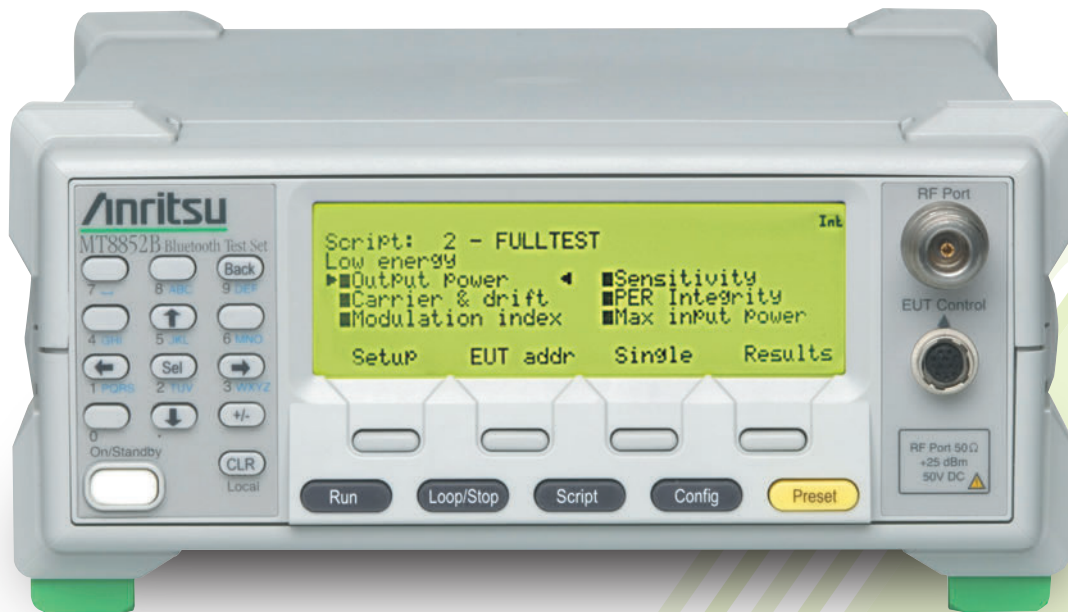


Anritsu Advancing beyond

Bluetooth Test Set

MT8852B



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.

The *Bluetooth*[®] word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Anritsu is under license.

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 μ s/50 μ s
Frequency Resolution: 1 kHz

Sensitivity – single slot packets (RF/RVC/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/RVC/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: Δf_{1max} , Δf_{2max} , Δf_{1avg} , Δf_{2avg} , $\Delta f_{2avg}/\Delta f_{1avg}$, % of Δf_{2max} < 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/RVC/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: $\pi/4$ DQPSK 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 $\pi/4$ DQPSK and 8DPSK

Relative Power Accuracy

Relative power measurement accuracy between GFSK and $\pi/4$ DQPSK or 8DPSK, 0.2 dB typical for a power difference of <6 dB

Relative Power Measurement Range

Relative power measurement range between GFSK and $\pi/4$ DQPSK or 8DPSK, $(P_{GFSK} - 8 \text{ dB}) < P_{DPSK} < (P_{GFSK} + 4 \text{ dB})$

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: $\pi/4$ DQPSK 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 \pm frequency standard

Carrier Frequency Stability Resolution: 1 kHz

RMS DEVM Range: 30% $\pi/4$ DQPSK, 20% 8DPSK

RMS DEVM Resolution: 0.1% $\pi/4$ DQPSK and 8DPSK

Peak DEVM Range: 0 to 50% $\pi/4$ DQPSK, 0 to 30% 8DPSK

Peak DEVM Resolution: 0.1% $\pi/4$ DQPSK and 8DPSK

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

Measurement Configuration

Hopping: Off and On, user selectable
Modulations: $\pi/4$ DQPSK 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: $\pi/4$ DQPSK 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: $\pi/4$ DQPSK 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: $\pi/4$ DQPSK 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: $\pi/4$ DQPSK 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: $\pi/4$ DQPSK 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: Δf_{1max} , Δf_{2max} , Δf_{1avg} , Δf_{2avg} , $\Delta f_{2avg}/\Delta f_{1avg}$ comparison, % of Δf_{2max} < 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 dB (-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

$\pi/4$ DQPSK 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 50 Ω source impedance and 10M Ω 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: 20k Ω
Minimum Output Load: 600 Ω
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 $+85^{\circ}\text{C}$)
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, 50 Ω , 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: $+5^{\circ}$ to $+40^{\circ}\text{C}$
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) \times 88 (H) \times 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	GP-IB CABLE, 1.0M
J0008	GP-IB 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.

• **United States**

Anritsu Americas Sales Company

450 Century Parkway, Suite 190, Allen, TX 75013 U.S.A.
Phone: +1-800-Anritsu (1-800-267-4878)

• **Canada**

Anritsu Electronics Ltd.

700 Silver Seven Road, Suite 120, Kanata,
Ontario K2V 1C3, Canada
Phone: +1-613-591-2003
Fax: +1-613-591-1006

• **Brazil**

Anritsu Eletronica Ltda.

Praça Amadeu Amaral, 27 - 1 Andar
Blvd Miguel de Cervantes Saavedra #169 Piso 1, Col. Granada
Mexico, Ciudad de Mexico, 11520, MEXICO
Phone: +55-11-3283-2511
Fax: +55-11-3288-6940

• **Mexico**

Anritsu Company, S.A. de C.V.

Blvd Miguel de Cervantes Saavedra #169 Piso 1, Col. Granada
Mexico, Ciudad de Mexico, 11520, MEXICO
Phone: +52-55-4169-7104

• **United Kingdom**

Anritsu EMEA Ltd.

200 Capability Green, Luton, Bedfordshire, LU1 3LU, U.K.
Phone: +44-1582-433200
Fax: +44-1582-731303

• **France**

Anritsu S.A.

12 avenue du Québec, Immeuble Goyave,
91140 VILLEBON SUR YVETTE, France
Phone: +33-1-60-92-15-50

• **Germany**

Anritsu GmbH

Nemetschek Haus, Konrad-Zuse-Platz 1,
81829 München, Germany
Phone: +49-89-442308-0
Fax: +49-89-442308-55

• **Italy**

Anritsu S.r.l.

Spaces Eur Arte, Viale dell'Arte 25, 00144 Roma, Italy
Phone: +39-6-509-9711

• **Sweden**

Anritsu AB

Kistagången 20 B, 2 tr, 164 40 Kista, Sweden
Phone: +46-8-534-707-00

• **Finland**

Anritsu AB

Technopolis Aviapolis, Teknobulevardi 3-5 (D208.5),
FI-01530 Vantaa, Finland
Phone: +358-20-741-8100

• **Denmark**

Anritsu A/S

c/o Regus Winghouse, Ørestads Boulevard 73, 4th floor,
2300 Copenhagen S, Denmark
Phone: +45-7211-2200

• **Russia**

Anritsu EMEA Ltd.

Representation Office in Russia

Tverskaya str. 16/2, bld. 1, 7th floor., Moscow, 125009, Russia
Phone: +7-495-363-1694
Fax: +7-495-935-8962

• **Spain**

Anritsu EMEA Ltd.

Representation Office in Spain

Paseo de la Castellana, 141. Planta 5, Edificio Cuzco IV
28046, Madrid, Spain
Phone: +34-91-572-6761

• **Austria**

Anritsu EMEA GmbH

Am Belvedere 10, A-1100 Vienna, Austria
Phone: +43-(0)1-717-28-710

• **United Arab Emirates**

Anritsu EMEA Ltd.

Anritsu A/S

Office No. 164, Building 17, Dubai Internet City
P. O. Box - 501901, Dubai, United Arab Emirates
Phone: +971-4-3758479

• **India**

Anritsu India Private Limited

6th Floor, Indiqube ETA, No.38/4, Adjacent to EMC2,
Doddanekundi, Outer Ring Road, Bengaluru - 560048, India
Phone: +91-80-6728-1300
Fax: +91-80-6728-1301

• **Singapore**

Anritsu Pte. Ltd.

11 Chang Charn Road, #04-01, Shriro House, Singapore 159640
Phone: +65-6282-2400
Fax: +65-6282-2533

• **Vietnam**

Anritsu Company Limited

16th Floor, Peakview Tower, 36 Hoang Cau Street, O Cho Dua Ward,
Dong Da District, Hanoi, Vietnam
Phone: +84-24-3201-2730

• **P.R. China (Shanghai)**

Anritsu (China) Co., Ltd.

Room 2701-2705, Tower A, New Caohejing International
Business Center No. 391 Gui Ping Road Shanghai, 200233, P.R. China
Phone: +86-21-6237-0898
Fax: +86-21-6237-0899

• **P.R. China (Hong Kong)**

Anritsu Company Ltd.

Unit 1006-7, 10/F., Greenfield Tower, Concordia Plaza,
No. 1 Science Museum Road, Tsim Sha Tsui East,
Kowloon, Hong Kong, P.R. China
Phone: +852-2301-4980
Fax: +852-2301-3545

• **Japan**

Anritsu Corporation

8-5, Tamura-cho, Atsugi-shi, Kanagawa, 243-0016 Japan
Phone: +81-46-296-6509
Fax: +81-46-225-8352

• **Korea**

Anritsu Corporation, Ltd.

5FL, 235 Pangyoeyeok-ro, Bundang-gu, Seongnam-si,
Gyeonggi-do, 13494 Korea
Phone: +82-31-696-7750
Fax: +82-31-696-7751

• **Australia**

Anritsu Pty. Ltd.

Unit 20, 21-35 Ricketts Road, Mount Waverley, Victoria 3149, Australia
Phone: +61-3-9558-8177
Fax: +61-3-9558-8255

• **Taiwan**

Anritsu Company Inc.

7F, No. 316, Sec. 1, NeiHu Rd., Taipei 114, Taiwan
Phone: +886-2-8751-1816
Fax: +886-2-8751-1817