

Test Equipment Solutions Datasheet

Test Equipment Solutions Ltd specialise in the second user sale, rental and distribution of quality test & measurement (T&M) equipment. We stock all major equipment types such as Spectrum Analyzers, Signal Generators, Oscilloscopes, Power Meters, Network Analyzers etc from all the major suppliers such as Keysight, Tektronix, Anritsu and Rohde & Schwarz.

We are focused at the professional end of the marketplace, primarily working with customers for whom high performance, quality and service are key, whilst realising the cost savings that second user equipment offers. We fully test & refurbish equipment in our in-house, traceable Lab. Items are supplied with manuals, accessories and typically a full no-quibble 1 year warranty. Our staff have extensive backgrounds in T&M which enables us to deliver industry-leading service and support. We endeavour to be customer focused in every way right down to the detail, such as offering free delivery on sales, presenting flexible technical + commercial solutions and supplying a loan unit during warranty repair, if available.

As well as the headline benefit of cost saving, second user offers shorter lead times, higher reliability and multivendor solutions. Rental, of course, is ideal for shorter term needs and offers fast delivery, flexibility, try-before-you-buy, zero capital expenditure, lower risk and off balance sheet accounting. Both second user and rental improve the key business measure of Return On Capital Employed.

We are based in at Oakley, Bedfordshire in the UK from where we supply test equipment worldwide. Our facility incorporates Sales, Support, Admin, Logistics and our own in-house Lab.

All products supplied by Test Equipment Solutions include:

- No-quibble parts & labour warranty (we provide transport for UK mainland addresses).
- Free loan equipment during warranty repair, if available.
- Full electrical, mechanical and safety refurbishment in our 40GHz in-house Lab.
- Certificate of Conformance (calibration available on request).
- Manuals and accessories required for normal operation.
- Free insured delivery to your UK mainland address (sales).
- Support from our team of seasoned Test & Measurement engineers.
- ISO9001 quality assurance.

Test Equipment Solutions Ltd
Unit 3 Highfield Court
Highfield Road
Oakley
Bedfordshire
MK43 7TA

Telephone: 01183 800 800

Email: info@TestEquipmentHQ.com
Web: www.TestEquipmentHQ.com



Anritsu envision : ensure

Bluetooth Test Set

MT8852B



The World's Leading Short Range Wireless Technology



By eliminating wires and simplifying connections between everyday appliances, *Bluetooth*® wireless technology has become the dominant standard for short-range wireless connectivity. Over 3 billion devices are now shipped each year with Bluetooth technology embedded. Mobile phones connect seamlessly to headsets and car kits for hands-free speech or to other phones for picture sharing and file transfer. But Bluetooth is not confined to the phone — other applications include streaming high quality music from music players to a new generation of stereo headsets and desk speakers plus wireless gaming controllers.

The introduction of Bluetooth low energy to the Bluetooth Standard, opened up a whole range of applications including sports, fitness monitoring, health and wellbeing sensors. Bluetooth 5.0 extended this new capability with a higher data and greater operational range.

The future success of the Bluetooth standard will depend on users of the technology enjoying reliable, high-quality connections. We will expect to use products “out of the box” to provide immediate connectivity.

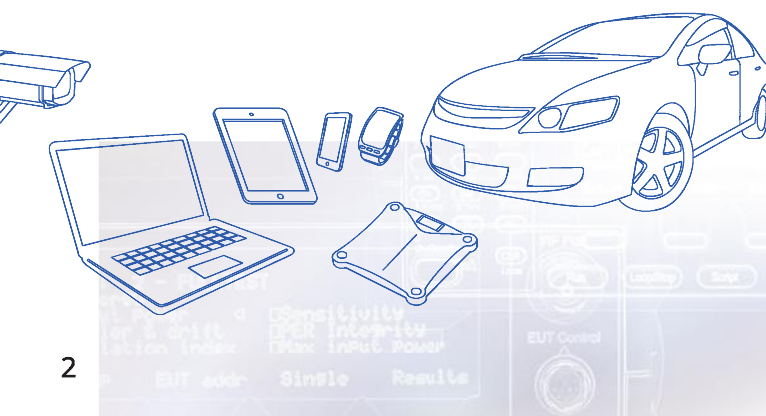
Anritsu recognizes the importance of Bluetooth link quality to the success of the technology and to the reputation of the products in which it is embedded. We have developed a series of test solutions to help in development and production test of Bluetooth modules and Bluetooth products – quickly and at low cost.

Anritsu is the leading supplier of instruments to test the quality of products manufactured with embedded Bluetooth technology. As members of the Bluetooth Special Interest Group (SIG) since 1999, Anritsu has actively participated in the development of the standard from the first Core Specification version 1.0 release through to the current Core Specification version 5.0 release. The MT8852B Bluetooth Test Set builds on this experience to offer an optimized radio layer test instrument.

As a manufacturer of Bluetooth products, you need above all else to maintain your reputation for quality and reliability. The complex demands of new technologies such as Bluetooth will require the adoption of new testing techniques. By bringing our experience to bear on these demanding test requirements, Anritsu can offer you the test capability you need.

The MT8852B Bluetooth Test Set gives you a one-button test to fully characterize your Bluetooth implementation and ensure that your reputation for quality is maintained. Working with RF, especially RF at over 2 GHz, is not easy, but with Anritsu as your test partner you can be certain of having the most up-to-date and relevant testing capabilities for your Bluetooth products. Anritsu understand the need to quickly and accurately verify the performance of products in a high volume manufacturing environment, thereby ensuring excellent and reliable performance from new Bluetooth products. When tested on the MT8852B, you can ship products to your customers with confidence that they will work perfectly first time, every time.

The *Bluetooth*® mark and logos are owned by Bluetooth SIG, Inc. and are used by Anritsu under license.



Bluetooth Test Set MT8852B



- Qualified by Bluetooth SIG for measurements
- Compliant with Bluetooth Core Specification v1.2, 2.0, 2.1 + EDR, 3.0 + HS, 4.0, 4.1, 4.2 and 5.0 RF test suite
- Basic Rate and EDR measurement performed in Bluetooth test mode – Loopback or Tx mode supported
- Signal generator and transmitter analyzer modes for protocol free applications
- “Quick Test” script validates Basic Rate, EDR and Bluetooth low energy test performance in under 15 seconds
- “Full Test” script performs full Bluetooth SIG compliant testing from single key press
- For design proving and production test
- Full implementation of Basic Rate, EDR and Bluetooth low energy dirty transmitter for Bluetooth SIG RF test specification compliant measurements
- Audio test capability, 3 SCO channels with CVSD, μ -Law and A-Law air interface
- Adaptive Frequency Hopping (AFH) measurements (MT8852B-015)
- Easy operation – one-touch testing with “Run” key
- BlueSuite Pro3 PC software displays; FSK modulation, power burst profile, PSK constellation diagrams and sensitivity searches graphically
- CombiTest software automates tests with test script generator and results data base
- GPIB and RS232 remote programming interfaces
- Initialization and control of test devices through USB, RS232 and USB-Adapter HCI control port
- Built-in support for Bluetooth low energy 2-Wire control interface
- Small size (half rack) and low weight (≤ 3.8 kg)

Applications

Module Testing

Anritsu understands the requirements of the manufacturers of Bluetooth modules. Test times must be minimized yet performance must be assured. The MT8852B can establish a link with the module under test and perform a comprehensive set of transceiver measurements in under 15 seconds. If the module address is unknown, MT8852B can read it through the module HCI (RS232, USB, USB to RS232 or USB to BLE 2-Wire Adapter), or perform an inquiry. An integrated CW frequency counter can be used for crystal trimming. Module testing requires a test fixture, ideally in a shielded box, to interface the Bluetooth module to the MT8852B. The test fixture should provide a direct RF connection plus, if required, connection to the module's HCI interface.



For fault finding and analysis, BlueSuite Pro3 software is a PC based tool kit that tests EUTs systematically on all channels. BlueSuite Pro3 also graphically displays the essential waveforms of power burst profile, modulation deviation and IQ diagrams. In the early stages of development, the signal generator and transmitter analyzer can be used to test the device without forming any protocol connection to the test set.

Consumer Product Testing

Bluetooth interfaces are now standard on many consumer products including digital music players, notebook PCs, gaming handsets, printers, portable credit card readers and headsets. For many manufacturers, it will be the first time that RF measurements have been made in their production environment.

The MT8852B is a highly targeted instrument that has been designed to offer Bluetooth test capability in a compact, economical and easy to operate package. The pre-programmed test scripts provide a fast solution that can quickly be integrated into existing production facilities. By using the CombiTest automatic test software, the MT8852B can be quickly integrated into the production flow with automatic archiving of all test results to a database.

Mobile Phone Testing

Mobile phones are the highest volume product to benefit from Bluetooth technology. In addition to the cellular system, smartphone manufacturers also need to prove performance of Bluetooth. For mobile phones without an RF test connector, MT8852B can make all its measurements over the air interface. You simply use your test fixture to position the EUT accurately with respect to the test antenna. Correction values for the path loss at each frequency can be entered into MT8852B path loss table and results are corrected accordingly.

Design Proving

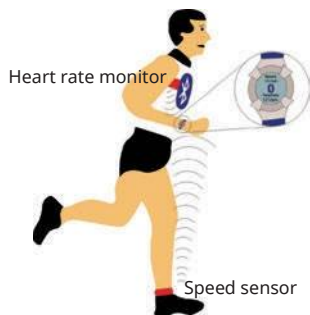
Each new revision of a Bluetooth chip requires full verification for RF performance. The MT8852B forms the heart of a design and verification test system. With the addition of other Anritsu test instruments including a second MT8852B as the Bluetooth modulated interferer, a MG3692C as the CW interferer and a MS2830A spectrum analyzer, you can run test cases such as blocking performance, intermodulation characteristics, spurious emissions.

For fault finding and analysis, BlueSuite Pro3 software is a PC-based tool kit that tests EUTs systematically on all channels. BlueSuite Pro3 also graphically displays the essential waveforms of power burst profile, modulation deviation and IQ diagrams.

In the early stages of development, the signal generator and transmitter analyzer can be used to test the device without forming any protocol connection to the test set.

Add MT8852B-027/034/035/036 to Test and Characterise Bluetooth Low Energy Devices

Bluetooth low energy is the latest addition to the Bluetooth Standard, and this has been enhanced further by Bluetooth 5, which provides a higher data rate and longer range. It is designed specifically for small, button-cell battery powered devices for which low power-consumption and low cost are the primary concerns. Bluetooth low energy is designed to work side by side with existing Bluetooth devices. It operates in the 2.4 GHz ISM band and offers data rates of 125 kbps/500 kbps/1 Mbps/2 Mbps. Bluetooth low energy devices are ideally suited to wireless health care equipment such as wireless blood sugar monitors, fitness performance equipment such as heart rate monitors, and remote displays (such as a wrist watch display) for displaying data from sensing devices.



Key Features of MT8852B-027/034/035/036

- Fully compliant with Bluetooth SIG Core Specification v4.0, 4.1 and 4.2, 5.0
- Test Dual Mode (Basic Rate, EDR and Bluetooth low energy) and Single Mode (Bluetooth low energy) devices
- Control EUT directly from MT8852B through UART, USB, USB-Adapter and 2-Wire interfaces
- Configure a single script to run Basic Rate, EDR and Bluetooth low energy measurements from one key press
- MT8852B-027 is compliant with Bluetooth Core Specification v4.0 and 4.1
- MT8852B-034 is compliant with Bluetooth Core Specification v4.2
- MT8852B-035/036 are compliant with Bluetooth Core Specification v5.0

Includes PC Application

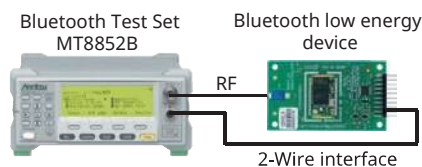
- Configure test reference packets
- View Power Burst Profile and Modulation vs. Symbol
- Automated receiver sensitivity trace
- Numeric display of all test cases with Pass/Fail status

There are two types of Bluetooth Chips. One type integrates Basic Rate, EDR and low energy functionality into a single chip. This type is usually found in smartphones and PCs, which need to be able to connect to any Bluetooth device. The other type of chip supports only Bluetooth low energy, and is increasingly used in sensors and peripherals, where low power consumption is important.

Unlike the standard for Basic Rate and EDR testing, the Bluetooth low energy specification does not define a signalling based test mode connection to the EUT. The EUT must be controlled using defined test control commands sent through the EUT HCI interface. A simple 2-Wire control interface specification allows low energy devices to be controlled without the complexity of a USB or fully featured UART interface.

The MT8852B, with Bluetooth low energy measurements option MT8852B-027, sends these test controls to the EUT to deliver fully automated testing. With the use of this integrated interface, the MT8852B can run a single test script that with a single key press can test the Basic Rate, EDR and Bluetooth low energy performance of an EUT.

With the BLE Data length Extension MT8852B-034 option, the instrument can test Bluetooth low energy devices that support the data length extension defined in Bluetooth v4.2.



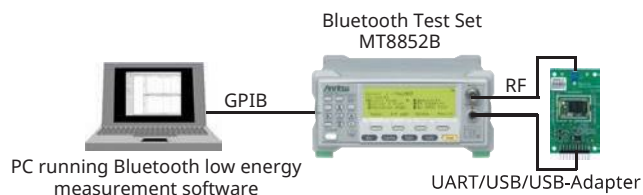
For EUT transmitter tests, test controls sent from the MT8852B configure the Bluetooth low energy device to transmit test reference packets that are captured and analyzed by the MT8852B receiver.

The MT8852B-027/034/035/036 options are supplied with a Bluetooth low energy measurement application. During the design verification stages this application can be used to display the reference test packets transmitted by the EUT.

Bluetooth Low Energy Testing from the PC

Bluetooth low energy measurements can be performed from a remote PC running the Bluetooth low energy measurement software included with MT8852B-027. The software is installed on a PC and connected to the MT8852B by means of a standard GPIB cable.

An RF cable connects the MT8852B with the device under test. Reference packets transmitted from the EUT can be analyzed and displayed on the PC, or the MT8852B can be configured to transmit reference packets for EUT receiver sensitivity testing.



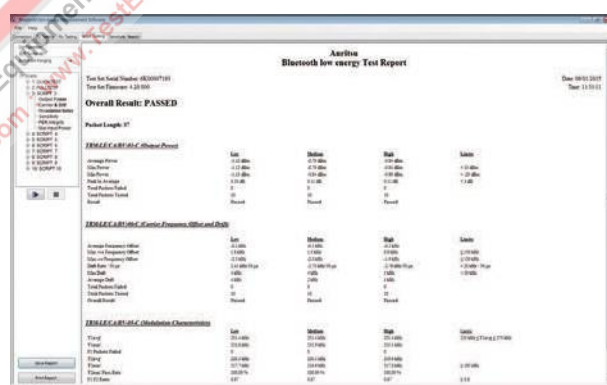
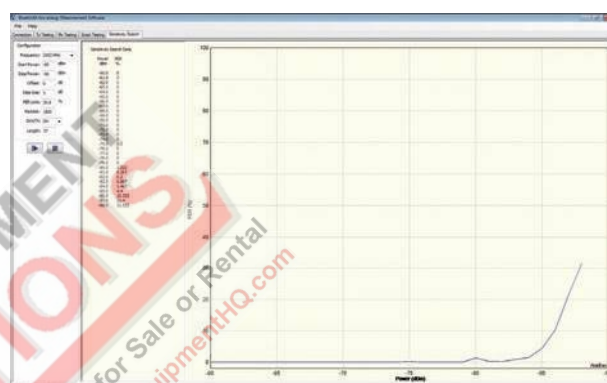
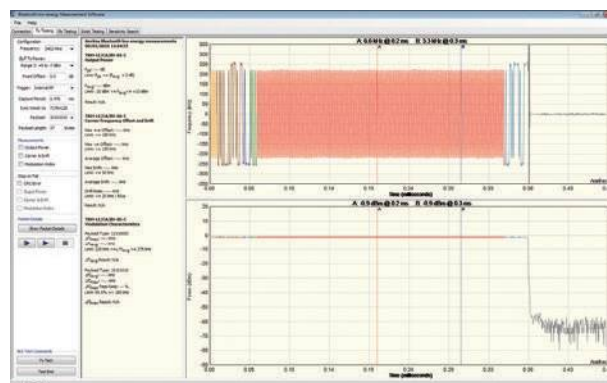
Use of the Bluetooth low energy software provides the ideal environment for detailed graphical analysis of Bluetooth low energy packets. Devices with an HCI interface can be tested automatically by configuring and running an automated test script from the PC.


Bluetooth low energy measurements on single mode device that do not have an HCI interface can be performed by controlling the device from the silicon vendor's control software.

The MT8852B Bluetooth low energy PC application displays the power burst profile and modulation versus symbol graphs of Bluetooth low energy test reference packets. This is an invaluable tool during the design verification process for viewing and fully characterising the performance of a Bluetooth radio.

The [Tx Testing] tab shown here allows the user to set the conditions under which data is transmitted from the device. Tx measurements are selected and the results displayed numerically and in colour-coded traces. The [Rx Testing] tab allows the user to transmit Bluetooth low energy reference packets to the device so that Packet Error Rate (PER) can be calculated. For EUTs that support the UART/USB/USB-Adapter or 2-Wire interface, the number of received packets can be read by the MT8852B, thus automating receiver sensitivity testing.

The application can generate and display a receiver sensitivity curve so that the true sensitivity performance of the EUT can be measured.



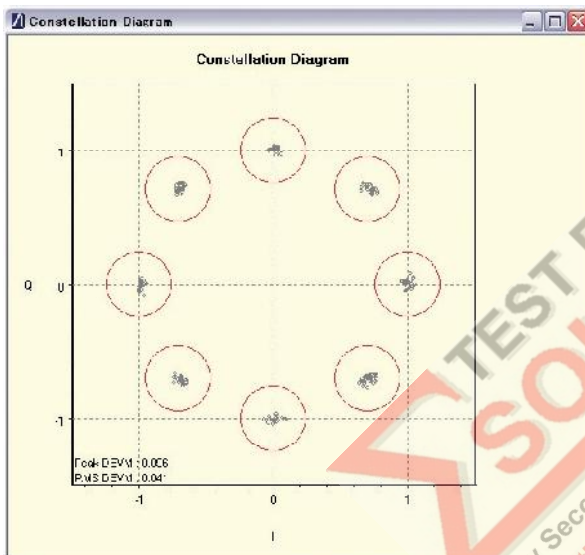
Making Bluetooth low energy measurements on a device with an HCI interface can be fully automated from the [Script Testing] tab. The user simply selects and configures the required test cases and clicks  to execute the script. The test results display in a report that can be printed or saved by the user.

Add BlueSuite Pro3 Software for Greater Insight into the Device's Performance

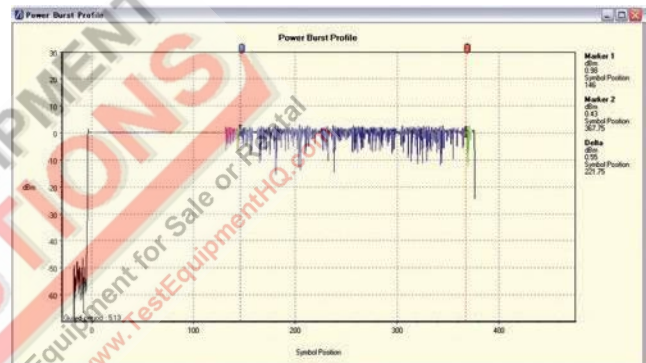


BlueSuite Pro3 is a comprehensive software tool that enables a greater understanding of all aspects of a BR/EDR device's RF characteristics. Running on a standard PC, BlueSuite Pro3 interfaces to the MT8852B through a GPIB interface. With BlueSuite Pro3 you can;

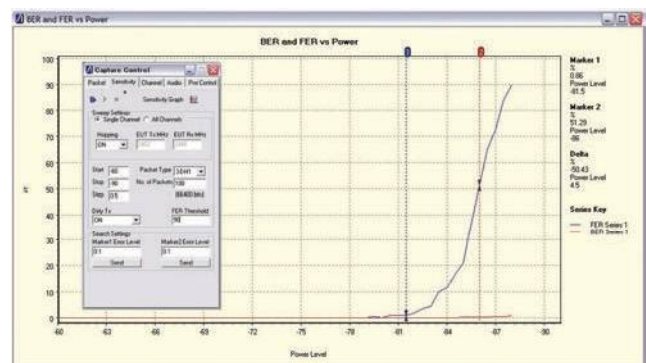
- Monitor the real-time state of the EUT through the display of frequency deviation, power burst, IQ constellation and vector graphs.
- Configure and run sensitivity sweeps and display the results graphically.
- Configure and run measurement sweeps for seven different tests and display the results graphically for each of the 79 Bluetooth channels.
- Configure and run audio tests and display the results graphically.
- Configure and run a power control test and display the results graphically.
- Read and write script and limit settings to and from the MT8852B.
- Edit and run a complete test script and generate a detailed report of the results.
- Step through individual connection and test mode controls to determine the cause of problems otherwise difficult to isolate.



BlueSuite Pro3 displays the IQ constellation pattern for all payload symbols, or any user defined 50 μ s block. Limit circles are preset to the core specification requirement for $\pi/4$ DQPSK or 8DPSK modulation standards.



Power Burst profile display of 3-DH1 packet. Color coding highlights each element of the packet; for example, red - preamble, light blue - access code and dark blue - PSK payload.



Automatic sensitivity search measurements display the FER/BER performance of an EUT with decreasing power into the receiver. Tests can be performed on all supported standard rates and EDR packet types.

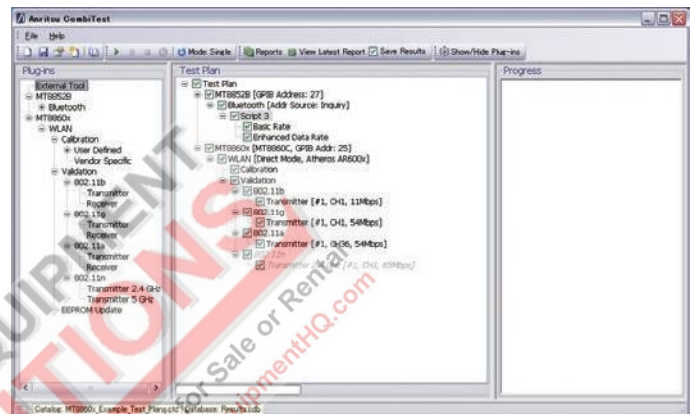
Introducing CombiTest



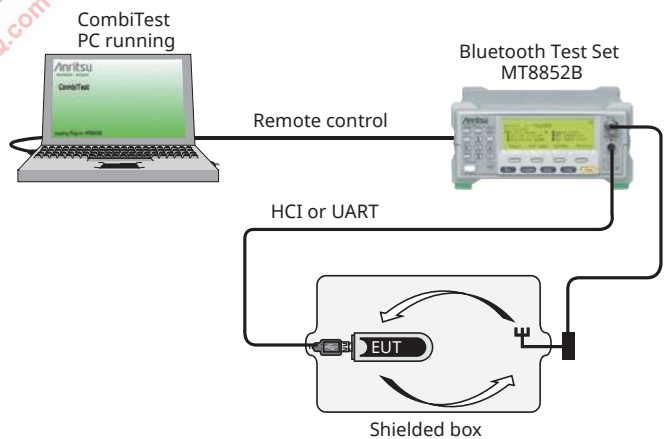
CombiTest is a software application used to remotely control Anritsu Bluetooth test sets using a user-configured test plan of measurements. It is ideal for creating design-verification or production test plans for Bluetooth radios. CombiTest allows users to install plug-ins as required for each test instrument.

CombiTest Features

- Plug-in for MT8852B Bluetooth Test Set
- Bluetooth test mode measurements
- Rapid creation and execution of test plans
- Run an entire test plan or just the selected test items
- Detailed report of test results with database of previous tests



Setup



Test the Interference Rejection Capability of your Bluetooth Devices with the AFH Option

When two Bluetooth Classic devices connect under normal circumstances, they establish a basic frequency hopping scheme across 79 frequency channels in the 2.4 GHz ISM band, hopping at a rate of 1600 times per second. However, as is becoming increasingly common, interference may be encountered in environments where other wireless technologies, such as 802.11 WLAN are also active. Blocked channels, caused by interference, result in a deterioration in the performance of the connection, and this in turn results in poor voice quality or reduced data transfer rates. To limit the impact of this interference, an adaptation of frequency hopping, known as Adaptive Frequency Hopping (AFH) was introduced by the Bluetooth SIG in the Bluetooth v1.2 standard. AFH aims to restore the performance of a Bluetooth connection by identifying channels with high error rates and excluding the use of these channels thereafter.

MT8852B Implementation of AFH

When Bluetooth devices that implement the Bluetooth v1.2 are connected, each device can create its own Local Assessment Scheme. This is a channel map that defines which channels the device assesses to be clear and which are experiencing interference. The MT8852B is designed to respond to the EUT assessment of which channels are experiencing interference. The MT8852B, being the Master device, creates an Active Channel Map that is the combination of the EUT's local assessment scheme and any channels that the user has manually masked from the MT8852B user interface.

With the MT8852B-015 AFH Option You Can:

- Connect to an EUT using the Bluetooth v1.2 faster connection and display the connection time in milliseconds.
- Display the EUT Bluetooth v1.2 supported features map, including AFH capabilities.
- Create an AFH connection to the EUT.
- Read the EUT Local Assessment Scheme in the presence of an external interfering signal (e.g. WLAN).
- Manually define additional channels to mask in the MT8852B Pseudo Local Assessment Map.
- Display a graph of channel utilization against time to measure the speed with which an EUT masks channels when an interfering source is activated.
- Display a graph of Frame Error Rate (FER) against time to validate that an EUT identifies all "Bad" channels and maintains a zero or low FER.
- Establish an audio SCO link so that the audio quality can be monitored in the presence of interfering signals, and ensure that the AFH functionality maintains a high quality audio path.

Channel Utilization Against Time

This screen presents a graph with 1 second resolution of the number of channels masked by the EUT. It can be used to measure the time that the EUT takes to respond to the introduction of an interfering signal source. When the interfering source is removed, the same display shows the time that the EUT takes to re-introduce the now clear channels into the hopping scheme.



Frame Error Rate (FER) Against Time

This screen presents a graph with 1 second resolution of the FER of the Bluetooth link with AFH enabled. When an interfering source such as a 802.11 WLAN access point is activated, the FER can be seen to increase immediately. As the EUT's local assessment scheme identifies the "bad" channels and reports its assessment to the MT8852B, the FER will decrease as the channels are removed from the hopping plan.



Audio Measurements with AFH

The MT8852B also supports SCO connections with AFH active. This facilitates analysis of the impact of an interfering source on the quality of an audio signal.



Supported Measurements

Basic Rate

Basic Rate measurements made in compliance with Bluetooth RF Test Specification RF. TS. 5.0.0

TP/TRM/CA/BV-01-C	Output Power
TP/TRM/CA/BV-03-C	Power Control
TP/TRM/CA/BV-07-C	Modulation Characteristics
TP/TRM/CA/BV-08-C	Initial Carrier Frequency Tolerance
TP/TRM/CA/BV-09-C	Carrier Frequency Drift
TP/TRM/CA/BV-14-C	Enhanced Power Control
TP/RCV/CA/BV-01-C	Sensitivity – single slot packets
TP/RCV/CA/BV-02-C	Sensitivity – multi-slot packets
TP/RCV/CA/BV-06-C	Maximum Input Level

Enhanced Data Rate (EDR)

Enhanced Data Rate measurements made in compliance with Bluetooth RF Test Specification RF. TS. 5.0.0

TP/TRM/CA/BV-10-C	EDR Relative Transmit Power
TP/TRM/CA/BV-11-C	EDR Carrier Frequency Stability and Modulation Accuracy
TP/TRM/CA/BV-12-C	EDR Differential Phase Encoding
TP/RCV/CA/BV-07-C	EDR Sensitivity
TP/RCV/CA/BV-08-C	EDR BER Floor Performance
TP/RCV/CA/BV-10-C	EDR Maximum Input Level

Bluetooth Low Energy

Bluetooth low energy measurements made in compliance with Bluetooth RF Test Specification RF-PHY. TS. 5.0.0

Transmitter Tests

TP/TRM-LE/CA/BV-01-C	Output power
TP/TRM-LE/CA/BV-05-C	Modulation Characteristics, uncoded data at 1 Ms/s
TP/TRM-LE/CA/BV-06-C	Carrier frequency offset and drift, uncoded data at 1 Ms/s
TP/TRM-LE/CA/BV-10-C	Modulation Characteristics at 2 Ms/s
TP/TRM-LE/CA/BV-12-C	Carrier frequency offset and drift at 2 Ms/s
TP/TRM-LE/CA/BV-13-C	Modulation Characteristics, LE Coded (S = 8)
TP/TRM-LE/CA/BV-14-C	Carrier frequency offset and drift, LE Coded (S = 8)

Receiver Tests

TP/RCV-LE/CA/BV-01-C	Receiver sensitivity, uncoded data at 1 Ms/s
TP/RCV-LE/CA/BV-06-C	Maximum input signal level, uncoded data at 1 Ms/s
TP/RCV-LE/CA/BV-07-C	PER Report Integrity, uncoded data at 1 Ms/s
TP/RCV-LE/CA/BV-08-C	Receiver sensitivity at 2 Ms/s
TP/RCV-LE/CA/BV-12-C	Maximum input signal level at 2 Ms/s
TP/RCV-LE/CA/BV-13-C	PER Report Integrity at 2 Ms/s
TP/RCV-LE/CA/BV-26-C	Receiver sensitivity, LE Coded (S = 2)
TP/RCV-LE/CA/BV-27-C	Receiver sensitivity, LE Coded (S = 8)
TP/RCV-LE/CA/BV-30-C	PER Report Integrity, LE Coded (S = 2)
TP/RCV-LE/CA/BV-31-C	PER Report Integrity, LE Coded (S = 8)

Adaptive Frequency Hopping (AFH)

Compliant with the following Bluetooth Core Specification v1.2

Channel utilisation against time	Display number of active channels as reported by EUT Local Assessment Scheme
Frame error rate against time	Display of link FER with 1 second reporting interval
Active channel map	Display of Active and Masked channels as reported by EUT Local Assessment Scheme

Bluetooth Test Set MT8852B 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	Note
MT8852B MT8852B-040 MT8852B-041 MT8852B-042 MT8852B-043	Main Frame Bluetooth Test Set Bluetooth Test Set Bluetooth Test Set Bluetooth Test Set Bluetooth Test Set	With EDR and Audio With no EDR and no Audio With no EDR and with Audio With EDR and no Audio With Low Energy Measurements only
J1783A J1784A J1785A J1786A	Standard Accessories MT8852B Bluetooth Test Set Operation Manual MT8852B Bluetooth Test Set Operation Manual Remote Control USB HCI control interface lead RS232 HCI Control Interface Lead RS232 Cable for Firmware Updates Power Cord BlueSuite Software Bluetooth Low Energy Measurement Software application MT8852B Bootloader 3.5 mm Jack Plugs (Qty. 3)	Standard version Audio Version Only
MT8852B-015 MT8852B-017 MT8852B-027 MT8852B-034*1 MT8852B-035*1, *2 MT8852B-036*1, *2, *3 MT8852B-070	Options and Accessories Adaptive Frequency Hopping option IQ data output Bluetooth low energy measurements BLE Data Length Extension Option BLE 2LE Option BLE BLR Option Platform Enhancement Option	2 Mbps Low Energy Bluetooth Long Range
MT8852B-315*4 MT8852B-317*4 MT8852B-319*4 MT8852B-325*4 MT8852B-327 MT8852B-330 MT8852B-334*1 MT8852B-335*1, *2 MT8852B-336*1, *2, *3 MT8852B-170 MT8852B-270 MT8852B-370	Retrofit Adaptive Frequency Hopping option Retrofit IQ data output Retrofit Audio to MT8852B Retrofit EDR to MT8852B Retrofit Bluetooth low energy measurements Retrofit Basic Rate Measurement to MT8852B Retrofit BLE Data Length Extension Option Retrofit BLE 2LE Option BLE BLR Option Retrofit Platform Enhancement Option Retrofit Platform Enhancement Option Retrofit Platform Enhancement Option Retrofit	For units where the first three characters of the serial number are not "6A6 or 626" For units where the first three characters of the serial number are not "6A6 or 626" (FO) For units where the first three characters of the serial number are "6A6 or 626"
MX885201B MX885201B-301 Z1992A B0748A B0749A J0006 J0007 J0008 J0127A J0127B J0127C	BlueSuite Pro3 software application BlueSuite Pro2 to Pro3 Upgrade 2.4 GHz Antenna and Adapter Soft Carry Bag Rack Mount Kit GP-IB CABLE, 0.5M GPIB CABLE, 1.0M GPIB CABLE, 2.0M COAXIAL CORD, 1.0M COAXIAL CORD, 2.0M COAXIAL CORD, 0.5M	

*1: MT8852B-034 (334) requires MT8852B-027 (327) or MT8852B-043.

*2: MT8852B-035 (335) and MT8852B-036 (336) requires MT8852B-034 (334).

*3: MT8852B-036 (336) requires MT8852B-070 (270, 370).

*4: When installing MT8852B-315/317/319/325 to MT8852B-043, MT8852B-330 is necessary.

• United States

Anritsu Company

450 Century Parkway, Suite 190, Allen,
TX 75013 U.S.A.
Toll Free: +1-800-267-4878
Phone: +1-972-644-1777

• 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 Elettronica Ltda.

Praça Amadeu Amaral, 27 - 1 Andar
01327-010 - Bela Vista - Sao Paulo - SP
Brazil
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, Bâtiment Iris 1- Silic 612,
91140 VILLEBON SUR YVETTE, France
Phone: +33-1-60-92-15-50
Fax: +33-1-64-46-10-65

• 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.

Via Elio Vittorini 129, 00144 Roma, Italy
Phone: +39-6-509-9711
Fax: +39-6-502-2425

• Sweden

Anritsu AB

Isafjordsgatan 32C, 164 40 KISTA, Sweden
Phone: +46-8-534-707-00

• Finland

Anritsu AB

Teknobulevardi 3-5, FI-01530 VANTAA, Finland
Phone: +358-20-741-8100
Fax: +358-20-741-8111

• Denmark

Anritsu A/S

Torveporten 2, 2500 Valby, Denmark
Phone: +45-7211-2200
Fax: +45-7211-2210

• 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

Edificio Cuzco IV, Po. de la Castellana, 141, Pta. 5
28046, Madrid, Spain
Phone: +34-915-726-761
Fax: +34-915-726-621

• United Arab Emirates

Anritsu EMEA Ltd.

Dubai Liaison Office

902, Aurora Tower,
P O Box: 500311- Dubai Internet City
Dubai, United Arab Emirates
Phone: +971-4-3758479
Fax: +971-4-4249036

• India

Anritsu India Private Limited

6th Floor, Indique ETA, No.38/4, Adjacent to EMC2,
Doddanekundi, Outer Ring Road, Bengaluru - 560048, India
Phone: +91-80-4058-1300
Fax: +91-80-4058-1301

• Singapore

Anritsu Pte. Ltd.

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

• 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