

FCC 47 CFR PART 15 SUBPART C

CERTIFICATION TEST REPORT

For

Wireless Moudle

MODEL NUMBER: VS0B9MW3565UE

PROJECT NUMBER: 4790751248

REPORT NUMBER: 4790751248-1

FCC ID: 2AL8S-0211C5L1

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Prepared for

ZHEJIANG UNIVIEW TECHNOLOGIES CO., LTD

Prepared by

UL-CCIC COMPANY LIMITED No. 2, Chengwan Road, Suzhou Industrial Park, Suzhou 215122, China Tel: +86 512-6808 6400 Fax: +86 512-6808 4099 Website: www.ul.com





Revision History

Rev.	Issue Date	Revisions	Revised By
V0	04/12/2023	Initial Issue	



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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name:	ZHEJIANG UNIVIEW TECHNOLOGIES CO., LTD
Address:	88 JIANGLING RD BINJIANG DISTRICT HANGZHOU ZHEJIANG
	310051 CHINA
Manufacturer Information	
Company Name:	ZHEJIANG UNIVIEW TECHNOLOGIES CO., LTD
Address:	88 JIANGLING RD BINJIANG DISTRICT HANGZHOU ZHEJIANG
	310051 CHINA
EUT Description	
Product Name:	Wireless Moudle
Model Name:	VS0B9MW3565UE
Sample Number:	5811281
Data of Receipt Sample:	Feb. 21, 2023
Test Date:	Feb. 23, 2023~ Apr. 11, 2023

APPLICABLE STANDARDS				
STANDARD	TEST RESULTS			
CFR 47 Part 15 Subpart C	PASS			

1)The measurement result for the sample received is <Pass> according to < ANSI C63.10-2013, FCC CFR 47 Part 2, FCC CFR 47 Part 15C> when <Accuracy Method> decision rule is applied.

2)This product is power supply by DC.

Prepared By:

Tom Tang

Leon Wu

Authorized By:

Chris Zhong.

Chris Zhong EMC&RF Lab Operations Manager

Tom Tang

	Summary of Test Results					
Clause	Test Items	FCC Rules	Test Results			
1	6dB Bandwidth FCC 15.247 (a) (2) PASS					
2	Conducted Power	FCC 15.247 (b) (3)	PASS			
3	Power Spectral Density	FCC 15.247 (e)	PASS			
4	Conducted Band edge And Spurious emission	FCC 15.247 (d)	PASS			
5	Radiated Band edges and Spurious emission	FCC 15.247 (d) FCC 15.209 FCC 15.205	PASS			
6	Conducted Emission Test for AC Power Port	FCC 15.207	N/A(Note2)			
7	Antenna Requirement FCC 15.203 PASS					
Note:			1			



Form-ULID-008536-9 V3.0

Leon Wu

Reviewed By:



2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 558074 D01 15.247 Meas Guidance v05r02, 414788 D01 Radiated Test Site v01r01, CFR 47 FCC Part 2, CFR 47 FCC Part 15 and ANSI C63.10-2013.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	A2LA (Certificate No.: 4829.01) UL-CCIC COMPANY LIMITED has been assessed and proved to be in compliance with A2LA. FCC (FCC Designation No.: CN1247) UL-CCIC COMPANY LIMITED has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules. IC (IC Designation No.: 25056; CAB No.: CN0073) UL-CCIC COMPANY LIMITED has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules.
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Note 1: All tests measurement facilities use to collect the measurement data are located at No. 2, Chengwan Road, Suzhou Industrial Park, Suzhou 215122, China

Note 2: For below 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. These measurements below 30MHz had been correlated to measurements performed on an OFS.

Note 3: The test anechoic chamber in UL-CCIC COMPANY LIMITED had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.



4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Uncertainty	
Conduction emission	3.1dB	
Radiation Emission test (include Fundamental emission) (9kHz-30MHz)	3.4dB	
Radiation Emission test (include Fundamental emission) (30MHz-1GHz)	3.4dB	
Radiation Emission test (1GHz to 26GHz) (include Fundamental emission)	3.5dB (1GHz-18Gz)	
	3.9dB (18GHz-26.5Gz)	
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.		



5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

Product Name:	Wireless Moudle
Model No.:	VS0B9MW3565UE
Operating Frequency:	IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz IEEE 802.11n(HT40): 2422MHz to 2452MHz IEEE 802.11a/n/ac 20MHz:5180MHz to 5240MHz, 5745MHz to 5825MHz IEEE 802.11n/ac 40MHz: 5190MHz to 5230MHz, 5755MHz-5795MHz IEEE 802.11ac 80MHz: 5210MHz, 5775MHz
	This report just including 2.4G WIFI part.
Type of Modulation:	IEEE for 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE for 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n (HT20 and HT40): OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11a/n: OFDM (BPSK, QPSK, 16QAM, 64QAM) IEEE for 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)
Channels Step:	Channels with 5MHz step
Test software of EUT:	REALTEK 11ac 8822CU USB WLAN NIC Massproduction Kit
Antenna Type:	PIFA antenna
Antenna Gain:	Antenna1:2.29 dBi
	Antenna2:2.82 dBi
	Remark: This data is provided by customer and our lab isn't responsible for this data
Test Voltage	DC5V



5.2. MAXIMUM OUTPUT POWER

Number of Transmit Chains (NTX)	IEE Std. 802.11	Channel Number	Max AVG Conducted Power (dBm)
1/2	IEEE 802,11B	1-11[11]	16.47
1/2	IEEE 802.11G	1-11[11]	15.97
1/2	IEEE 802.11N HT20	1-11[11]	15.94
1/2	IEEE 802.11N HT40	3-9[7]	14.91

Note: For this product, it has five antennas, but only two antennas for M8822CU3 RF module. For this M8822CU3 RF module, only the 802.11N HT20 and 802.11N HT40 modes can support both the SISO and MIMO technical. For the modes of 11B&11G only support SISO mode.

5.3. CHANNEL LIST

Channel List for 802.11B/G/N(20 MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	4	2427	7	2442	10	2457
2	2417	5	2432	8	2447	11	2462
3	2422	6	2437	9	2452		

Channel List for 802.11N(40 MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	2422	5	2432	7	2442	9	2452
4	2427	6	2437	8	2447		



5.4. TEST CHANNEL CONFIGURATION

Test Mode	Test Channel (MHz)
	LCH: CH01 2412
IEEE 802.11B	MCH: CH06 2437
	HCH: CH11 2462
	LCH: CH01 2412
IEEE 802.11G	MCH: CH06 2437
	HCH: CH11 2462
	LCH: CH01 2412
IEEE 802.11N HT20	MCH: CH06 2437
	HCH: CH11 2462
	LCH: CH03 2422
IEEE 802.11N HT40	MCH: CH06 2437
	HCH: CH09 2452

5.5. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band								
Test Softv	vare	REALTEK 11ac 8822CU USB WLAN NIC Massproduction Kit						
	Transmit	Test Channel						
Modulation	Antenna	NCB: 20MHz			NCB: 40MHz			
Wode	Number	CH 1	CH 6	CH 11	CH 3	CH 6	CH 9	
802.11B	1/2	84/84	84/84	84/84				
802.11G	1/2	70/70	70/70	70/70	/			
802.11N HT20	1/2	55/55	55/55	55/55				
802.11N HT40	1/2	/			60/60	60/60	60/60	



Ant.	Frequency (MHz)	Antenna Type	Antenna Gain (dBi)	Directional gain(dBi)
1	2400-2483.5	PIFA antenna	2.29	5 F7
2	2400-2483.5	PIFA antenna	2.82	5.57

5.6. DESCRIPTION OF AVAILABLE ANTENNAS

Note:

1) Directional gain= $10\log [(10^{G1/20} + 10^{G2/20})^2/N_{ANT}] = 5.57 \text{ dBi}$

2) N_{ANT} : the number of Antenna

3) For this product, it has five antennas, but only two antennas for M8822CU3 RF module. For this M8822CU3 RF module, only the 802.11N HT20 and 802.11N HT40 modes can support both the SISO and MIMO technical. For the modes of 11B&11G only support SISO mode.

Test Mode Transmit and Receive Mode		Description		
IEEE 802.11B	⊠2TX, 2RX	Antenna1 or Antenna2 can be used as transmitting/receiving antenna independently.		
IEEE 802.11G	⊠2TX, 2RX	Antenna1 or Antenna2 can be used as transmitting/receiving antenna independently.		
IEEE 802.11N HT20	⊠2TX, 2RX	Antenna1 or Antenna2 can be used as transmitting/receiving antenna independently.		
IEEE 802.11N HT40	⊠2TX, 2RX	Antenna1 or Antenna2 can be used as transmitting/receiving antenna independently.		

5.7. THE WORSE CASE CONFIGURATIONS

For WIFI module, the worst-case data rates as provided by the client were: 802.11B mode: 1 Mbps 802.11G mode: 6 Mbps 802.11N HT20 mode: MCS0 802.11N HT40 mode: MCS0

SISO mode and MIMO mode have the same power setting, so only the worst case power mode (MIMO) will be record in the report.

The EUT support Cyclic Shift Diversity (CDD), Space Time Coding (STBC), Spartial Division Multiplexing (SDM) modes. They use the same conducted power per chain in any given mode, CDD mode have the maximum power setting, so we only chose the worst case mode CDD for final testing.

For this product can support hotspot function, they use the same RF parameter and after evaluated by the lab, there no any change, so only the data of worse case is included in this report.



5.8. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	Description
1	Laptop	ThinkPad	E590	N/A

I/O PORT

Cable No	Port	Connector Type	Cable Type	Cable Length(m)	Remarks
1	USB	USB	USB	100cm Length	N/A

ACCESSORY

Item	Accessory	Brand Name	Model Name	Description
1	N/A	N/A	N/A	N/A



TEST SETUP

The EUT can work in an engineer mode with a software through a table PC.

SETUP DIAGRAM FOR TESTS





5.9. MEASURING INSTRUMENT AND SOFTWARE USED

	Radiated Emissions (Instrument)								
Used	Equipment	Manufacturer	Мо	del No.	Seri	al No.	Upper Last Cal.	Last Cal.	Next Cal.
\checkmark	EMI test receiver	R&S	E	ESR7	222	2993	/	2022-05-20	2023-05-19
\checkmark	EMI test receiver	R&S	E	SR26	120	6703	2021-12-04	2022-12-03	2023-12-02
\checkmark	Spectrum Analyzer	R&S	FS	SV3044	222	2992	2022-05-27	2023-04-08	2024-04-07
	Receiver Antenna (9kHz-30MHz)	Schwarzbeck	FM	ZB 1513	15	5456	2018-06-15	2021-06-03	2024-06-02
	Receiver Antenna (30MHz-1GHz)	Schwarzbeck	VU	LB 9163	120	6704	2019-01-28	2022-01-18	2025-01-17
	Receiver Antenna (1GHz-18GHz)	R&S	F	IF907	120	6705	2018-01-29	2022-02-28	2025-02-27
	Receiver Antenna (18GHz-26.5GHz)	Schwarzbeck	BBI	HA9170	120	6706	2019-01-05	2021-07-15	2024-07-14
	Pre-amplification (To 18GHz)	Tonscned	TAPO	01018050	224	4539	/	2022-10-20	2023-10-19
	Pre-amplification (To 18GHz)	R&S	sc	CU-18D	134	4667	2021-12-05	2022-12-04	2023-12-03
	Pre-amplification (To 26.5GHz)	R&S	sc	CU-26D	13	5391	2021-12-05	2022-12-04	2023-12-03
V	Band Reject Filter	Wainwright	WR 237 248	WRCGV12- 2375-2400- 2485-2510- 40SS		1	2021-12-05	2022-12-04	2023-12-03
	High Pass Filter	COM-MW	ZBF1	13-3-18G- 01		2	2021-12-05	2022-12-04	2023-12-03
	Chamber A	Albatross	ę	9*6*6	120	6721	2019-05-31	2022-05-30	2025-05-29
\checkmark	Chamber B	SAEMC	Ş	9*6*6	220	0350	/	2022-07-03	2025-06-01
V	Temperature and Humidity Datalogger	Omega Engineering Inc.	iTH	IX-SD-5	18	3135	/	2022-07-20	2023-07-19
				Soft	ware				
Used	Descr	ription		Manufac	turer		Name	Version	
\checkmark	Test Software for R	adiated disturbar	nce	JSTONSC	END	J	S32-RE	Ver. 4.0.0.1	
\checkmark	Test Software for Ra	adiated disturbar	nce	Chinese-	EMC	R	E_RSE	Ver. 3.03	
			(Other ins	trume	ents			
Used	Equipment	Manufacturer	Мо	del No.	Seri	al No.	Upper Last Cal.	Last Cal.	Next Cal.
	Spectrum Analyzer	Keysight	N	9010B	15	5368	2022-04-09	2023-04-08	2024-04-07
	Power Meter	MWT	MW1	00-RFCB	22	1694	2022-04-09	2023-04-08	2024-04-07
	Attenuator	PASTERNACK	PE	7087-6	10	624	2022-04-09	2023-04-08	2024-04-07



6. MEASUREMENT METHODS

No.	Test Item	KDB Name	Section
1	6dB Bandwidth	KDB 558074 D01 15.247 Meas Guidance v05r02	8.2
2	Conducted Output Power	KDB 558074 D01 15.247 Meas Guidance v05r02	8.3.2.2 (Method AVGSA-2)
3	Power Spectral Density	KDB 558074 D01 15.247 Meas Guidance v05r02	8.4 (Method PKPSD)
4	Out-of-band emissions in non- restricted bands	KDB 558074 D01 15.247 Meas Guidance v05r02	8.5
5	Out-of-band emissions in restricted bands	KDB 558074 D01 15.247 Meas Guidance v05r02	8.6
6	Band-edge	KDB 558074 D01 15.247 Meas Guidance v05r02	8.7
7	Conducted Emission Test For AC Power Port	ANSI C63.10-2013	6.2



7. ANTENNA PORT TEST RESULTS

7.1. ON TIME AND DUTY CYCLE

<u>LIMITS</u>

None; for reporting purposes only

PROCEDURE

FCC KDB 558074 Zero-Span Spectrum Analyzer Method

TEST SETUP



TEST ENVIRONMENT

Temperature	22° ℃	Relative Humidity	58.5%
Atmosphere Pressure	102kpa	Test Voltage	DC5V

TEST RESULTS TABLE

Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (db)	1/T Minimum VBW (kHz)	Final VBW (kHz)
11B	100	100	1	100	0	0.01	0.01
11G	100	100	1	100	0	0.01	0.01
802.11N HT20	100	100	1	100	0	0.01	0.01
802.11N HT40	100	100	1	100	0	0.01	0.01

Note: 1) Duty Cycle Correction Factor=10log(1/x).

2) Where: x is Duty Cycle (Linear)

- 3) Where: T is On Time (transmit duration)
- 4) If the duty cycle is above 98%, the Final VBW is 10Hz.
- 5) Antenna1 and Antenna2 can be used as transmitting/receiving antenna independently, and the duty cycle results are the same, so only the data of worse case is included in this report.



TEST GRAPHS









11N HT40 ON TIME AN	ID DUTY CYCLE MID C	H (WORSE CASE)
Spectrum Analyzer 1 Swept SA KEYSIGHT Input RF RL →→ Cooping DG Align Auto Freq Ref Int (S)	#Atten: 30 dB PNO: Fast #Avg Type Power (RMS] 2 3 4 5 6 Preamp Off Gate Off Ting Voice WWWWWW IF Gain Low Ting Delay 200 0 ps	Center Frequency Center Frequency Settings
CC 1 Spectrum • p Scale/Div 10 dB F Log 103	Sig mack Uni PARA A A Ref Livi Offset 8.31 dB Ref Level 28.31 dBm	Span 0.0000000 Hz Svept Span Zero Span
8.33 -1.69 -11.7 -21.7 	INSLUC	Full Span Start Freq 2.437000000 GHz
41.7 -51.7 -61.7 Center 2.437000000 GHz	#Video BW 8.0 MHz* Span 0 Hz	Stop Freq 2.437000000 GHz AUTO TUNE
Res BV 3 MHz 5 Marker Table • Mode Trace Scale X	Sweep 100.0 ms (1001 pts) Y Function Function Width Function Value	0 CF Step 8 000000 MHz Man
2 3 4 4 4 4 5 6 4 4 4 4 5 6 4 6 4 6 4 6 4 6		Preq Offset 0 Hz X Avis Scale Lin
【 「 へ 」 ? Mar 08, 2023 4:45:27 PM		Signal Track (Span Zoom)



7.2. 6 dB BANDWIDTH

LIMITS

FCC Part15 (15.247) Subpart C						
Section Test Item Limit Frequency Range (MHz)						
CFR 47 FCC 15.247(a)(2)	6dB Bandwidth	>= 500kHz	2400-2483.5			
	99 % Occupied Bandwidth	For reporting purposes only	2400-2483.5			

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.8 for DTS bandwidth and clause 6.9 for Occupied Bandwidth.

Connect the EUT to the spectrum analyser and use the following settings:

Center Frequency	The centre frequency of the channel under test
Detector	Peak
RBW	For 6 dB Bandwidth: 100 kHz For 99 % Occupied Bandwidth: 1 % to 5 % of the occupied bandwidth
VBW	For 6 dB Bandwidth: ≥3 × RBW For 99 % Occupied Bandwidth: ≥3 × RBW
Trace	Max hold
Sweep	Auto couple

a) Use the 99 % power bandwidth function of the instrument, allow the trace to stabilize and report the measured bandwidth.

b) Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.



TEST SETUP

EUT			Spectrum Analyser
EOT	Attenuator		Spectrum Analysei

TEST ENVIRONMENT

Temperature	22℃	Relative Humidity	58.5%
Atmosphere Pressure	102kpa	Test Voltage	DC5V

TEST RESULTS TABLE

Test Mode	Antenna	Test Channel	6dB bandwidth (MHz)	99% bandwidth (MHz)	Result
	Ant1	LCH	10.080	14.859	PASS
	Ant2	LCH	10.120	14.565	PASS
110	Ant1	MCH	10.080	14.716	PASS
ПD	Ant2	MCH	10.120	14.553	PASS
	Ant1	HCH	10.120	14.800	PASS
	Ant2	HCH	10.120	14.607	PASS
	Ant1	LCH	16.400	16.480	PASS
	Ant2	LCH	16.360	16.461	PASS
110	Ant1	MCH	16.400	16.444	PASS
110	Ant2	MCH	16.360	16.450	PASS
	Ant1	HCH	16.400	16.468	PASS
	Ant2	HCH	16.320	16.474	PASS
	Ant1	LCH	17.600	17.676	PASS
	Ant2	LCH	17.520	17.653	PASS
	Ant1	MCH	17.600	17.640	PASS
	Ant2	MCH	17.520	17.638	PASS
	Ant1	HCH	17.640	17.664	PASS
	Ant2	HCH	17.560	17.668	PASS
	Ant1	LCH	36.400	36.129	PASS
1111004000	Ant2	LCH	26.080	36.098	PASS
	Ant1	MCH	36.320	36.062	PASS
	Ant2	MCH	21.440	36.046	PASS
	Ant1	HCH	36.320	36.155	PASS
	Ant2	HCH	24.640	36.117	PASS

Remark:

1) For this product, it has five antennas, but only two antennas for M8822CU3 RF module. For this M8822CU3 RF module, only the 802.11N HT20 and 802.11N HT40 modes can support both the SISO and MIMO technical. For the modes of 11B&11G only support SISO mode.. 2) Through pre-testing all the test modes of 11N 20 and 11N40, including SISO and MIMO, but

only the data if worse case is included in this test report.



TEST GRAPHS

1) For 6dB Bandwdith Antenna 1 Part:







Test Mode	Test Channel	Verdict
11B	HCH	PASS
Spectrum Analyzer 1 + KEYSIGHT Input RF RL + Align Auto Freq Ref. Int (S) I Spectrum Scale Div 10 dB Freq Ref. Int (S) I Spectrum Scale Div 10 dB Freq Ref. Int (S) I Spectrum Scale Div 10 dB Freq Ref. Int (S) I Spectrum 13	Effective Frequency #Main 30.0B PNO Fast Cade OII Ang Hadd 200200 (IF Gain Low Sig Track OII 2.3.4.5.6 (Ang Hadd 200200) Center Frequency Se Ref Live (28.33 dB ΔMKr3 10.12 MHz Span Add 0000000 MHz Span Ref Live (28.33 dB ΔMKr3 10.12 MHz Svept Span Zero Span Zero Span 1 2 4.01 Gene Low Svept Span Zero Span 1 2 4.01 Gene Low Svept Span Zero Span 1 2 4.01 Gene Low Svept Span Zero Span 1 2 4.01 Gene Low Svept Span Zero Span 1 2 4.01 Gene Low Staff Freq Zero Span 2 4.02 Span 40.00 MHz Svept Span Zero Span AUTO TUNE 4 Svept Span 40.00 MHz Svept Span 40.00 MHz Auto TUNE Auto TUNE 0.0567 dBm 6.022 dBm Gene Low Auto Scale Ha 0.0567 dBm Gene Low Auto Scale	#ings
🔳 🎦 🍊 📃 📍 2:14:48 PM	💬 🛆 📰 🖬 🖬 🖬 🖬 🖾 🖍 Signal Irack	





Test Mode	Test Channel	Verdict
11G	МСН	PASS
Spectrum Analyzer 1 + KEYSIGHT Input RF RL + Align Auto Correctors: Off I Spectrum I Scale(DV 10 dB I I Spectrum I <td>Effective Productory Prequency Prepunctor Prepun</td> <td>ting</td>	Effective Productory Prequency Prepunctor Prepun	ting





Test Mode	Test Channel	Verdict
11N HT20	LCH	PASS
Spectrum Analyzer 1 Cheref CA KEYSIGHT Input RF RL +	Atten: 30 dB PNO Fast Preamp Oif #Avg Hype Power (RMS) 2 3 4 5 c 2 3 4 5 c Center Frequency P P P P P P Set Strack Oif #Avg Hype Power (RMS) 2 3 4 5 c Center Frequency P P P P P Set Strack Oif Full Span V Function Vieth Span 40.00 MHz Span 40.00 MHz Strack Freq 2 32000000 GHz St	ting





Test Mode	Test Channel	Verdict
11N HT20	НСН	PASS
Spectrum Analyzer 1 Imple RF KEYSIGHT Inple RF RL Align Auto Ispectrum Imple RF RL Align Auto Ispectrum Imple RF RL Align Auto Ispectrum Imple RF Rel Imple RF Ispectrum Imple RF Scale Div 10 dB Imple RF Imple RF Imple RF <td< td=""><td>EAblen: 30 dB PHOD Fast (Gale OII) #Aug Type: Power (RMS) 2 3 4 5 cl 2 3 4 5 cl Center Frequency Se Ref Lvi Offset 8.33 dB ΔMkr3 17.64 MHZ Span Span</td><td>#ings</td></td<>	EAblen: 30 dB PHOD Fast (Gale OII) #Aug Type: Power (RMS) 2 3 4 5 cl 2 3 4 5 cl Center Frequency Se Ref Lvi Offset 8.33 dB ΔMkr3 17.64 MHZ Span Span	#ings











2) For 6dB Bandwdith Antenna 2 Part:







Test Mode	Test Channel	Verdict
11B	HCH	PASS
Spectrum Analyzer 1 Swept SA Imput Z: 50 Ω Corrections: Oil Freq Ref. Int (S) RL → Ispectrum Align Auto Freq Ref. Int (S) Ispectrum Scale/Div 10 dB Imput Z: 50 Ω Corrections: Oil Freq Ref. Int (S) 1 Spectrum Scale/Div 10 dB 109 103 100 Imput Z: 50 Ω Corrections: Oil Freq Ref. Int (S) 017 Imput Z: 50 Ω Corrections: Oil Freq Ref. Int (S) 017 Imput Z: 50 Ω Corrections: Oil Freq Ref. Int (S) 017 Imput Z: 50 Ω Corrections: Oil Freq Ref. Int (S) 017 Imput Z: 50 Ω Corrections: Oil Freq Ref. Int (S) 017 Imput Z: 50 Ω Corrections: Oil Freq Ref. Int (S) 017 Imput Z: 50 Ω Corrections: Oil Freq Ref. Int (S) 017 Imput Z: 50 Ω Corrections: Oil Freq Ref. Int (S) 017 Imput Z: 50 Ω Corrections: Oil Freq Ref. Int (S) 017 Imput Z: 50 Ω Corrections: Oil Freq Ref. Int (S) 018 Imput Z: 50 Ω Corrections: Oil Freq Ref. Int (S) 019 Imput Z: 50 Ω Corrections: Oil Freq Ref. Int (S) 010 Imput Z: 50 Ω Corrections: Oil Freq Ref. Int (S) 010 Imput Z: 50 Ω Corrections: Oil Freq Ref. Int (S) 010 Imput Z: 50 Ω Correc	BAtten: 30 dB PNO: Fast Gate. 01 #Aug Type: Power (RMS) 2 3 4 3 5 (2 3 4 5 C) Center Frequency See Ref Lvi Offset 8.31 dB Aug Hvid: 2002/00 ITIG Free Run M.W.WWWW P.P.P.P.P.P.P See See	tings
	💬 🛆 🔤 👫 👪 🖬 💥 Signal Track (Span Zoom)	





Test Mode	Test Channel	Verdict
11G	MCH	PASS
Spectrum Analyzer 1 Swept SA + KEVSIGHT RL mpst DF Councilons: Off Freq Ref. Int (S) 1 Spectrum 1 Spectrum	Effection Construction Frequency Frequency Frequency Frequency Set Preamp Off Cate Off Educ Off Anglhold 200200 Multimetry Set Set Anglhold 200200 Multimetry Set Set Set Set Anglhold 200200 Multimetry Set Set	#ings
E C E 2:58:08 PM	Span Zoom)	





Test Mode	Test Channel	Verdict
11N HT20	LCH	PASS
Spectrum Analyzer 1 Imple. 15 KEYSIGHT Inple. 15 RL Adgr. Add Torrectors: 01 Spectrum Scale(Div 10 dB U2 0 1 Spectrum Scale(Div 10 dB U2 0 012 0 013 0 014 0 015 0 016 0 017 0 018 0 019 0 019 0 019 0 019 0 019 0 02 0 0316 0 041 0 041 0 041 0 041 0 041 0 041 0 041 0 041 0 041 0 041 0 041 0 041 0 043 0 043	EAtten: 30 dB PNO: Fast Gate OII #Aug Type: Rower (RMS) 2:3:4:5:0 Center Frequency Set Signal Set Si	Wirgs











11N HT40 MCH PASS	Test Mode	Test Channel	Verdict
Spectrum Avayzer 1 Swetz A → Prequency * Prequency *	11N HT40	MCH	PASS
	Spectrum Analyzer 1 + KEYSIGHT Input RF RL → Align Audo Contend 00 U 1 Spectrum 1 Spectrum * Scale/Div 10 dB R Log 1 1 Spectrum * 2 State Div 10 dB R 1 Spectrum * 2 State Div 10 dB R 2 State Div 10 dB R 2 State Div 10 dB R 3 State Div 2 AS700 GHz R 3 Δ1 1 f 1 4 4 5 6 * 2 Mar 00 AV2370 GHz	EAdten: 30 dB PMO Fact Prequency #Avg Type: Power (RMS) 2 3 4 3 5 4 5 6 MU Center Frequency Set Pearp: Off Gate Off Avg Hud: 200200 Multi-WHWW Center Frequency 243700000 GHz 243700000 GHz Sam Sam <t< td=""><td>tings</td></t<>	tings





3) For 99% Bandwidth Antenna 1 Part:





















Test Mode	Test Channel	Verdict
11N HT20	LCH	PASS
Spectrum Aralyzer 1 Cocupied BW KEYSIGHT Inpar.RF RL + Align Auto Corrections: Off Freq.Ref.Int (S) Corrections: Off Corrections:	Mater. 30 dB Ting Free Run Cate Off Center Frequency AugHeid 200200 Ref Off Center Frequency AugHeid 200200 Ref Value 30.00 GHz Search Span 40.000 MHz Span 40.000 MHz Span 40.0000 MHz Span 40.000 MHz Span 40.000 MHz Span 40.000 MHz Span	etting





Test Mode	Test Channel	Verdict
11N HT20	НСН	PASS
Spectrum Aralyzer 1 Cocupied BW KEYSIGHT Inpar.RF RL + Align Auto Correctors: Off Freq.Ref.Int (S) Correctors: Off Correctors: Off Correctors: Off Freq.Ref.Int (S) Correctors: Off Correctors: Of	Mith 12,4513 GHz Center Frequency Set Ref Lvi Offset 8.33 dB Mkr1 2,4613 GHz Span Span 40,0000 MHz Span Mark Frequency Statis Span 40,0000 MHz Span 40,0000 MHz Span 40,0000 MHz Span 40,0000 MHz Span Mark Frequency Mark Span 40,0000 MHz Span 40,0000 MHz Span Mark Frequency Mark Frequency	etting











4) For 99% Bandwidth Antenna 2 Part:



















