gNB capability and overnight unsupervised measurements, PT50 holds unmatched capabilities and test times for Production Testing.

## Key Features

- Pre-calibrated from manufacturing plant
- EMITE app for automated non-signalling testing
- Control of up to 8 DUTs tested in parallel through carousel in turn table



The EMITE GUI software and UE app monitors the wireless connection to the DUTs and the test schedule to ensure parallel testing is run smoothly.

The EMITE barcode reader, UE App, Bluetooth control and touchscreen embedded PC uniquely identifies DUTs, test lines and chambers in a room with a set of many chambers.

This data sheet was correct at the time of going to print. The right is reserved to change specifications at any time. Data Sheet EMITE Ing PT50 2020.1 ENG. Wise Waves is a registered trademark of EMITE Ing. Spain The products are patent protected

© Copyright EMITE Ing 2020