Anritsu Advancing beyond

Bluetooth Test Set

MT8852B

Bluetooth®

Introduction

This document provides specifications for the *Bluetooth*® Test Set MT8852B and lists ordering information and option and accessory codes.

The MT8852B brochure is also available. The brochure provides in-depth descriptions of MT8852B applications, features, and benefits when testing a wide range of Bluetooth products.

Specifications

All measurements made in compliance with Bluetooth Core Specification v5.3.

Basic Rate Measurements

Basic Rate measurements made in compliance with Bluetooth RF Test Specification RF. TS. p31.

Output Power (RF/TRM/CA/BV-01-C)

Measurement Configuration
- Hopping: Off or On – measure at defined, all, or any frequencies
- Loopback or Tx mode
- Payload: PRBS9
- Packet type: DH1, DH3, DH5

Displayed Results: Average power, Peak power
Number of Measurement Frequencies: Three, default to RF Test Specification or user defined
Measurement Range: –50 to +22 dBm (average power), +23 dBm (peak power)
Resolution: 0.1 dB
Accuracy: ±1.0 dB (–35 to +20 dBm), ±1.5 dB (+20 to +22 dBm)

Power Control (RF/TRM/CA/BV-03-C)

Measurement Configuration
- Hopping: Off
- Loopback or Tx mode
- Payload: PRBS9
- Packet type: DH1, DH3, DH5

Displayed Result: Maximum power, Minimum power, Maximum step size, Minimum step size, Power at each power step
Number of Measurement Frequencies: Three, default to RF Test Specification or user defined
Measurement Range: –35 to +22 dBm (average power), +23 dBm (peak power)
Resolution: 0.1 dB
Accuracy: ±1.0 dB (–35 to +20 dBm), ±1.5 dB (+20 to +22 dBm)

Enhanced Power Control (RF/TRM/CA/BV-14-C)

Measurement Configuration
- Hopping: Off
- Loopback or Tx mode
- Payload: PRBS9
- Packet type: DH1, DH3, DH5, 2-DH1, 2-DH3, 2-DH5, 3-DH1, 3-DH3 and 3-DH5

Displayed Result
- Maximum power for each packet type, Minimum power for each packet type, Maximum power step for each packet type, Minimum power step for each packet type, Maximum power difference at any step between DHn and 2DHn or 3DHn packets

Number of Measurement Frequencies: Three, default to RF Test Specification or user defined
Measurement Range: –35 to +22 dBm (average power), +23 dBm (peak power)
Resolution: 0.1 dB
Accuracy: ±1.0 dB (–35 to +20 dBm), ±1.5 dB (+20 to +22 dBm)

Initial Carrier Frequency Tolerance (RF/TRM/CA/BV-08-C)

Measurement Configuration
- Hopping: Off or On – measure at defined, all, or any frequencies
- Loopback or Tx mode
- Payload: PRBS9
- Packet type: DH1

Displayed Results: Average initial frequency error, Maximum positive frequency error, Maximum negative frequency error
Number of Measurement Frequencies: Three, default to RF Test Specification or user defined
RF Input Measurement Range: –35 to +20 dBm
Initial Frequency Error Measurement Range: 0 to ±150 kHz
Frequency Resolution: 1 kHz
Accuracy: 500 Hz ±frequency standard

Carrier Frequency Drift (RF/TRM/CA/BV-09-C)

Measurement Configuration
- Hopping: Off or On – measure at defined, all, or any frequencies
- Loopback or Tx mode
- Payload: 10101010
- Packet type: DH1, DH3, DH5

Displayed Results: Carrier frequency drift, Drift rate
Number of Measurement Frequencies: Three, default to RF Test Specification or user defined
RF Input Measurement Range: –35 to +20 dBm
Frequency Drift Measurement Range: 0 to 200 kHz, and >2000 µs/50 µs
Frequency Resolution: 1 kHz

Sensitivity – single slot packets (RF/RCV/CA/BV-01-C)

Measurement Configuration
- Hopping: Off or On, user selectable
- Loopback only
- Payload: PRBS9
- Packet type: DH1
- Dirty transmitter (as defined in the RF test spec): On or Off, user defined

Displayed Results: BER (percentage), Total number of bit errors and FER
Number of Measurement Frequencies: Three, default to RF Test Specification or user defined
Number of Measured Bits: 1 to 10,000 packets (216 bits to 2,160,000 bits)
Output Power Range: –90 to 0 dBm, resolution: 0.1 dB
Output Power Accuracy: ±1 dB (–80 to 0 dBm)
BER/FER Measurement Range: 0 to 100%
BER/FER Resolution: 0.001%

Sensitivity – multi-slot packets (RF/RCV/CA/BV-02-C)

Measurement Configuration
- Hopping: Off or On, user selectable
- Loopback only
- Payload: PRBS9
- Packet type: DH3, DH5
- Dirty transmitter (as defined in RF test spec): On or Off, user defined

Displayed Results: BER (percentage), Total number of bit errors and FER
Number of Measurement Frequencies: Three, default to RF Test Specification or user defined
Number of Measured Bits: 1 to 10,000 packets (for DH3, 1,464 bits to 14,640,000 bits), (for DH5, 2,712 bits to 27,120,000 bits)
Output Power Range: –90 to 0 dBm, resolution: 0.1 dB
Output Power Accuracy: ±1 dB (–80 to 0 dBm)
BER/FER Measurement Range: 0 to 100%
BER/FER Resolution: 0.001%

Modulation Characteristics (RF/TRM/CA/BV-07-C)

Measurement Configuration
- Hopping: Off
- Loopback, Tx mode
- Payload: 11110000 and 10101010
- Packet type: DH1, DH3, DH5

Displayed Results
- Frequency deviation: Δf1max, Δf2max, Δf1avg, Δf2avg, Δf2avg/Δf1avg, % of Δf2max <115 kHz

Number of Measurement Frequencies: Three, default to RF Test Specification or user defined
RF Input Measurement Range: –35 to +20 dBm
Deviation Measurement Range: 0 to 350 kHz (peak power)
Deviation Resolution: 1 kHz
Accuracy: 1% for modulation index 0.32

Maximum Input Level (RF/RCV/CA/BV-06-C)

Measurement Configuration
- Hopping: Off
- Loopback only
- Payload: PRBS9
- Packet type: DH1

Displayed Results: BER (percentage), total number of bit errors and FER
Number of Measurement Frequencies: Three, default to RF Test Specification or user defined
Number of Measured Bits: 1 to 10,000 packets (216 bits to 2,160,000 bits)
Output Power Range: –90 to 0 dBm, resolution: 0.1 dB
Output Power Accuracy: ±1 dB (–80 to 0 dBm)

Enhanced Data Rate (EDR) Measurements

Enhanced Data Rate measurements made in compliance with Bluetooth RF Test Specification RF. TS. p30.

EDR Relative Transmit Power (RF/TRM/CA/BV-10-C)

Measurement Configuration
- Hopping: Off and On – measure at defined, all, or any frequencies
- Modulations: π/4DQPSK and 8DPSK
- Packet type: 2-DH1, 2-DH3, 2-DH5, 3-DH1, 3-DH3 and 3-DH5
- Loopback or Tx mode
- EUT power level: Max. and Min.

Displayed Results:
- Max. differential power (2-DH1, 2-DH3, 2-DH5 and 3-DH1, 3-DH3 and 3-DH5), Min. differential power (2-DH1, 2-DH3, 2-DH5 and 3-DH1, 3-DH3 and 3-DH5), average differential power (2-DH1, 2-DH3, 2-DH5 and 3-DH1, 3-DH3 and 3-DH5)

Number of Measurement Frequencies: Three, default to RF Test Specification or user defined
Measurement Range: –35 to +20 dBm (average power), +23 dBm (peak power)
Relative Power Resolution: 0.01 dB, GFSK to π/4DQPSK and 8DPSK
Relative Power Accuracy
- Relative power measurement accuracy between GFSK and π/4DQPSK or 8DPSK, 0.2 dB typical for a power difference of <6 dB

Relative Power Measurement Range
- Relative power measurement range between GFSK and π/4DQPSK or 8DPSK, (P_{GFSK} – 8 dB) < P_{DPSK} < (P_{GFSK} + 4 dB)

EDR Carrier Frequency Stability and Modulation Accuracy (RF/TRM/CA/BV-11-C)

Measurement Configuration
- Hopping: Off and On – measure at defined, all, or any frequencies
- Modulations: π/4DQPSK and 8DPSK
- Packet type: 2-DH1, 2-DH3, 2-DH5, 3-DH1, 3-DH3 and 3-DH5
- Loopback or Tx mode
- EUT power level: Max. and Min.

Displayed Results: Initial frequency error ω_i, Frequency error ω_o, Frequency error $\omega_i + \omega_o$, RMS DEVM (block with greatest DEVM value displayed), Peak DEVM, 99% DEVM, Average RMS DEVM (average DEVM for all blocks measured)
Number of Measurement Frequencies: Three, default to RF Test Specification or user defined
Carrier Frequency Stability Measurement Range: 0 to ±100 kHz
Carrier Frequency Stability Accuracy: 500 Hz ±frequency standard
Carrier Frequency Stability Resolution: 1 kHz
RMS DEVM Range: 30% π/4DQPSK, 20% 8DPSK
RMS DEVM Resolution: 0.1% π/4DQPSK and 8DPSK
Peak DEVM Range: 0 to 50% π/4DQPSK, 0 to 30% 8DPSK
Peak DEVM Resolution: 0.1% π/4DQPSK and 8DPSK

EDR Differential Phase Encoding (RF/TRM/CA/BV-12-C)

Measurement Configuration
- Hopping: Off and On, user selectable
- Modulations: π/4DQPSK and 8DPSK
- Packet type: 2-DH1, 2-DH3, 2-DH5, 3-DH1, 3-DH3 and 3-DH5
- Number of test packets: default 100
- Tx mode only

Displayed Results: Number of packets received, Number of packets with payload data errors, Percentage of errored packets
Number of Measurement Frequencies: Three, default to RF Test Specification or user defined

EDR Guard Time (RF/TRM/CA/BV-15-C)

Measurement configuration
- Modulations: π/4DQPSK and 8PSK
- Packet type: 2-DH1, 3, 5, and 3-DH1, 3, 5
- Lookback or Tx mode

Displayed results
- Max guard time
- Min guard time
- Percentage of packets which meet pass verdict

Number of measurement frequencies: Three, default to RF Test Specification or user defined

EDR Synchronization Sequence and Trailer (RF/TRM/CA/BV-16-C)

Measurement configuration
- Modulations: π/4DQPSK and 8PSK
- Packet type: 2-DH1, 3, 5, and 3-DH1, 3, 5
- Lookback or Tx mode

Displayed results
- Number of synchronization bits received
- Number of errored synchronization bits
- Percentage of errored synchronization bits
- Number of trailer bits received
- Number of errored trailer bits
- Percentage of errored trailer bits

Number of measurement frequencies: Three, default to RF Test Specification or user defined

EDR Sensitivity (RF/RCV/CA/BV-07-C)

Measurement Configuration
- Hopping: Off and On, user selectable
- Modulations: π/4DQPSK and 8DPSK
- Packet type: 2-DH1, 2-DH3, 2-DH5, 3-DH1, 3-DH3 and 3-DH5
- Bit threshold control: Threshold 1, 1.6 million bits, Threshold 2, 16 million bits (user editable)
- Loopback only
- Dirty transmitter (as defined in RF test spec): On or Off, user selectable

Displayed Results: Overall BER (displayed in exponential format), Number of bits in error, Number of packets sent by test set, Number of packets received in error by EUT

Number of Measurement Frequencies: Three, default to RF Test Specification or user defined

Output Power Range: –90 to 0 dBm, resolution: 0.1 dB

Output Power Accuracy: ±1 dB (–80 to 0 dBm)

EDR BER Floor Performance (RF/RCV/CA/BV-08-C)

Measurement Configuration
- Hopping: Off and On, user selectable
- Modulations: π/4DQPSK and 8DPSK
- Packet type: 2-DH1, 2-DH3, 2-DH5, 3-DH1, 3-DH3 and 3-DH5
- Bit threshold control: Threshold 1, 8 million bits, Threshold 2, 160 million bits (user editable)
- Loopback only

Displayed Results: Overall BER (displayed in exponential format), Number of bits in error, Number of packets sent by test set, Number of packets received in error by EUT

Number of Measurement Frequencies: Three, default to RF Test Specification or user defined

Output Power Range: –90 to 0 dBm, resolution: 0.1 dB

Output Power Accuracy: ±1 dB (–80 to 0 dBm)

EDR Maximum Input Level (RF/RCV/CA/BV-10-C)

Measurement Configuration
- Hopping: Off and On, user selectable
- Modulations: π/4DQPSK and 8DPSK
- Packet type: 2-DH1, 2-DH3, 2-DH5, 3-DH1, 3-DH3 and 3-DH5
- Number of bits: default 1.6 million (user editable)
- Loopback only

Displayed Results: Overall BER (displayed in exponential format), Number of bits in error, Number of packets sent by test set, Number of packets received in error by EUT

Number of Measurement Frequencies: Three, default to RF Test Specification or user defined

Output Power Range: –90 to 0 dBm, resolution: 0.1 dB

Output Power Accuracy: ±1 dB (–80 to 0 dBm)

Bluetooth low energy Measurements

Bluetooth low energy measurements made in compliance with Bluetooth RF Test Specification RF-PHY. TS. p16.

Output power (RFPHY/TRM/BV-01-C, RFPHY/TRM/BV-15-C, RFPHY/TRM/BV-18-C)

Measurement Configuration
- EUT configured to transmit test reference packets
- Packet payload: PRBS9
- AoA Constant Tone Extensions

Displayed Results: Average power, Peak to average power

Number of Measurement Frequencies: Three, default to RF Test Specification or user defined

Measurement Range: –50 to +22 dBm (average power), +23 dBm (peak power)

Resolution: 0.1 dB

Accuracy: ±1.0 dB (–35 to +20 dBm), ±1.5 dB (+20 to +22 dBm)

Modulation characteristics
[RFPHY/TRM/BV-05-C (BLE), RFPHY/TRM/BV-10-C (2LE), RFPHY/TRM/BV-13-C (BLR S = 8)]

Measurement Configuration
- EUT configured to transmit test reference packets
- BLE/2LE Packet payload: 11110000 and 10101010
- BLE Packet payload: 11111111

Displayed Results
- Frequency deviation: Δf1max, Δf2max, Δf1avg, Δf2avg, Δf2avg/Δf1avg comparison, % of Δf2max < frequency deviation limit

Number of Measurement Frequencies: Three, default to RF Test Specification or user defined

Measurement Range
- RF input: –35 to +20 dBm
- Deviation: 0 to 500 kHz (peak power)

Resolution
- Deviation: 1 kHz

Accuracy: 1% for modulation index 0.5

Carrier frequency offset and drift
[RFPHY/TRM/BV-06-C (BLE), RFPHY/TRM/BV-12-C (2LE), RFPHY/TRM/BV-14-C (BLR S = 8), RFPHY/TRM/BV-16-C (BLE CTE), RFPHY/TRM/BV-17-C (2LE CTE)]

Measurement Configuration
- EUT configured to transmit test reference packets
- BLE/2LE Packet payload: 10101010
- BLR Packet payload: 11111111
- BLE/2LE CTE Packet payload: 11110000
- AoA Constant Tone Extensions

Displayed Results: Carrier frequency error, Frequency drift, Drift rate
Number of Measurement Frequencies: Three, default to RF Test Specification or user defined
Measurement Range
- RF input: –35 to +20 dBm
- Frequency: 500 kHz

Frequency Resolution: 1 kHz
Accuracy: 500 Hz ±frequency standard

Receiver sensitivity
[RFPHY/RCV/BV-01-C (BLE), RFPHY/RCV/BV-08-C (2LE), RFPHY/RCV/BV-26-C (BLR S = 2), RFPHY/RCV/BV-27-C (BLR S = 8)]

Measurement Configuration
- EUT configured to receive test reference packets
- Packet payload: PRBS9
- Full support of dirty transmitter as defined in test specification

Displayed Results: Receiver PER. Requires EUT to support HCI or 2-Wire interface for automated PER results
Number of Measurement Frequencies: Three, default to RF Test Specification or user defined
Output Power Range: –90 to 0 dBm, resolution: 0.1 dB
Output Power Accuracy: ±1 dB (–80 to 0 dBm)

Maximum input signal level
[RFPHY/RCV/BV-06-C (BLE), RFPHY/RCV/BV-12-C (2LE)]

Measurement Configuration
- EUT configured to receive test reference packets
- Packet payload: PRBS9

Displayed Results: Receiver PER. Requires EUT to support HCI or 2-Wire interface for automated PER results
Number of Measurement Frequencies: Three, default to RF Test Specification or user defined
Output Power Range: –90 to 0 dBm, resolution: 0.1 dB
Output Power Accuracy: ±1 dB (–80 to 0 dBm)

PER report integrity
[RFPHY/RCV/BV-07-C (BLE), RFPHY/RCV/BV-13-C (2LE), RFPHY/RCV/BV-30-C (BLR S = 2), RFPHY/RCV/BV-31-C (BLR S = 8)]

Measurement Configuration
- EUT configured to receive test reference packets
- Packet payload: PRBS9
- CRC corruption: Alternate packets
- Number of test packets: Random [100 ≤ RND ≤ 1500]

Displayed Results: Receiver PER. Requires EUT to support HCI or 2-Wire interface for automated PER results
Number of Measurement Frequencies: One, default to RF Test Specification or user defined
Output Power Range: –90 to 0 dBm, resolution: 0.1 dB
Output Power Accuracy: ±1 dBm (–80 to 0 dBm)

BLE Tx Power Stability
[RFPHY/TRM/PS/BV-01-C, RFPHY/TRM/PS/BV-02-C, RFPHY/TRM/PS/BV-03-C, RFPHY/TRM/PS/BV-04-C]

Measurement Configuration
- EUT configured to transmit Test Reference Packets
- No payload
- AoD Constant Tone Extensions

Displayed results
- Maximum deviation to average power during reference period
- Maximum deviation to average power for each transmit slot

Number of measurement frequencies: Three, default to RF Test Specification or user defined
Measurement Range: –50 to +22 dBm (average power), +23 dBm (peak power)
Resolution: 0.01 dB

MT8852B Signal Generator

Frequency

Frequency Range: 2.4 GHz to 2.5 GHz
Frequency Resolution: 1 kHz
Frequency Accuracy: As frequency standard ±500 Hz

Level

Amplitude Range: –90 to 0 dBm
Amplitude Accuracy: ±1 dB (–80 to 0 dBm)
Amplitude Resolution: ±0.1 dB
Output Impedance: 50Ω (nominal)
Output VSWR: 1.5:1, 1.3:1 (typical), Adjacent channels 3 or higher –40 dBc

GFSK Modulation

Modulation Index: Variable, 0.25 to 0.50 (125 kHz to 250 kHz)
Modulation Index Resolution: 0.01
Modulation Index Accuracy: 1% (nominal) for modulation index = 0.32
Baseband Filter: BT = 0.5
*: Supports low energy signal generator compliant with Bluetooth Core Specification v5.3

π/4DQPSK Modulation

Modulation Index Accuracy: <5% RMS DEVM
Baseband Filter: BT = 0.4

8DPSK Modulation

Modulation Index Accuracy: <5% RMS DEVM
Baseband Filter: BT = 0.4

MT8852B Measuring Receiver

Frequency

Frequency Range: 2.4 GHz to 2.5 GHz
Frequency Resolution: 1 kHz
Frequency Accuracy: As frequency standard ±500 Hz

Level

Range: –55 to +22 dBm (average power)
Power Measurement Accuracy: ±1 dB (–35 to +20 dBm)
Input VSWR: 1.5:1
Damage Level: +25 dBm
Resolution: 0.1 dB

GFSK Modulation

Deviation Measurement Range: 0 to 350 kHz (peak power)
Accuracy: 1% for modulation index 0.32

EUT Control Interface

RS232 HCI Commands
- The EUT control interface provides RS232 HCI commands to the EUT through a standard RS232 interface.
- The interface meets the requirements of the Bluetooth specification for HCI UART transport layer.
- An RS232 cable is supplied.

USB HCI Commands
- The EUT control interface provides USB HCI commands to the EUT through a standard USB interface.
- The interface meets the requirements of the Bluetooth specification section H:2.
- A USB cable is supplied.

2-Wire Control: For test control of Bluetooth low energy devices the EUT control interface supports the 2-Wire specification
USB to RS232 HCI Command: For use with EUTs fitted with USB to RS232 FTDI chips
USB to 2-Wire Command: For use with EUTs fitted with USB to RS232 FTDI chips that support 2-Wire control

Audio Specifications

Number of SCO Channels Supported: 3
Codec Air Interfaces Supported: CVSD, A-Law, μ-Law
Frequency Response
(–3 dB) measured CODEC in to CODEC out: 160 Hz to 3.5 kHz.
Measured with 50Ω source impedance and 10MΩ load impedance
Maximum Input/Output Signal Level: 3.4 Vpk-pk = 1.2 V RMS
Distortion/Noise
A law: –37 dB (typical) (1 kHz, 1 V RMS)
μ law: –37 dB (typical) (1 kHz, 1 V RMS)
CVSD: –30 dB (typical) (300 Hz, 1 V RMS)
Input/Output Connectors: 3.5 mm audio jack plugs (one for each SCO channel)
Input Impedance: 20kΩ
Minimum Output Load: 600Ω
Internal Audio Source: 1 kHz fixed frequency

Adaptive Frequency Hopping (MT8852B-015)

Supported in ACL and SCO connections

Displays: Active channel vs. time, FER vs. time
Other Features: ACL connection timer, resolution: 1 ms

Electrical Characteristics

Frequency Standard

Frequency: 10 MHz
Temperature Stability: ±0.5 ppm (–10° to +85°C)
Aging (1st year): ±1.0 ppm
Aging (over 10 years): ±2.5 ppm (including year 1)

Rear Panel Connectors

External Frequency Standard Input: Rear panel, BNC connector, 50Ω, 1 V
Output 1: TTL output for TX ON, TX DATA, RX DATA, and correlator
Output 2: TTL output for RX ON, TX DATA, RX DATA, and correlator
Input 1: For service use only

GPIB

IEEE 488.2: Offers full instrument control as standard

RS232

RS232: Offers full instrument control as standard

General

Power Supply

Rated Voltage: 100 Vac to 120 Vac/200 Vac to 240 Vac
Rated Frequency: 50 Hz/60 Hz
Power Consumption: 150 VA max.

Environmental

Operating Temperature: +5° to +40°C
Operating Humidity: 20 to 75%

EU Standards (CE Marking)

EMC: 2014/30/EU, EN61326-1, EN61000-3-2
LVD: 2014/35/EU, EN61010-1
RoHS: 2011/65/EU, (EU) 2015/863, EN IEC 63000: 2018

Dimensions and Mass

Dimensions: 216.5 (W) × 88 (H) × 380 (D) mm
Mass: <3.8 kg

Ordering Information

Please specify the model/order number, name and quantity when ordering.
The names listed in the chart below are Order Names. The actual name of the item may differ from the Order Name.

Model/Order No	Name
	Main Frame
MT8852B	Bluetooth Test Set
MT8852B-040	Bluetooth Test Set
MT8852B-041	Bluetooth Test Set
MT8852B-042	Bluetooth Test Set
MT8852B-043	Bluetooth Test Set
	Standard Accessories
	MT8852B Bluetooth Test Set Operation Manual
	MT8852B Bluetooth Test Set Operation Manual Remote Control
J1783A	USB HCI control interface lead
J1784A	RS232 HCI Control Interface Lead
J1785A	RS232 Cable for Firmware Updates
	Power Cord
	BlueSuite Software
	Bluetooth Low Energy Measurement Software Application
	MT8852B Bootloader
J1786A	3.5 mm Jack Plugs (Qty. 3)
	Options and Accessories
MT8852B-015	Adaptive Frequency Hopping option
MT8852B-017	IQ data output
MT8852B-027	Bluetooth low energy measurements
MT8852B-034*1	BLE Data Length Extension Option
MT8852B-035*1, *2	BLE 2LE Option
MT8852B-036*1, *2, *3	BLE BLR Option
MT8852B-037*1, *2, *3	BLE AoA/AoD Option (Angle of Arrival/Angle of Departure)
MT8852B-070	Platform Enhancement Option

Model/Order No	Name
MT8852B-315*4	Retrofit Adaptive Frequency Hopping option
MT8852B-317*4	Retrofit IQ data output
MT8852B-319*4	Retrofit Audio to MT8852B
MT8852B-325*4	Retrofit EDR to MT8852B
MT8852B-327	Retrofit Bluetooth low energy measurements
MT8852B-330	Retrofit Basic Rate Measurement to MT8852B
MT8852B-334*1	Retrofit BLE Data Length Extension Option
MT8852B-335*1, *2	Retrofit BLE 2LE Option
MT8852B-336*1, *2, *3	BLE BLR Option Retrofit
MT8852B-337*1, *2, *3	BLE AoA/AoD Option Retrofit
MT8852B-170	Platform Enhancement Option Retrofit
MT8852B-270	Platform Enhancement Option Retrofit
MT8852B-370	Platform Enhancement Option Retrofit
MX885201B	BlueSuite Pro3 software application
MX885201B-301	BlueSuite Pro2 to Pro3 Upgrade
Z1992A	2.4 GHz Antenna and Adapter
B0748A	Soft Carry Bag
B0749A	Rack Mount Kit
J0006	GP-IB CABLE, 0.5M
J0007	GPIB CABLE, 1.0M
J0008	GPIB CABLE, 2.0M
J0127A	COAXIAL CORD, 1.0M
J0127B	COAXIAL CORD, 2.0M
J0127C	COAXIAL CORD, 0.5M

*1: MT8852B-034 (334) requires MT8852B-027 (327) or MT8852B-043.
*2: MT8852B-035 (335), MT8852B-036 (336) and MT8852B-037 (337) requires MT8852B-034 (334).
*3: MT8852B-036 (336) and MT8852B-037 (337) requires MT8852B-070 (270, 370).
*4: When installing MT8852B-315/317/319/325 to MT8852B-043, MT8852B-330 is necessary.