

Архангельск (8182)63-90-72  
Астана (7172)727-132  
Астрахань (8512)99-46-04  
Барнаул (3852)73-04-60  
Белгород (4722)40-23-64  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89  
Иваново (4932)77-34-06

Ижевск (3412)26-03-58  
Иркутск (395)279-98-46  
Казань (843)206-01-48  
Калининград (4012)72-03-81  
Калуга (4842)92-23-67  
Кемерово (3842)65-04-62  
Киров (8332)68-02-04  
Краснодар (861)203-40-90  
Красноярск (391)204-63-61  
Курск (4712)77-13-04  
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13  
Москва (495)268-04-70  
Мурманск (8152)59-64-93  
Набережные Челны (8552)20-53-41  
Нижний Новгород (831)429-08-12  
Новокузнецк (3843)20-46-81  
Новосибирск (383)227-86-73  
Омск (3812)21-46-40  
Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16

Пермь (342)205-81-47  
Ростов-на-Дону (863)308-18-15  
Рязань (4912)46-61-64  
Самара (846)206-03-16  
Санкт-Петербург (812)309-46-40  
Саратов (845)249-38-78  
Севастополь (8692)22-31-93  
Симферополь (3652)67-13-56  
Смоленск (4812)29-41-54  
Сочи (862)225-72-31  
Ставрополь (8652)20-65-13

Сургут (3462)77-98-35  
Тверь (4822)63-31-35  
Томск (3822)98-41-53  
Тула (4872)74-02-29  
Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
Уфа (347)229-48-12  
Хабаровск (4212)92-98-04  
Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Ярославль (4852)69-52-93

Киргизия (996)312-96-26-47

Россия (495)268-04-70

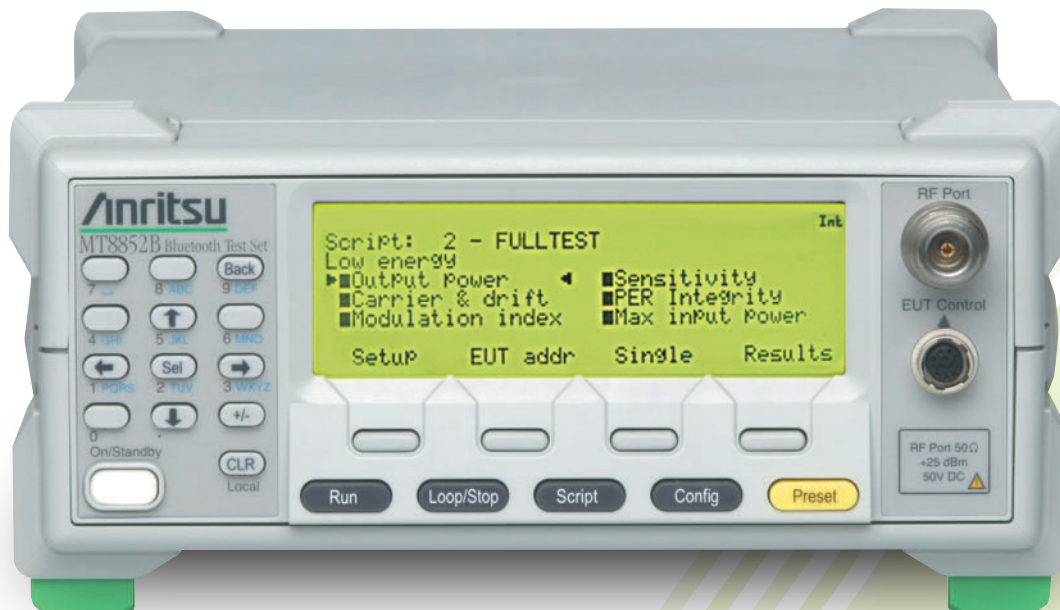
Казахстан (772)734-952-31

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**Anritsu** Advancing beyond

# Bluetooth Test Set

## MT8852B



## Introduction

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This document provides specifications for the *Bluetooth*<sup>®</sup> 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.

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## Specifications

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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.

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#### 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)

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#### 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)

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#### 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)

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#### 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

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### 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  $\mu$ s/50  $\mu$ s  
Frequency Resolution: 1 kHz

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### 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:  $\pm 1$  dB (–80 to 0 dBm)  
BER/FER Measurement Range: 0 to 100%  
BER/FER Resolution: 0.001%

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### 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:  $\pm 1$  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:  $\Delta f_{1max}$ ,  $\Delta f_{2max}$ ,  $\Delta f_{1avg}$ ,  $\Delta f_{2avg}$ ,  $\Delta f_{2avg}/\Delta f_{1avg}$ , % of  $\Delta f_{2max}$  < 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

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### 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:  $\pm 1$  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.

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### 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,  $(P_{\text{GFSK}} - 8 \text{ dB}) < P_{\text{DPSK}} < (P_{\text{GFSK}} + 4 \text{ dB})$

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### 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  $\omega_i$ , Frequency error  $\omega_o$ , 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  $\pm 100$  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

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### 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

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### 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:  $\pm 1$  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:  $\pm 1$  dB (-80 to 0 dBm)

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### 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:  $\pm 1$  dB (-80 to 0 dBm)

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## Bluetooth low energy Measurements

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

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### 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:  $\pm 1.0$  dB (-35 to +20 dBm),  $\pm 1.5$  dB (+20 to +22 dBm)

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### 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:  $\Delta f_{1max}$ ,  $\Delta f_{2max}$ ,  $\Delta f_{1avg}$ ,  $\Delta f_{2avg}$ ,  $\Delta f_{2avg}/\Delta f_{1avg}$  comparison, % of  $\Delta f_{2max}$  < 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

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### 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

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### Receiver sensitivity

**[RFPHY/RVCV/BV-01-C (BLE), RFPHY/RVCV/BV-08-C (2LE), RFPHY/RVCV/BV-26-C (BLR S = 2), RFPHY/RVCV/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/RVCV/BV-06-C (BLE), RFPHY/RVCV/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/RVCV/BV-07-C (BLE), RFPHY/RVCV/BV-13-C (2LE), RFPHY/RVCV/BV-30-C (BLR S = 2), RFPHY/RVCV/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)

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### 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

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### Frequency

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

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### Level

Amplitude Range:  $-90$  to  $0$  dBm  
Amplitude Accuracy:  $\pm 1$  dB ( $-80$  to  $0$  dBm)  
Amplitude Resolution:  $\pm 0.1$  dB  
Output Impedance:  $50\Omega$  (nominal)  
Output VSWR: 1.5:1, 1.3:1 (typical), Adjacent channels 3 or higher  $-40$  dBc

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### 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

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### $\pi/4$ DQPSK Modulation

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

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### 8DPSK Modulation

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

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## MT8852B Measuring Receiver

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### Frequency

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

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### Level

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

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### GFSK Modulation

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

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## 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,  $\mu$ -Law  
Frequency Response  
(-3 dB) measured CODEC in to CODEC out: 160 Hz to 3.5 kHz.  
Measured with 50 $\Omega$  source impedance and 10M $\Omega$  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)  
 $\mu$  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 $\Omega$   
Minimum Output Load: 600 $\Omega$   
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

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### Frequency Standard

Frequency: 10 MHz  
Temperature Stability:  $\pm 0.5$  ppm ( $-10^{\circ}$  to  $+85^{\circ}\text{C}$ )  
Aging (1st year):  $\pm 1.0$  ppm  
Aging (over 10 years):  $\pm 2.5$  ppm (including year 1)

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### Rear Panel Connectors

External Frequency Standard Input: Rear panel, BNC connector, 50 $\Omega$ , 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

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### GPIB

IEEE 488.2: Offers full instrument control as standard

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### RS232

RS232: Offers full instrument control as standard

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## General

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### 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.

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### Environmental

Operating Temperature:  $+5^{\circ}$  to  $+40^{\circ}\text{C}$   
Operating Humidity: 20 to 75%

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### 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

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### 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
	<b>Main Frame</b>
MT8852B	Bluetooth Test Set
MT8852B-040	Bluetooth Test Set
MT8852B-041	Bluetooth Test Set
MT8852B-042	Bluetooth Test Set
MT8852B-043	Bluetooth Test Set
	<b>Standard Accessories</b>
	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)
	<b>Options and Accessories</b>
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.

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