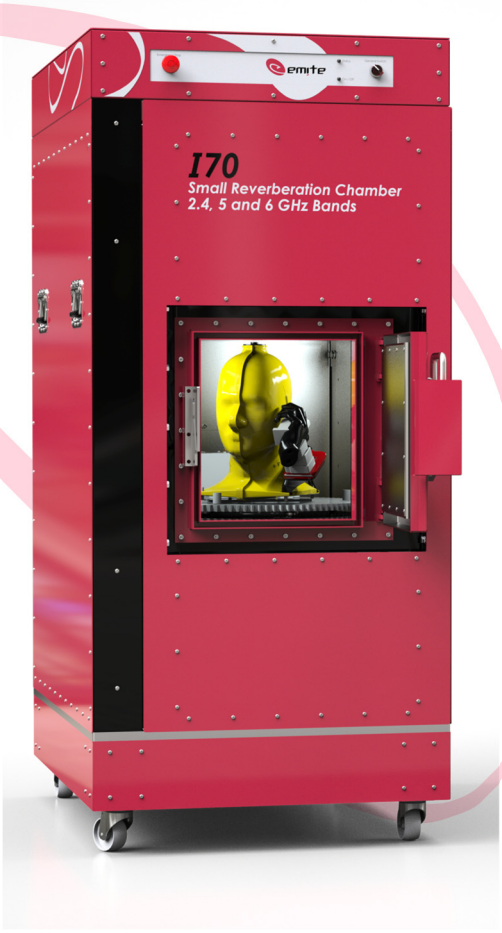
Wise Waves®
MIMO Measurements Made Simple

I70 Small-size Reverberation Chamber

Bluetooth and WLAN MIMO OTA Testing

2.4-2.5 GHz, 5.0-7.125 GHz frequency bands



Main Features

- Dimensions: 1850 mm (H) x 1100 mm (W) x 850 mm (L)
- Mains power: 100-240 VAC 50-60 Hz
- Largest DUT dimension: 37 cm
- Maximum DUT weight: 5 Kg
- Technologies:
  - WLAN (up to 802.11be WiFi-7)
  - Bluetooth (BR, EDR, LE up to 5.2)
- Customized turntable interfaces: USB, Ethernet, AC/DC power, SMA RF port.
- RF isolation (shielding): > 80 dB
- Up to 8x8 MIMO testing
- MIMO Graphic User Interface (GUI) for Windows
- Fully automated measurements with control of VNA, Wireless Connectivity Test Set and AP/STA
- Signaling / Non-signaling OTA measurements
- Active and Time Domain MIMO OTA measurements
- Coexistence WLAN/Bluetooth/Cellular measurements
- Selected by leading chipset USA manufacturer among others
- Windows, Android, iOS, MacX, Linux, UWP and Tizen UE apps
- Access Point and STAtion testing
- Beamforming and MU-MIMO testing

WiFi-7 measurement system

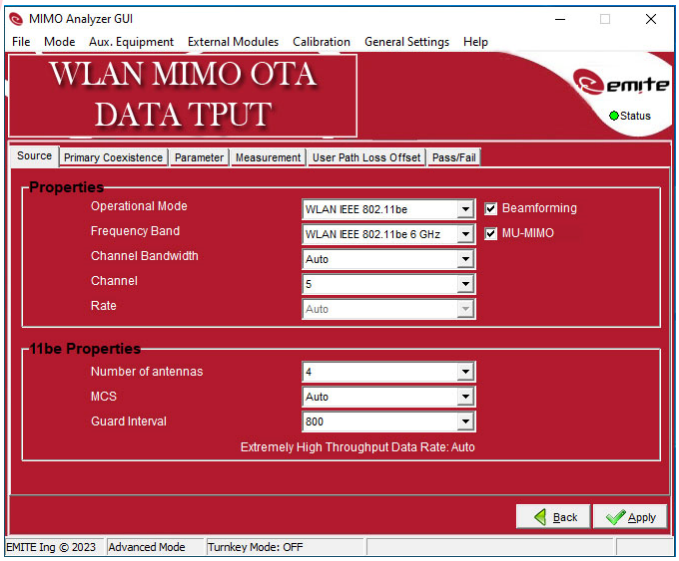
The I70 small-size Reverberation Chamber is a unique value-for-money Over-the-Air (OTA) test chambers that is capable of measuring up to WLAN 802.11be, with a greater channel bandwidth (320MHz) and more data density (4K QAM).

Under request, I70 is also capable of measuring short range and Cellular technologies from 1.4 to 7.125 GHz.

The EMITE I70 test system is complemented with diverse Support and Maintenance packages intended to suit a tailored set of customer requirements

Unique Features – only with EMITE

- *Capable of testing coexistence WLAN/BT*
- *Capable of testing Bluetooth IP TPUT vs Path loss*
- *Capable of testing WLAN 802.11be up to 8x8*
- *Packet capture module up to 802.11be*
- *Pre-calibrated from factory plan (VNA is not needed)*
- *EMITE UE apps for automated WLAN & BT testing*
- *MIMO Analyzer Studio application for result analysis and customized reports*



WLAN IEEE 802.11be selectable in EMITE GUI MIMO Software

EMITE. Parcela 2.3R. Parque Tecnológico Fuente Álamo. Ctra. El Estrecho-Lobosillo km 2
E-30320 Fuente Álamo de Murcia. ESPAÑA / SPAIN
Tel. +34 968 **100 181** | Fax +34 968 **100 381** | sales@emite-ing.com

Wise Waves®
MIMO Measurements Made Simple

I70 Small-size Reverberation Chamber

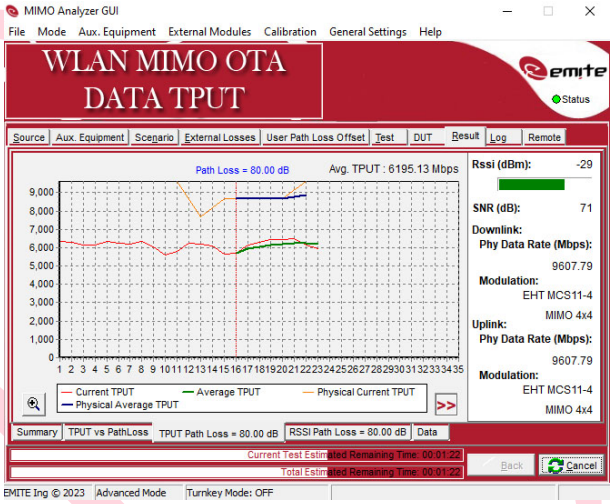
Bluetooth and WLAN MIMO OTA Testing

2.4-2.5 GHz, 5.0-7.125 GHz frequency bands

Key Performance Indicators

Active measurements:

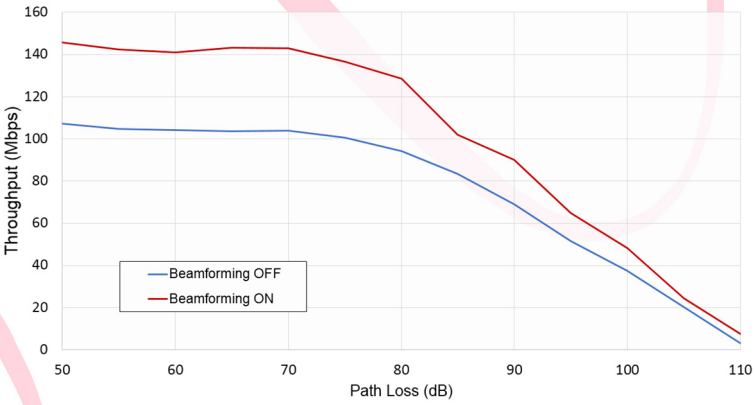
- Total Radiated Power (TRP)
- Total Isotropic Sensitivity (TIS)
- Coexistence WLAN with Bluetooth
- Coexistence WLAN with Cellular (LTE/NR)
- Packet Error Rate (PER) versus Time
- Modulation analysis (EVM, Freq. Error, Phase Error)
- Use of phantoms (Head, wrist, etc.)



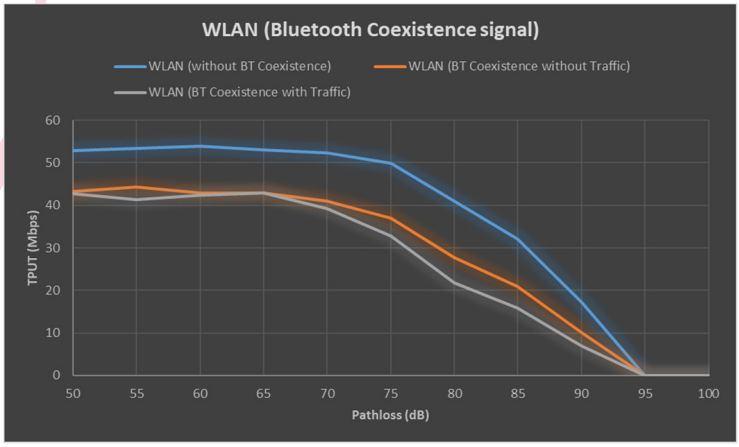
Measured WiFi-7 average IP-TPUT: 6195.13 Mbps

Time-Domain measurements:

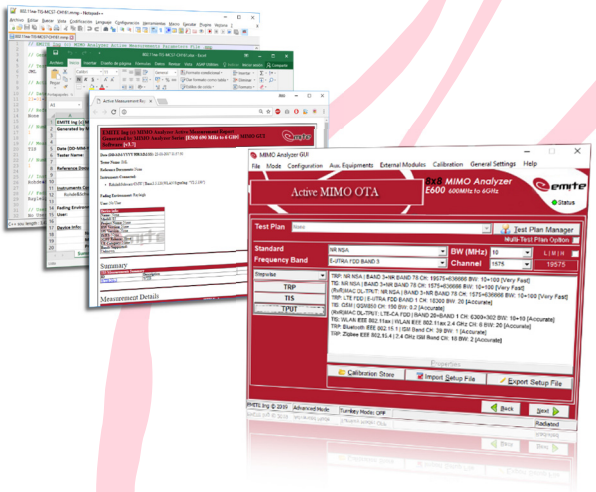
- WLAN IP (TCP/UDP/FTP) DL/UL Throughput vs Time, Throughput vs Path Loss, Throughput vs Average Received Power
- Bluetooth IP (TCP/UDP/FTP) DL/UL Throughput vs Time, Throughput vs Path Loss
- WLAN DL HAS (HTTP Adaptive video Streaming)
- MIMO Throughput Sensitivity (MTS)
- DUT monitoring (battery level, temperature)
- Physical Throughput report
- Received Signal Strength Indicator (RSSI)
- Coexistence: WLAN with Bluetooth, WLAN with Cellular (LTE/NR), Bluetooth with WLAN
- Interference testing (CCI, ACI, CW, BT)
- 802.11be packet capture
- Iperf 2 & Iperf 3 available
- Latency and jitter monitoring
- WLAN API (Remote mode)
- Multiple DUT testing (parallel testing)
- Multi-Link Operation (MLO) testing



TCP Data Throughput measured with AP beamforming on and off at channel 44.



WLAN TCP Data Throughput measured with and without a Bluetooth coexistence signal showing also the effect of include IP traffic on the coexistence technology.



www.emite-ing.com

EMITE. Parcela 2.3R. Parque Tecnológico Fuente Álamo. Ctra. El Estrecho-Lobosillo km 2
E-30320 Fuente Álamo de Murcia. ESPAÑA / SPAIN
Tel. +34 968 **100 181** | Fax +34 968 **100 381** | sales@emite-ing.com