

Large Reverberation Chamber

Series F200

200 MHz to 6 GHz

EMC, M2M, W-IoT and wearable OTA testing at your fingerprint

With up to 4 available channels, the F200 Large Reverberation Chamber from EMITE provides accurate and fast EMC, Machine-to-Machine (M2M), Internet-of-Things (IoT) and Wearable OTA research, development and compliance testing measurements for a unique frequency bandwidth with an unprecedented level of automation and report.

Main Features

- Dimensions: 5.1 m (L) x 4.1 m (W) x 3.1 m (H)
- Test Volume: 1.5 m (L) x 1.5 m (W) x 2.0 m (H)
- DUT Weight: up to 100 kg
- IEC 61000-4-21 certified
- DO160 Cat Y certified
- Silent operation of stirrers and turntable
- Graphic User Interface (GUI) for Windows OS
- 2G/3G/4G SISO/MIMO OTA (all Technologies)
- Mains power: 100-240 VAC 50-60 Hz
- Chamber lamps
- DUT plugged-in (100-240 v AC) testing available
- Data interface: USB
- RF isolation (shielding): ~100 dB
- AC 16A filters for DUT power supply
- 0.25 dB Standard Deviation
- Mode-Stirring, Source-Stirring and Platform-Stirring
- Best isotropy (0.5 dB) and repeatability (0.25 dB) on the market²
- Time-domain pre-characterization measurements (RMS DS, PDP, Coherence Bandwidth, Transfer Function)
- Integrated Vector Network Analyzer and Base Station Emulator control (Anritsu, Rohde & Schwarz, Keysight)
- Compatible with Channel Emulators for enhanced fading emulation
- Air vents
- Automated diagnosis and pre-calibration
- Calibration-check to avoid unnecessary long calibration test times
- Installed and in operation in 1 week



Measurement system

The F200 Series is a large mode-, platform and source-stirred reverberation chamber that provides a unique measurement capabilities for large form-factor devices under test (DUTs) like laptops, large TV sets, solar and trash compactors, fridges or washing and vending machines, among others. With Test Volumes¹ up to 4.5 m³, the F200 is able to efficiently measure emissions, immunity, TRP, TIS and TPUT of large M2M/IoT/Wearable devices with extreme accuracy, unheard-off repeatability and with the shortest test times in the market using a single and intuitive Graphic User Interface. DUT AC-plugged-in (100-240 V AC) testing is also available.

Pre-characterization and automated tuning of RMS DS and Coherence Bandwidth for testing according to CTIA standards through absorber loading is also offered.

Unique Smart-Attachment, Smart hand-over, Smart call-drop and Early-stop embedded EMITE algorithms allow for an unprecedented control and automation of your Active OTA measurements using F200, which can be run overnight without human supervision.



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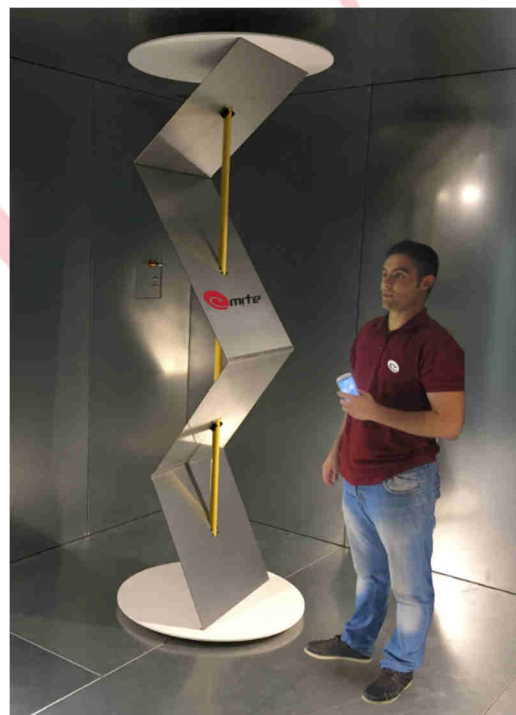
Typical testing times are under 1 minute for TRP and 3 minutes for TIS². In-house pre-calibrated isotropy of 0.5 dB and STD deviation of 0.25 dB are typical².

ALL Cellular standards and ALL Wireless standards.
In combination to AMETEK and Keysight EMC equipment.

The EMITE F200 reverberation chamber has been selected by CTIA to participate in the M2M Large-Form-Factor Round Robin test campaign.

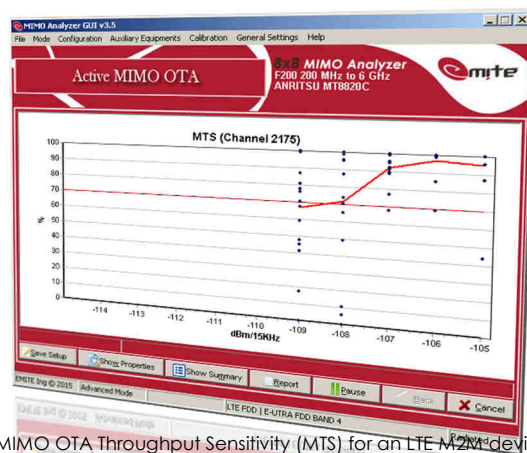
Key Features

- Friendly single Graphic User Interface (GUI) with full automated output monitoring and processing
- Control of user-specified Vector Network Analyzers, Base Station Emulators, Channel Emulators and Access Points.
- Automated html reporting
- Automated standards and Carrier Test Plans
- User-defined PASS/FAIL criteria, including combinations for complex carrier test plan automated execution
- Smart-attachment algorithm to keep your device connected at all times
- Smart call-drop algorithm to automatically handle call-drops and recover disconnections
- Smart hand-over algorithm to include different figures of merit, different technologies and different frequency bands within the same test batch
- Overnight batch measurements without human supervision
- Import/Export calibration files facilities



Optionals

- Hardware/software upgrades from 2x2 to 4x4 and 8x8 MIMO OTA
- Internal Video camera
- Shielded window view (1.15m x 0.75m)
- Semi-automatic door operation
- RF Turnkey module for no RF cable reconnections
- N-type Calibration kit and torque wrench
- Automated TCP/UDP OTA measurements
- 8h-response Hotline Support
- ISO17025 certified
- Full day training course to operating personnel Phantom packages for Wearable Device Testing (Laptop, head, hand, leg, torso, full-body, etc.)
- DC filter for DUT power supply
- DB9/RJ45/FO/USB/Waveguide trap-door for DUT power supply



MIMO OTA Throughput Sensitivity (MTS) for an LTE M2M device

¹ Larger Test Volumes available under pre-characterization.

² Using novel source-stirring in LTE @ 751 MHz.

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 F200 2016.3 ENG Wise Waves is a registered trademark of EMITE Ing. Spain The products are patent protected.

Please note that under ITU-R Study Group 5 assessment, only LTE-Advanced and WirelessMAN-Advanced are true 4G technologies, while 802.11n, WiMAX, HSPA+ and LTE are 3.99G.

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