Specifications (Extract)

Specifications are subject to change without notice.

∗ Typical values are only for reference and are not guaranteed specifications.

● MT8820C Radio Communication Analyzer

General	Frequency range: 30 MHz to 2.7 GHz 3.4 GHz to 3.8 GHz (with MT8820C-018) Max. input level: +35 dBm (Main)
RF Signal Generator	Frequency Frequency range: 30 MHz to 2.7 GHz (setting range: 400 kHz to 2.7 GHz) 3.4 GHz to 3.8 GHz (with MT8820C-018) Setting resolution: 1 Hz Output level Level range: –140 to –10 dBm (Main), –130 to 0 dBm (AUX) Resolution: 0.1 dB Accuracy: Main: ±1.0 dB, ±0.7 dB typ. (Output frequency: ≥50 MHz), ±1.5 dB (Output frequency: <50 MHz) (–120 to –10 dBm, after calibration, 10° to 40°C) AUX: ±1.0 dB, ±0.7 dB typ. (Output frequency: ≥50 MHz), ±1.5 dB (Output frequency: <50 MHz) (–110 to 0 dBm, after calibration, 10° to 40°C)

● MT8820C-008 LTE Measurement Hardware, MX882012C LTE FDD Measurement Software, MX882013C LTE TDD Measurement Software

Modulation Analysis	Frequency: 400 MHz to 2.7 GHz 3.4 GHz to 3.8 GHz (with MT8820C-018) Input level: –40 to +35 dBm (Main) Carrier frequency accuracy: ± (Set frequency × Reference oscillator accuracy + 15 Hz) Measurement object: PUSCH, PRACH, PUCCH
RF Power	Frequency: 400 MHz to 2.7 GHz 3.4 GHz to 3.8 GHz (with MT8820C-018) Input level: –60 to +35 dBm (Main) Measurement accuracy: 400 MHz to 2.7 GHz, After calibration, 10° to 40°C ±0.5 dB, ±0.3 dB (typ.)(–20 to +35 dBm), ±0.7 dB (–50 to –20 dBm), ±0.9 dB (–60 to –50 dBm) 3.4 GHz to 3.8 GHz, After calibration, 10° to 40°C ±0.5 dB, ±0.3 dB (typ.)(–20 to +35 dBm, 18° to 28°C), ±0.7 dB (–50 to +35 dBm), ±0.9 dB (–60 to –50 dBm) Linearity: 400 MHz to 2.7 GHz, After calibration, 10° to 40°C ±0.2 dB (–40 to 0 dB, ≥–50 dBm), ±0.4 dB (–40 to 0 dB, ≥–60 dBm) 3.4 GHz to 3.8 GHz, After calibration, 10° to 40°C ±0.2 dB (–40 to 0 dB, ≥–50 dBm, 18° to 28°C), ±0.3 dB (–40 to 0 dB, ≥–50 dBm), ±0.4 dB (–40 to 0 dB, ≥–60 dBm)
Call Processing	Call controlling: Registration, Call processing for Reference Measurement Channel (executes each processing conforming to 3GPP standards and performs pass/fail evaluation) Mobile terminal controlling: Output level (executes each mobile terminal control conforming to 3GPP standards)

● MX882042C LTE FDD Measurement Software Lite, MX882043C LTE TDD Measurement Software Lite

Modulation Analysis	Frequency: 400 MHz to 2.7 GHz 3.4 GHz to 3.8 GHz (with MT8820C-018) Input level: –40 to +35 dBm (Main) Carrier frequency accuracy: ± (Set frequency × Reference oscillator accuracy + 15 Hz) Measurement object: PUSCH
RF Power	Frequency: 400 MHz to 2.7 GHz 3.4 GHz to 3.8 GHz (with MT8820C-018) Input level: –60 to +35 dBm (Main) Measurement accuracy: 400 MHz to 2.7 GHz, After calibration, 10° to 40°C ±0.5 dB, ±0.3 dB (typ.)(–20 to +35 dBm), ±0.7 dB (–50 to –20 dBm), ±0.9 dB (–60 to –50 dBm) 3.4 GHz to 3.8 GHz, After calibration, 10° to 40°C ±0.5 dB, ±0.3 dB (typ.)(–20 to +35 dBm, 18° to 28°C), ±0.7 dB (–50 to +35 dBm), ±0.9 dB (–60 to –50 dBm) Linearity: 400 MHz to 2.7 GHz, After calibration, 10° to 40°C ±0.2 dB (–40 to 0 dB, ≥–50 dBm), ±0.4 dB (–40 to 0 dB, ≥–60 dBm) 3.4 GHz to 3.8 GHz, After calibration, 10° to 40°C ±0.2 dB (–40 to 0 dB, ≥–50 dBm, 18° to 28°C), ±0.3 dB (–40 to 0 dB, ≥–50 dBm), ±0.4 dB (–40 to 0 dB, ≥–60 dBm)

● MT8820C-001 W-CDMA Measurement Hardware, MX882000C W-CDMA Measurement Software, MX88205xC W-CDMA Call Processing Software

Modulation Analysis	Frequency: 300 MHz to 2.7 GHz Input level: –30 to +35 dBm (Main) Modulation accuracy (residual vector error): ≤2.5% (at input of single DPCCH and single DPDCH)
RF Power	Frequency: 300 MHz to 2.7 GHz Input level: –65 to +35 dBm (Main) Measurement accuracy: ±0.3 dB (typ.), ±0.5 dB (–25 to +35 dBm), ±0.7 dB (–55 to –25 dBm), ±0.9 dB (–65 to –55 dBm) ∗After calibration, 10° to 40°C Measurement object: DPCH, PRACH
Occupied Bandwidth	Frequency: 300 MHz to 2.7 GHz Input level: –10 to +35 dBm (Main)
Adjacent Channel Leakage Power Ratio	Frequency: 300 MHz to 2.7 GHz Input level: –10 to +35 dBm (Main) Measurement points: ±5 MHz, ±10 MHz Measurement range: ≥50 dB (±5 MHz), ≥55 dB (±10 MHz)
Error Rate Measurement	Measurement items: BER, BLER Measurement object: Loopback data imposed on uplink DTCH (BER, BLER), Serial data input from rear-panel call processing I/O port (BER)
Call Processing	Call controlling: Registration, Origination, Termination, Handover, Network disconnect, Terminal disconnect (executes each processing conforming to 3GPP standards and performs Pass/Fail evaluation) Mobile terminal controlling: Output level, Loopback (executes each mobile terminal control conforming to 3GPP standards)

● MT8820C-002 TDMA Measurement Hardware, MX882001C GSM Measurement Software

Frequency/Modulation Measurement	Frequency: 300 MHz to 2.7 GHz Input level: –30 to +40 dBm (Average power of burst signal, Main) Measurement items: Normal burst, RACH
Amplitude Measurement	Frequency: 300 MHz to 2.7 GHz Input level: –30 to +40 dBm (Average power of burst signal, Main) Measurement items: Normal burst, RACH Measurement accuracy: ±0.3 dB (typ.), ±0.5 dB (–20 to +40 dBm), ±0.7 dB (–30 to –20 dBm) ∗After calibration, 10° to 40°C Linearity: ±0.2 dB (–40 to 0 dB, ≥–30 dBm)
Error Rate Measurement	Functions: frame, bit and CRC error measurement Measurement object: Loopback data imposed on uplink TCH Serial data input from rear panel call processing I/O port Number of blocks received from terminal imposed on uplink TCH for GPRS Number of USF blocks received from terminal for GPRS
Call Processing	Call controlling: GSM • Location registration, Terminal call origination, Network call origination, Network disconnect, Terminal disconnect GPRS • Connection, Disconnection, Data transfer Terminal controlling: GSM • Output level, Time slot, Timing advance, Loopback on/off GPRS • Test Mode A, Test Mode B, BLER

● MT8820C-003 CDMA2000 Measurement Hardware, MX882002C CDMA2000 Measurement Software

Amplitude Measurement	Frequency: 300 MHz to 2.7 GHz Input level: –65 to +35 dBm (Main) Measurement accuracy: ±0.3 dB (typ.), ±0.5 dB (–25 to +35 dBm), ±0.7 dB (–55 to –25 dBm), ±0.9 dB (–65 to –55 dBm) Filtered Power measurement, after Full cal, Input Level Setting, 10° to 40°C Linearity: ±0.2 dB (0 to –40 dB, ≥–55 dBm), ±0.4 dB (0 to –40 dB, ≥–65 dBm) Filtered Power measurement, Input Level Setting for reference
Frequency/Modulation Measurement	Frequency: 300 MHz to 2.7 GHz Input level: –30 to +35 dBm Carrier frequency accuracy: ± (Setting frequency × reference oscillator accuracy + 10 Hz) Residual waveform quality: >0.999
Error Rate Measurement	FER (Frame Error Rate) measurement: FER measurement with service option 2, 9, 55 and 32 (TDSO) Display items: Confidence level, FER, Error frame count, Sample frame count
Call Processing	Band class: BC 0 to 12, 14, 15, 18 to 20 Call control: Location registration, Origination, Termination, Disconnection from network, Disconnection from terminal Radio configuration: F-RC1 + R-RC1, F-RC2 + R-RC2, F-RC3 + R-RC3, F-RC4 + R-RC3, F-RC5 + R-RC4 PCH Data Rate: Full Supported protocols: IS-95B, J-STD-008C, ARIB T-53, Korean PCS, IS-2000 (SR1)

● MT8820C-001 W-CDMA Measurement Hardware, MT8820C-007 TD-SCDMA Measurement Hardware, MX882007C TD-SCDMA Measurement Software

Modulation Analysis	Frequency: 300 MHz to 2.7 GHz Input level: –30 to +35 dBm (Main) Carrier frequency accuracy: ± (Setting frequency × Reference oscillator accuracy + 10 Hz) Modulation accuracy (residual vector error): ≤2.5% (when Single Code is input)
RF Power	Frequency: 300 MHz to 2.7 GHz Input level: –70 to +35 dBm (Main) Measurement accuracy: ±0.3 dB (typ.), ±0.5 dB (–25 to +35 dBm), ±0.7 dB (–55 to –25 dBm), ±0.9 dB (–70 to –55 dBm) ∗After calibration, 10° to 40°C Linearity: ±0.2 dB (–40 to 0 dB, ≥–55 dBm), ±0.4 dB (–40 to 0 dB, ≥–65 dBm) Measurement object: DPCH, UpPCH
Error Rate Measurement	Functions: Insert PN9 or PN15 pattern in DTCH Measurement items: BER, BLER Measurement objective: Loopback data imposed on uplink DTCH (BER, BLER)
Call Processing	Origination controlling: Registration, Origination, Termination, Network disconnect, Terminal disconnect (executes each processing conforming to 3GPP standards and performs Pass/Fail evaluation) Mobile terminal controlling: Output level, Loopback (executes each mobile terminal control conforming to 3GPP standards)