

ME7873F

W-CDMA TRX/Performance Test System

ME7874F

W-CDMA RRM Test System



Conformance Tests becoming Increasingly Important

To meet users' needs, mobile terminals are evolving from GSM (2G) to W-CDMA/CDMA2000 (3G) to LTE (3.9G).

The 3GPP standards for manufacturing and conformance tests support this progress.

Network problems caused by non-compliant terminals at new service rollout are not permissible. 3G usage was limited in the early days due to limited service areas but now 3G is the global mainstream due to user demand and technology innovation.

As a result, conformance tests have become much more important in assuring mobile terminals meet the standards.

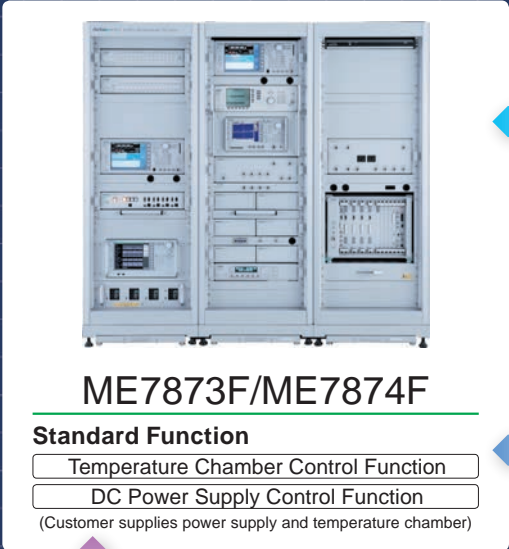
By combining versatile measuring instruments and software packages into a tailored full-featured test platform, the ME7873F/ME7874F supports the various test functions required for W-CDMA frequency bands in use today, as well as future applications, such as HSDPA, HSUPA and HSPA Evolution, offered by both high-end mobiles and standard units in all countries of the world.

The ME7873F LTE option supports the LTE frequency bands to be used worldwide and users can choose the FDD/TDD test functions matching their test terminals. In addition, the ME7873F can be tailored to the required test environment, matching customers' RF TRx, performance, and RRM requirements, as well as minimizing their investment costs.

ME7873F/ME7874F

W-CDMA TRX/Performance Test System
W-CDMA RRM Test System





ME7873F/ME7874F

Standard Function

- Temperature Chamber Control Function
- DC Power Supply Control Function
(Customer supplies power supply and temperature chamber)

Test Function Options

Test Function

WI-013 Test Function	WI-113 Test Function	WI-151 Test Function
WI-014 Test Function	WI-129 Test Function	WI-162 Test Function
WI-024 Test Function	WI-148 Test Function	WI-164 Test Function
WI-025 Test Function	WI-124 Test Function	WI-200 Test Function
WI-049 Test Function	WI-080 Test Function	WI-201 Test Function
WI-076 Test Function	WI-090 Test Function	RRM Test Function
WI-069 Test Function	WI-139 Test Function	Japan TRCC Test Function
WI-070 Test Function	WI-150 Test Function	

W-CDMA Band Options

Operating Band

Band I Test Function	Band V Test Function	Band XI Test Function
Band II Test Function	Band VI Test Function	Band XIX Test Function
Band III Test Function	Band VIII Test Function	
Band IV Test Function	Band IX Test Function	

Operating Band

FDD Band

Band 1 Test Function	Band 7 Test Function	Band 12 Test Function	Band 19 Test Function	Band 26 Test Function
Band 2 Test Function	Band 8 Test Function	Band 13 Test Function	Band 20 Test Function	Band 27 Test Function
Band 3 Test Function	Band 9 Test Function	Band 14 Test Function	Band 21 Test Function	Band 28 Test Function
Band 4 Test Function	Band 10 Test Function	Band 17 Test Function	Band 24 Test Function	Band 29 Test Function
Band 5 Test Function	Band 11 Test Function	Band 18 Test Function	Band 25 Test Function	Band 30 Test Function

TDD Band

Band 33 Test Function	Band 35 Test Function	Band 37 Test Function	Band 39 Test Function	Band 41 Test Function
Band 34 Test Function	Band 36 Test Function	Band 38 Test Function	Band 40 Test Function	

Supports High-Speed Data Tests of Mobile Terminals

HSDPA, HSUPA and HSPA Evolution test functions are supported.

Like the RRM measurement function, the installed HSDPA, HSUPA and HSPA Evolution measurement functions can be selected. The ME7873F/ME7874F can add the LTE function.*1

The required mobile terminal test functions can be installed as options to minimize capital costs while offering a customized test environment.

Supports Global Mobile Terminals

3GPP-compliant frequency bands operators starting to use are supported, so most mobiles used worldwide can be tested.*1

Supports Most Approved Test Cases*2

The ME7873F/ME7874F platform boasts the largest number of GCF*3/PTCRB*4 approved test cases of any platform.

High-Stability Measurement

Exceptional measurement stability is achieved by pre-measurement calibration backed-up by comprehensive self-test functions for trouble-free peace of mind.

UMTS/LTE Parallel Measurement

W-CDMA and LTE parallel measurement can be performed by adding LTE function to the ME7873F/ME7874F. The ME7873F/ME7874F supports these tests with a single customized platform, eliminating the need to switch the connection setup in mid-test.

*1 Requires option

*2 This is based on GCF and PTCRB test case approvals following the GCF and PTCRB meeting in September 2015.

*3 GCF (Global Certification Forum)

The GCF is an organization composed of mainly of European carriers and vendors that verifies UE standard compliance for frequency bands in Europe.

*4 PTCRB (PCS Type Certification Review Board)

The PTCRB is the N. American equivalent of the GCF, verifying standards compliance for frequency bands in N. America.

RF Conformance Test System Supporting Most Approved Test Cases

Supporting Most GCF/PTCRB Approved Test Cases

These test platforms support the GCF/PTCRB requirements for TS34.121 Conformance Testing and offer the industry leading GCF/PTCRB approved test cases.

By configuring a test system from various instruments and dedicated software centered around the MD8480C W-CDMA Signalling Tester, these Test Platforms support the testing of W-CDMA terminal with non-call-processing conditions as well as loop-back conditions*1.

When LTE function is added, it uses the MD8430A Signalling Tester as a LTE base station simulator, and is configured from various test instruments and dedicated software. It supports RF/RRM tests while communicating with LTE mobile terminals.

ME7873F W-CDMA TRX/Performance Test System

The ME7873F is for testing the Tx and Rx characteristics of W-CDMA terminal in accordance with measurement items*2 in Chapter 5 (Transmitter Characteristics), Chapter 6 (Receiver Characteristics), and Chapter 7 (Performance Requirements) of the 3GPP TS 34.121 standards. Measurement items defined by Chapter 8 (Requirements for Support of RRM*3), Chapter 9 (Performance requirements for HSDPA), Chapter 10 [Performance requirement (E-DCH)], and Chapter 11 [Performance requirement (MBMS)] can also be measured by installing the ME7873F-xx options.

In addition, all Inter-RAT tests, including handover tests, can be performed.

ME7874F W-CDMA RRM Test System

The ME7874F is for the specific testing of the Radio Resource Management functions (RRM) defined in 3GPP TS 34.121. It supports the measurement items defined by Chapter 8 (Requirements for Support of RRM) of the 3GPP TS 34.121 standard.

Optimized for HSPA/HSPA Evolution Mobile Terminal Tests

Supports High-Speed HSUPA/HSDPA/HSPA Evolution Test

Both downlink and uplink speeds are being increased to offer new services for high-speed data communications.

This system supports both high-speed uplinks as well as high-speed downlinks, permitting evaluation of both HSDPA and HSUPA mobile terminals with one platform.

Additionally, WI-024 test items included in the Release-6 Enhancements, WI-076 HSDPA RF Performance, WI-069 HSPA-64QAM for HSDPA, WI-070 HSPA-CPC, WI-113 Type 3, WI-129 DC-HSDPA, WI-148 Type1, and WI-124 Type3i are also supported, making this system the optimum test solution for high-speed data communications terminals.

*1: Not supported by RRM tests

*2: In principle, defined by GCF Work Item*4 and targeting measurement items certified by GCF/PTCRB

*3: RRM: Abbreviation for Radio Resource Management

*4: Work Item: Name for test item group for each function chosen by GCF for test items for certifying UE conformance

Supports Global Mobile Terminals

Worldwide Operating Bands

This system supports operating bands in most countries worldwide, including Europe and Japan.

In addition to 3GPP Band I (2 GHz), Band II (1.9 GHz), Band IV (1.7 GHz/2 GHz), and Band V (850 MHz) used in the USA, Band VI (800 MHz), Band IX (1.7 GHz) and Band XIX (800 MHz) used in Japan, are also supported.

Moreover, the following bands used in worldwide are also supported.

UTRA Operating Band	UL Operating Band (MHz)	DL Operating Band (MHz)
I	1920 to 1980	2110 to 2170
II	1850 to 1910	1930 to 1990
III	1710 to 1785	1805 to 1880
IV	1710 to 1755	2110 to 2155
V	824 to 849	869 to 894
VI	830 to 840	875 to 885
VIII	880 to 915	925 to 960
IX	1749.9 to 1784.9	1844.9 to 1879.9
XI	1427.9 to 1452.9	1475.9 to 1500.9
XIX	830 to 845	875 to 890

Optimized for LTE Mobile Terminal Tests

When LTE function is added, this system can support RF TRx characteristics, performance requirements, and RRM performance of FDD/TDD LTE mobile terminals in compliance with the requirements of 3GPP TS 36.521-1 Chapter 6 (Transmitter Characteristics), Chapter 7 (Receiver Characteristics), Chapter 8 (Performance Requirement), Chapter 9 (Reporting of Channel State Information), Chapter 10 (MBMS Performance) and TS 36.521-3 RRM including LTE → GSM/UMTS/CDMA2000/TD-SCDMA Inter-RAT tests.*2 Moreover, TS 34.121 UMTS → LTE and TS34.122 TD-SCDMA → LTE Inter-RAT test is supported.*2

Not only are GCF/PTCRB-approved bands planned for use in Europe and North America fully supported, but the following bands defined by 3GPP are also supported too.

Unlisted bands can be supported by request.

E-UTRA Operating Band	UL Operating Band (MHz)	DL Operating Band (MHz)	Operation Area
1	1920 to 1980	2110 to 2170	Europe, Asia
2	1850 to 1910	1930 to 1990	North America
3	1710 to 1785	1805 to 1880	Europe, Asia
4	1710 to 1755	2110 to 2155	North America
5	824 to 849	869 to 894	North America, Asia
7	2500 to 2570	2620 to 2690	Europe
8	880 to 915	925 to 960	Europe, Asia
9	1749.9 to 1784.9	1844.9 to 1879.9	Japan
10	1710 to 1770	2110 to 2170	North America
11	1427.9 to 1447.9	1475.9 to 1495.9	Japan
12	698 to 716	728 to 746	North America
13	777 to 787	746 to 756	North America
14	788 to 798	758 to 768	North America
17	704 to 716	734 to 746	North America
18	815 to 830	860 to 875	Japan
19	830 to 845	875 to 890	Japan
20	832 to 862	791 to 821	Europe
21	1447.9 to 1462.9	1495.9 to 1510.9	Japan
24	1626.5 to 1660.5	1525 to 1559	North America
25	1850 to 1915	1930 to 1995	North America
26	814 to 849	859 to 894	North America, Asia
27	807 to 824	852 to 869	Latin America
28	703 to 748	758 to 803	Asia
29	N/A	717 to 728	North America
30	2305 to 2315	2350 to 2360	North America
33	1900 to 1920	1900 to 1920	TBD
34	2010 to 2025	2010 to 2025	TBD
35	1850 to 1910	1850 to 1910	North America
36	1930 to 1990	1930 to 1990	North America
37	1910 to 1930	1910 to 1930	North America
38	2570 to 2620	2570 to 2620	Asia
39	1880 to 1920	1880 to 1920	Asia
40	2300 to 2400	2300 to 2400	Asia
41	2496 to 2690	2496 to 2690	North America, Asia

Higher Test Efficiency, Emphasizing Measurement Stability and Reliability

Continuous Testing of Multiple Terminals

Installing this option in the system supports continuous testing of up to four mobile terminals. The power supply and serial control line can be switched automatically using a terminal switching unit. Test preparations for multiple units can be completed at one time, simplifying progress management after starting tests.

Remote Systems Control via Network

This system supports remote control of the PC measurement controller from another PC on the network. Until now, the operator has been required to remain at the test site to monitor the test status, but by using this remote monitoring function, the measurement progress can be remotely monitored over a networked PC and measurement sequences can be selected and set, bench-top testing while working in office.

Easy Control of Various External Devices

The system software has built-in functions for controlling a DC power supply and temperature chamber.* A DC power supply and temperature chamber can be controlled easily in the same way as selecting test items. Using these standard functions makes W-CDMA current consumption measurement and temperatures tests easy.

*: Current consumption measurements and temperature tests requires a separate DC power supply and temperature chamber. Refer to the ordering information for more details.

Test Items based on Technical Regulations Conformity Certification (W-CDMA Option)

Mobile terminal used in Japan must be in compliance with the Technical Regulations Conformity Certification (TRCC).* This option adds test items based on the W-CDMA TRCC test items, so the operator can perform tests easily based on the TRCC items.

*: This function offers tests based on the TRCC tests, which the operator can use to perform 3GPP-compliant measurements. However, since the transmission speed test items are not supported, note that this function is exactly equivalent to the TRCC test.

R&TTE-compliant Test Items (LTE Option)

This option is fully compliant with the European ETSI-defined R&TTE LTE RF TRx test items. Anritsu launched this European-test-house approved option ahead of market competitors. Simple operation supports easy R&TTE-compliant tests like normal test items.

Continuous Testing (Auto-testing) of Multiple Measurement Items

Auto-testing is supported by sequencing 3GPP-compliant test items.

Automation allows long measurements to run overnight, making more efficient use of available test time by producing results early next morning*.

*: Requires option for continuing sequence files created using several software

Parallel W-CDMA and LTE Testing

Supports parallel independent W-CDMA and LTE RF conformance test with upgrade from ME7873F or ME7874F. Simultaneous parallel measurement of W-CDMA and LTE terminals cuts test times and optimizes equipment cost-performance investment.

Calibration Functions Supporting Increased Measurement Reliability

To improve measurement stability and reliability, the system has the following three calibration and correction methods:

- (1) Basic calibration at acceptance inspection
- (2) Auto-calibration at work start
- (3) Individual measurement correction (Patent applied for)

Since measurement correction applies a correction immediately before measurement, temperature-related changes in the measurement system are eliminated to greatly improve the reliability of the measured value.

In addition, Anritsu engineers perform calibration when installing the system at acceptance inspection, eliminating the need for operators to perform this complex calibration and correction work.

Support Service

An Anritsu Support Service contract keeps the system operating at peak performance, maximizing return on investment, minimizing downtime, and keeping work on schedule.

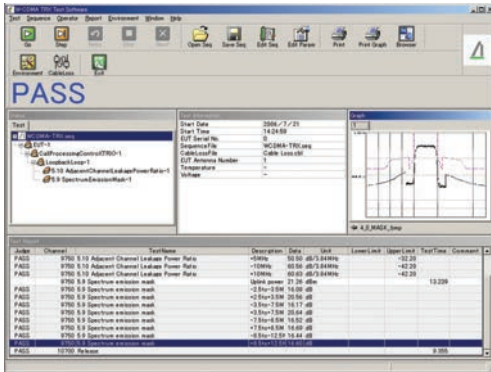
- Latest software updates matching the latest changes to the 3GPP standards
- Information on 3GPP trends, consultation and technical support for troubleshooting test problems
- Free hardware repair and maintenance with a back-up loan unit

Convenient Functions for Wide Applicability

Full Line of Versatile Functions Supporting Every Stage of W-CDMA/HSPA/HSPA Evolution/LTE Mobile Terminal Production from R&D to Final Shipping Inspection

Clear and Easy to Use Main Screen

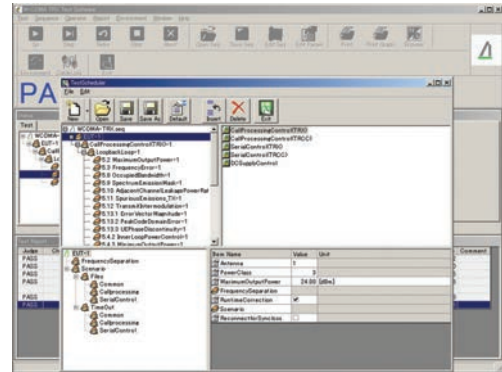
The Main screen is operated using a top toolbar displaying icons indicating the main operations. Test sequence items are indicated at the center left while details are displayed at the screen center and right side. Test results are displayed in real time at the screen bottom. This GUI design gathers all the important information to the main screen at the same time.



Main Screen

Flexible Parameter Setting

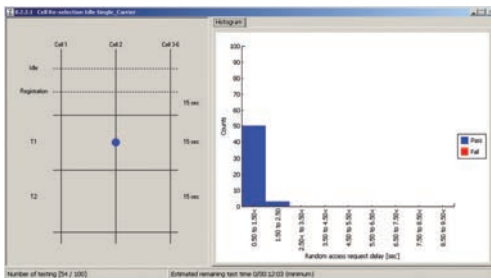
In addition to selecting any frequency channel for each test item, detailed parameters such as evaluation values and averagings can be set too. This permits testing under ideal conditions matching the test objective. Furthermore, changed test conditions can be saved to a file for easy recall when required.



Test Scheduler Screen

Test Condition and Results Distribution at-a-Glance

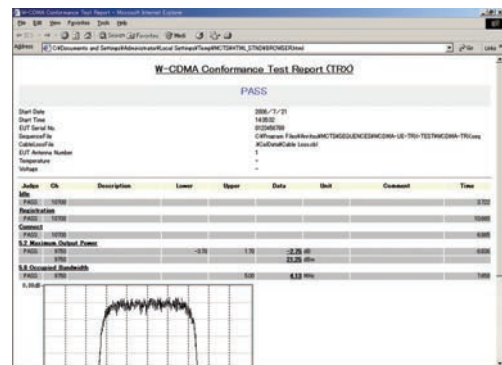
RRM tests display the transitions in connection conditions, which is useful for understanding the connection status at any time. Additionally, test items and results are displayed as a histogram indicating the PASS/FAIL rates for multiple operations and making it easy to identify equipment operation trends.



Test Conditions Screen

Measurement Data Management Functions

Measurement results from the system can be displayed as a measurement report using a browser as well as printed in the same format. The header for measurement reports can display various information, such as test start time. Moreover, these results can be saved either as an HTML file, or in numeric format as a CSV file for later data processing. LTE measurement results are confirmed at the Measurement Result screen and saved either as HTML for easy confirmation or as XML/CSV for easy database management.



Measurement Results Output

Useful Measurement Functions (Search Method) for Optimum Measurement

Measurements can be searched repeatedly while changing measurement parameters such as interference signal level. Using this function supports both PASS/FAIL evaluation at 3GPP-defined conditions as well as efficient measurement of UE in the development stage.

Supported Test Specifications

UMTS Measurement

The design of the ME7873F test platform is based on the following standards.

3GPP TS 34.121	Terminal Conformance Specification
3GPP TS 34.108	Common Test Environment for UE
3GPP TS 34.109	Terminal logical test interface

And the Release 99, Release 4 to 10 parts of these specifications are supported.

Contact your Anritsu sales representative for details of the supported versions.

LTE Measurement

The design of the ME7873F with LTE option is based on the following standards.

3GPP TS 36.521-1	E-UTRA UE Conformance Specification Radio Transmission and Reception Part 1: Conformance Testing
3GPP TS 36.521-3	E-UTRA UE Conformance Specification Radio Transmission and Reception Part 3: RRM Conformance Testing
3GPP TS 36.508	E-UTRA and EPC Common Test Environments for UE Conformance Testing
3GPP TS 36.509	E-UTRA and EPC Special Conformance Testing Functions for UE

Release 8, 9, 10, and 11 of above standards is also supported. Contact our sales representative for detailed of the supported versions.

Specifications

ME7873F W-CDMA TRX/Performance Test System

ME7874F W-CDMA RRM Test System

I/O Connector	N-type, 50Ω
Max. Input Level	33 dBm (2 W) 37 dBm (5 W, no path switching)
Reference Oscillator	Uses MS8609A Digital Mobile Radio Transmitter Tester (with MS8609A-01 High-Stability Reference Oscillator) as reference Supports input of external reference signal Frequency: 10 MHz/13 MHz (selectable), BNC connector
Frequency Range	As defined by 3GPP UTRA Operating Band I, II, III, IV, V, VI, VIII, IX, XI, XIX As defined by 3GPP E-UTRA Operating Band 1 to 5, 7 to 14, 17 to 21, 24 to 30, 33 to 41
Temperature Range	15° to 35°C (operating), 0° to 50°C (storage) ^{*1}
Power Supply	100 V(ac) to 120 V(ac) or 200 V(ac) to 240 V(ac) ME7873F : 50 Hz/60 Hz, ≤3300 VA ^{*2} ME7873F (with LTE Option) : 50 Hz/60 Hz, ≤6600 VA ^{*2} ME7874F : 50 Hz/60 Hz, ≤3000 VA ^{*2}
Dimension	1710 (W) × 1597 (H) × 797 (D) mm ^{*3} 2280 (W) × 1597 (H) × 797 (D) mm ^{*3} (with LTE Option)
Mass	ME7873F : ≤600 kg ^{*4} ME7873F (with LTE Option) : ≤930 kg ^{*4} ME7874F : ≤530 kg ^{*4}
EMC	EN61326-1 EN61000-3-2
LVD	EN61010-1

***1: Ambient Temperature**

The ambient temperature must meet the conditions when delivery calibration was performed. To assure stable measurement, we recommend installation in an air-conditioned environment.

***2: Power Consumption**

In addition to the typical power consumption of the ME7873F/ME7874F, it is necessary to provide sufficient power (600 VA) for the instruments used at delivery calibration.

***3: To prevent the risk of the rack toppling over, we recommend securing the top of the rack to the wall, etc.**

***4: About Equipment Weight and Floor Strength**

At delivery, the floor of the installation location must be strong enough to support the above mass of the equipment plus 100 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
ME7873F	Main frame W-CDMA TRX/Performance Test System
	Configuration items W-CDMA Signalling Tester Digital Mobile Radio Transmitter Tester Bit Error Rate Tester Synthesized Signal Generator Vector Signal Generator Fading Simulator RF Switch Driver Unit RF Switch Driver Unit RF Interface Unit RF Combiner Unit W-CDMA TRX/Performance Test Software Selftest Software for Conformance Test System User Operation PC Express Card-GPIB USB-Serial Converter Cable
	Standard accessory ME7873F Operation Manual (CD-ROM): 1 set
	Options RRM Test Addition*2 WI-113 Toolkit WI-129 Toolkit WI-148 Toolkit WI-013 Toolkit (TRx/Performance) WI-013 Toolkit (RRM) WI-014 Toolkit WI-024 Toolkit WI-025 Toolkit WI-049 Toolkit WI-076 Toolkit*2 Additional Hardware for Diversity WI-069 Toolkit WI-070 Toolkit MF6900A Exchange MCTS Integration Software JAPAN TRCC TEST*3 4 Antenna Connections*4 Mobile Radio Switching Unit Additional Accessory Kit for Power Supply
	Frequency band options*5 (without RRM Test Function) 3GPP Band I Addition 3GPP Band II Addition 3GPP Band III Addition 3GPP Band IV Addition 3GPP Band V Addition 3GPP Band VI Addition 3GPP Band VIII Addition 3GPP Band IX Addition 3GPP Band XI Addition 3GPP Band XIX Addition
	(with RRM Test Function) 3GPP Band I Addition (Including RRM) 3GPP Band II Addition (Including RRM) 3GPP Band III Addition (Including RRM) 3GPP Band IV Addition (Including RRM) 3GPP Band V Addition (Including RRM) 3GPP Band VI Addition (Including RRM) 3GPP Band VIII Addition (Including RRM) 3GPP Band IX Addition (Including RRM) 3GPP Band XI Addition (Including RRM) 3GPP Band XIX Addition (Including RRM)

Model/Order No.	Name
ME7874F	Main frame W-CDMA RRM Test System
	Configuration items W-CDMA Signalling Tester Digital Mobile Radio Transmitter Tester Vector Signal Generator*1 RF Switch Driver Unit RF Switch Driver Unit RF Interface Unit RF Combiner Unit RF Switch Unit W-CDMA RRM Test Software Selftest Software for Conformance Test System User Operation PC Express Card-GPIB USB-Serial Converter Cable
	Standard accessory ME7874F Operation Manual (CD-ROM): 1 set
	Options WI-013 Toolkit (RRM)*2 WI-024 Toolkit WI-025 Toolkit WI-049 Toolkit MCTS Integration Software 4 Antenna Connections*4 Mobile Radio Switching Unit Additional Accessory Kit for Power Supply
	Frequency band options*5 3GPP Band I Addition 3GPP Band II Addition 3GPP Band III Addition 3GPP Band IV Addition 3GPP Band V Addition 3GPP Band VI Addition 3GPP Band VIII Addition 3GPP Band IX Addition 3GPP Band XI Addition 3GPP Band XIX Addition

*1: Requires two or three MG3700A units.

*2: Remember to order additional equipment such as signal generators.
Consult your Anritsu sales representative when matching the ME7873F test platform with previously purchased equipment.

*3: Requires MX787103F and frequency band options.

*4: Please order with the order for MN7462A. Addition after the system delivery is not possible.

*5: When configuring system, requires at least one frequency band option.

Model/Order No.	Name
	LTE options
MD8430A	Signalling Tester
MS2692A	Signal Analyzer
MG3692C	Synthesized Signal Generator
MG3710A	Vector Signal Generator
MG3700A	Vector Signal Generator
MF6900A	Fading Simulator
ML2488B	Wideband Power Meter
SC7816	Thermal Sensor
MD8470A	Signalling Tester
MT8820C	Radio Communication Analyzer
MN7462A	RF Interface Unit
MN7464D	Filter Unit
MN7451A	RF Switch Driver Unit
MN7463B	RF Combiner Unit
MN7484B	RF Interface Unit for Diversity
MN7464E	Additional Filter Unit
MN7464F	Filter Unit2
MN7464G	Filter Unit3
MN7464H	Filter Unit4
MX787311L	LTE RF Conformance Test Software
MX787312L	FDD CA Test Software
MX787361L	TD-LTE RF Conformance Test Software
MX787362L	TDD CA Test Software
MX787391L	HSPA RF Conformance Test Software
ME7873F-82	LTE Common Kit
ME7873F-83	LTE TRX Hardware
ME7873F-84	LTE Performance Hardware
ME7873F-85	LTE 4x2MIMO Performance
ME7873F-86	LTE CQI Performance
ME7873F-87	LTE TRX Additional Hardware
ME7873F-91	LTE RRM Hardware
ME7873F-92	LTE to UMTS/GSM Inter-RAT RRM
ME7873F-93	LTE to CDMA2000 Inter-RAT RRM
ME7873L-022	Fading Accessory
ME7873L-030	VSG Accessory
ME7873L-031	Fading Accessory2
ME7873L-032	Filter Unit4 Accessory
ME7873L-038	Filter Unit3 Accessory
ME7873L-044	Filter Unit2 Accessory
ME7873L-048	SV-LTE CDMA2000 RF Test Accessory
MX787311L-002	LTE TRX Test Cases Conformance Package1
MX787311L-003	LTE TRX Test Cases Conformance Package2
MX787311L-004	LTE Performance Test Cases Conformance Package1
MX787311L-005	LTE 4x2MIMO Test Cases Conformance Package1
MX787311L-006	LTE CQI Test Cases Conformance Package1
MX787311L-011	LTE RRM Test Cases Conformance Package1
MX787311L-012	LTE to UMTS/GSM Test Cases Conformance Package1
MX787311L-013	LTE to CDMA2000 Test Cases Conformance Package1
MX787311L-021	LTE TRX Test Cases Conformance Package3
MX787311L-022	UMTS to LTE Test Cases Conformance Package1
MX787311L-023	LTE RRM Test Cases Conformance Package2
MX787311L-024	LTE to UMTS/GSM Test Cases Conformance Package2
MX787311L-033	R&TTE Test Cases
MX787311L-034	Band4 Supplementary TRx Test Cases
MX787311L-035	Band4 Supplementary Performance Test Cases
MX787311L-036	Band4 Supplementary 4x2MIMO Test Cases
MX787311L-037	Band17 Supplementary RF Test Cases
MX787311L-038	Band17 Supplementary RF Test Cases2
MX787311L-039	Band17 Supplementary RF Test Cases3
MX787311L-040	R61 RRM Test Cases1
MX787311L-041	R61 RRM Test Cases2
MX787311L-044	SV-LTE TRX Test Cases
MX787311L-045	SV-LTE Power Backoff Test Case
MX787311L-046	SV-LTE Power Headroom Reporting Test Cases
MX787311L-047	Band13 Supplementary RF Test Cases
MX787311L-048	SV-LTE CDMA2000 RF Test Cases
MX787311L-049	Band13 Supplementary RRM Test Cases
MX787311L-050	InterBand RRM Test Cases1
MX787311L-054	Band2 Supplementary TRx Test Cases
MX787311L-055	Band2 Supplementary Performance Test Cases
MX787311L-056	Band2 Supplementary 4x2MIMO Test Cases

Model/Order No.	Name
MX787311L-061	WI-150 Performance Package1
MX787311L-062	WI-150 4x2MIMO Package1
MX787311L-063	WI-150 RRM Package1
MX787311L-064	WI-150 LTE to UMTS/GSM Package1
MX787311L-065	WI-150 UMTS to LTE Package1
MX787311L-066	LTE to UMTS/GSM Package2
MX787311L-075	eMBMS Package1
MX787311L-085	eICIC Performance Package1
MX787311L-086	eICIC RRM Package1
MX787311L-091	Band26 Supplementary TRX Test Cases
MX787311L-094	RF Supplementary Test Cases1 for T-Mobile
MX787312L-001	TRX Test Cases Package1
MX787312L-002	TRX Test Cases Package2
MX787312L-003	TRX Test Cases Package3
MX787312L-004	Performance Test Cases Package1
MX787312L-005	Performance Test Cases Package2
MX787312L-006	4x2MIMO Test Cases Package1
MX787312L-007	4x2MIMO Test Cases Package2
MX787312L-008	Performance Test Cases Package3
MX787312L-009	Performance Test Cases Package4
MX787312L-011	RRM Test Cases Package1
MX787312L-012	LTE to UMTS Test Cases Package1
MX787312L-013	RRM Test Cases Package2
MX787312L-037	R64 CA TRX Test Cases1
MX787312L-040	R61 CA RRM Test Cases1
MX787361L-002	TD-LTE TRX Test Cases Conformance Package1
MX787361L-003	TD-LTE TRX Test Cases Conformance Package2
MX787361L-004	TD-LTE Perf Test Cases Conformance Package1
MX787361L-005	TD-LTE 4x2MIMO Test Cases Conformance Package1
MX787361L-006	TD-LTE CQI Test Cases Conformance Package1
MX787361L-011	TD-LTE RRM Test Cases Conformance Package1
MX787361L-022	TD-SCDMA to TD-LTE Test Cases Conformance Package1
MX787361L-023	TD-LTE RRM Test Cases Conformance Package2
MX787361L-024	TD-LTE to UMTS/GSM Test Cases Conformance Package1
MX787361L-025	TD-LTE to TD-SCDMA Test Cases Conformance Package1
MX787361L-026	TD-LTE CQI Test Cases Conformance Package2
MX787361L-061	WI-150 TD-LTE Performance Package1
MX787361L-062	WI-150 TD-LTE 4x2MIMO Package1
MX787361L-063	WI-150 TD-LTE RRM Package1
MX787361L-064	WI-150 TD-LTE to UMTS/GSM Package1
MX787361L-065	WI-150 TD-LTE to TD-SCDMA Package1
MX787361L-066	WI-150 TD-LTE to UMTS/GSM Package2
MX787361L-070	WI-151 Package1
MX787361L-071	WI-151 Package2
MX787361L-075	TD-LTE eMBMS Package1
MX787361L-080	WI-139 Package1
MX787361L-081	WI-139 Package2
MX787361L-085	TD-LTE eICIC Performance Package1
MX787361L-086	TD-LTE eICIC RRM Package1
MX787361L-090	Band41 Supplementary TRX Test Cases
MX787362L-002	TRX Test Cases Package1
MX787362L-003	TRX Test Cases Package2
MX787362L-005	Performance Test Cases Package1
MX787362L-007	4x2MIMO Test Cases Package1
MX787362L-009	Performance Test Cases Package2
MX787362L-011	RRM Test Cases Package1
MX787362L-013	RRM Test Cases Package2
MX787391L-001	WI-069 TRx Test Cases
MX787391L-002	WI-069 Performance Test Cases
MX787391L-011	WI-070 Performance Test Cases
MX787391L-021	WI-113 Performance Test Cases
MX787391L-031	WI-129 TRx Test Cases
MX787391L-032	WI-129 Performance Test Cases
MX787391L-041	WI-124 Performance Test Cases
MX787391L-091	UMTS Test Cases Package1
MX787300L-0xx	FDD/TDD Band xx Capability
Z1514A	Additional Accessory Kit for Power Supply
Z1524A	ME7873L Upgrade Kit

In addition to the previous, use of the ME7873F requires the following customer-supplied parts.

UMTS Measurement

• DC Power Supply

One of the following models is required when using the ME7873F or ME7874F to control power supply. In addition, rack mounting requires a rack-mount kit from the manufacturer.

Model	Name	Manufacturer
2303	High Speed Precision Readback Power Supply	Keithley Instruments Inc.
2306-PJ	Dual-Channel Battery/Charger Simulator	Keithley Instruments Inc.
66311	Mobile Communication DC source	Keysight Technologies Inc.

Consult the power supply manufacturer for details of the supported power supply accessory kit.

In addition, the following equipment can also be controlled.

Model	Name	pcs	Manufacturer
N6700B	Main frame	1	Keysight Technologies Inc.
N6732B*2	8 V, 6.25 A, 50 W DC Power Module	4*1	
N6709A	Low-Profile MPS Mainframe Rack Mount Kit	1	

*1: Four modules are required when testing up to four mobiles continuously.

*2: At rack mounting, the maximum current is 2 A.

To draw more than 2 A of current, use a separate cable to supply DC to the terminal.

However, since this will prevent rack mounting, decide on the installation location for the DC power supply in advance.

When using a power supply other than the N6732B, ask the power supply manufacture for details.

• Temperature Chamber

The following model is required when using the ME7873F or ME7874F to control the temperature chamber. Additionally, GPIB Cable (Double-Shield, 2m) is required to control this chamber automatically.

Model	Name	Manufacturer
SH-241	Temperature & Humidity Chamber	Espec Corp.
SH-242		

Contact your Anritsu sales representative for details.

LTE Measurement

• DC Power Supply

The following models are required when controlling the power supply.

Model	Name	pcs	Manufacturer
N6700B	Main frame	1	Keysight Technologies Inc.
N6732B*2	8 V, 6.25 A, 50 W DC Power Module	4*1	
N6709A	Low-Profile MPS Mainframe Rack Mount Kit	1	

*1: Four modules are required when testing up to four mobiles continuously.

*2: At rack mounting, the maximum current is 2 A.

To draw more than 2 A of current, use a separate cable to supply DC to the terminal.

However, since this will prevent rack mounting, decide on the installation location for the DC power supply in advance.

When using a power supply other than the N6732B, ask the power supply manufacture for details.

In addition, the following equipment can also be controlled. However, since rack-mounting is not possible when using the 2306-PJ, decide on the installation location for the DC power supply in advance.

Model	Name	pcs	Manufacturer
2306-PJ	Dual-Channel Battery/Charger Simulator with 500 mA Range	2*3	Keithley Instruments Inc.

*3: Two sets of the 2306-PJ are required when testing up to four mobiles continuously.

• Temperature Chamber

One of the following equipments is required to control the temperature chamber from the ME7873F.

Model	Name	Manufacturer
SH-241*1	Temperature & Humidity Chamber	ESPEC Corp.
SH-242*1		
VT4002*2	EMC Shielding with Temperature	Votsch Industrietechnik GmbH
105*1	Benchtop Temperature Chamber	TestEquity LLC
107*1		
115*1		

*1: GPIB Cable (Double-Shield, 2 m) is required to control this chamber automatically.

*2: USB-RS232C Converter Cable (2 m) is required to control this chamber automatically.

Contact your Anritsu sales representative for details.

● **United States**

Anritsu Company

1155 East Collins Blvd., Suite 100, Richardson,
TX 75081, U.S.A.
Toll Free: 1-800-267-4878
Phone: +1-972-644-1777
Fax: +1-972-671-1877

● **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 Eletrônica Ltda.

Praça Amadeu Amaral, 27 - 1 Andar
01327-010 - Bela Vista - São Paulo - SP - Brazil
Phone: +55-11-3283-2511
Fax: +55-11-3288-6940

● **Mexico**

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

Av. Ejército Nacional No. 579 Piso 9, Col. Granada
11520 México, D.F., México
Phone: +52-55-1101-2370
Fax: +52-55-5254-3147

● **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

Kistagången 20B, 164 40 KISTA, Sweden
Phone: +46-8-534-707-00
Fax: +46-8-534-707-30

● **Finland**

Anritsu AB

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

● **Denmark**

Anritsu A/S

Kay Fiskers Plads 9, 2300 Copenhagen S, 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. 8
28046, Madrid, Spain
Phone: +34-915-726-761
Fax: +34-915-726-621

● **United Arab Emirates**

Anritsu EMEA Ltd.

Dubai Liaison Office

P O Box 500413 - Dubai Internet City
Al Thuraya Building, Tower 1, Suit 701, 7th Floor
Dubai, United Arab Emirates
Phone: +971-4-3670352
Fax: +971-4-3688460

● **India**

Anritsu India Private Limited

2nd & 3rd Floor, #837/1, Binnamangla 1st Stage,
Indiranagar, 100ft Road, Bangalore - 560038, 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: +81-46-225-8359

● **Korea**

Anritsu Corporation, Ltd.

5FL, 235 Pangyoyeok-ro, Bundang-gu, Seongnam-si,
Gyeonggi-do, 463-400 Korea
Phone: +82-31-696-7750
Fax: +82-31-696-7751

● **Australia**

Anritsu Pty. Ltd.

Unit 21/270 Ferntree Gully Road, Notting Hill,
Victoria 3168, 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

Please Contact: