



Wireless Connectivity Test Set MT8862A



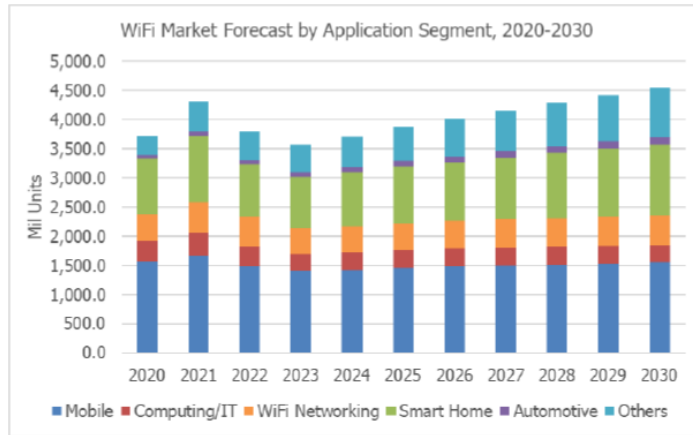
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Market Trend & Solutions

Growing segments of WLAN market



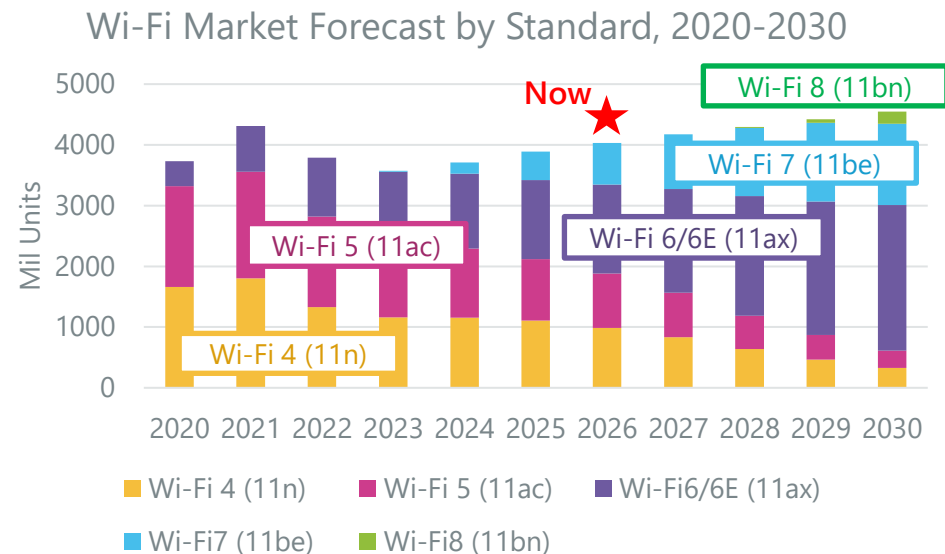
WLAN is being incorporated into all kinds of devices around us, not just mobile and computing devices, but in smart homes, automotive, wearables, and more. The number of IoT devices is increasing year by year, and the market is expected to continue expanding in the future.

Source: Techno System Research: 2024
Wireless Connectivity Market Analysis

Spread of IEEE 802.11be

The standardization of IEEE 802.11be was completed at the end of 2024. The Wi-Fi Alliance has begun Wi-Fi 7 certification testing, and compatible devices are already on the market.

Today, IEEE 802.11be (Wi-Fi 7) and IEEE 802.11ax (Wi-Fi 6/6E) are the major WLAN standards.



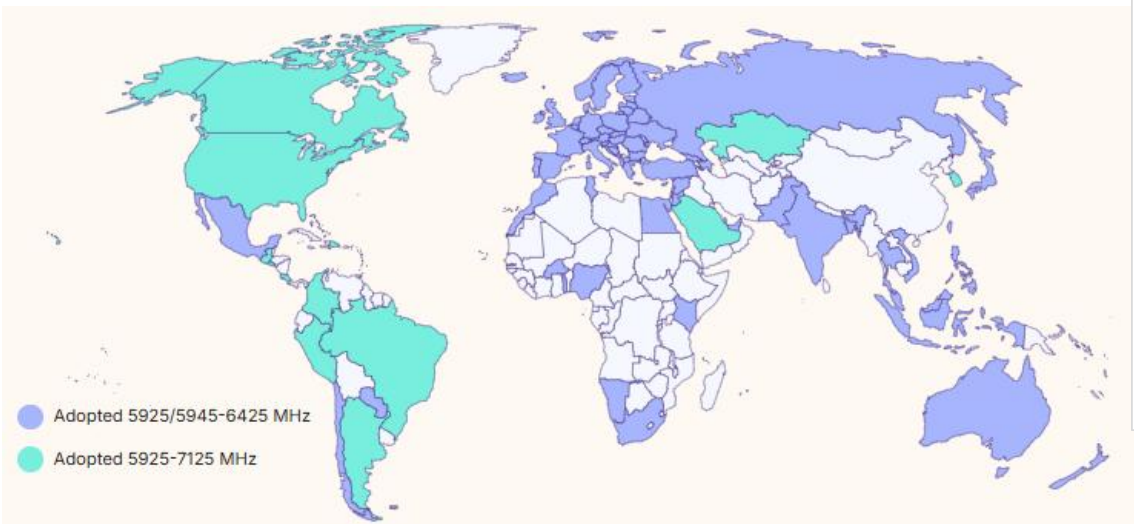
Source: Techno System Research: 2024
Wireless Connectivity Market Analysis

Opening of the 6 GHz band worldwide

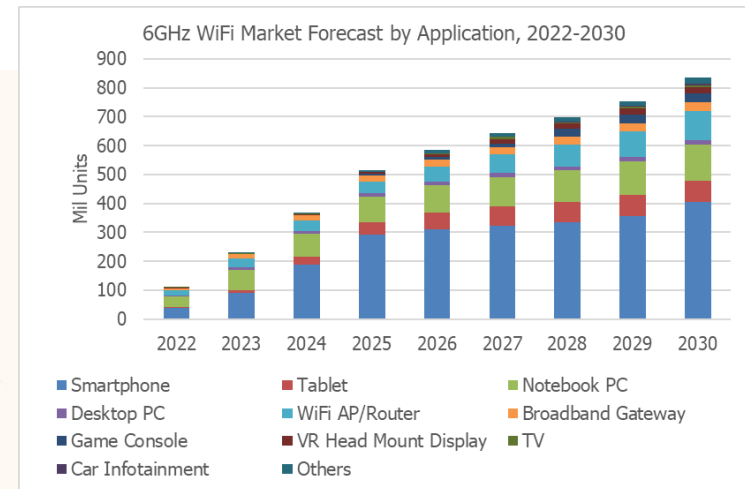
Adoption of the 6 GHz band is expected to improve performance due to the increased number of channels and wider bandwidth. The 5925-7125 MHz band has already been adopted in the US, Canada, South America, and South Korea, with the 5925-6425 MHz band also being adopted in the EU, UK, India, and Japan. Shipments of devices compatible with the 6 GHz band are also increasing and are expected to reach approximately 500 million units by 2025 and over 800 million units by 2030.



Source: [Regulatory & Policy Center | Wi-Fi Alliance](#)



Source: [Regulations Enabling 6 GHz Wi-Fi | Wi-Fi Alliance](#)

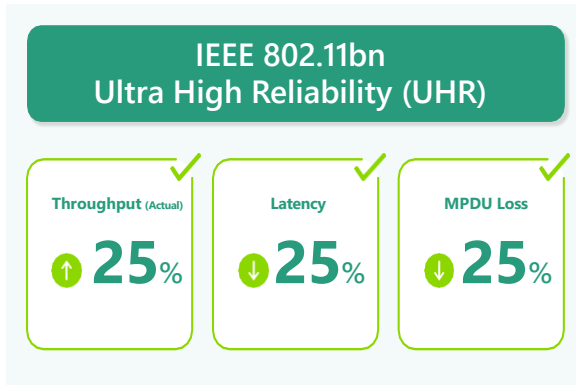


Source: Techno System Research: 2024
Wireless Connectivity Market Analysis

Overview of IEEE 802.11bn (Wi-Fi 8)

Standardization is underway to achieve **Ultra High Reliability (UHR)**.

The new standard aims to make the following improvements in performance when compared to Wi-Fi 7.



- **25% increase in throughput** for at least one SINR
- **25% reduction in latency** at the 95th percentile of the latency distribution
- **25% reduction in MAC frame loss** during inter-BSS roaming

The standardization timeline is as follows.



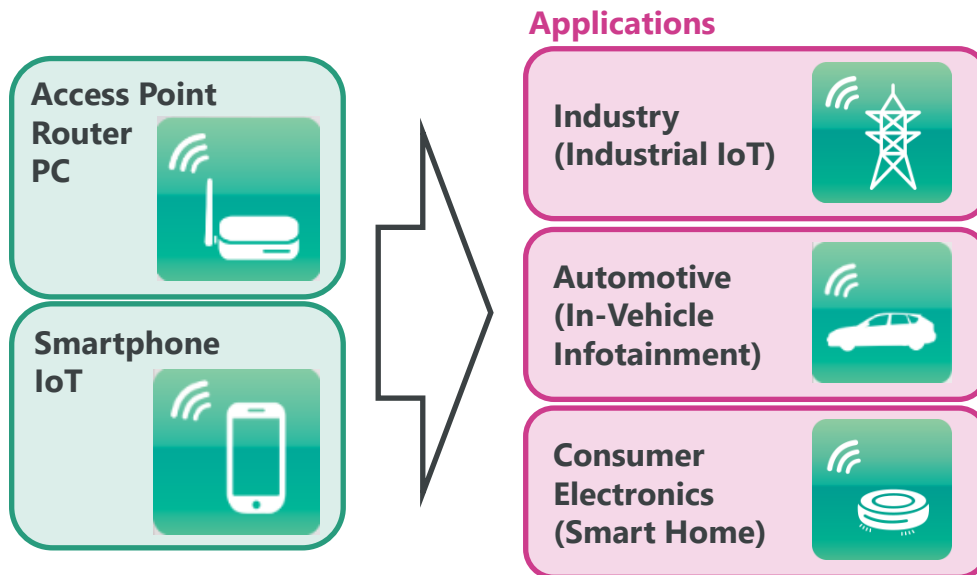
IEEE 802.11bn UHR



Expanding WLAN Applications & Increasing Device Complexity

Expanding WLAN applications

WLAN applications are expanding, and usage environments and quality requirements are changing. On this background OTA test with Network Mode is paid a lot of attention.



Increasing device complexity

Devices are using more wireless technologies and antennas year-by-year, increasing device complexity. Therefore, shipping products need evaluation more than ever.



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Evaluating WLAN and Bluetooth Devices with a Single Unit

The RF characteristics of both WLAN and Bluetooth Low Energy can be evaluated with a single unit, leading to increased development efficiency and an optimal evaluation environment.

Wireless Connectivity Test Set MT8862A



ALL IN ONE for Connectivity

Wi-Fi 6E, Wi-Fi 7, Wi-Fi 8

320 MHz BW, 4096QAM

Bluetooth v6.0 Low Energy



MT8862A Product Introduction

MT8862A Product Summary

The MT8862A is a one-box connectivity test set that provides a simple test system for RF performance testing of the latest WLAN and Bluetooth technologies.

Connection

- Standards
 - IEEE 802.11a/b/g
 - IEEE 802.11n
 - IEEE 802.11ac
 - IEEE 802.11ax
 - IEEE 802.11be
 - IEEE 802.11bn**
 - IEEE 802.11n/ac 2x2 MIMO
 - IEEE 802.11ax 2x2 MIMO**
 - IEEE 802.11be 2x2 MIMO**
 - Bluetooth Low Energy
- Network Mode / Direct Mode
- WEP, WPA/WPA2-Personal/WPA3-Personal [AP/STA]

RF

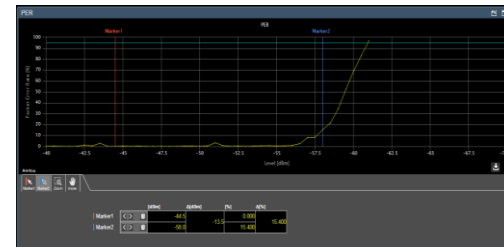
- Frequency 2.4 GHz / 5 GHz / **6 GHz band (up to 7.125 GHz)**
- Bandwidth 20 MHz / 40 MHz / 80 MHz / 160 MHz / **320 MHz**



Main Window – Tx Measurement



Rx Measurement



Quality Assurance of Diverse and Complex Devices

The MT8862A requires no additional setup of measurement devices.
It allows for easy and immediate measurement under actual operating conditions.

Wide Connectivity

- Compatible with various WLAN standards
- Connects to both Access Point/Station
- Supports secure connections

Intuitive GUI

- GUI control via a PC web browser
- No need to install control software



**Wireless Connectivity Test Set
MT8862A**

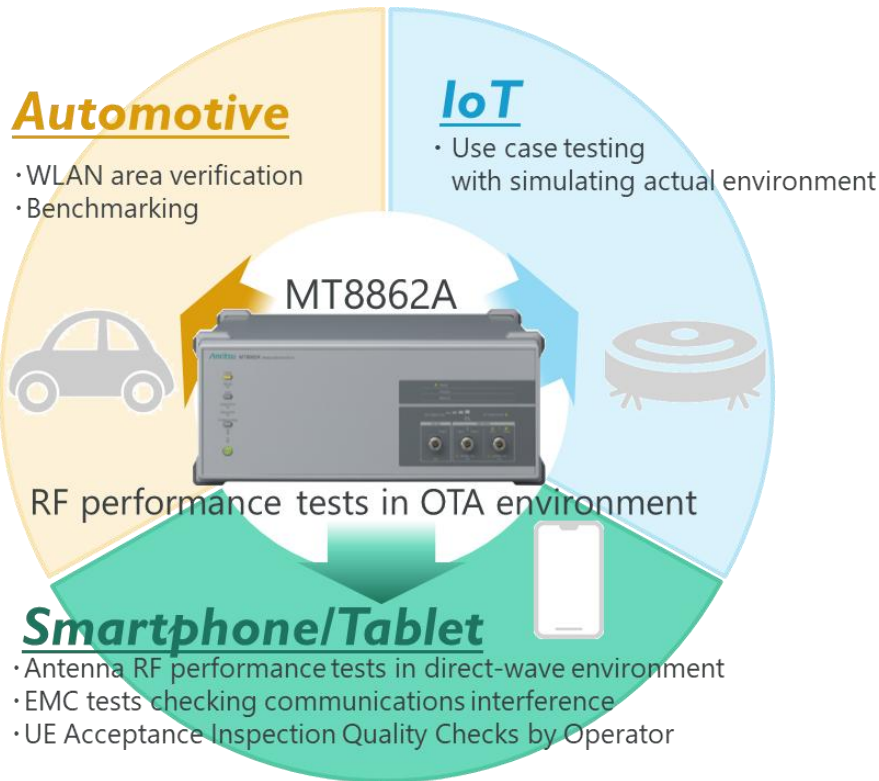
No Test Firmware

- Commercially completed products can be tested with the actual firmware.

No Chipset Control

- No chipset control required for test firmware.

Provides flexible RF tests from OTA to Conducted



Data Rate (MCS) Control Function

MT8862A can specify data rate (MCS) for all supported standards IEEE 802.11a/b/g/n/ac/ax/be/bn. The reproducible wireless test environment helps improve the efficiency of wireless performance tests of WLAN devices.

Wide Dynamic Range

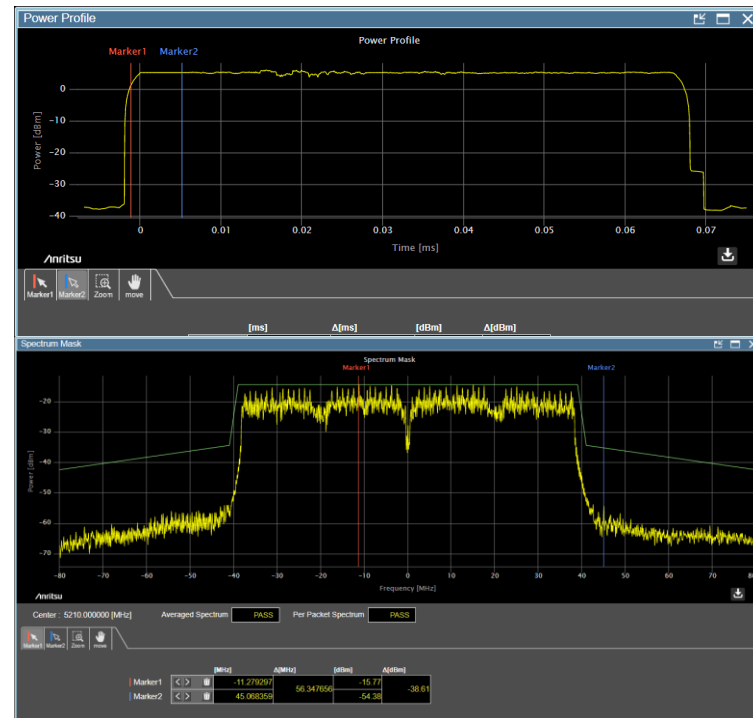
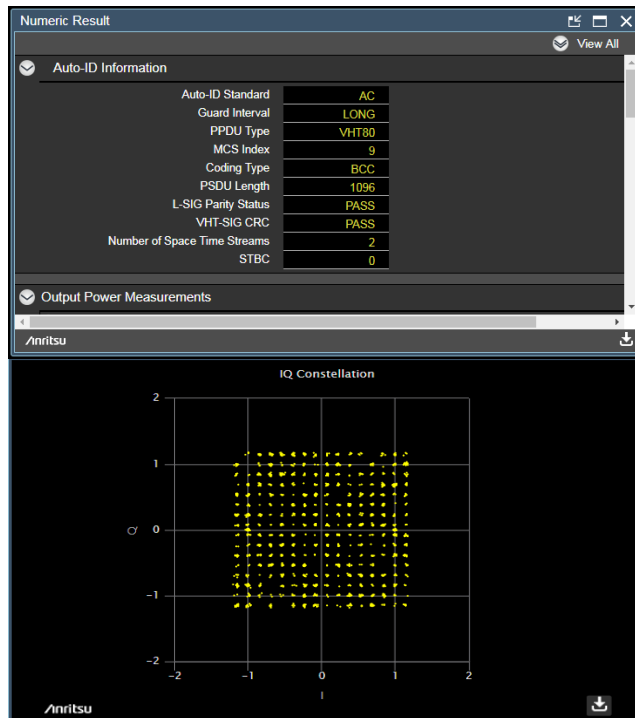
MT8862A can demodulate low power and wide-band WLAN signal through its wide dynamic range even in an OTA environment. It provides efficient testing in an integrated environment with an OTA chamber system.

MIMO OTA Measurement

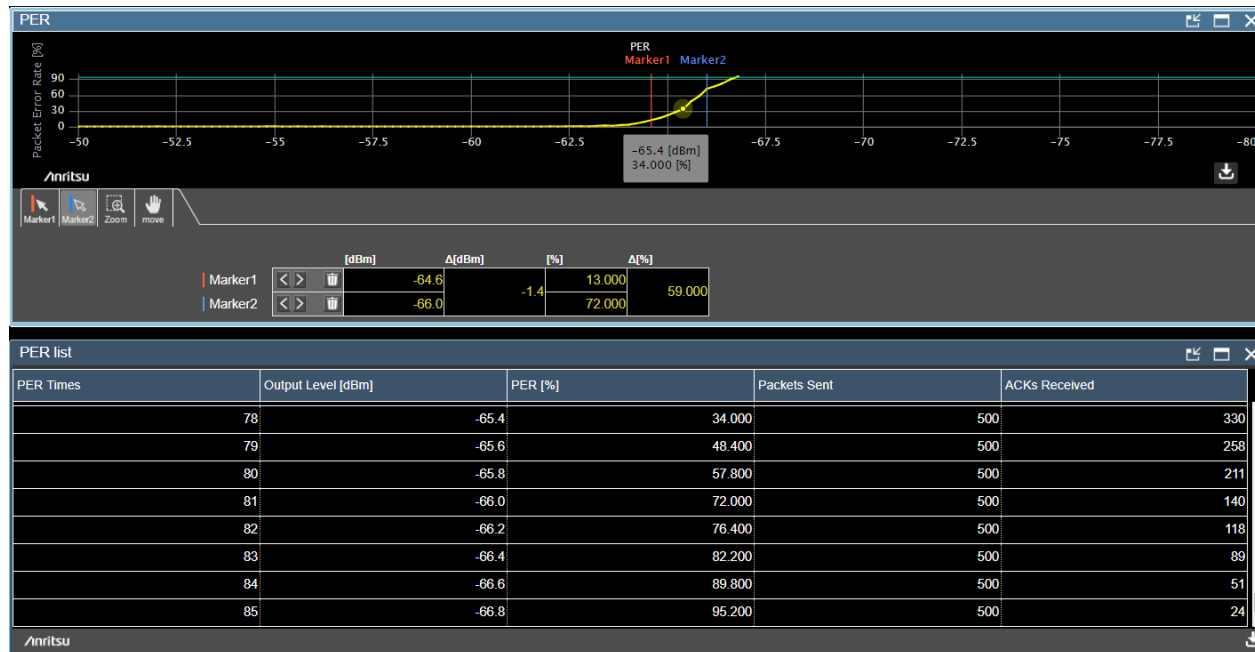
MT8862A realizes 2x2 MIMO testing in an OTA environment, the only WLAN tester to measure RF performance with this capability. Demand for MIMO OTA testing is increasing to improve user experience.

Various WLAN test contents, including antenna performance, required in a wide range of fields

- RF transmit tests are based on IEEE 802.11.
- The headers of packets received from the DUT are analyzed and RF measurements, such as power, modulation accuracy, spectrum, etc., are performed to display results. Pass/Fail evaluation of measurement results is performed based on the set reference values.
- At ACK measurement, the MT8862A sends a Test Packet to the DUT; at Data measurement, it sends a ICMP Echo Request packet. Tx measurement is performed when either the ACK or ICMP Echo Reply sent from the DUT is received.
- Packets sent using the IP data TRx ports can also be measured.



- RF receiver tests are based on IEEE 802.11.
- PER/FRR is measured by counting ACK frames sent from DUT in response to Test Packet.
- Configuring a measurement environment is easy by changing power automatically.
- ETSI EN 300 328 / 301 893 / 303 687 require that the Receiver Blocking test for WLAN equipment in all bands, 2.4 GHz / 5 GHz / 6 GHz, must achieve a PER (Packet Error Rate) of 10% or less. This test can easily be performed using the PER measurement function of the MT8862A and a signal generator to generate the interference wave.

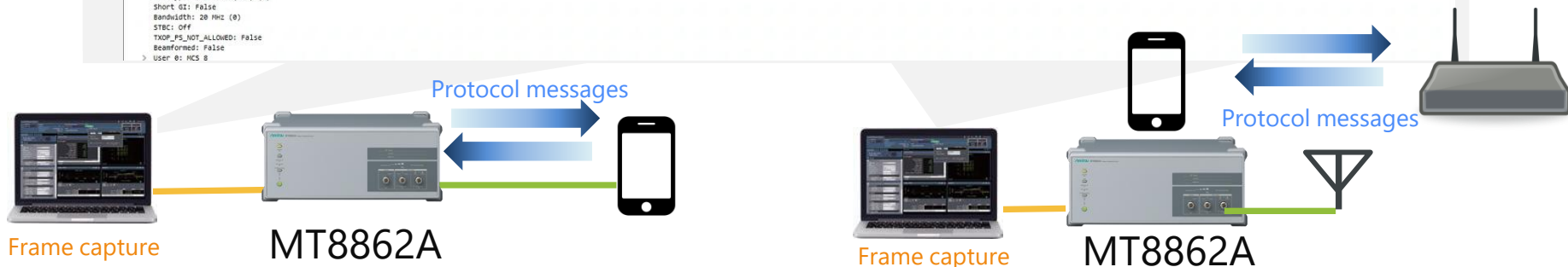


Frame Capture to Solve DUT Connection Issues

- MT8862A can capture WLAN frames between MT8862A and DUT or between commercially available AP and DUT. The captured logs can be saved in pcap format on the control PC and analyzed by pcap log analysis software such as Wireshark. No separate sniffer is required, and WLAN frames can be analyzed in the same RF measurement environment to solve connection problems.



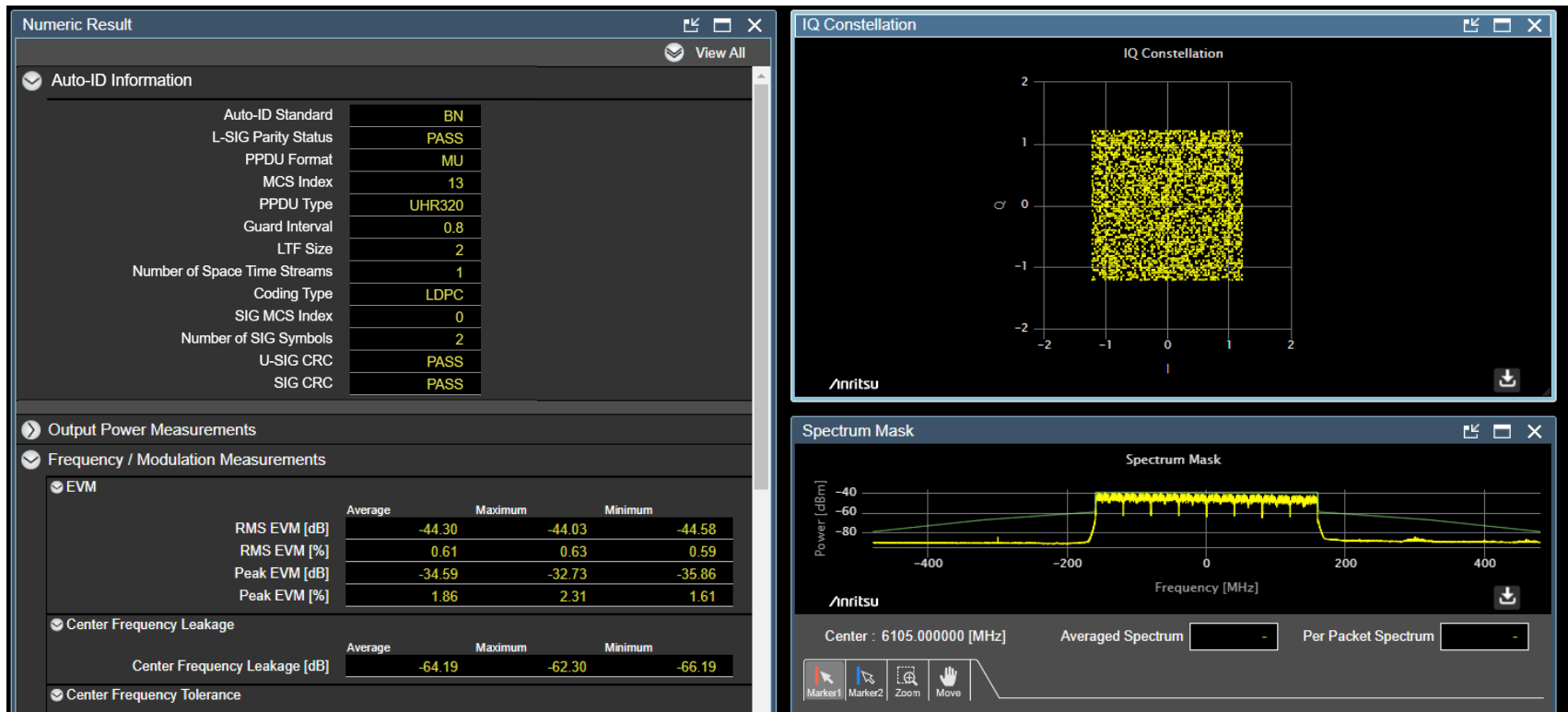
Time	Source	Receiver address	Protocol	Length	Signal strength (dBm)	Type/Subtype	FCS Status	PHY type	Data rate	PDU Format	data MCS	data Bandwidth	Info
262.00215372	Anritsu_00:61:6D	ff:ff:ff:ff:ff:ff	802.11	198	-23	Beacon frame	Good	802.11ac (VHT)	6	6	6	6	Beacon frame, Ss=2828, Pw=0, Flags=.....C, B1=200, SSID=MT8862A6262021144
263.26.215418	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	26	-23	Null function (No data)	Good	802.11ac (VHT)	6	6	6	6	Null function (No data), Ss=167, Pw=0, Flags=.....TC
264.26.223978	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	26	-23	Null function (No data)	Good	802.11ac (VHT)	6	6	6	6	Null function (No data), Ss=168, Pw=0, Flags=.....TC
265.26.223924	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	26	-23	Acknowledgement	Good	802.11ac (VHT)	6	6	6	6	Acknowledgement, Flags=.....C
266.26.350897	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	49	-23	Action	Good	802.11ac (VHT)	6	6	6	6	Action, Ss=169, Pw=0, Flags=.....C, Dialog Token=160
267.26.350895	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	26	-23	Acknowledgement	Good	802.11ac (VHT)	6	6	6	6	Acknowledgement, Flags=.....C
268.26.351033	Anritsu_00:61:6D	00:00:91:00:61:6D	802.11	49	-23	Action	Good	802.11ac (VHT)	6	6	6	6	Action, Ss=2829, Pw=0, Flags=.....C, Dialog Token=160
269.26.351161	00:00:91:00:61:6D	00:00:91:00:61:6D	802.11	26	-23	Acknowledgement	Good	802.11ac (VHT)	6	6	6	6	Acknowledgement, Flags=.....C
270.26.351297	00:00:91:00:61:6D	00:00:91:00:61:6D	802.11	134	-23	QoS Data	Good	802.11ac (VHT)	24	24	24	24	Neighbor Solicitation for fe80::6cfd:e0ff:fef9:f7:8D
271.26.351318	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	26	-23	Acknowledgement	Good	802.11ac (VHT)	6	6	6	6	Acknowledgement, Flags=.....C
272.26.359023	00:00:91:00:61:6D	00:00:91:00:61:6D	802.11	138	-23	QoS Data	Good	802.11ac (VHT)	24	24	24	24	Multicast Listener Report Message v2
273.26.359048	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	26	-23	Acknowledgement	Good	802.11ac (VHT)	6	6	6	6	Acknowledgement, Flags=.....C
274.26.419204	Anritsu_00:61:6D	ff:ff:ff:ff:ff:ff	802.11	198	-23	Beacon frame	Good	802.11ac (VHT)	6	6	6	6	Beacon frame, Ss=2830, Pw=0, Flags=.....C, B1=200, SSID=MT8862A6262021144
275.26.419204	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	26	-23	Null function (No data)	Good	802.11ac (VHT)	6	6	6	6	Null function (No data), Ss=170, Pw=0, Flags=.....TC
276.26.419270	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	26	-23	Acknowledgement	Good	802.11ac (VHT)	6	6	6	6	Acknowledgement, Flags=.....C
277.26.566440	0.0.0.0	00:00:91:00:61:6D	802.11	394	-23	DHCP	Good	802.11ac (VHT)	6	6	6	6	DHCP Request - Transaction ID 0x7d03a229
278.26.566498	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	26	-23	Acknowledgement	Good	802.11ac (VHT)	6	6	6	6	Acknowledgement, Flags=.....C
279.26.567054	192.168.1.1	ff:ff:ff:ff:ff:ff	802.11	376	-23	DHCP	Good	802.11ac (VHT)	6	6	6	6	DHCP ACK - Transaction ID 0x7d03a229
280.26.567091	Anritsu_00:61:6D	ff:ff:ff:ff:ff:ff	802.11	76	-23	Data	Good	802.11ac (VHT)	6	6	6	6	who has 192.168.1.2? Tell 192.168.1.1
281.26.624002	Anritsu_00:61:6D	ff:ff:ff:ff:ff:ff	802.11	198	-23	Beacon frame	Good	802.11ac (VHT)	6	6	6	6	Beacon frame, Ss=2833, Pw=0, Flags=.....C, B1=200, SSID=MT8862A6262021144
282.26.624737	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	40	-24	Null function (No data)	Good	802.11ac (VHT)	6	6	6	6	Null function (No data), Ss=171, Pw=0, Flags=.....TC
283.26.624783	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	26	-24	Acknowledgement	Good	802.11ac (VHT)	6	6	6	6	Acknowledgement, Flags=.....C
284.26.806789	00:00:91:00:61:6D	00:00:91:00:61:6D	802.11	138	-21	QoS Data	Good	802.11ac (VHT)	24	24	24	24	Multicast Listener Report Message v2
285.26.806814	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	26	-21	Acknowledgement	Good	802.11ac (VHT)	6	6	6	6	Acknowledgement, Flags=.....C
286.26.828081	Anritsu_00:61:6D	ff:ff:ff:ff:ff:ff	802.11	198	-21	Beacon frame	Good	802.11ac (VHT)	6	6	6	6	Beacon frame, Ss=2834, Pw=0, Flags=.....C, B1=200, SSID=MT8862A6262021144
287.26.829530	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	40	-22	Null function (No data)	Good	802.11ac (VHT)	6	6	6	6	Null function (No data), Ss=172, Pw=0, Flags=.....TC
288.26.829576	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	26	-22	Acknowledgement	Good	802.11ac (VHT)	6	6	6	6	Acknowledgement, Flags=.....C
289.27.833604	Anritsu_00:61:6D	ff:ff:ff:ff:ff:ff	802.11	198	-22	Beacon frame	Good	802.11ac (VHT)	6	6	6	6	Beacon frame, Ss=2835, Pw=0, Flags=.....C, B1=200, SSID=MT8862A6262021144
290.27.834353	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	40	-24	Null function (No data)	Good	802.11ac (VHT)	6	6	6	6	Null function (No data), Ss=173, Pw=0, Flags=.....TC
291.27.834399	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	26	-24	Acknowledgement	Good	802.11ac (VHT)	6	6	6	6	Acknowledgement, Flags=.....C
292.27.126080	fe80::6cfd:e0ff:fef9:f7:8D	00:00:91:00:61:6D	802.11	138	-21	QoS Data	Good	802.11ac (VHT)	24	24	24	24	Multicast Listener Report Message v2
293.27.126095	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	26	-21	Acknowledgement	Good	802.11ac (VHT)	6	6	6	6	Acknowledgement, Flags=.....C
294.27.127000	fe80::6cfd:e0ff:fef9:f7:8D	00:00:91:00:61:6D	802.11	110	-21	QoS Data	Good	802.11ac (VHT)	24	24	24	24	Router Solicitation from 6e:fd:e0:f9:f7:8D
295.27.127021	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	26	-21	Acknowledgement	Good	802.11ac (VHT)	6	6	6	6	Acknowledgement, Flags=.....C
296.27.239404	Anritsu_00:61:6D	ff:ff:ff:ff:ff:ff	802.11	198	-20	Beacon frame	Good	802.11ac (VHT)	6	6	6	6	Beacon frame, Ss=2836, Pw=0, Flags=.....C, B1=200, SSID=MT8862A6262021144
297.27.239460	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	40	-20	Null function (No data)	Good	802.11ac (VHT)	6	6	6	6	Null function (No data), Ss=174, Pw=0, Flags=.....TC
298.27.239406	6e:fd:e0:f9:f7:8D	00:00:91:00:61:6D	802.11	26	-20	Acknowledgement	Good	802.11ac (VHT)	6	6	6	6	Acknowledgement, Flags=.....C



MT8862A Latest Features

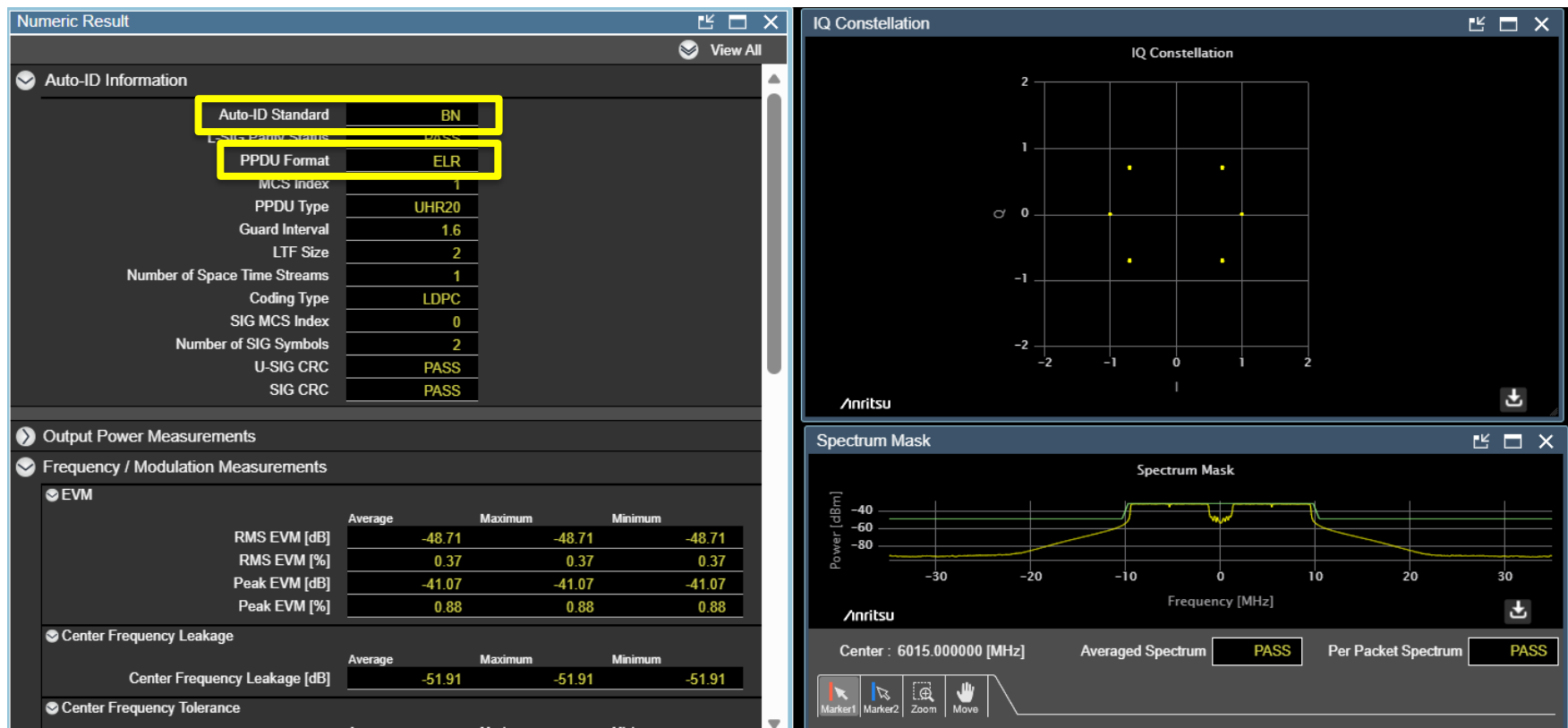
IEEE 802.11bn Tx/Rx Measurements

- Supports transmit and receive measurements for IEEE 802.11bn standard.
- RF tests can be performed under the most stringent conditions of 320 MHz bandwidth and 4096QAM modulation.
- Performs header analysis of packets sent by devices and RF measurements such as power, modulation accuracy, and spectrum, and displays the results. Customizable reference values can be used to determine PASS/FAIL.



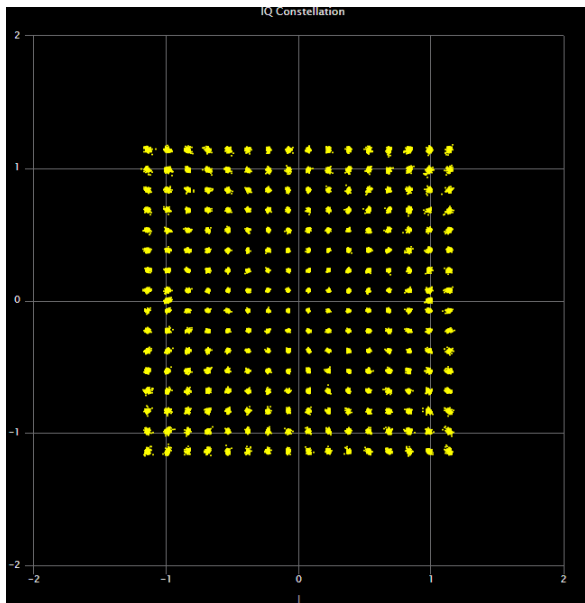
IEEE 802.11bn Tx Measurement ①UHR ELR Measurement

- Supports UHR ELR transmit measurement for IEEE 802.11bn standard.
- Performs header analysis of packets sent by devices and RF measurements such as power, modulation accuracy, and spectrum, and displays the results. Customizable reference values can be used to determine PASS/FAIL.

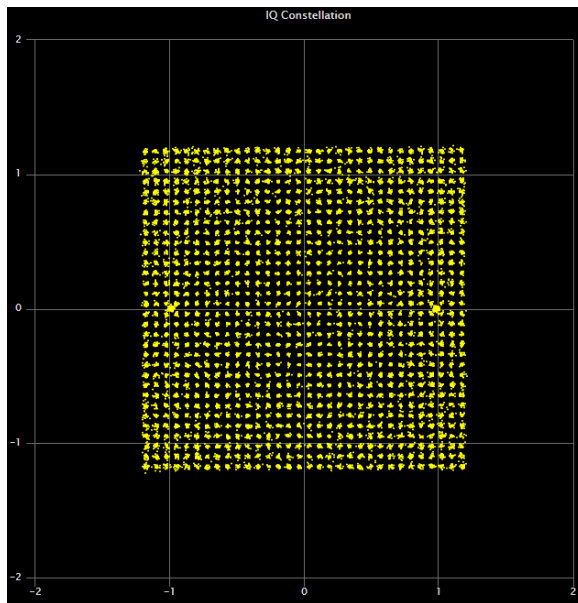


IEEE 802.11bn Tx Measurement ②4096QAM Modulation

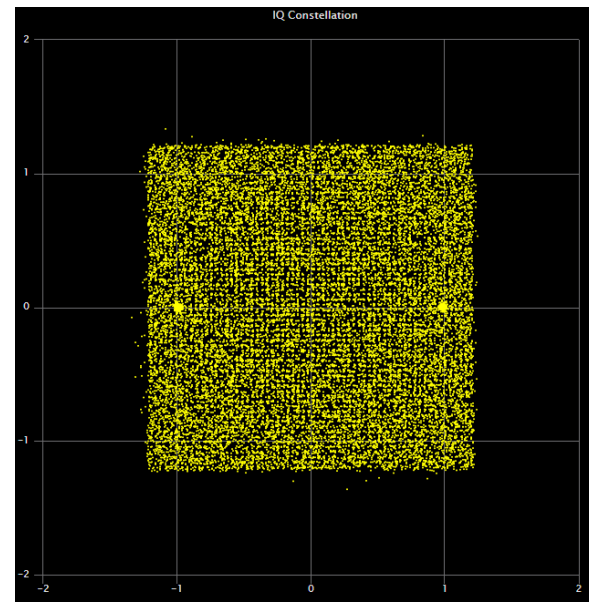
- IEEE 802.11bn uses modulation formats up to 4096QAM (MCS13).
- Transmitting 4096QAM signals requires high EVM performance (-38 dB or less).
- The MT8862A achieves RF performance needed for 4096QAM measurement, enabling transmitter measurements.
- The proprietary Data Rate Control function of MT8862A enables evaluation of the RF performance of the desired modulation format.



11bn 256QAM



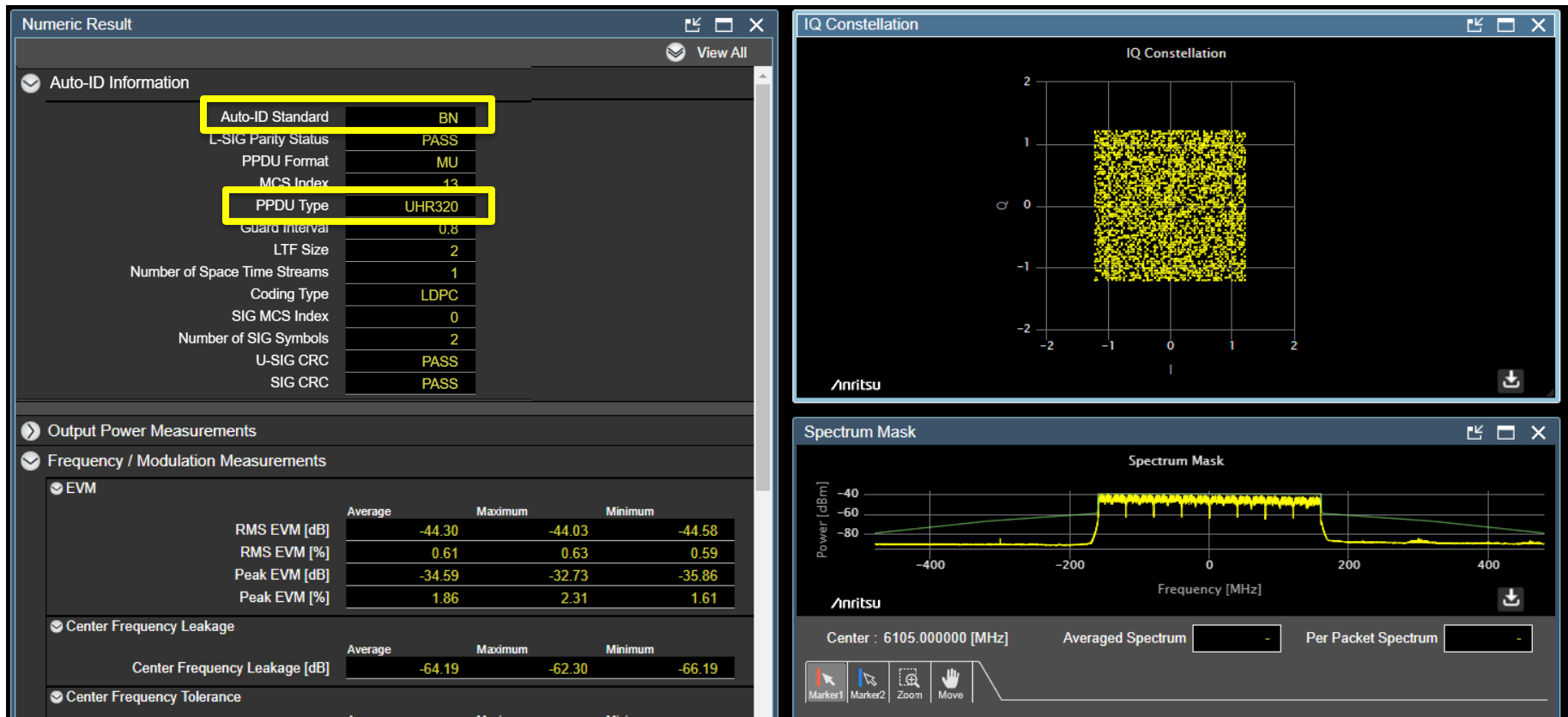
11bn 1024QAM



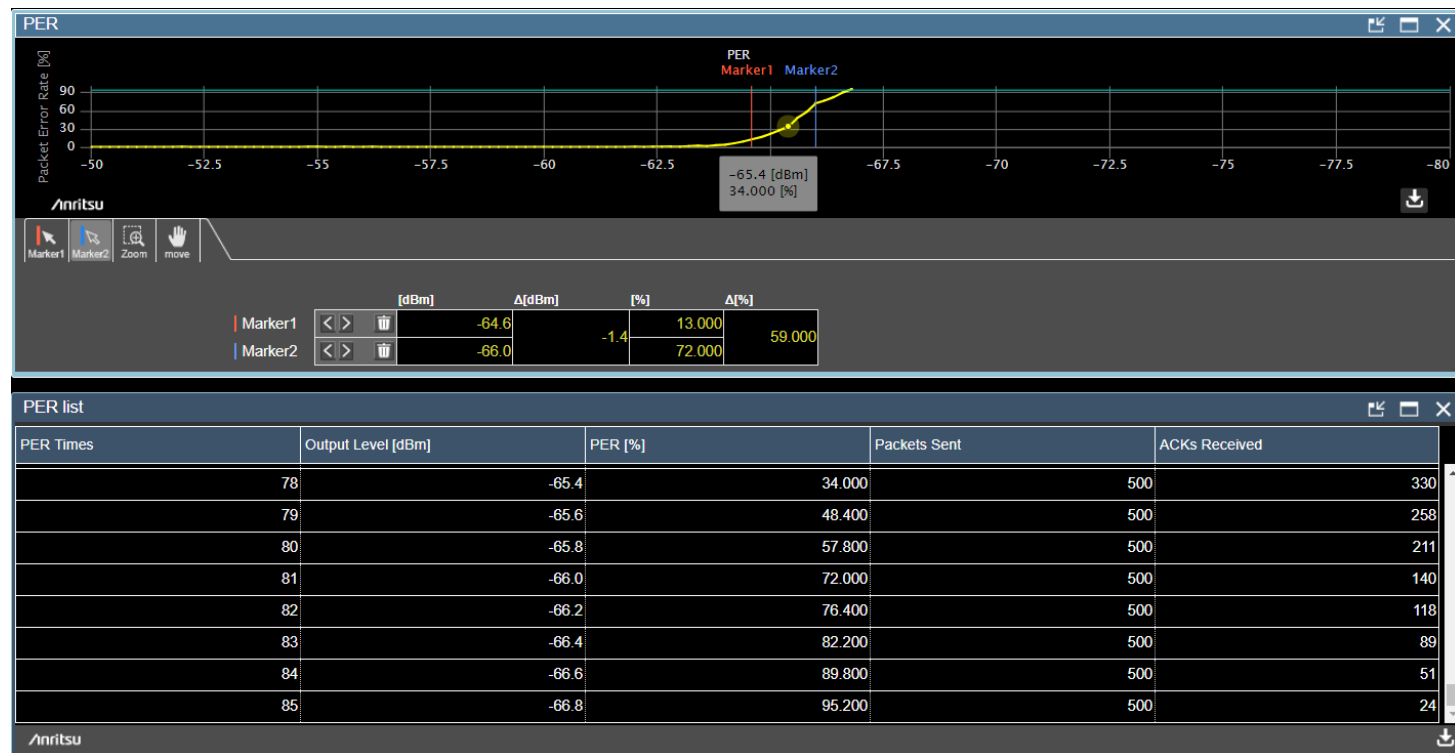
11bn 4096QAM

IEEE 802.11bn Tx Measurement ③320 MHz Bandwidth

- IEEE 802.11bn enables communications over a 320 MHz bandwidth in the 6 GHz band.
- A single MT8862A unit can perform Tx/Rx RF measurements of 320 MHz channels in both Network Mode and Direct Mode.



- The MT8862A can measure RF reception characteristics compliant with IEEE 802.11bn.
- It supports the 2.4 GHz, 5 GHz, and 6 GHz bands, with bandwidths up to 320 MHz in the 6 GHz band and 4096 QAM modulation.
- The PER curve can be measured by sending test packets to the DUT and counting the ACK frames sent from the DUT.



MT8862A IEEE 802.11bn Solution

- Flexible option configuration by adding only software options
- Upgrade possible from any MT8862A configuration

Solution Example 1

Wi-Fi 7 (320 MHz BW)



- ✓ Support up to 11be
- ✓ 2.4 GHz/5 GHz/6 GHz Bands
- ✓ 20/40/80/160/320 MHz BW
- ✓ Up to 4096QAM



Upgrade

Wi-Fi 8 (11bn) 320 MHz BW



- ✓ **Support up to 11bn**
- ✓ 2.4 GHz/5 GHz/6 GHz Bands
- ✓ 20/40/80/160/320 MHz BW
- ✓ Up to 4096QAM

Solution Example 2

Wi-Fi 6E (160 MHz BW)



- ✓ Support up to 11ax
- ✓ 2.4 GHz/5 GHz/6 GHz Bands
- ✓ 20/40/80/160 MHz BW
- ✓ Up to 1024QAM



Upgrade

Wi-Fi 8 (11bn) 160 MHz BW

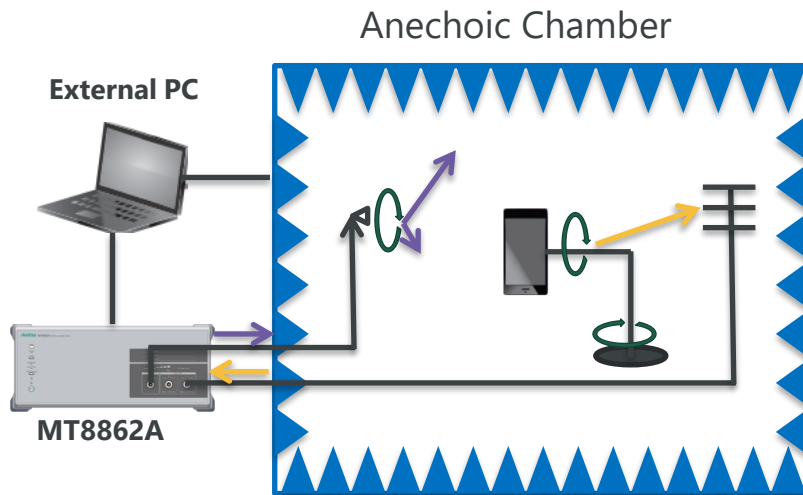


- ✓ **Support up to 11bn**
- ✓ 2.4 GHz/5 GHz/6 GHz Bands
- ✓ 20/40/80/160 MHz BW
- ✓ Up to **4096QAM**

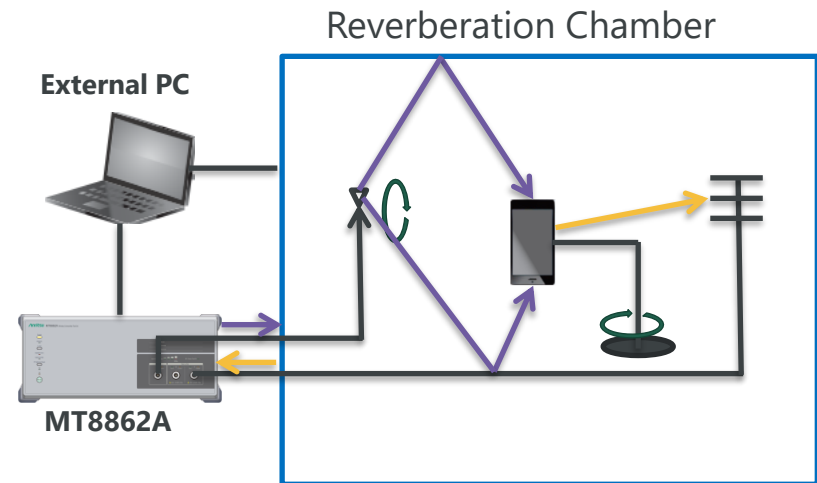
MT8862A Applications

OTA Measurements Using OTA Chamber

- As WLAN applications diversify, WLAN devices and their usage environment are becoming more complex, resulting in a growing need to quantify and verify that antenna characteristics meet the design specifications by testing antenna characteristics, such as TX power range, receiver sensitivity, etc.
- Anritsu supports an OTA measurement test environment with OTA chamber vendors for measuring the reception power range and receiver sensitivity, such as TRP/TIS, to validate RF performance in WLAN final-use environments.



→ Downlink Signal → Uplink Signal



→ Downlink Signal → Uplink Signal

Overview of ETSI Regulatory Test

Originally, the ETSI standard covered tests of transmitted power, spurious emission and etc., which were measured with power meter and spectrum analyzer. However, "Receiver Blocking Test" has been added in 2015, so a **Signaling Unit or Companion Device** is required as the opposing equipment. This test item requires the calculation of the Packet Error Rate while communicating under the specific conditions of **Minimum Bandwidth** and **Minimum Data Rate**, so the MT8862A Network Mode works effectively. From September 2020, EMC testing also uses PER as an indicator of performance, increasing the need for Signaling measurement instruments.

Latest Standard Number

RF testing for 2.4 GHz-Band : EN 300 328 V2.2.2

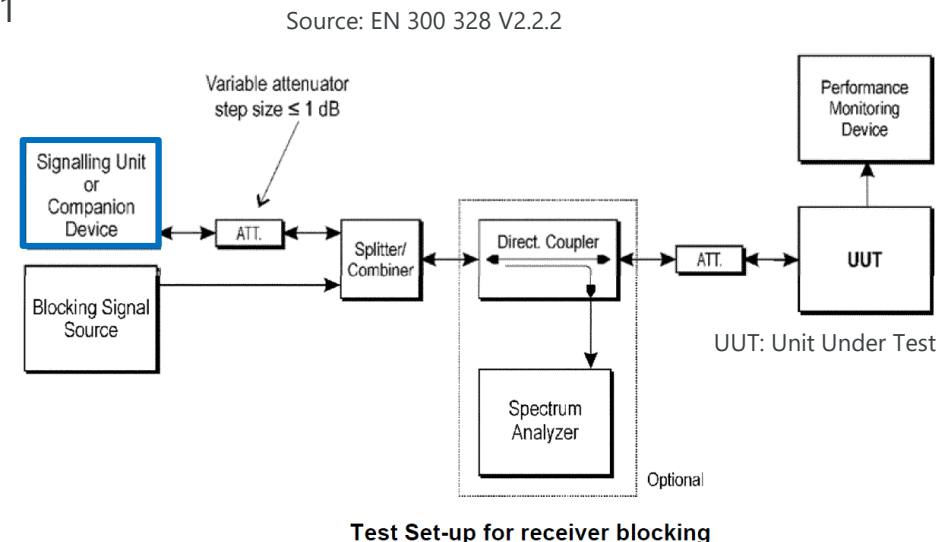
RF testing for 5 GHz-Band : EN 301 893 V2.2.1

RF testing for 6 GHz-Band : EN 303 687 V1.1.1

EMC testing : EN 301 489-17 V3.3.1

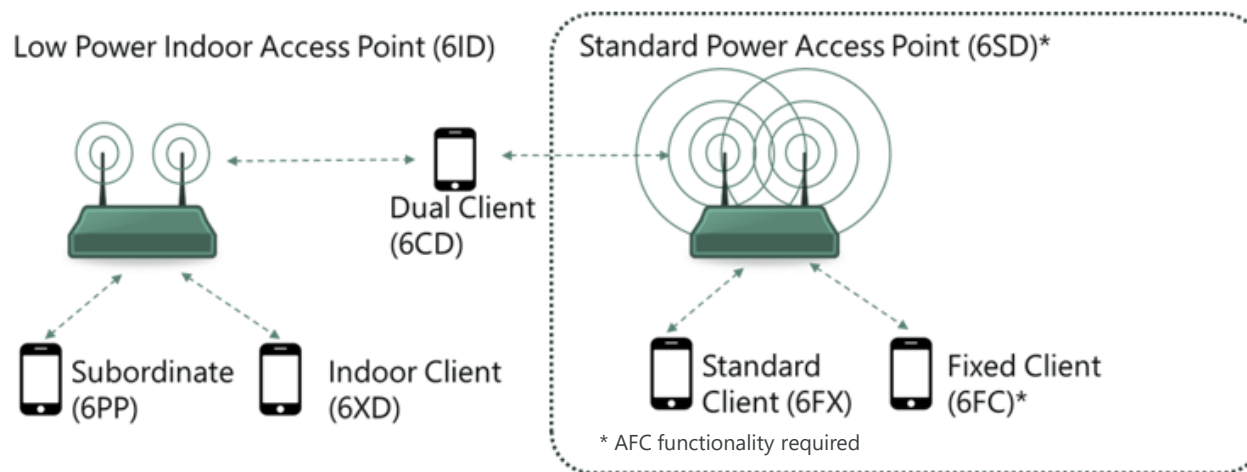
Why MT8862A is better?

- Using the Companion Device, it is difficult to control to a given bandwidth and data rate.
- It's also difficult to measure PER without using the Signaling Unit.
- It takes a lot of resources and time to build an environment for communication state control and communication quality monitoring using devices other than the Signaling Unit.



6 GHz Band Device Class-SP,LPI,VLP

Standard Power (SP), Low Power Indoor (LPI), and Very Low Power (VLP) are being considered for the 6 GHz band, and information from the APs will determine the device class and regulatory classification of the STA, but the details vary on each country. MT8862A will enable the setting of country code, regulatory classification and TPE (Transmit Power Envelope), etc. as defined in the standard.

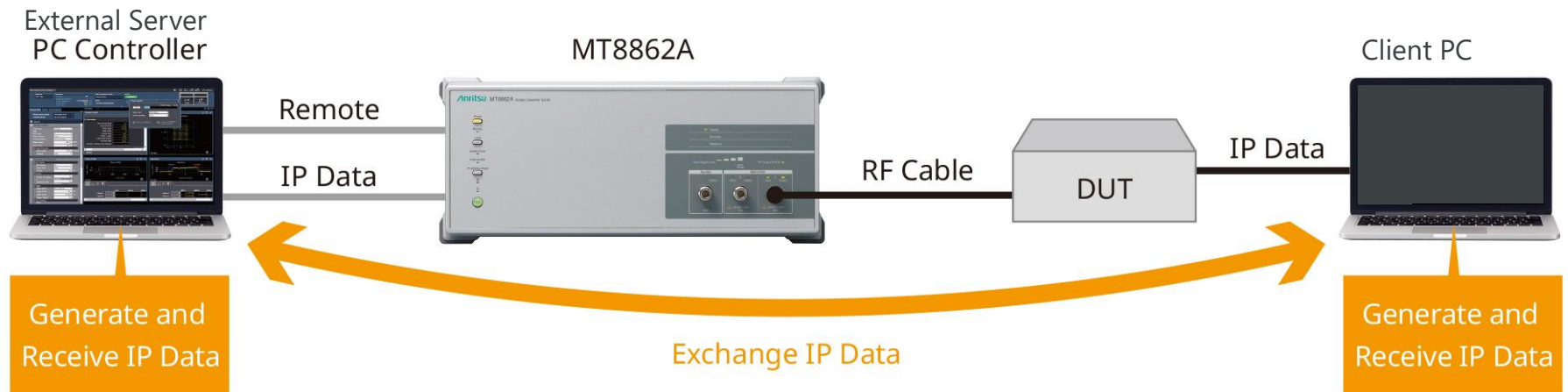


※6xx is a device classification defined by the FCC

Examples of parameters defined by IEEE

Value	Description
0	Indoor Access Point
1	Standard Power Access Point
2-7	Reserved

- The Ethernet port on the back panel of the MT8862A can be used for exchanging IP data with an external server.
- IP connections between the client PC connected to the DUT and the external server connected to the MT8862A can be checked using the ping function, etc.
- Connections can be checked and RF measurements can be made under fixed parameter conditions, such as data rate.
- When it is necessary to access a specific server on the Internet at DUT connection, the MT8862A can also be used for connection maintenance purposes.
- IP Data transfer is supported in IEEE 802.11a/b/g/n/ac.



Appendix





Wireless Connectivity Test Set MT8862A

- RF Input/Output: Main 1, Main 2, Aux (Aux: output only)
- Frequency Range: 2.4 to 2.5 GHz, 5.0 to 6.0 GHz , 6.0 to 7.3 GHz (in 1 Hz steps)
- Input Level Range: –65 to +25 dBm (in 0.1 dB steps)
- Output Level Range: –120 to 0 dBm (in 0.1 dB steps)
- Dimensions: 426 (W) × 177 (H) × 390 (D) mm (excluding protruding parts)
- Mass: 14 kg max.
- Power Supply: 100 to 120 Vac/200 to 240 Vac, 50/60 Hz, ≤ 350 VA
- Environmental Conditions: +5°C to +45°C (operating), –20°C to +60°C (storage)

WLAN Connectivity (1/3)

	802.11a	802.11b	802.11g
Frequency Range	5180 MHz to 5885 MHz	2412 MHz to 2484 MHz	2412 MHz to 2484 MHz
Operation Mode	-	-	ERP-OFDM
Modulation	OFDM (BPSK, QPSK, 16QAM, 64 QAM)	DSSS, CCK	OFDM (BPSK, QPSK, 16QAM, 64 QAM)
Data Rate	6, 9, 12, 18, 24, 36, 48, 54 Mbps	1, 2, 5.5, 11 Mbps	6, 9, 12, 18, 24, 36, 48, 54 Mbps
Security	WEP, WPA-Personal, WPA2-Personal, WPA3-Personal		
	802.11n	802.11ac	
Frequency Range	2412 MHz to 2484 MHz 5180 MHz to 5885 MHz	5180 MHz to 5885 MHz	
Bandwidth	20 MHz, 40 MHz	20 MHz, 40 MHz, 80 MHz, 160 MHz	
MCS	MCS0 to MCS7	MCS0 to MCS9	
FEC	BCC	BCC	
PPDU Format	HT-mixed, HT-greenfield	VHT	
Guard Interval	Long, Short	Long, Short	
RF Chain	Single (SISO), 2x2 MIMO	Single (SISO), 2x2 MIMO	
Security	WEP, WPA-Personal, WPA2-Personal, WPA3-Personal		

*Some functions require specific option configuration.

WLAN Connectivity (2/3)

	802.11ax	802.11be
Frequency Range	2412 MHz to 2484 MHz 5180 MHz to 5885 MHz 5995 MHz to 7115 MHz *1	2412 MHz to 2484 MHz 5180 MHz to 5885 MHz 5995 MHz to 7115 MHz *1
Bandwidth	20 MHz, 40 MHz, 80 MHz, 160 MHz	20 MHz, 40 MHz, 80 MHz, 160 MHz, 320 MHz
MCS	MCS0 to MCS11	MCS0 to MCS13
FEC	LDPC, BCC	LDPC, BCC
PPDU Format	HE SU, HE TB	EHT MU, EHT TB
RF Chain	Single (SISO), 2x2 MIMO	Single (SISO), 2x2 MIMO
Security	WEP, WPA-Personal, WPA2-Personal, WPA3-Personal	WEP, WPA-Personal, WPA2-Personal, WPA3-Personal

*Some functions require specific option configuration.

*1: For this frequency range only, the transmit level setting range of the Main 1/2 connector is -120 to -5 dBm.

WLAN Connectivity (3/3)

	802.11bn
Frequency Range	2412 MHz to 2484 MHz 5180 MHz to 5885 MHz 5995 MHz to 7115 MHz *1
Bandwidth	20 MHz, 40 MHz, 80 MHz, 160 MHz, 320 MHz
MCS	MCS0 to MCS13, 17, 19, 20, 23
FEC	LDPC, BCC
PPDU Format	UHR MU, UHR ELR
RF Chain	Single (SISO)
Security	WEP, WPA-Personal, WPA2-Personal, WPA3-Personal

*Some functions require specific option configuration.

*1: For this frequency range only, the transmit level setting range of the Main 1/2 connector is -120 to -5 dBm.

Comparison with MT8860C



	MT8862A	MT8860C
WLAN Connectivity	802.11a/b/g/ <u>n/ac/ax/be/bn</u> 320 MHz bandwidth SISO / 2x2 MIMO	802.11a/b/g 20 MHz bandwidth SISO
Operating Mode	Network Mode [AP/STA] Direct Mode [AP/STA]	Network Mode (AP/STA/AdHoc) Direct Mode
Security	<u>WEP, WPA-Personal, WPA2-Personal, WPA3-Personal</u>	-
RF In/Out	Main In/Out (N-Type) x2 <u>Aux Out</u> (N-Type)	Main In/Out (N-Type) Interference In, WLAN Ref In (N-Type)
RF Maximum Output Level	0 dBm [2.4 / 5 / 6 GHz band] *	-3 dBm [2.4 GHz band] / -8 dBm [5 GHz band]
Control Software	Control GUI on web browser	LANLook, CombiTest (Windows app)
Remote Interface	Ethernet (<u>VXI-11/HiSLIP</u> /Raw)	GPIO, Ethernet
Remote Command	MT8862A Native	MT8860C Native
IP Data Interface	<u>Gb Ethernet (up to 11ac)</u>	-
Packet Log	<u>pcap Output</u>	-
Size	1MW 4U 390 mm	3/4MW 4U 350 mm

Green: Additional items, Bold: Changed items

*Aux Out

- Supports 802.11n/ac/ax/be/bn, 2x2 MIMO and AP/STA security connections for more DUT measurements
- Improved usability with separate Tx and Rx RF ports, higher maximum output level, and OTA measurements
- Renewed control software and simpler DUT connection for easier measurement
- Built-in IP data interface for IP continuity tests in reproducible test environment
- Frame capture logs and messaging logging

IEEE 802.11bn Option Test Coverage

IEEE					MT8862A
Category	Chapter	Title	DUT	PPDU	Support
Transmit specification	38.3.26.1	Transmit spectral mask	AP/STA	UHRMU, UHRELRL	✓ ^{*1)}
	38.3.26.2	Spectral flatness	AP/STA	UHRMU, UHRELRL	✓
	38.3.26.3	Transmit center frequency and symbol clock frequency tolerance	AP/STA	UHRMU, UHRELRL	✓
	38.3.26.4.2	Transmit center frequency leakage	AP/STA	UHRMU, UHRELRL	✓
	38.3.26.4.3	Transmitter constellation error	AP/STA	UHRMU, UHRELRL	✓
	38.3.26.4.4	Transmitter modulation accuracy (EVM) test	AP/STA	UHRMU, UHRELRL	✓
Receiver specification	38.3.27.2	Receiver minimum input sensitivity	AP/STA	UHRMU, UHRELRL	✓
	38.3.27.3	Adjacent channel rejection	AP/STA	UHRMU, UHRELRL	✓ ^{*2)}
	38.3.27.4	Nonadjacent channel rejection	AP/STA	UHRMU, UHRELRL	✓ ^{*2)}
	38.3.27.5	Receiver maximum input level	AP/STA	UHRMU, UHRELRL	✓

*1) Up to ± 160 MHz in Network Mode; up to ± 480 MHz in Direct Mode

Preamble puncturing is not supported.

*2) A signal generator is required.

IEEE 802.11be Option Test Coverage

IEEE						MT8862A
Category	Chapter	Title	Detail	DUT	PPDU	Support
Transmit requirements for PPDU sent in response to a triggering frame	36.3.16.3	Pre-correction accuracy requirements	Transmit power and RSSI measurement accuracy	STA	EHTTB	✓
			Carrier frequency offset error	STA	EHTTB	✓
			Transmission start time	STA	EHTTB	✓
Transmit specification	36.3.20.1	Transmit spectral mask		AP/STA	EHTMU, EHTTB	✓ *1) *2) *3)
	36.3.20.2	Spectral flatness		AP/STA	EHTMU, EHTTB	✓ *1)
	36.3.20.3	Transmit center frequency and symbol clock frequency tolerance		AP/STA	EHTMU, EHTTB	✓ *1)
	36.3.20.4.2	Transmit center frequency leakage		AP/STA	EHTMU, EHTTB	✓ *1)
	36.3.20.4.3	Transmitter constellation error		AP/STA	EHTMU, EHTTB	✓ *1)
	36.3.20.4.4	Transmitter modulation accuracy (EVM) test		AP/STA	EHTMU, EHTTB	✓ *1)
Receiver specification	36.3.21.2	Receiver minimum input sensitivity		AP/STA	EHTMU (Only Single-User)	✓
	36.3.21.3	Adjacent channel rejection		AP/STA	EHTMU (Only Single-User)	✓ *4)
	36.3.21.4	Nonadjacent channel rejection		AP/STA	EHTMU (Only Single-User)	✓ *4)
	36.3.21.5	Receiver maximum input level		AP/STA	EHTMU (Only Single-User)	✓

*1) EHTMU (multi-user) Tx measurement not supported

*2) EHT PPDU Puncturing is not supported

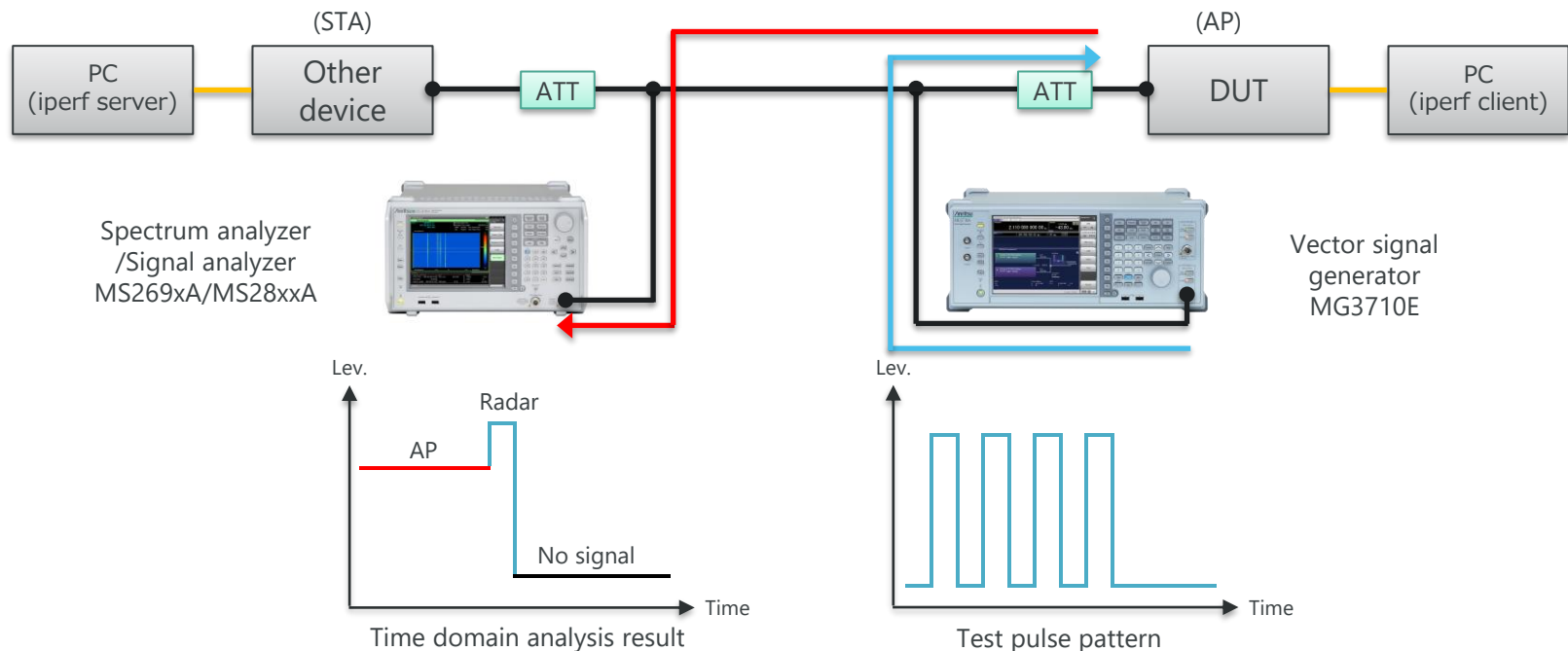
*3) Up to ±160 MHz in Network Mode. Up to ±480 MHz in Direct Mode (for EHTTB ±160 MHz)

*4) A signal generator is required.

5 GHz Band DFS Testing

WLAN, weather radar, marine radar, etc., use the same frequency bands in the 5.3 GHz (Ch52-Ch64[W53/U-NII-2A]) and 5.6 GHz bands (Ch100-Ch144[W56/U-NII-2C]), so the DFS (Dynamic Frequency Selection) technology is used to prevent signal interference when these signals are detected.

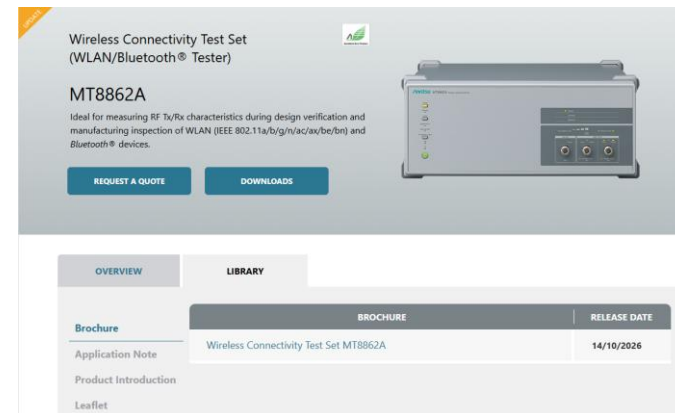
Combining the Vector Signal Generator MG3710E with the waveform pattern product supports the DFS test defined by TELEC, ETSI, and FCC for 5 GHz band WLAN devices.



- Anritsu Website

- Download catalogs, product introduction, etc.
- Open access to anyone

<https://www.anritsu.com/en-GB/test-measurement/products/mt8862a>



- My Anritsu

- Download operation manuals, firmware, tools, etc.
- Requires creation of My Anritsu account and product registration

<https://login.anritsu.com/signin?>

