

DFS PORTION of FCC 47 CFR PART 15 SUBPART E DFS PORTION of ISED CANADA RSS-247 ISSUE 3

CERTIFICATION TEST REPORT

FOR

SMARTPHONE

MODEL NUMBER: A3212 (PARENT MODEL)
A3408, A3409, A3410
(VARIANT MODELS)

FCC ID: BCG-E8725A (PARENT MODEL) BCG-E8726A, BCG-E8727A, BCG-E8728A (VARIANT MODELS)

ISED ID: 579C-E8725A (PARENT MODEL) 579C-E8726A, 579C-E8727A, 579C-E8728A (VARIANT MODELS)

REPORT NUMBER: 15175342-E18V2

ISSUE DATE: 2024-11-14

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DATE: 2024-11-14 ISED ID: SEE COVER SHEET

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	2024-11-11	Initial Issue	
V2	2024-11-14	Add Variant Spot Check Data Per Reviewer Feedback	Doug Anderson

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: APPLE, INC.

1 APPLE PARK WAY

CUPERTINO, CA 95014, U.S.A.

EUT DESCRIPTION: SMARTPHONE

MODEL NUMBER: A3212 (PARENT MODEL)

A3408, A3409, A3410 (VARIANT MODELS)

MODEL TESTED: A3212

C3YJ0KGQYY and GV3Q2LH06T **SERIAL NUMBER:**

DATE TESTED: 2024/08/21 and 2024/08/30

APPLICABLE STANDARDS

STANDARD TEST RESULTS

DFS Portion of 47 CFR Part 15 Subpart E Complies Complies DFS Portion of ISED CANADA RSS-247 Issue 3

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.

This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document.

Approved & Released For UL Verification Services Inc. By:

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with the DFS portion of FCC 47 CFR Part 2, FCC 47 CFR Part 15, FCC KDB 789033, KDB 905462 D02 and D03 and RSS-247 Issue 3.

3. SUMMARY OF TEST RESULTS

Requirement Description	Result	Remarks
DFS Portion of FCC 47 CFR PART 15 SUBPART E	Complies	
DFS Portion of ISED CANADA RSS-247 ISSUE 3	Complies	

4. REFERENCE DOCUMENTS

Measurements of transmitter parameters as referenced in this report and all other manufacturer's declarations relevant to the RF test requirements are documented in UL Verification Services report number 15175342-E8 & E9 FCC_IC UNII Conducted Report".

This report contains data provided by the customer which can impact the validity of results. UL Verification Services Inc. is only responsible for the validity of results after the integration of the data provided by the customer.

5. FACILITIES AND ACCREDITATION

UL Verification Services Inc. is accredited by A2LA, Certificate Number 0751.05, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

	Address	ISED CABID	ISED Company Number	FCC Registration
◁	Building 1: 47173 Benicia Street,	US0104	2324A	550739
\boxtimes	Fremont, California, USA			

6. DECISION RULES AND MEASUREMENT UNCERTAINTY

6.1. METROLOGICAL TRACEABILITY

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, with a maximum time between calibrations of one year or the manufacturers' recommendation, whichever is less, and where applicable is traceable to recognized national standards.

6.2. DECISION RULES

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement).

6.3. MEASUREMENT UNCERTAINTY

The following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	U _{LAB}
Radio Frequency	±0.03 ppm
RF power, conducted	±1.30 dB
RF power, radiated (Substituted Power)	±6.18 dB
Frequency < 180 MHz	
RF power, radiated (Substituted Power)	±3.23 dB
Frequency ≥ 180 MHz	
Spurious emissions, conducted	±1.94 dB
Spurious emissions, radiated (Substituted Power)	±6.18 dB
Frequency < 180 MHz	
Spurious emissions, radiated (Substituted Power)	±3.23 dB
Frequency ≥ 180 MHz	
Humidity	±6.79 % RH
Temperature	±2.26 deg C
Time	±3.39 %

Uncertainty figures are valid to a confidence level of 95%.

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7. MODEL DIFFERENCES

The manufacturer hereby declares that:

- All models use the same system, cellular and connectivity radio electrical schematics.
- Removal of LTE bands on models not supporting them, is done by de-population of related components. Electrically there is no difference among the models.
- All models use the same Wi-Fi/BT chipset and radio module.
- All models use the same Applications Processor and PMU.
- All Models use the same UICC hardware/software interface.
- All models run the same Baseband firmware and iOS software.

The characteristics listed above do not have any influence upon the DFS performance of the models covered by this report and therefore the DFS test results documented for Parent Model A3212 for may be applied as representative to Variant Models A3408, A3409 and A3410.

Additional spot check testing was also performed to confirm that the data presented in the report for Parent Model A3212 is representative for all the Variant Models A3408, A3409 and A3410 within the scope of this report.

8. DYNAMIC FREQUENCY SELECTION

8.1. **OVERVIEW**

8.1.1. LIMITS

INNOVATION, SCIENCE and ECONOMIC DEVELOPMENT CANADA (ISED)

ISED RSS-247 is closely harmonized with FCC Part 15 DFS rules. The deviations are as follows:

RSS-247 Issue 3

Note: For the band 5600–5650 MHz, no operation is permitted.

Until further notice, devices subject to this annex shall not be capable of transmitting in the band 5600–5650 MHz. This restriction is for the protection of Environment Canada weather radars operating in this band.

FCC

§15.407 (h), FCC KDB 905462 D02 "COMPLIANCE MEASUREMENT PROCEDURES FOR UNLICENSED-NATIONAL INFORMATION INFRASTRUCTURE DEVICES OPERATING IN THE 5250-5350 MHz AND 5470-5725 MHz BANDS INCORPORATING DYNAMIC FREQUENCY SELECTION" and KDB 905462 D03 "U-NII CLIENT DEVICES WITHOUT RADAR DETECTION CAPABILITY".

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Table 1: Applicability of DFS requirements prior to use of a channel

Requirement	Operational Mode		
	Master	Client (without radar detection)	Client (with radar detection)
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

rabio 217 applicability of 51 o requirements during normal operation				
Requirement	Operationa	Operational Mode		
	Master	Client	Client	
		(without DFS)	(with DFS)	
DFS Detection Threshold	Yes	Not required	Yes	
Channel Closing Transmission Time	Yes	Yes	Yes	
Channel Move Time	Yes	Yes	Yes	
U-NII Detection Bandwidth	Yes	Not required	Yes	

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar DFS	Client (without DFS)
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required

Note: Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in all 20 MHz channel blocks and a null frequency between the bonded 20 MHz channel blocks.

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Table 3: Interference Threshold values, Master or Client incorporating In-Service Monitoring

Maximum Transmit Power	Value
	(see notes)
E.I.R.P. ≥ 200 milliwatt	-64 dBm
E.I.R.P. < 200 milliwatt and	-62 dBm
power spectral density < 10 dBm/MHz	
E.I.R.P. < 200 milliwatt that do not meet power spectral	-64 dBm
density requirement	

Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna

Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.

Note 3: E.I.R.P. is based on the highest antenna gain. For MIMO devices refer to KDB publication 662911 D01.

Table 4: DFS Response requirement values

Parameter	Value
Non-occupancy period	30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds (See Note 1)
Channel Closing Transmission Time	200 milliseconds + approx. 60 milliseconds over remaining 10 second period. (See Notes 1 and 2)
U-NII Detection Bandwidth	Minimum 100% of the U- NII 99% transmission power bandwidth. (See Note 3)

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

Note 2: The *Channel Closing Transmission Time* is comprised of 200 milliseconds starting at the beginning of the *Channel Move Time* plus any additional intermittent control signals required to facilitate a *Channel* move (an aggregate of 60 milliseconds) during the remainder of the 10-second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the *U-NII Detection Bandwidth* detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

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Table 5 - Short Pulse Radar Test Waveforms

Radar	Pulse	PRI	Pulses	Minimum	Minimum
Type	Width	(usec)	1 4.000	Percentage	Trials
1 7 7 5	(usec)	(4666)		of Successful	maio
	(4,000)			Detection	
0	1	1428	18	See Note 1	See Note
	-				1
1	1	Test A: 15 unique		60%	30
		PRI values randomly			
		selected from the list	Roundup:		
		of 23 PRI values in	{(1/360) x (19 x 10 ⁶ /PRI _{usec})}		
		table 5a			
		Test B: 15 unique			
		PRI values randomly			
		selected within the			
		range of 518-3066			
		usec. With a			
		minimum increment			
		of 1 usec, excluding			
		PRI values selected			
		in Test A			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
		Aggregate (Radar T	ypes 1-4)	80%	120

Note 1: Short Pulse Radar Type 0 should be used for the *Detection Bandwidth* test, *Channel Move Time*, and *Channel Closing Time* tests.

Table 6 - Long Pulse Radar Test Signal

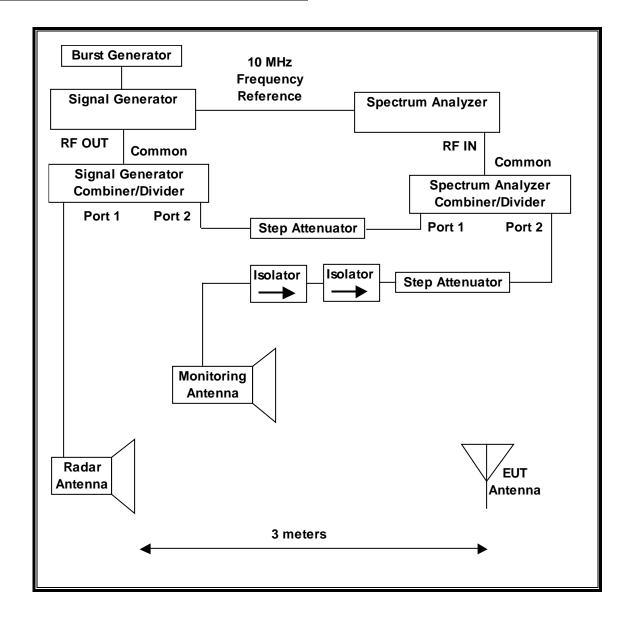
Radar	Pulse	Chirp	PRI	Pulses	Number	Minimum	Minimum
Waveform	Width	Width	(µsec)	per	of	Percentage	Trials
Type	(µsec)	(MHz)		Burst	Bursts	of Successful	
						Detection	
5	50-100	5-20	1000-	1-3	8-20	80%	30
			2000				

Table 7 – Frequency Hopping Radar Test Signal

i abic i	. cqucii	oj ilopp	iiig itaac	a root oig	iiui		
Radar	Pulse	PRI	Pulses	Hopping	Hopping	Minimum	Minimum
Waveform	Width	(µsec)	per	Rate	Sequence	Percentage of	Trials
Type	(µsec)		Hop	(kHz)	Length	Successful	
					(msec)	Detection	
6	1	333	9	0.333	300	70%	30

8.1.2. TEST AND MEASUREMENT SYSTEM

RADIATED METHOD SYSTEM BLOCK DIAGRAM



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SYSTEM OVERVIEW

The short pulse and long pulse signal generating system utilizes the NTIA software. The Vector Signal Generator has been validated by the NTIA. The hopping signal generating system utilizes the CCS simulated hopping method and system, which has been validated by the DoD, FCC and NTIA. The software selects waveform parameters from within the bounds of the signal type on a random basis using uniform distribution.

The short pulse types 2, 3 and 4, and the long pulse type 5 parameters are randomized at runtime.

The hopping type 6 pulse parameters are fixed while the hopping sequence is based on the August 2005 NTIA Hopping Frequency List. The initial starting point randomized at run-time and each subsequent starting point is incremented by 475. Each frequency in the 100-length segment is compared to the boundaries of the EUT Detection Bandwidth and the software creates a hopping burst pattern in accordance with Section 7.4.1.3 Method #2 Simulated Frequency Hopping Radar Waveform Generating Subsystem of KDB 905462 D02. The frequency of the signal generator is incremented in 1 MHz steps from F_L to F_H for each successive trial. This incremental sequence is repeated as required to generate a minimum of 30 total trials and to maintain a uniform frequency distribution over the entire Detection Bandwidth.

The signal monitoring equipment consists of a spectrum analyzer. The aggregate ON time is calculated by multiplying the number of bins above a threshold during a particular observation period by the dwell time per bin, with the analyzer set to peak detection and max hold.

SYSTEM CALIBRATION

A 50-ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to a horn antenna via a coaxial cable, with the reference level offset set to (horn antenna gain – coaxial cable loss). The signal generator is set to CW mode. The amplitude of the signal generator is adjusted to yield a level of -64 dBm as measured on the spectrum analyzer.

Without changing any of the instrument settings, the spectrum analyzer is reconnected to the Common port of the Spectrum Analyzer Combiner/Divider. The Reference Level Offset of the spectrum analyzer is adjusted so that the displayed amplitude of the signal is -64 dBm.

The spectrum analyzer displays the level of the signal generator as received at the antenna ports of the Master Device. The interference detection threshold may be varied from the calibrated value of -64 dBm and the spectrum analyzer will still indicate the level as received by the Master Device.

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ADJUSTMENT OF DISPLAYED TRAFFIC LEVEL

A link is established between the Master and Slave and the distance between the units is adjusted as needed to provide a suitable received level at the Master and Slave devices. The video test file is streamed to generate WLAN traffic. The monitoring antenna is adjusted so that the WLAN traffic level, as displayed on the spectrum analyzer, is at lower amplitude than the radar detection threshold.

TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST							
Description	Manufacturer	Model	ID No.	Cal Due			
Spectrum Analyzer, PXA, 3Hz to 8.4GHz	Keysight	N9030A	150667	01/31/25			
Signal Generator, MXG X-Series RF Vector	Keysight	N5182B	215999	01/31/25			
Frequency Extender	Keysight	N5182BX	213906	01/31/25			

Note: An MXG series Signal Generator and separate external Frequency Extender module are shown in the preceding test system block diagram as a stand-alone Signal Generator.

8.1.3. TEST AND MEASUREMENT SOFTWARE

The following test and measurement software was utilized for the tests documented in this report:

TEST SOFTWARE LIST					
Name	Version	Test / Function			
Aggregate Time-PXA	3.1	Channel Loading and Aggregate Closing Time			
PXA Read	3.1	Signal Generator Screen Capture			
SGXProject.exe	1.7	Radar Waveform Generation and Download			

8.1.4. TEST ROOM ENVIRONMENT

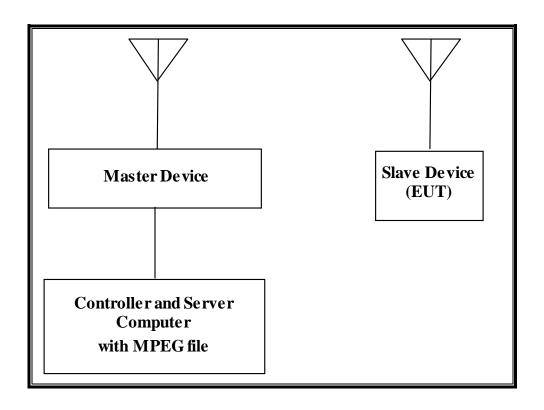
The test room temperature and humidity shall be maintained within normal temperature of 15~35 °C and normal humidity 20~75% (relative humidity).

ENVIRONMENT CONDITION

Parameter	Value
Temperature	23.4 and 24.8 °C
Humidity	53 and 54 %

8.1.5. SETUP OF EUT (CLIENT MODE)

RADIATED METHOD EUT TEST SETUP



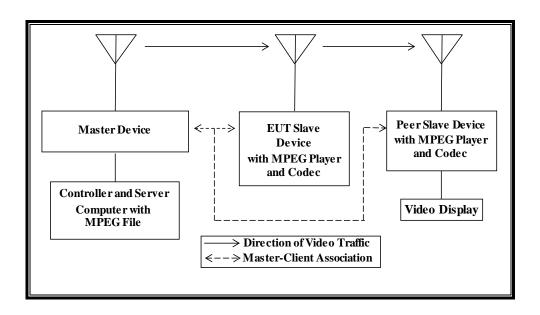
SUPPORT EQUIPMENT

The following support equipment was utilized for the tests documented in this report:

PERIPHERAL SUPPORT EQUIPMENT LIST							
Description	Manufacturer	Model	Serial Number	FCC ID			
802.11a/b/g/n/ac Wireless Router	Apple	A1521	C86PJ5RUFJ1R	BCGA1521			
(Master Device 1)							
Notebook PC (Controller/Server)	Apple	A2338	Y2LQ7XCWRL	DoC			

8.1.6. SETUP OF EUT (CLIENT TO CLIENT MODE)

RADIATED METHOD EUT TEST SETUP WHEN MONITORING THE EUT



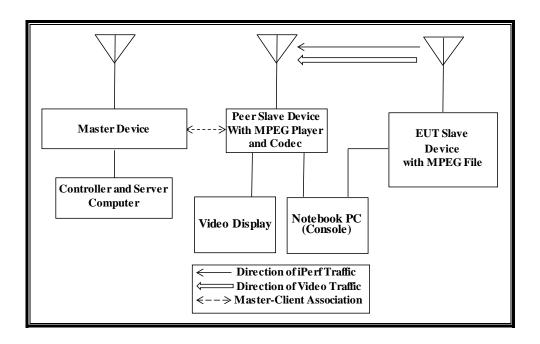
SUPPORT EQUIPMENT

The following support equipment was utilized for the tests documented in this report:

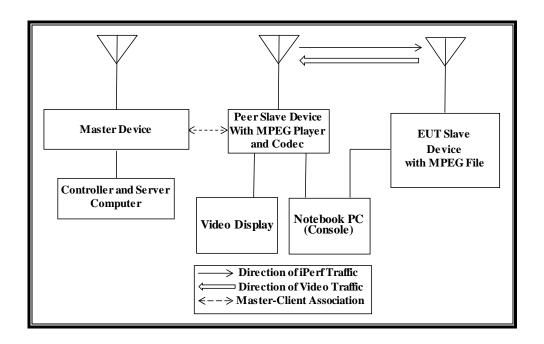
PERIPHERAL SUPPORT EQUIPMENT LIST							
Description	Manufacturer	Model	Serial Number	FCC ID			
802.11a/b/g/n/ac Wireless	Apple	A1521	C86PJ5RUFJ1R	BCGA1521			
Router (Master Device 1)							
Notebook PC	Apple	A2338	Y2LQ7XCWRL	DoC			
(Controller/Server)							
Apple TV (Peer Slave Device)	Apple	A1842	C0HW3DN4J1WF	BCGA1842			
15" LCD TV (Video Display)	Polaroid	TLX-01511C	02006	DoC			

8.1.7. SETUP OF EUT (PEER TO PEER MODE)

RADIATED METHOD EUT TEST SETUP WHEN MONITORING THE EUT



RADIATED METHOD EUT TEST SETUP WHEN MONITORING THE PEER SLAVE DEVICE)



SUPPORT EQUIPMENT

The following support equipment was utilized for the tests documented in this report:

PERIPHERAL SUPPORT EQUIPMENT LIST							
Description	Manufacturer	Model	Serial Number	FCC ID			
Nighthawk AXE 11000 Tri-Band	Netgear	RAXE500	6TA53275D0538	PY320300508			
WiFi 6E Router (Master Device 2)							
AC Adapter (Master Device 2)	Netgear	2AE060K 1	No Serial Number	DoC			
Notebook PC (Controller/Server)	Apple	A2338	Y2LQ7XCWRL	DoC			
Apple TV (Peer Slave Device)	Apple	A1842	C0HW3DN4J1WF	BCGA1842			
Notebook PC (Peer Console)	Apple	A1708	C02VT5DTHV22	DoC			
15" LCD TV (Video Display)	Polaroid	TLX-01511C	02006	DoC			

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8.1.8. DESCRIPTION OF EUT

For FCC the EUT operates over the 5250-5350 MHz and 5470-5725 MHz ranges.

For ISED the EUT operates over the 5250-5350 MHz and 5470-5725 MHz ranges, excluding the 5600-5650 MHz range.

The EUT is a Slave Device without Radar Detection.

Slave EUT EIRP, maximum conducted output power, antenna assembly gain and TPC information can be found in the RF report referenced in section 4 of this report.

The rated output power of the Master unit is > 23dBm (EIRP). Therefore, the required interference threshold level is -64 dBm. After correction for procedural adjustments, the required radiated threshold at the antenna port is -64 + 1 = -63 dBm.

The calibrated radiated DFS Detection Threshold level is set to –64 dBm. The tested level is lower than the required level hence it provides a margin to the limit.

Two antennas are utilized to meet the diversity and MIMO operational requirements.

The EUT uses two transmitter/receiver chains, each connected to an antenna to perform radiated tests.

In **Standard Client Mode** WLAN traffic that meets or exceeds the minimum required loading was generated by streaming the compressed version of the video test file "6 ½ Magic Hours" from the Master to the Slave using OPlayer media player.

In **Client-to-Client mode** WLAN traffic is generated by streaming the compressed version of the video test file "6 ½ Magic Hours" from the Master to the Slave and then on to the peer slave device in full motion video mode using OPlayer media player and embedded proprietary AirPlay software.

In **Peer-to-Peer mode while monitoring the EUT**, WLAN traffic is generated with the combination of streaming the compressed version of the video test file "6 ½ Magic Hours" from the EUT to the Peer Slave Device in full motion video mode using OPlayer media player and embedded proprietary AirPlay software and Iperf version 3 from the EUT to the Peer Slave Device.

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In Peer-to-Peer mode while monitoring the Peer Slave Device, WLAN traffic is generated with the combination of streaming the compressed version of the video test file "6 ½ Magic Hours" from the EUT to the Peer Slave Device in full motion video mode using OPlayer media player and embedded proprietary AirPlay software and Iperf version 3 from the Peer Slave Device to the EUT.

While performing **Peer to Peer Mode** testing only the Peer Slave Device is associated to the Master Device.

Peer to Peer Mode has been reviewed and approved as compliant with the DFS requirements for client devices by the FCC via KDB inquiry. The inquiry confirmed that the test cases used adequately demonstrate compliance with DFS requirements for client devices.

The EUT utilizes the 802.11a/b/g/n/ac/ax architecture. Three nominal channel bandwidths are implemented: 20 MHz, 40 MHz and 80 MHz.

The manufacturer declares that the EUT does not support Channel Puncturing.

The EUT does not support Channel Bandwidth Reduction.

The software installed in the EUT is version 18.2.

The software installed in Master Device 1 is revision 7.7.9.

The software installed in Master Device is V1.0.11.94 2.0.44.

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UNIFORM CHANNEL SPREADING

This function is not required per KDB 905462.

OVERVIEW OF THE MASTER DEVICE 1 WITH RESPECT TO §15.407 (h) REQUIREMENTS

Master Device 1 is an Apple, Inc. Access Point, FCC ID: BCGA1521. The minimum antenna gain for the Master Device is 1.4 dBi.

The rated output power of the Master unit is > 23dBm (EIRP). Therefore, the required interference threshold level is -64 dBm. After correction for procedural adjustments, the required radiated threshold at the antenna port is -64 + 1 = -63 dBm.

The calibrated radiated DFS Detection Threshold level is set to –64 dBm. The tested level is lower than the required level hence it provides a margin to the limit.

The software installed in the access point is revision 7.7.9.

OVERVIEW OF THE MASTER DEVICE 2 WITH RESPECT TO §15.407 (h) REQUIREMENTS

Master Device 2 is a Netgear Nighthawk AXE 11000 Tri-Band WiFi 6E Router, FCC ID: PY320300508. The minimum antenna gain for the Master Device is 6.98 dBi.

The rated output power of the Master unit is > 23dBm (EIRP). Therefore, the required interference threshold level is -64 dBm. After correction for procedural adjustments, the required radiated threshold at the antenna port is -64 + 1 = -63 dBm.

The calibrated radiated DFS Detection Threshold level is set to –64 dBm. The tested level is lower than the required level hence it provides a margin to the limit.

The software installed in the access point is V1.0.11.94_2.0.44.

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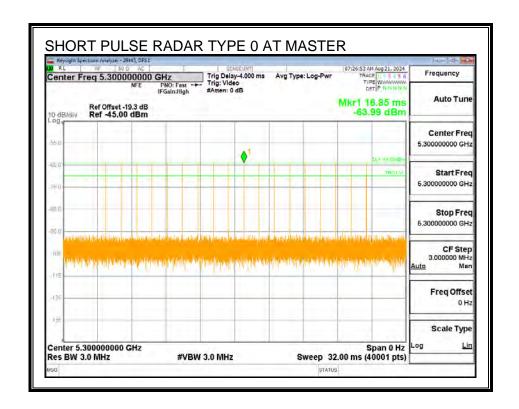
8.2. CLIENT MODE RESULTS FOR 20 MHz BANDWIDTH

8.2.1. TEST CHANNEL

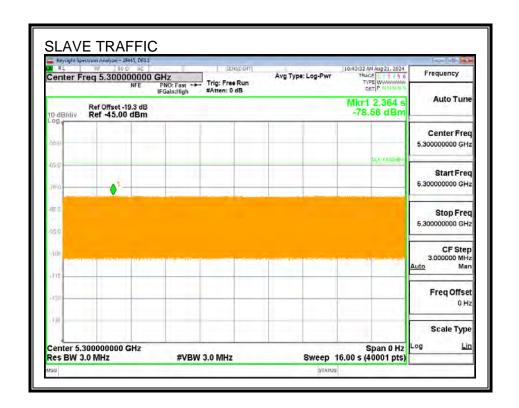
All tests were performed at a channel center frequency of 5300 MHz.

8.2.2. RADAR WAVEFORM AND TRAFFIC

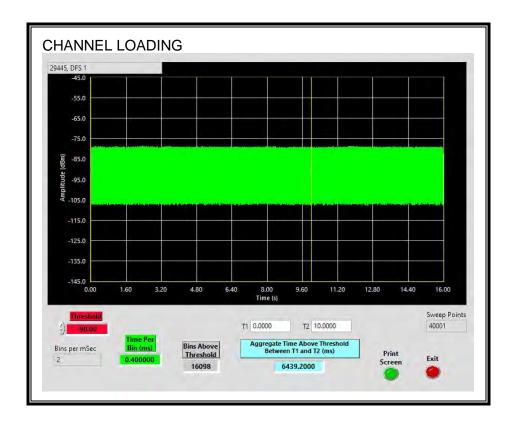
RADAR WAVEFORM



TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 64.39%

8.2.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.2.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of the last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

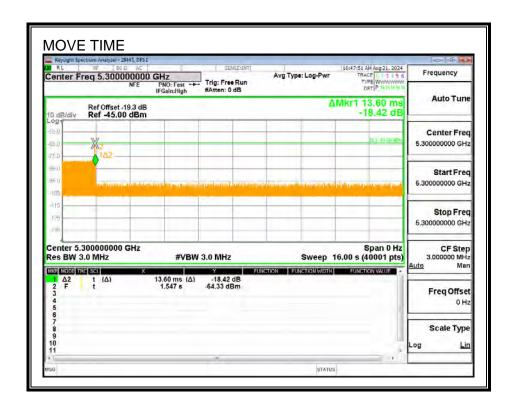
Channel Move Time	Limit
(sec)	(sec)
0.0136	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.0	60

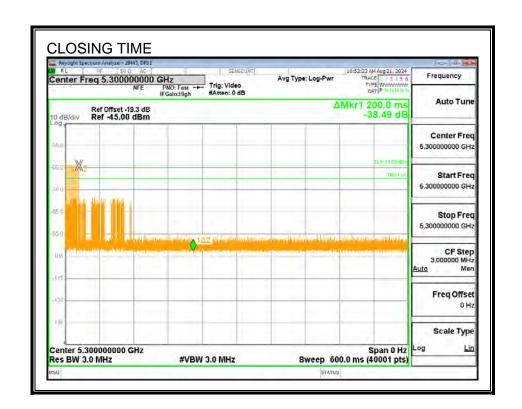
DATE: 2024-11-14

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MOVE TIME

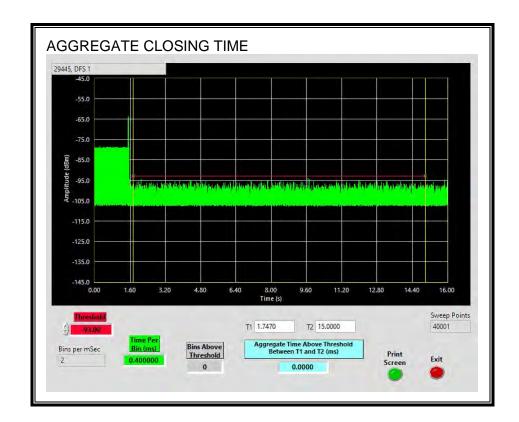


CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.



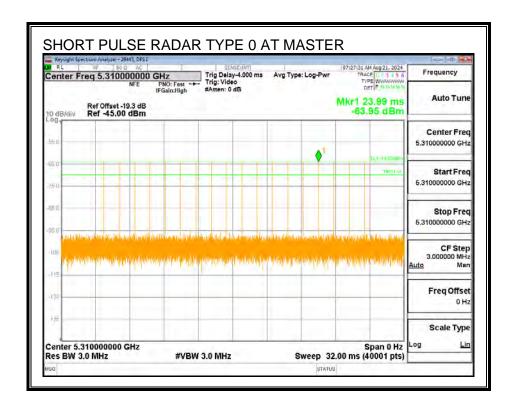
8.3. CLIENT MODE RESULTS FOR 40 MHz BANDWIDTH

8.3.1. TEST CHANNEL

All tests were performed at a channel center frequency of 5310 MHz.

8.3.2. RADAR WAVEFORM AND TRAFFIC

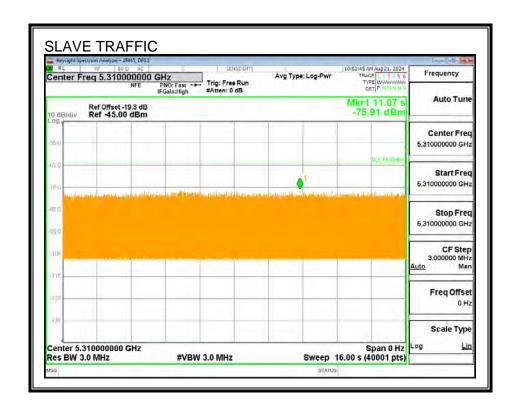
RADAR WAVEFORM



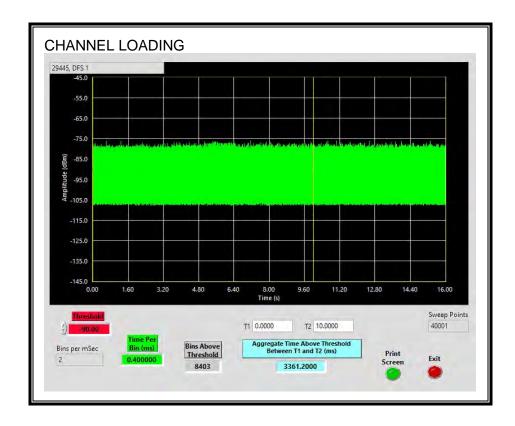
DATE: 2024-11-14

ISED ID: SEE COVER SHEET

TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 33.61%

8.3.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.3.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of the last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

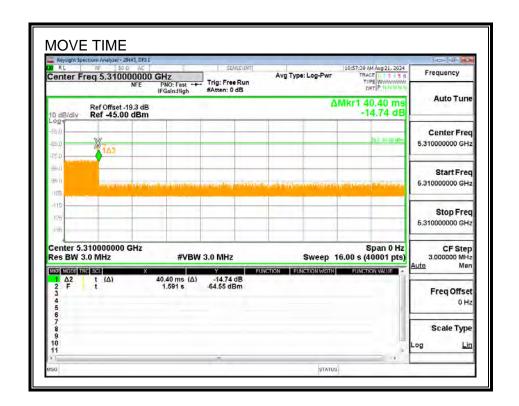
Channel Move Time	Limit
(sec)	(sec)
0.0404	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.0	60

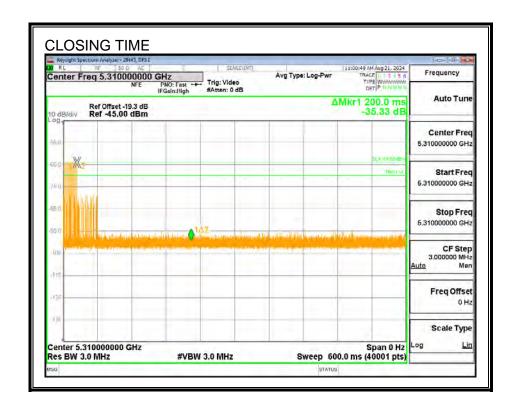
DATE: 2024-11-14

ISED ID: SEE COVER SHEET

MOVE TIME



CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.



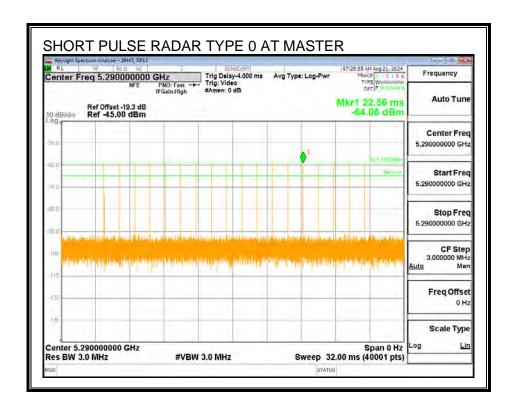
8.4. CLIENT MODE RESULTS FOR 80 MHz BANDWIDTH

8.4.1. TEST CHANNEL

All tests were performed at a channel center frequency of 5290 MHz.

8.4.2. RADAR WAVEFORM AND TRAFFIC

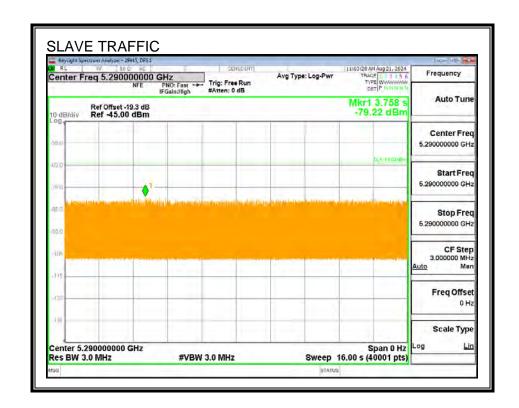
RADAR WAVEFORM



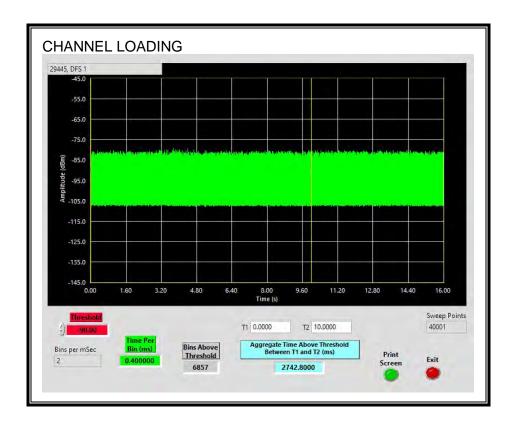
DATE: 2024-11-14

ISED ID: SEE COVER SHEET

TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 27.42%

8.4.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.4.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of the last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

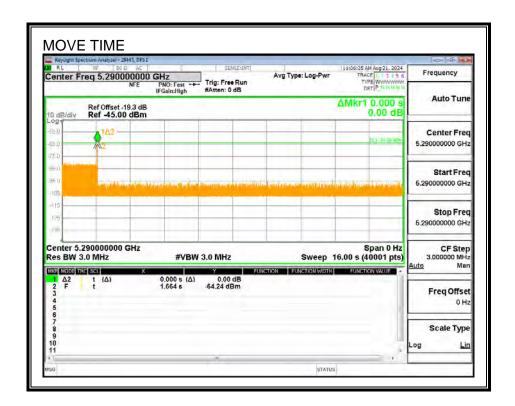
Channel Move Time	Limit
(sec)	(sec)
0.0	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.0	60

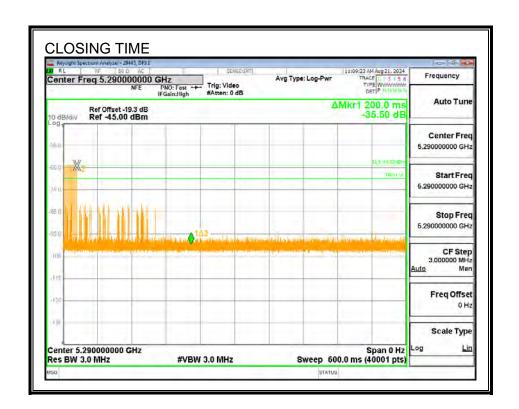
DATE: 2024-11-14

ISED ID: SEE COVER SHEET

MOVE TIME



CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

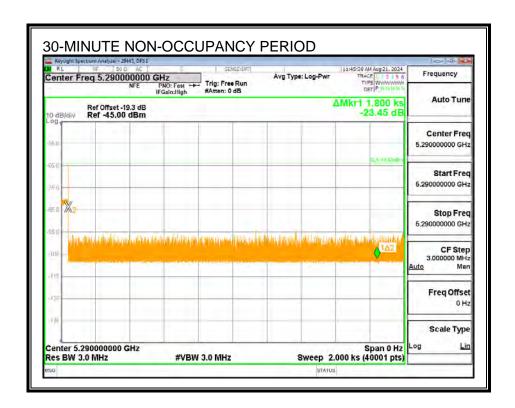
No transmissions are observed during the aggregate monitoring period.



8.4.5. 30-MINUTE NON-OCCUPANCY PERIOD

RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.



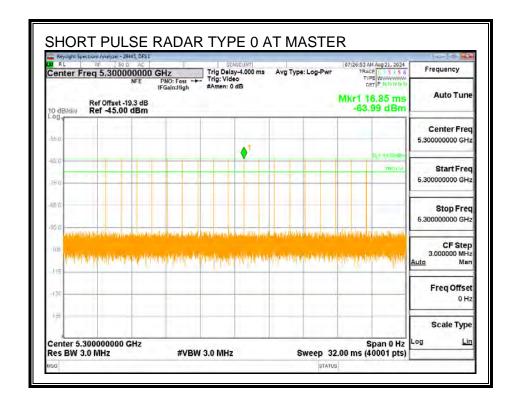
CLIENT-TO-CLIENT COMMUNICATIONS MODE RESULTS FOR 8.5. 20 MHz BANDWIDTH

8.5.1. TEST CHANNEL

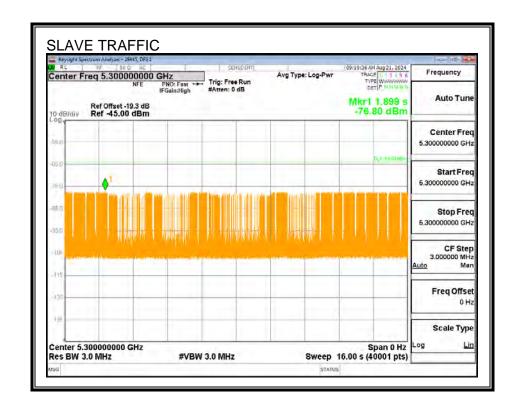
All tests were performed at a channel center frequency of 5300 MHz.

8.5.2. RADAR WAVEFORM AND TRAFFIC

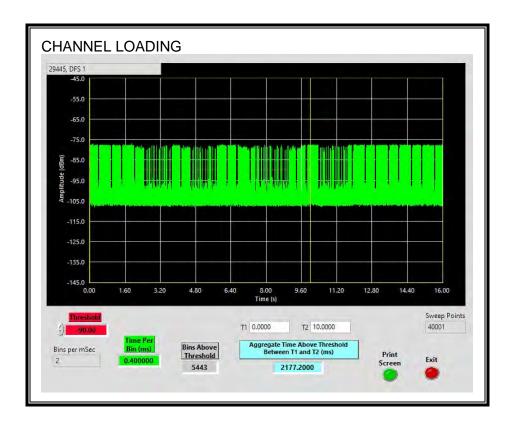
RADAR WAVEFORM



TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 21.77%

8.5.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.5.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of the last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

Channel Move Time	Limit
(sec)	(sec)
4.121	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.800	60

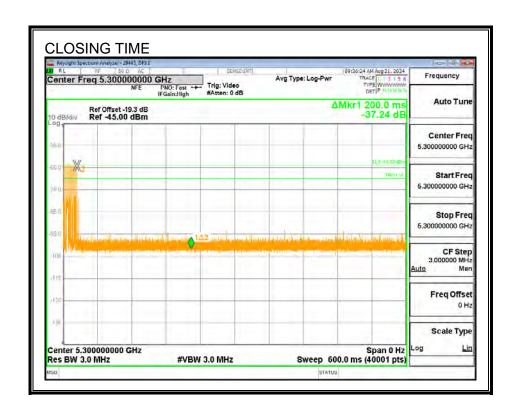
DATE: 2024-11-14

ISED ID: SEE COVER SHEET

MOVE TIME



CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

Only intermittent transmissions are observed during the aggregate monitoring period.



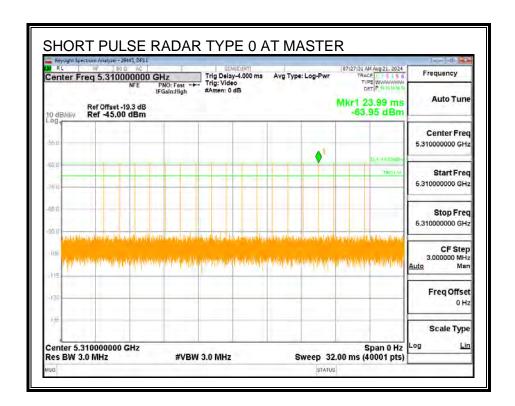
CLIENT-TO-CLIENT COMMUNICATIONS MODE RESULTS FOR 8.6. **40 MHz BANDWIDTH**

8.6.1. TEST CHANNEL

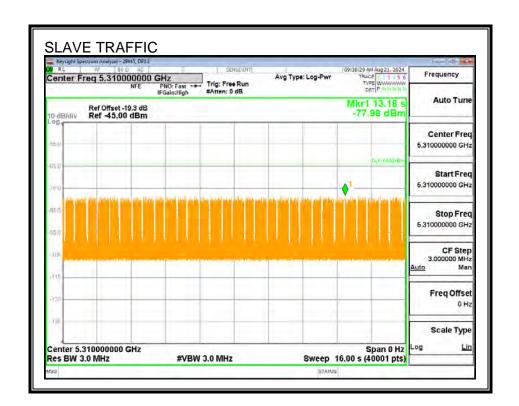
All tests were performed at a channel center frequency of 5310 MHz.

8.6.2. RADAR WAVEFORM AND TRAFFIC

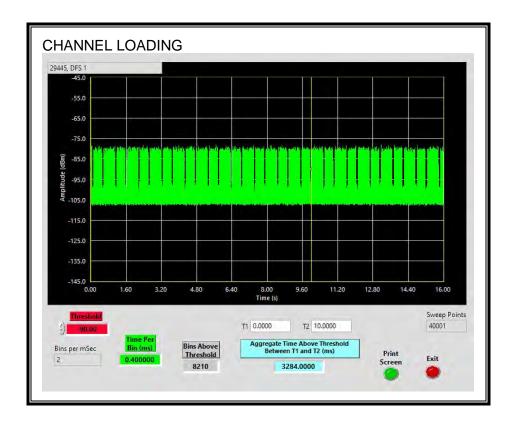
RADAR WAVEFORM



TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 32.84%

8.6.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.6.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of the last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

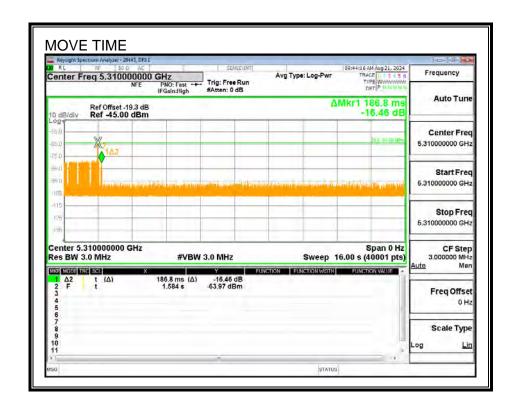
Channel Move Time	Limit
(sec)	(sec)
0.1868	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.0	60

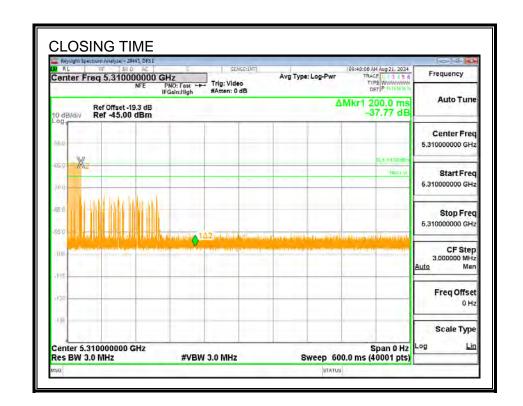
DATE: 2024-11-14

ISED ID: SEE COVER SHEET

MOVE TIME

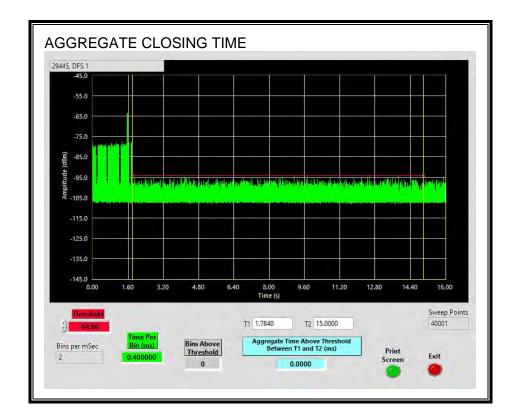


CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.



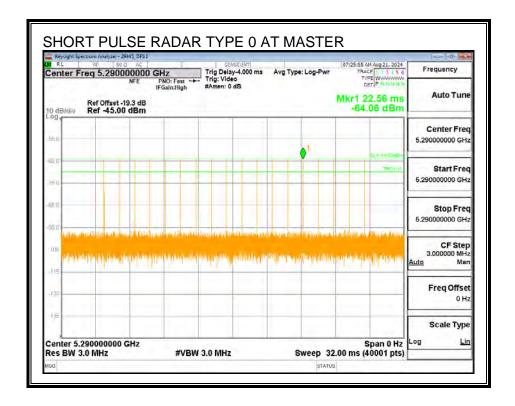
8.7. CLIENT-TO-CLIENT COMMUNICATIONS MODE RESULTS FOR 80 MHz BANDWIDTH

8.7.1. TEST CHANNEL

All tests were performed at a channel center frequency of 5290 MHz.

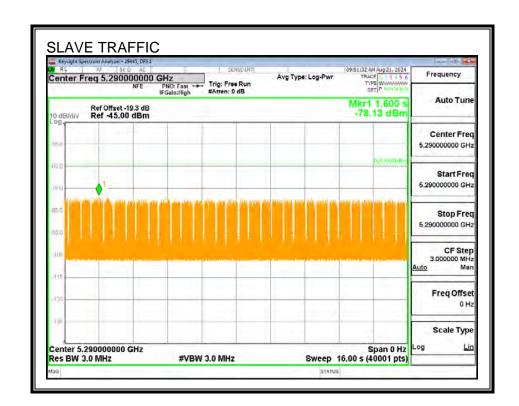
8.7.2. RADAR WAVEFORM AND TRAFFIC

RADAR WAVEFORM

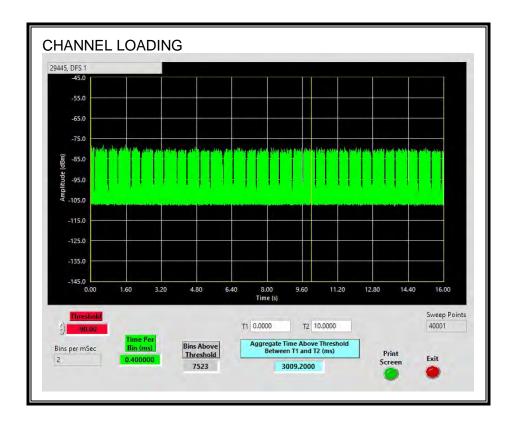


FAX: (510) 661-0888

TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 30.09%

8.7.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.7.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of the last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

Channel Move Time	Limit
(sec)	(sec)
0.1452	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.0	60

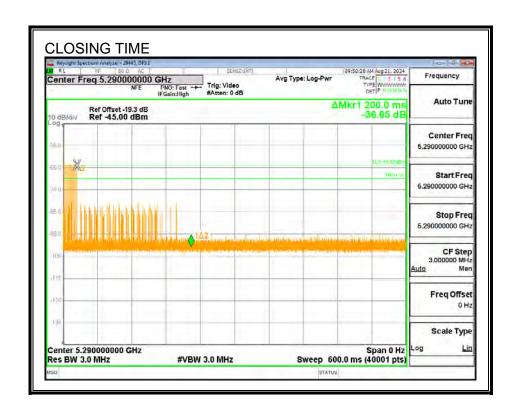
DATE: 2024-11-14

ISED ID: SEE COVER SHEET

MOVE TIME

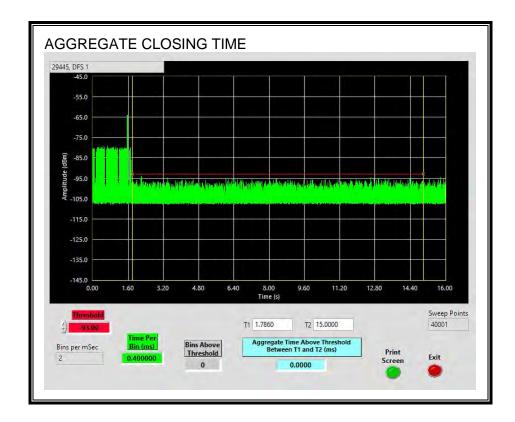


CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

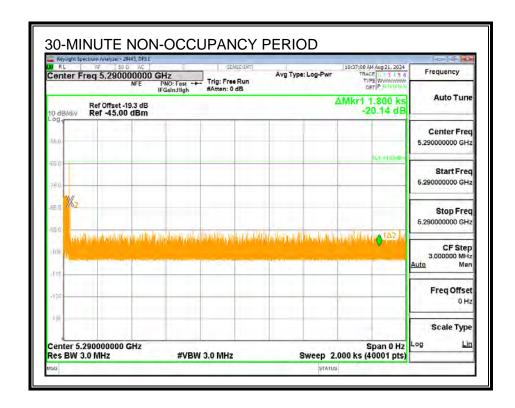
No transmissions are observed during the aggregate monitoring period.



8.7.5. 30-MINUTE NON-OCCUPANCY PERIOD

RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation



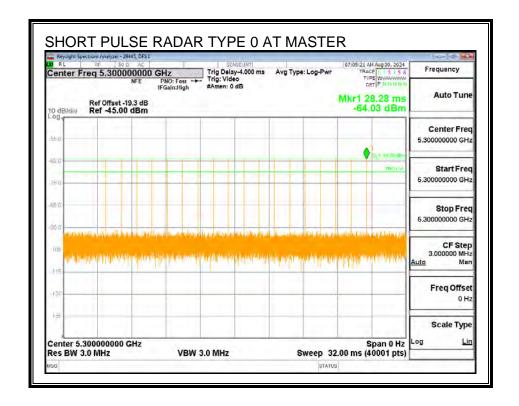
PEER TO PEER MODE EUT RESULTS FOR 20 MHz 8.8. **BANDWIDTH**

8.8.1. TEST CHANNEL

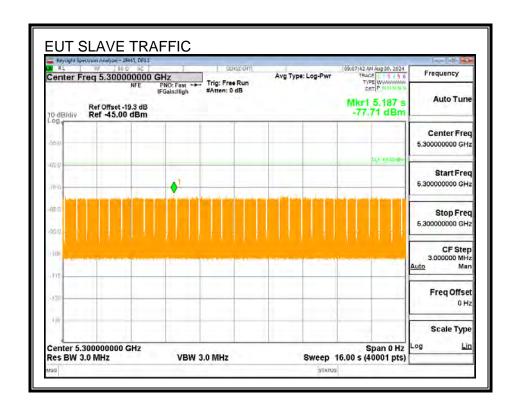
All tests were performed at a channel center frequency of 5300 MHz.

8.8.2. RADAR WAVEFORM AND TRAFFIC

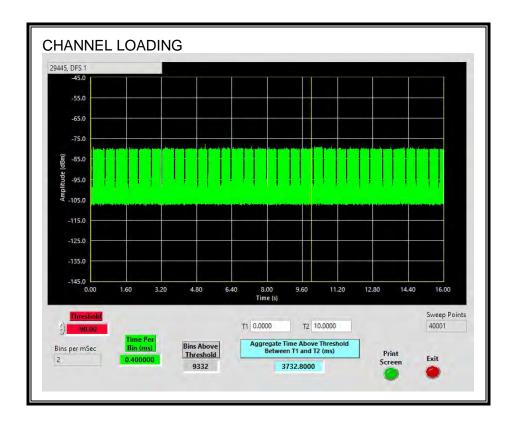
RADAR WAVEFORM



TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 37.32%

8.8.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.8.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of the last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

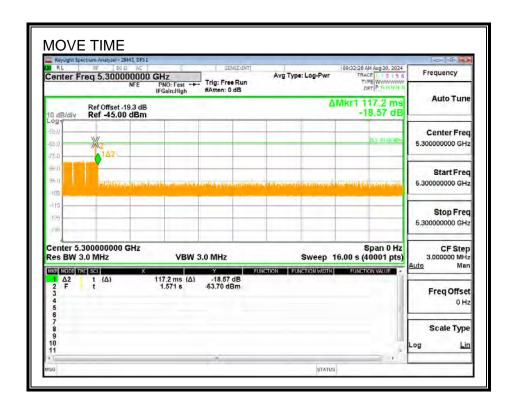
Channel Move Time	Limit
(sec)	(sec)
0.1172	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.0	60

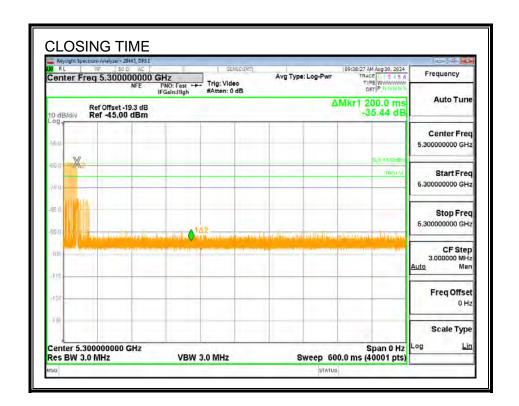
DATE: 2024-11-14

ISED ID: SEE COVER SHEET

MOVE TIME



CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.



DATE: 2024-11-14

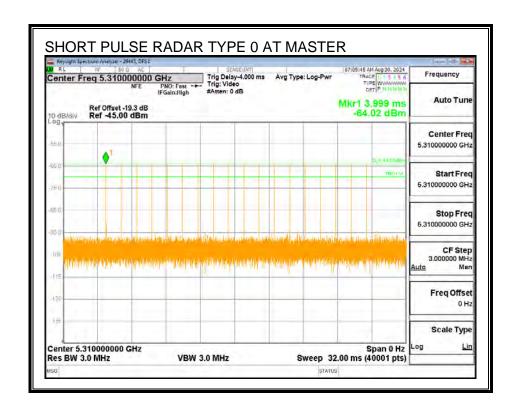
8.9. PEER TO PEER MODE EUT RESULTS FOR 40 MHz BANDWIDTH

8.9.1. TEST CHANNEL

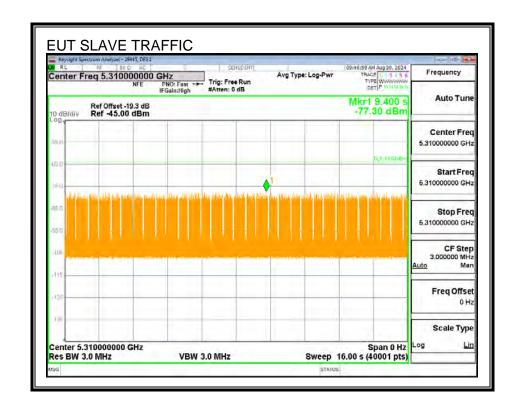
All tests were performed at a channel center frequency of 5310 MHz.

8.9.2. RADAR WAVEFORM AND TRAFFIC

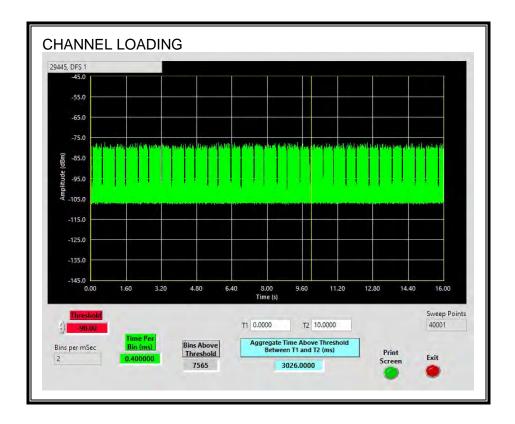
RADAR WAVEFORM



TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 30.26%

8.9.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.9.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of the last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

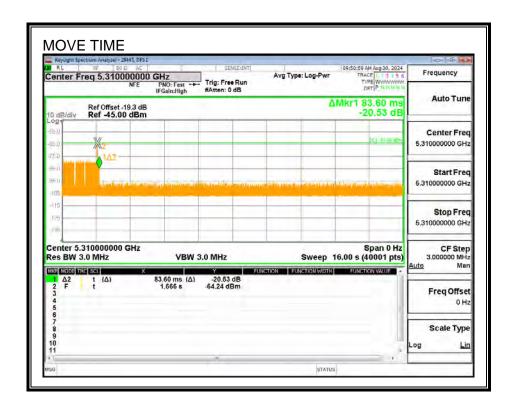
Channel Move Time	Limit
(sec)	(sec)
0.0836	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.0	60

DATE: 2024-11-14

ISED ID: SEE COVER SHEET

MOVE TIME

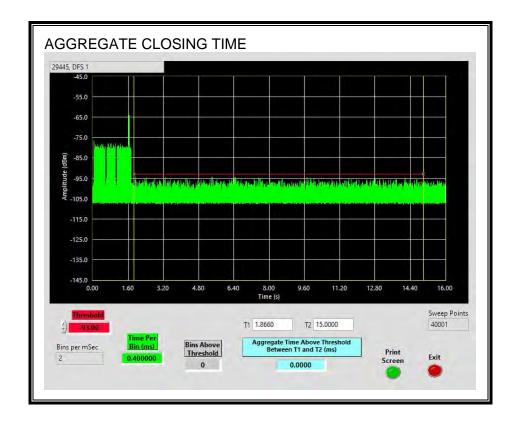


CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.



ISED ID: SEE COVER SHEET

DATE: 2024-11-14

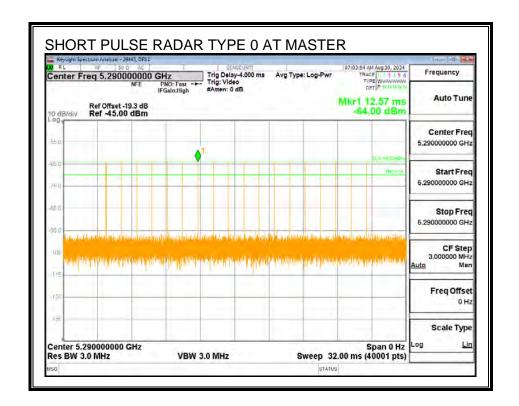
PEER TO PEER MODE EUT RESULTS FOR 80 MHz BANDWIDTH 8.10.

8.10.1. **TEST CHANNEL**

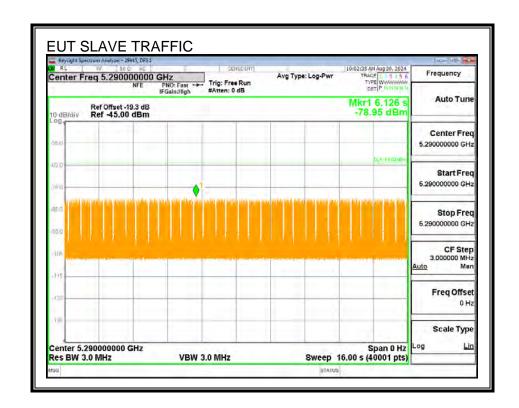
All tests were performed at a channel center frequency of 5290 MHz.

RADAR WAVEFORM AND TRAFFIC 8.10.2.

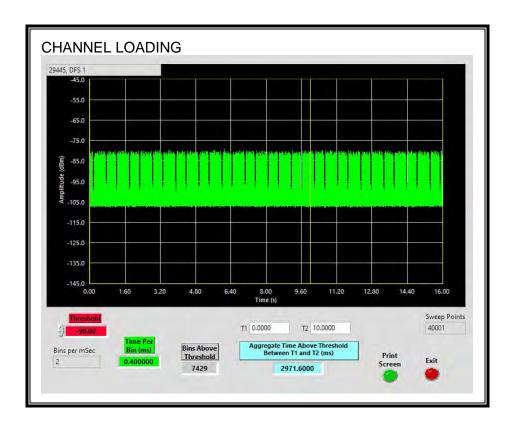
RADAR WAVEFORM



TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 29.71%

8.10.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.10.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of the last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

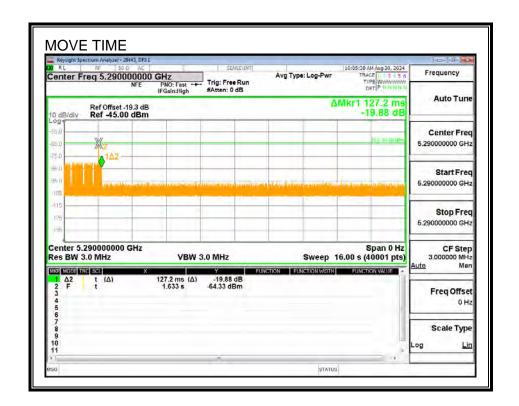
Channel Move Time	Limit
(sec)	(sec)
0.1272	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.0	60

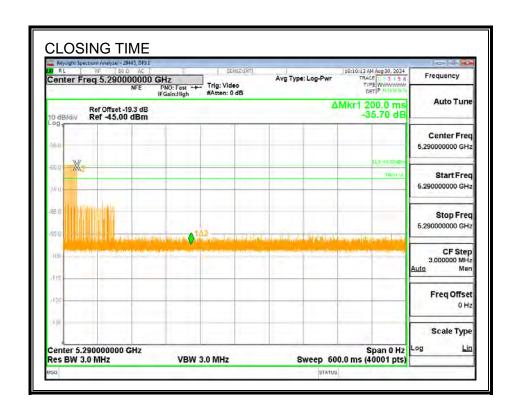
DATE: 2024-11-14

ISED ID: SEE COVER SHEET

MOVE TIME



CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

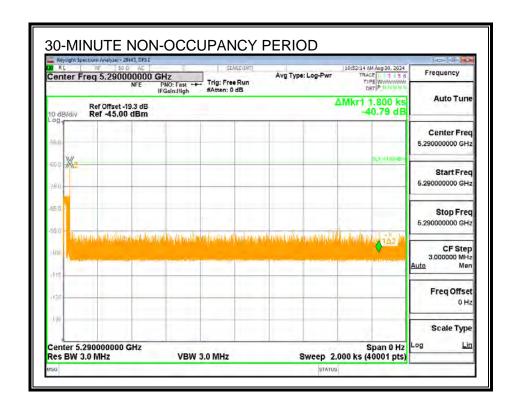
No transmissions are observed during the aggregate monitoring period.



30-MINUTE NON-OCCUPANCY PERIOD 8.10.5.

RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation



DATE: 2024-11-14

ISED ID: SEE COVER SHEET

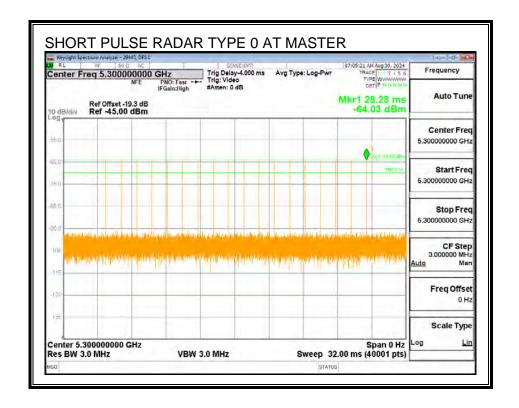
PEER TO PEER MODE PEER SLAVE DEVICE RESULTS FOR 20 8.11. **MHz BANDWIDTH**

8.11.1. **TEST CHANNEL**

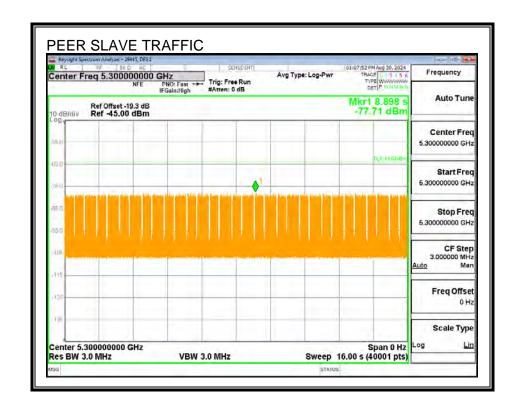
All tests were performed at a channel center frequency of 5300 MHz.

8.11.2. RADAR WAVEFORM AND TRAFFIC

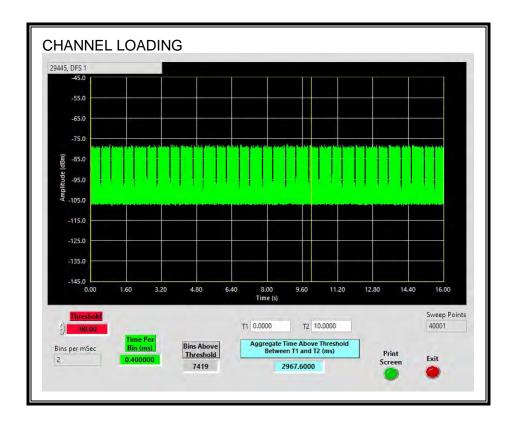
RADAR WAVEFORM



TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the Peer Slave is 29.67%

8.11.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.11.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of the last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

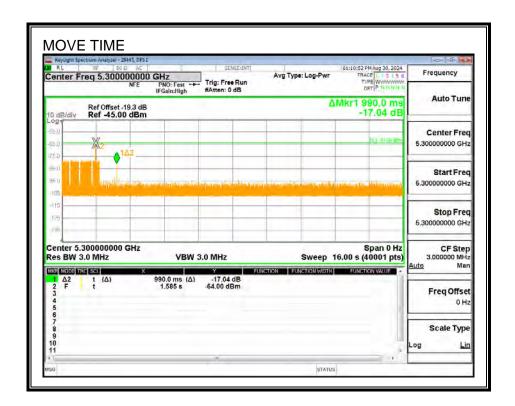
Channel Move Time	Limit
(sec)	(sec)
0.9900	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
3.2	60

DATE: 2024-11-14

ISED ID: SEE COVER SHEET

MOVE TIME



CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

Only intermittent transmissions are observed during the aggregate monitoring period.



DATE: 2024-11-14

ISED ID: SEE COVER SHEET

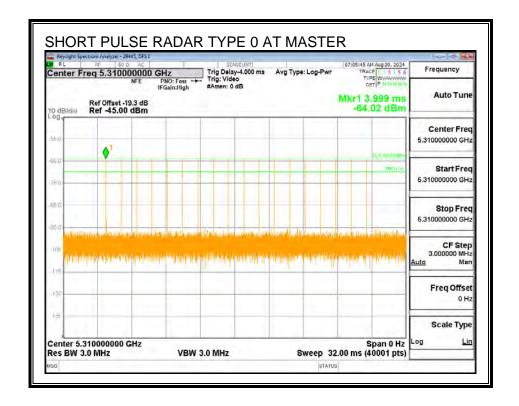
PEER TO PEER MODE PEER SLAVE DEVICE RESULTS FOR 40 8.12. MHz BANDWIDTH

8.12.1. **TEST CHANNEL**

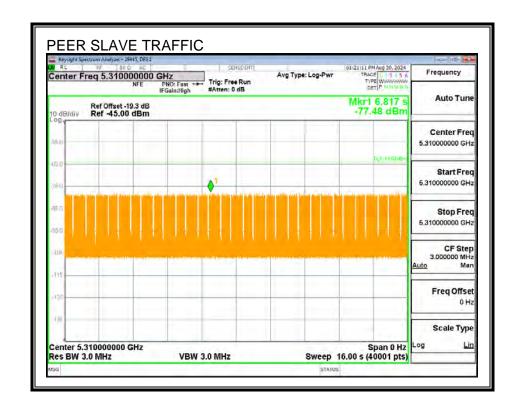
All tests were performed at a channel center frequency of 5310 MHz.

8.12.2. RADAR WAVEFORM AND TRAFFIC

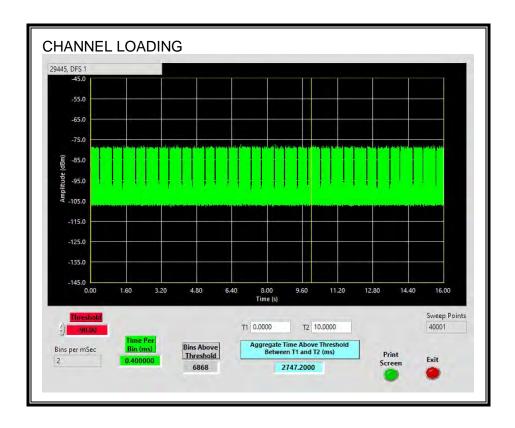
RADAR WAVEFORM



TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the Peer Slave is 27.47%

8.12.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.12.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of the last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

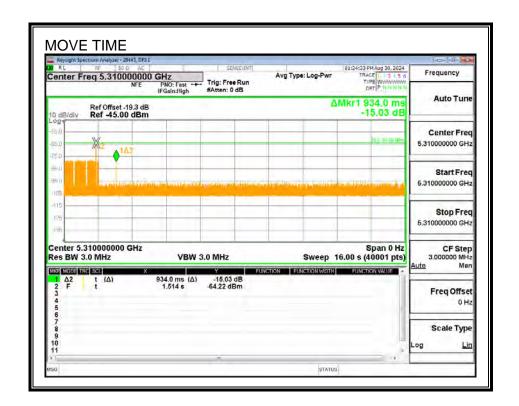
Channel Move Time	Limit
(sec)	(sec)
0.9340	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.80	60

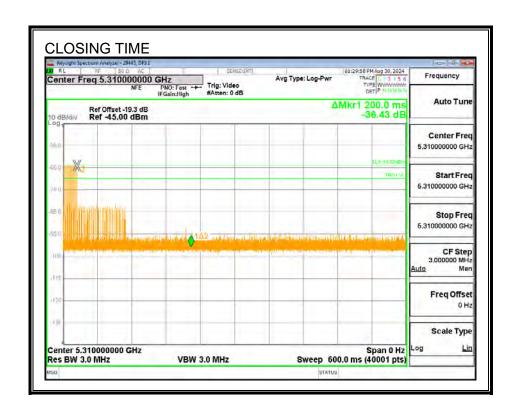
DATE: 2024-11-14

ISED ID: SEE COVER SHEET

MOVE TIME



CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

Only intermittent transmissions are observed during the aggregate monitoring period.



ISED ID: SEE COVER SHEET

DATE: 2024-11-14

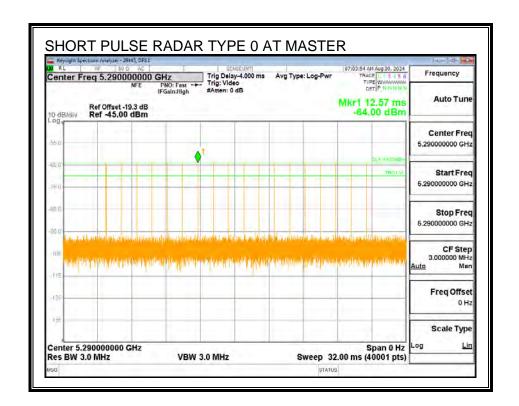
PEER TO PEER MODE PEER SLAVE DEVICE RESULTS FOR 80 8.13. MHz BANDWIDTH

8.13.1. **TEST CHANNEL**

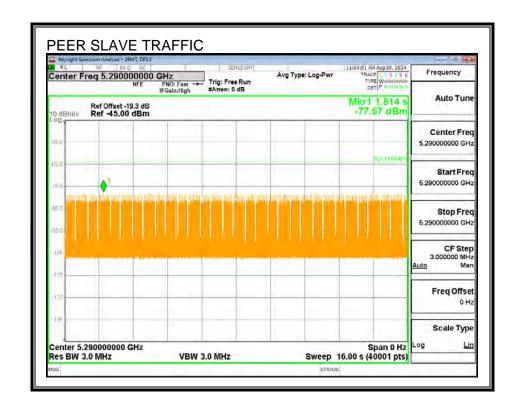
All tests were performed at a channel center frequency of 5290 MHz.

8.13.2. RADAR WAVEFORM AND TRAFFIC

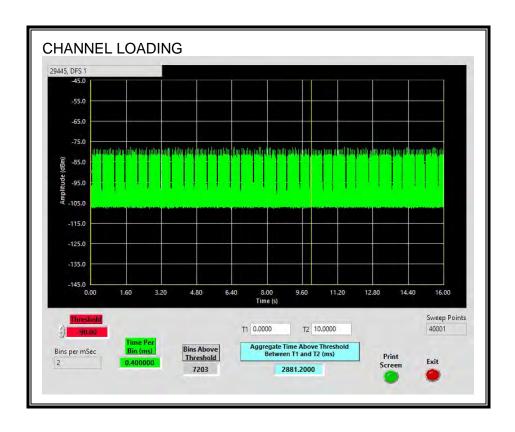
RADAR WAVEFORM



TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the Peer Slave is 28.81%

8.13.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.13.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of the last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

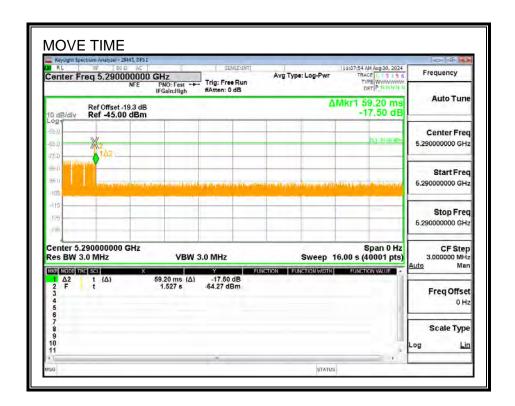
Channel Move Time	Limit
(sec)	(sec)
0.0592	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.0	60

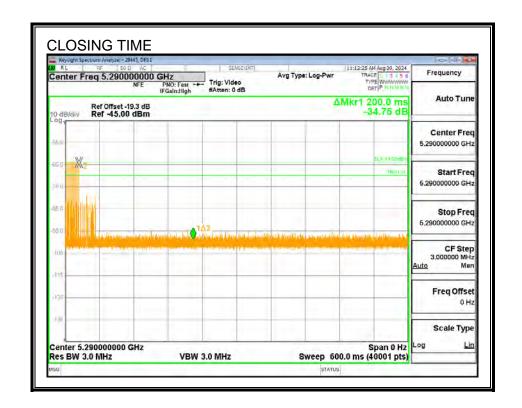
DATE: 2024-11-14

ISED ID: SEE COVER SHEET

MOVE TIME



CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

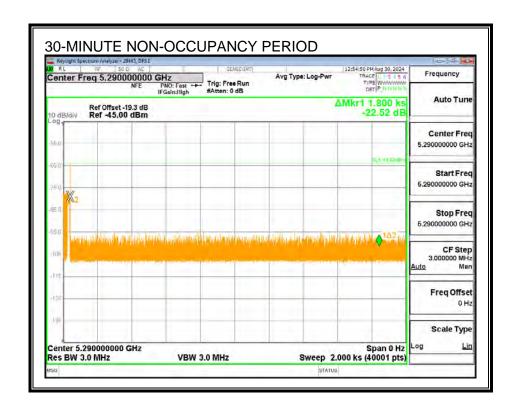
No transmissions are observed during the aggregate monitoring period.



8.13.5. 30-MINUTE NON-OCCUPANCY PERIOD

RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.



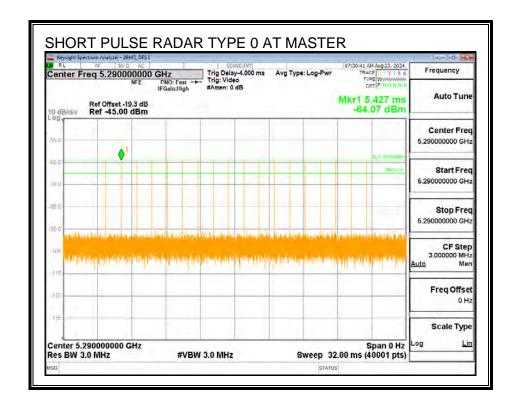
MODEL A3408 CLIENT MODE SPOT CHECK RESULTS FOR 80 8.14. MHz BANDWIDTH

8.14.1. **TEST CHANNEL**

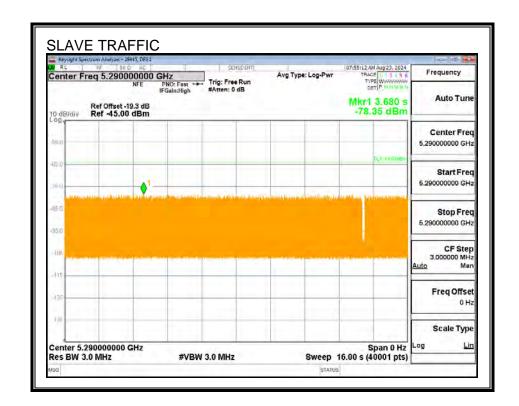
All tests were performed at a channel center frequency of 5290 MHz.

8.14.2. RADAR WAVEFORM AND TRAFFIC

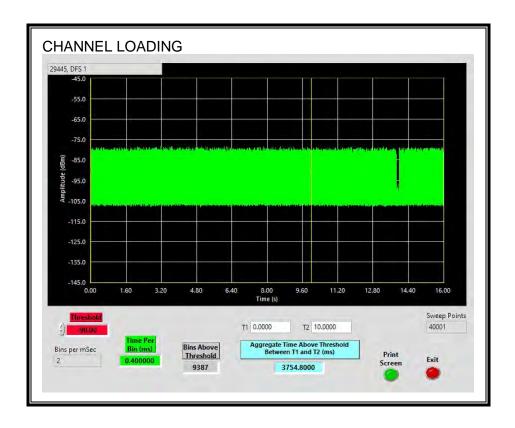
RADAR WAVEFORM



TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 37.54%

8.14.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.14.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

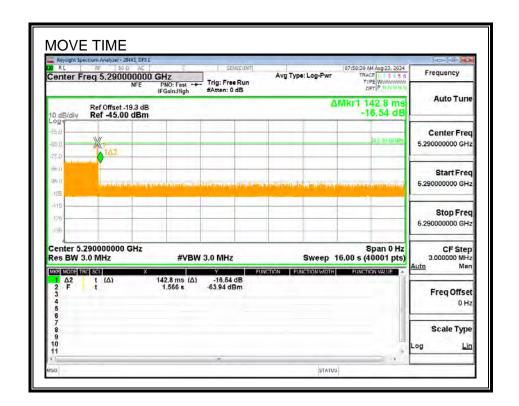
Channel Move Time	Limit
(sec)	(sec)
0.1428	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.0	60

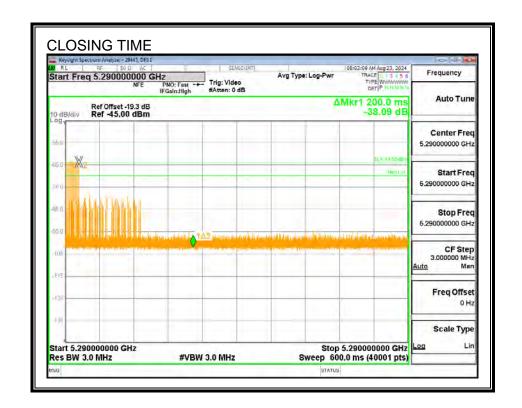
DATE: 2024-11-14

ISED ID: SEE COVER SHEET

MOVE TIME

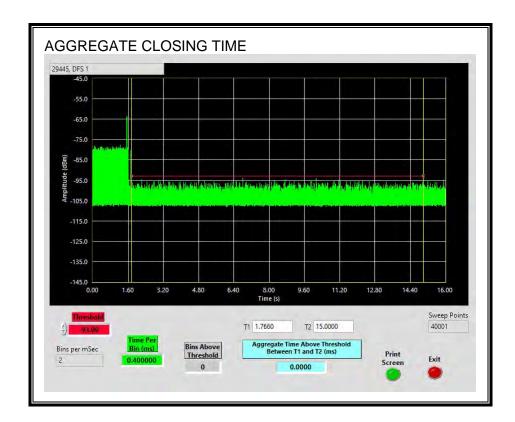


CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

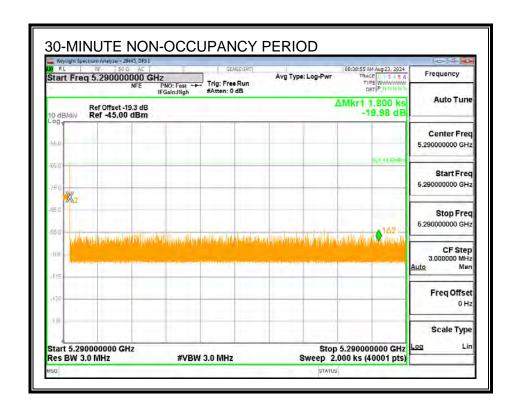
No transmissions are observed during the aggregate monitoring period.



30-MINUTE NON-OCCUPANCY PERIOD 8.14.5.

RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation



DATE: 2024-11-14

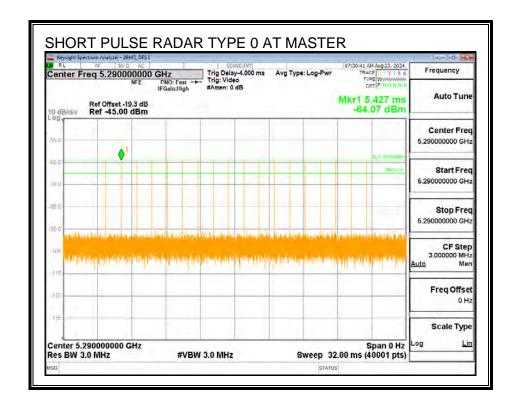
MODEL A3408 CLIENT-TO-CLIENT COMMUNICATIONS MODE 8.15. SPOT CHECK RESULTS FOR 80 MHz BANDWIDTH

8.15.1. **TEST CHANNEL**

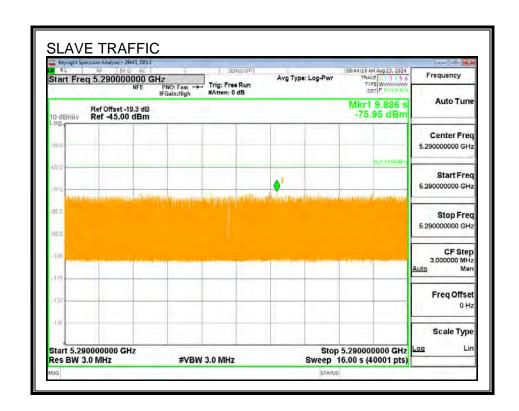
All tests were performed at a channel center frequency of 5290 MHz.

8.15.2. RADAR WAVEFORM AND TRAFFIC

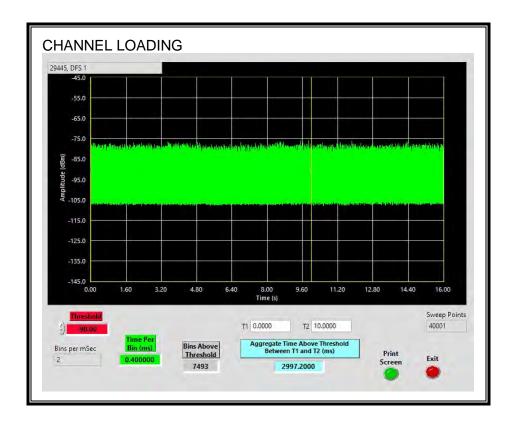
RADAR WAVEFORM



TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 29.97%

8.15.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.15.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

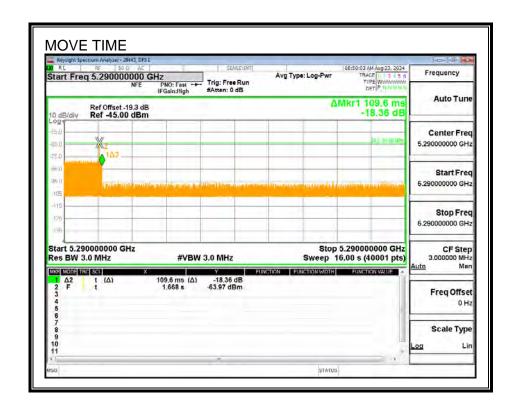
Channel Move Time	Limit
(sec)	(sec)
0.1096	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.0	60

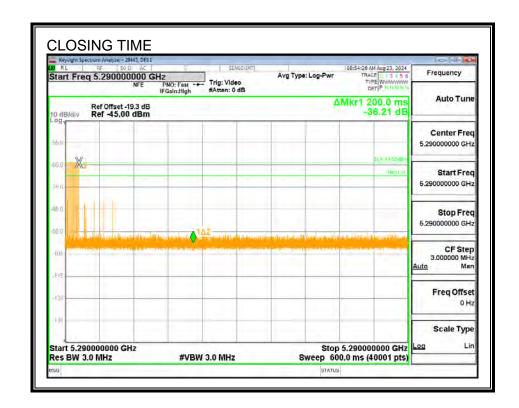
DATE: 2024-11-14

ISED ID: SEE COVER SHEET

MOVE TIME



CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

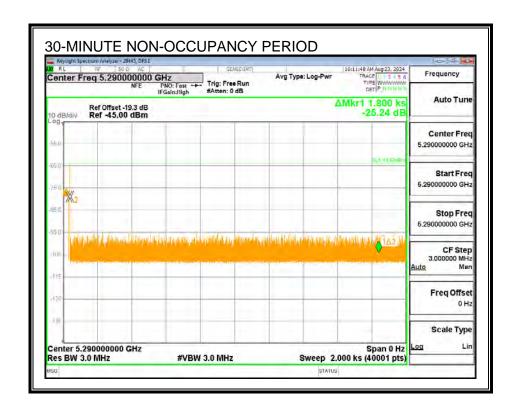
No transmissions are observed during the aggregate monitoring period.



30-MINUTE NON-OCCUPANCY PERIOD 8.15.5.

RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation



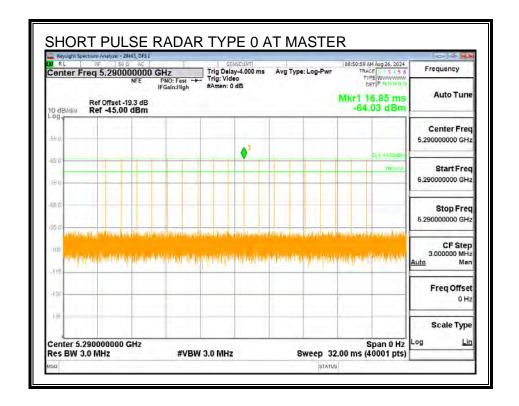
8.16. MODEL A3408 PEER TO PEER MODE EUT SPOT CHECK **RESULTS FOR 80 MHz BANDWIDTH**

8.16.1. **TEST CHANNEL**

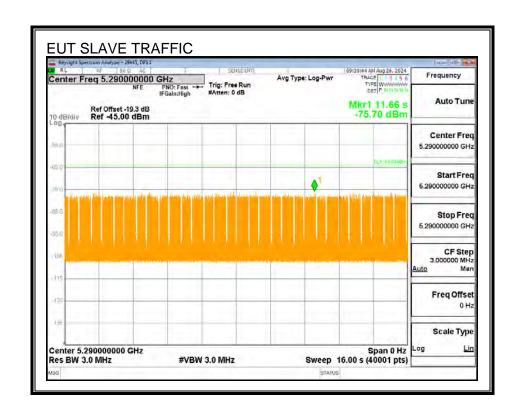
All tests were performed at a channel center frequency of 5290 MHz.

8.16.2. RADAR WAVEFORM AND TRAFFIC

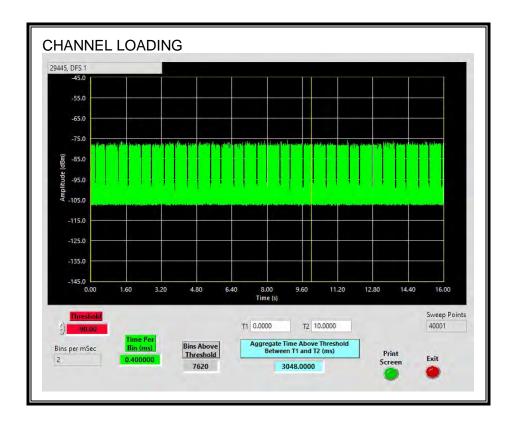
RADAR WAVEFORM



TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 30.48%

8.16.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.16.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

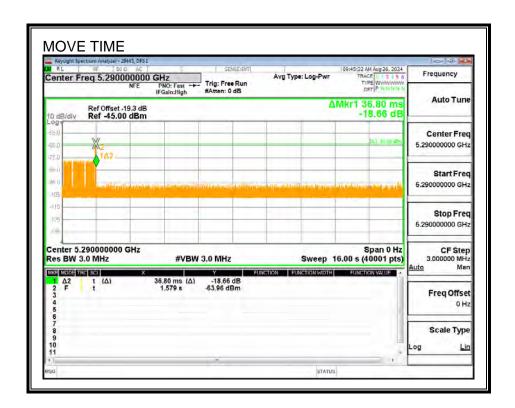
Channel Move Time	Limit
(sec)	(sec)
0.0368	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.0	60

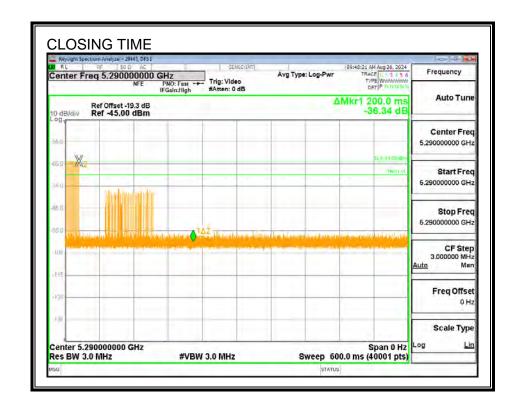
DATE: 2024-11-14

ISED ID: SEE COVER SHEET

MOVE TIME



CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

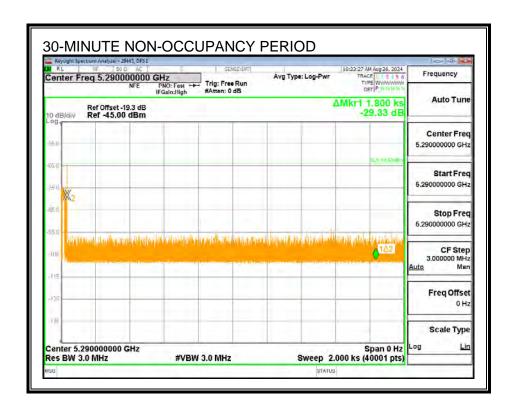
No transmissions are observed during the aggregate monitoring period.



8.16.5. 30-MINUTE NON-OCCUPANCY PERIOD

RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.



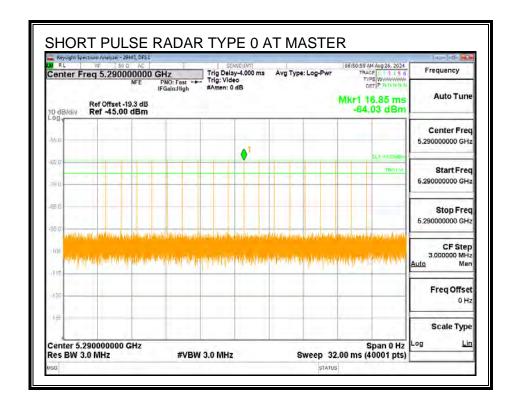
8.17. MODEL A3408 PEER TO PEER MODE PEER SLAVE DEVICE SPOT CHECK RESULTS FOR 80 MHz BANDWIDTH

8.17.1. TEST CHANNEL

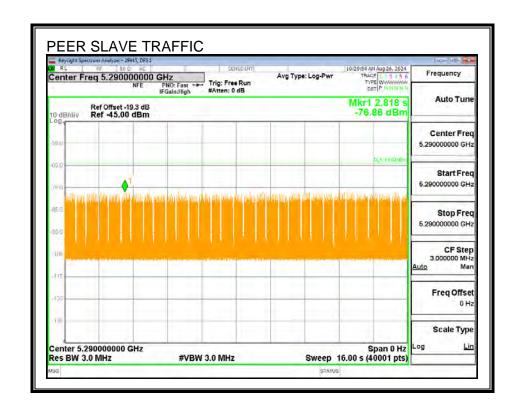
All tests were performed at a channel center frequency of 5290 MHz.

8.17.2. RADAR WAVEFORM AND TRAFFIC

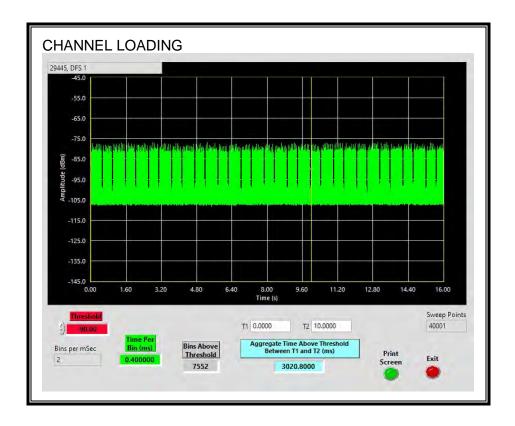
RADAR WAVEFORM



TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the Peer Slave is 30.20%

8.17.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.17.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

Channel Move Time	Limit
(sec)	(sec)
4.557	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
22.0	60

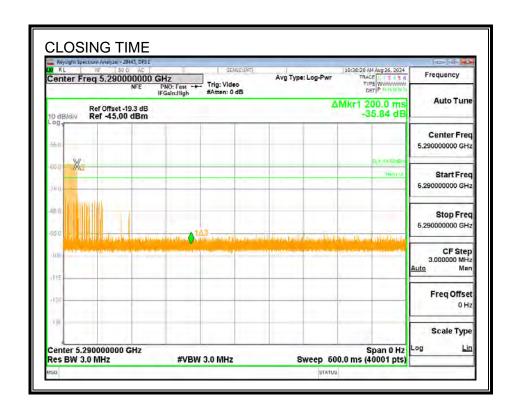
DATE: 2024-11-14

ISED ID: SEE COVER SHEET

MOVE TIME

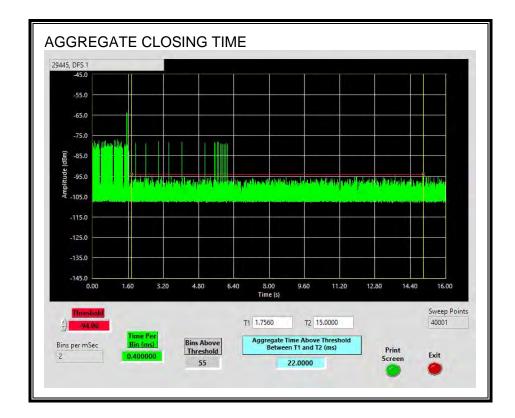


CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

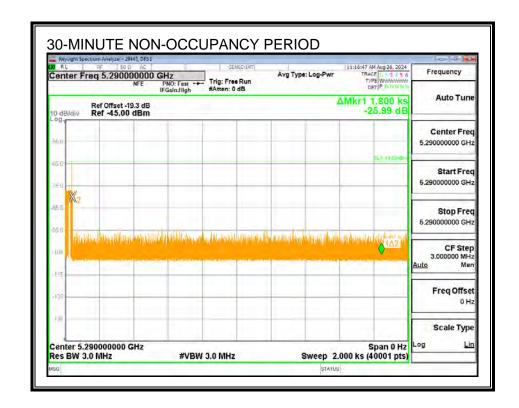
Only intermittent transmissions are observed during the aggregate monitoring period.



8.17.5. 30-MINUTE NON-OCCUPANCY PERIOD

RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.



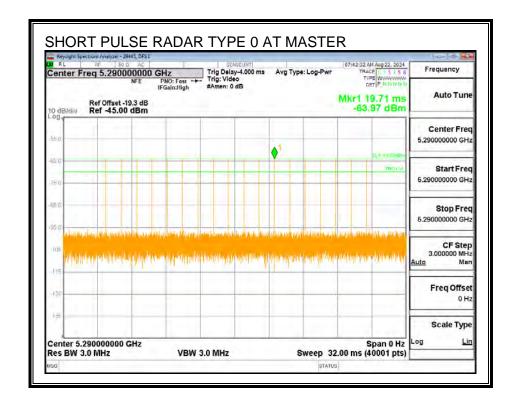
MODEL A3409 CLIENT MODE SPOT CHECK RESULTS FOR 80 8.18. MHz BANDWIDTH

8.18.1. **TEST CHANNEL**

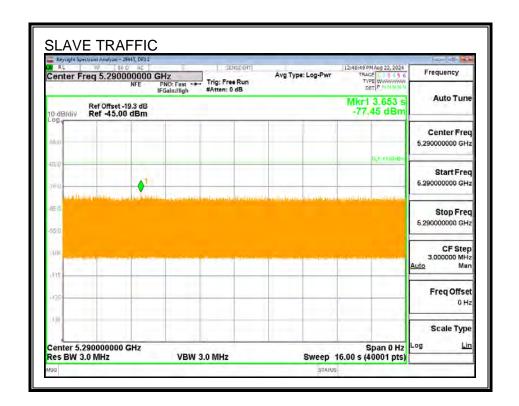
All tests were performed at a channel center frequency of 5290 MHz.

8.18.2. RADAR WAVEFORM AND TRAFFIC

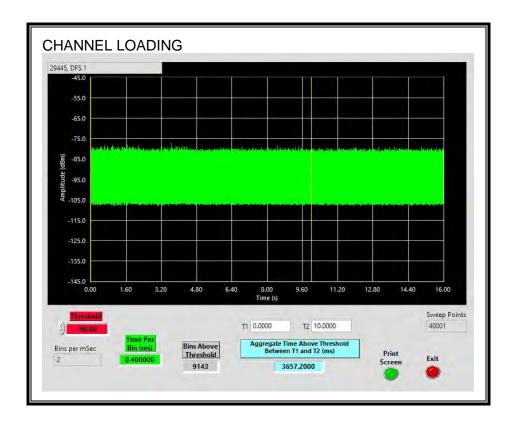
RADAR WAVEFORM



TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 36.57%

8.18.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.18.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

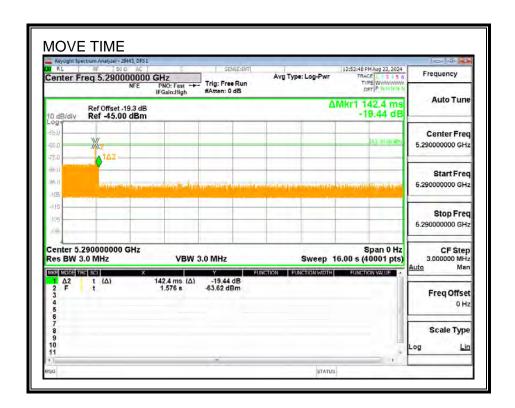
Channel Move Time	Limit
(sec)	(sec)
0.1424	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.0	60

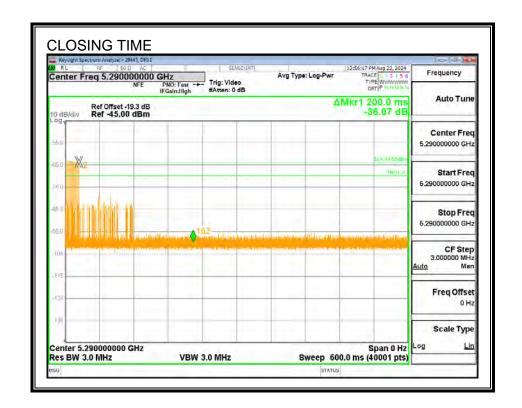
DATE: 2024-11-14

ISED ID: SEE COVER SHEET

MOVE TIME



CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

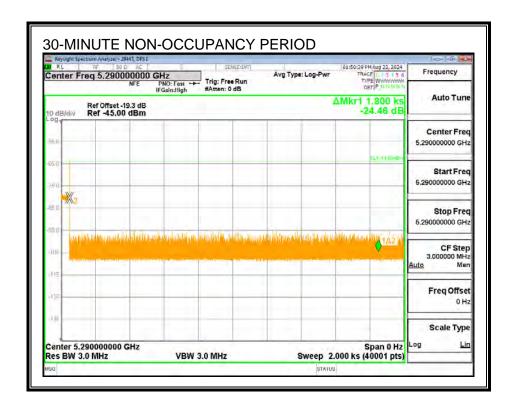
No transmissions are observed during the aggregate monitoring period.



8.18.5. 30-MINUTE NON-OCCUPANCY PERIOD

RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.



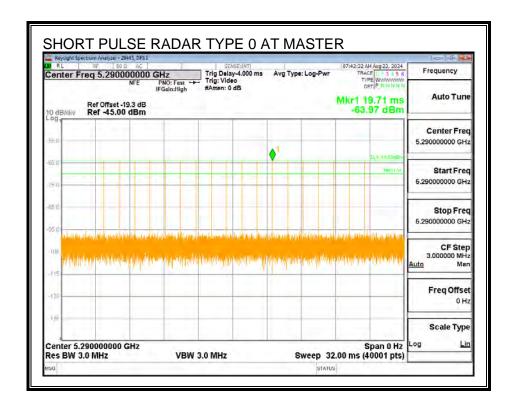
8.19. MODEL A3409 CLIENT-TO-CLIENT COMMUNICATIONS MODE SPOT CHECK RESULTS FOR 80 MHz BANDWIDTH

8.19.1. **TEST CHANNEL**

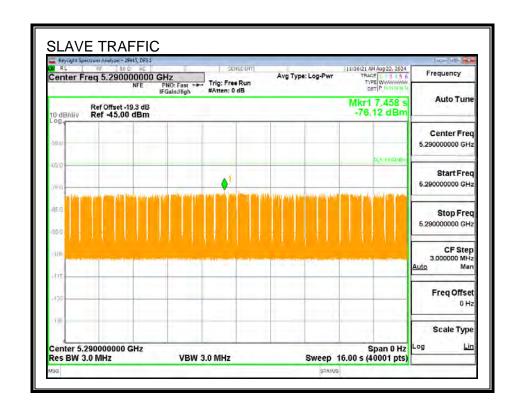
All tests were performed at a channel center frequency of 5290 MHz.

8.19.2. RADAR WAVEFORM AND TRAFFIC

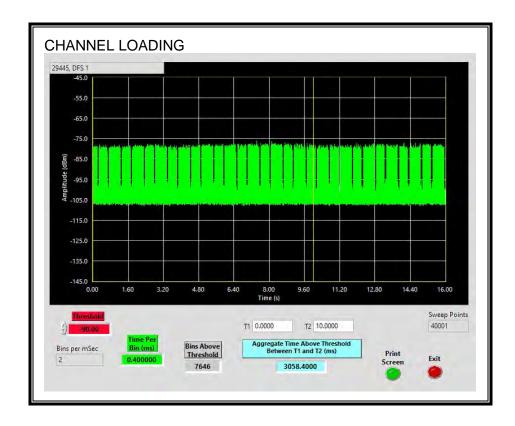
RADAR WAVEFORM



TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 30.58%

8.19.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.19.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

Channel Move Time	Limit
(sec)	(sec)
0.2016	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.800	60

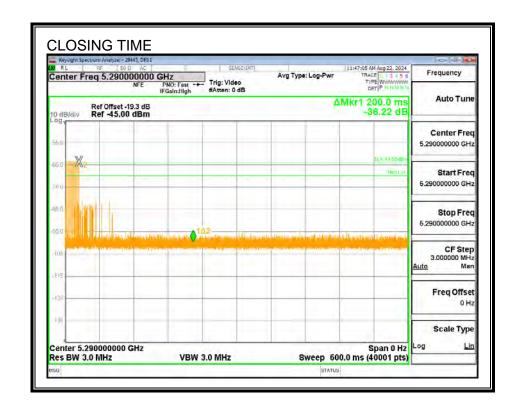
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MOVE TIME

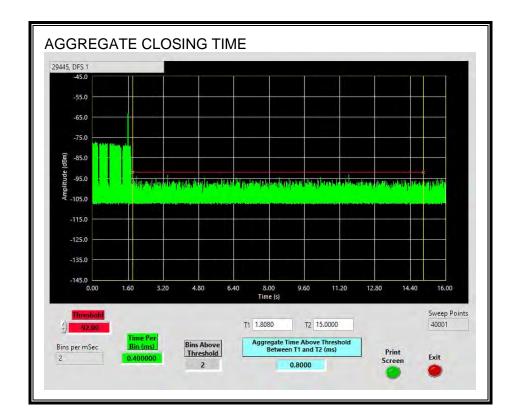


CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

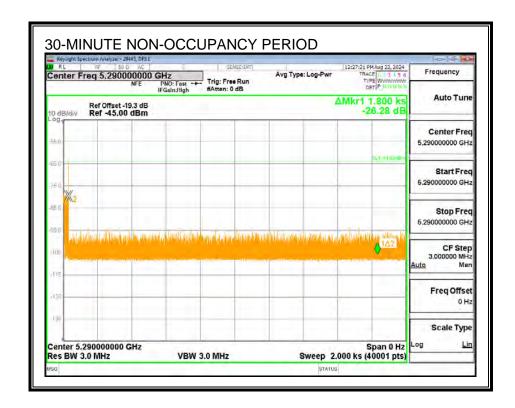
Only intermittent transmissions are observed during the aggregate monitoring period.



8.19.5. 30-MINUTE NON-OCCUPANCY PERIOD

RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.



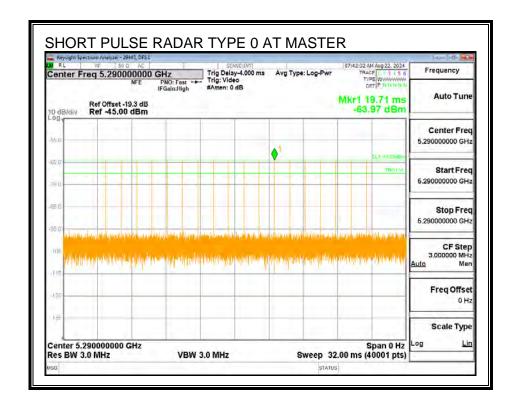
8.20. MODEL A3409 PEER TO PEER MODE EUT SPOT CHECK RESULTS FOR 80 MHz BANDWIDTH

8.20.1. TEST CHANNEL

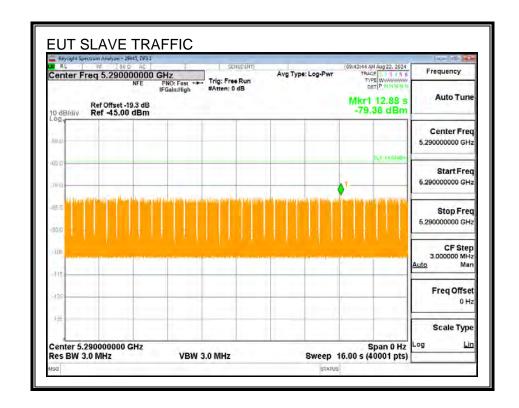
All tests were performed at a channel center frequency of 5290 MHz.

8.20.2. RADAR WAVEFORM AND TRAFFIC

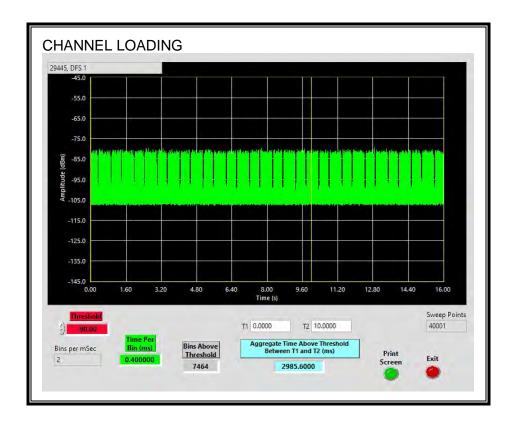
RADAR WAVEFORM



TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 29.85%

8.20.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.20.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

Channel Move Time	Limit
(sec)	(sec)
0.100	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.0	60

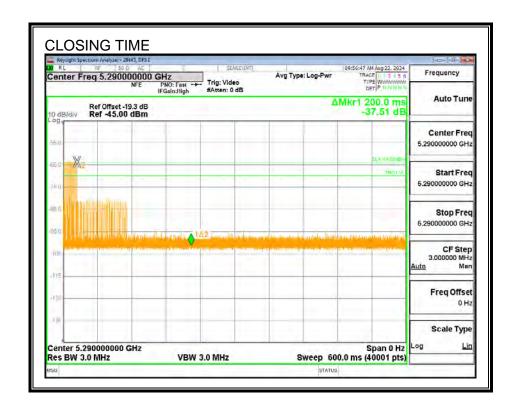
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ISED ID: SEE COVER SHEET

MOVE TIME



CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

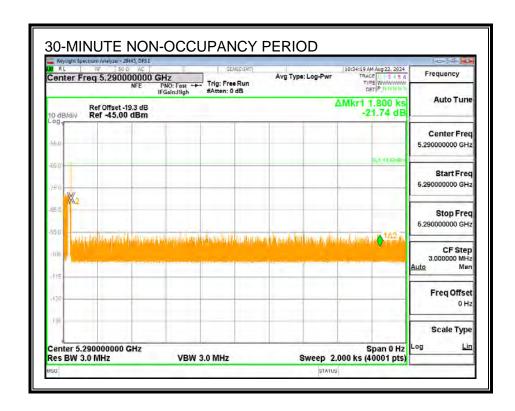
No transmissions are observed during the aggregate monitoring period.



8.20.5. 30-MINUTE NON-OCCUPANCY PERIOD

RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.



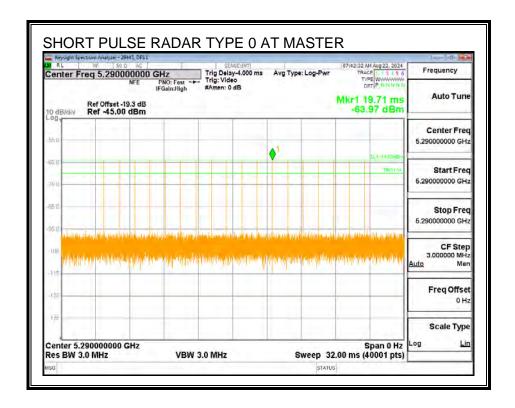
8.21. MODEL A3409 PEER TO PEER MODE PEER SLAVE DEVICE SPOT CHECK RESULTS FOR 80 MHz BANDWIDTH

8.21.1. TEST CHANNEL

All tests were performed at a channel center frequency of 5290 MHz.

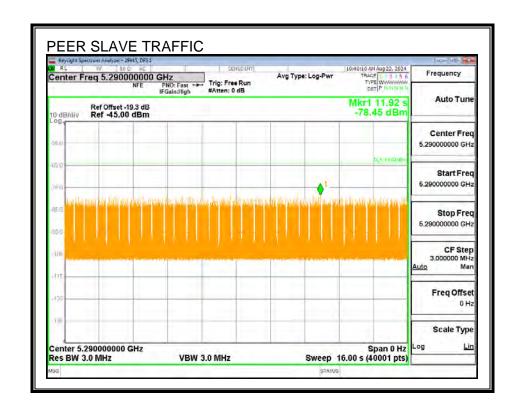
8.21.2. RADAR WAVEFORM AND TRAFFIC

RADAR WAVEFORM

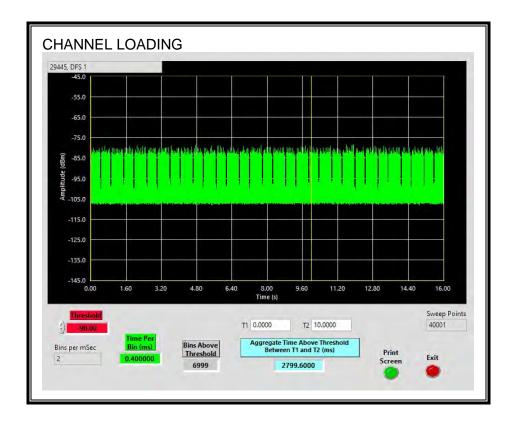


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TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the Peer Slave is 27.99%

8.21.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.21.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

Channel Move Time	Limit
(sec)	(sec)
0.1216	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.0	60

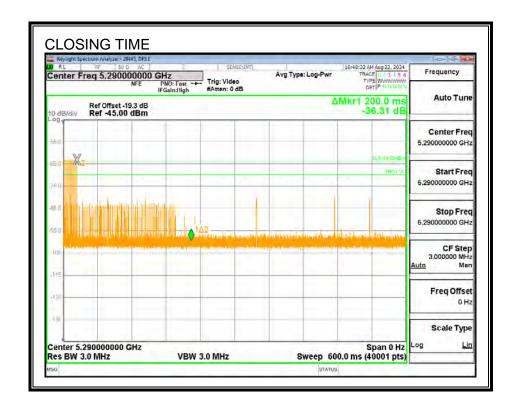
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MOVE TIME



CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

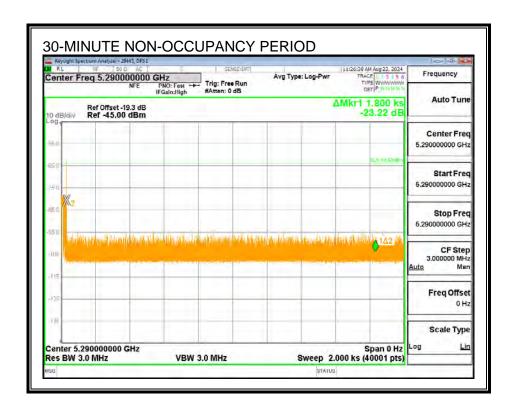
No transmissions are observed during the aggregate monitoring period.



8.21.5. 30-MINUTE NON-OCCUPANCY PERIOD

RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.



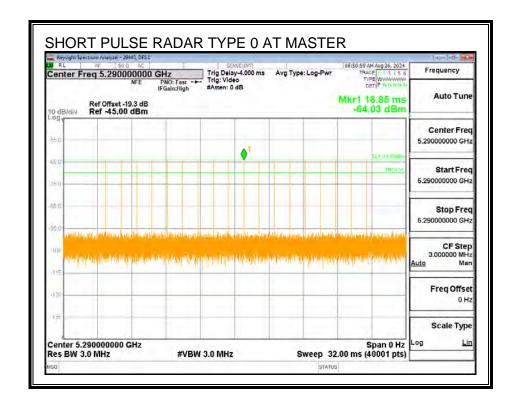
MODEL A3410 CLIENT MODE SPOT CHECK RESULTS FOR 80 8.22. MHz BANDWIDTH

8.22.1. **TEST CHANNEL**

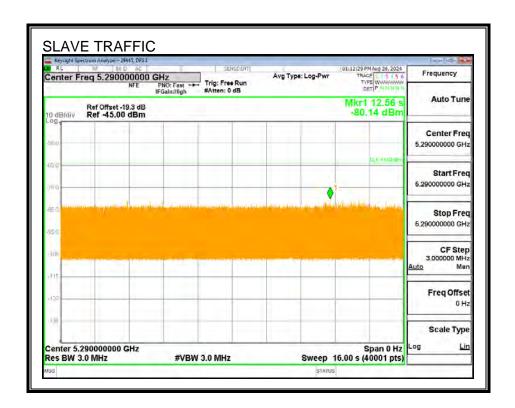
All tests were performed at a channel center frequency of 5290 MHz.

8.22.2. RADAR WAVEFORM AND TRAFFIC

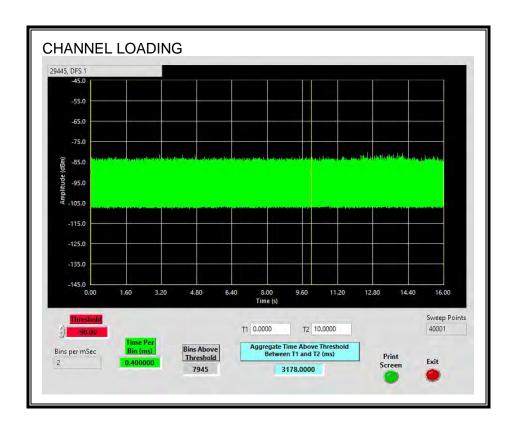
RADAR WAVEFORM



TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 31.78%

8.22.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.22.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

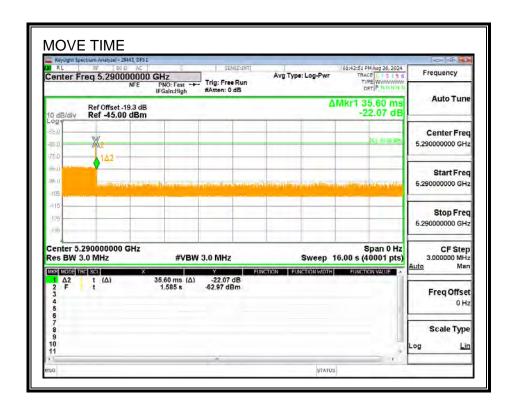
Channel Move Time	Limit
(sec)	(sec)
0.0356	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.0	60

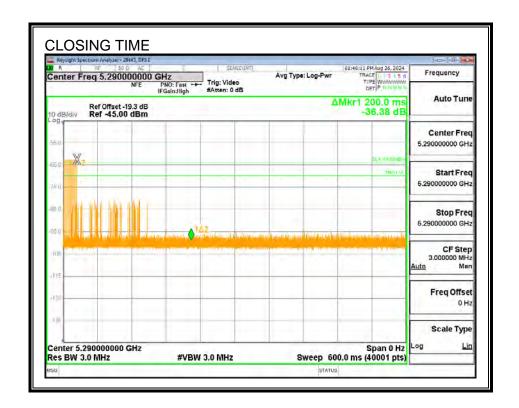
DATE: 2024-11-14

ISED ID: SEE COVER SHEET

MOVE TIME



CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

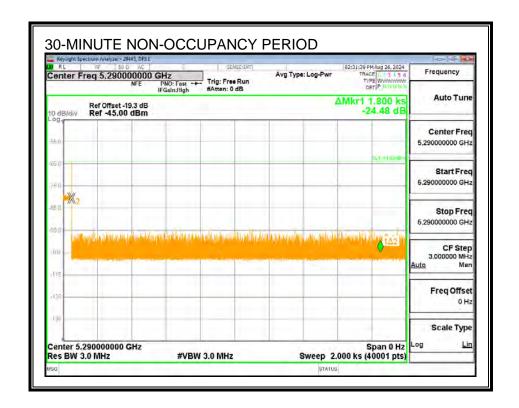
No transmissions are observed during the aggregate monitoring period.



8.22.5. 30-MINUTE NON-OCCUPANCY PERIOD

RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.



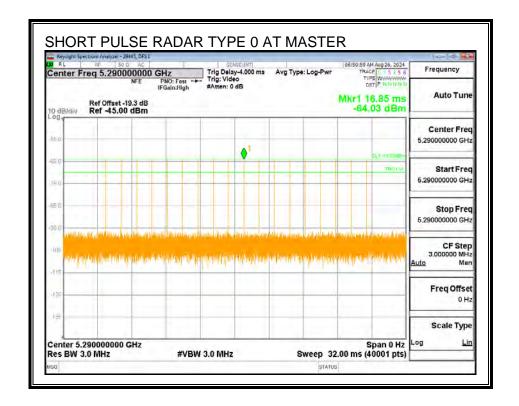
MODEL A3410 CLIENT-TO-CLIENT COMMUNICATIONS MODE 8.23. SPOT CHECK RESULTS FOR 80 MHz BANDWIDTH

8.23.1. **TEST CHANNEL**

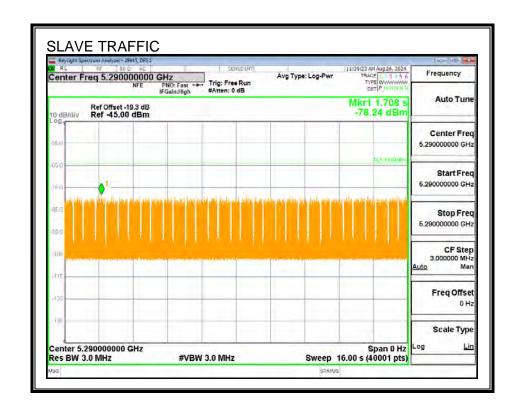
All tests were performed at a channel center frequency of 5290 MHz.

8.23.2. RADAR WAVEFORM AND TRAFFIC

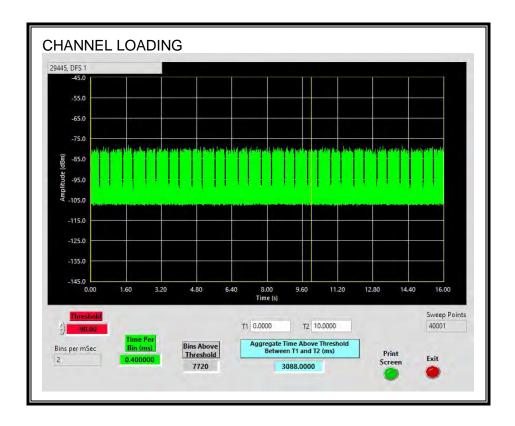
RADAR WAVEFORM



TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 30.88%

8.23.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.23.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

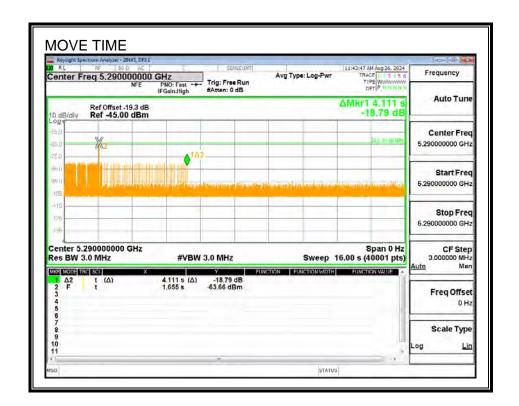
Channel Move Time	Limit
(sec)	(sec)
4.111	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
34.8	60

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MOVE TIME



CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

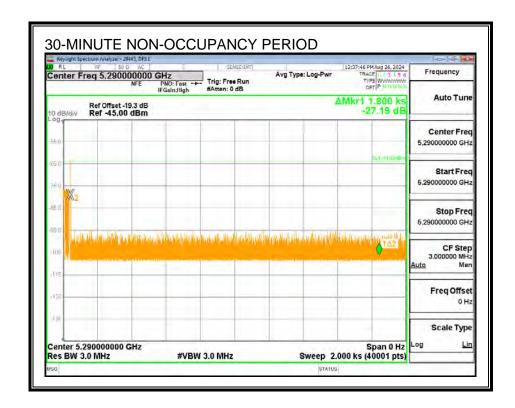
Only intermittent transmissions are observed during the aggregate monitoring period.



8.23.5. 30-MINUTE NON-OCCUPANCY PERIOD

RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.



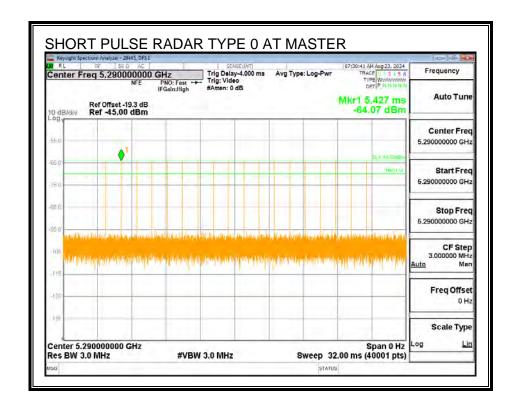
8.24. MODEL A3410 PEER TO PEER MODE EUT SPOT CHECK **RESULTS FOR 80 MHz BANDWIDTH**

8.24.1. **TEST CHANNEL**

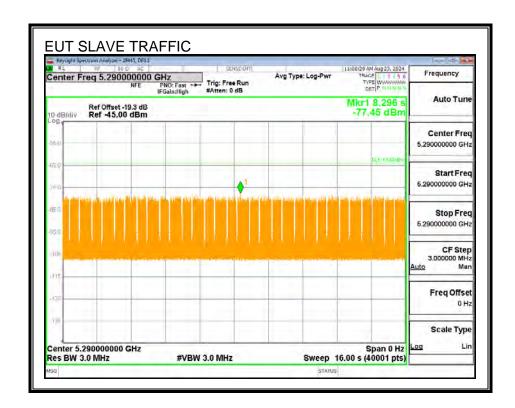
All tests were performed at a channel center frequency of 5290 MHz.

8.24.2. RADAR WAVEFORM AND TRAFFIC

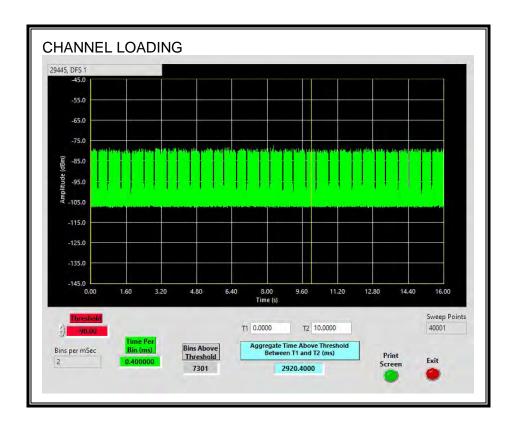
RADAR WAVEFORM



TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 29.20%

8.24.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.24.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

Channel Move Time	Limit
(sec)	(sec)
0.1508	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.0	60

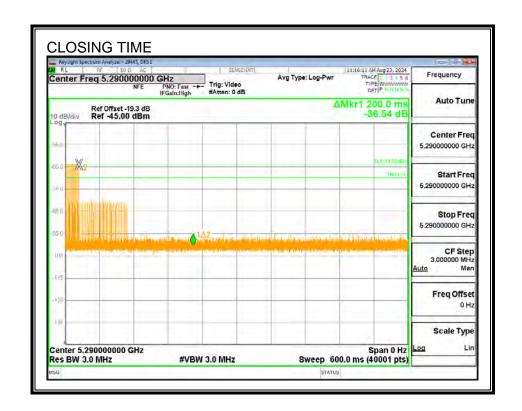
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MOVE TIME



CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

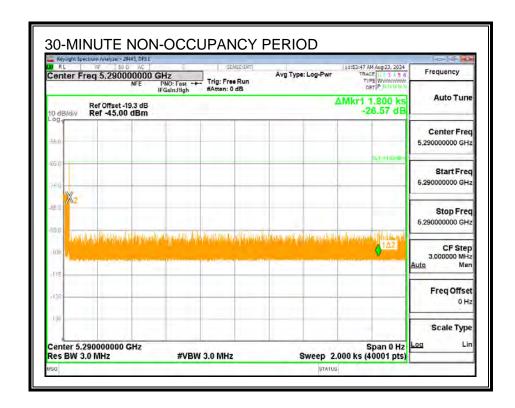
No transmissions are observed during the aggregate monitoring period.



8.24.5. 30-MINUTE NON-OCCUPANCY PERIOD

RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.



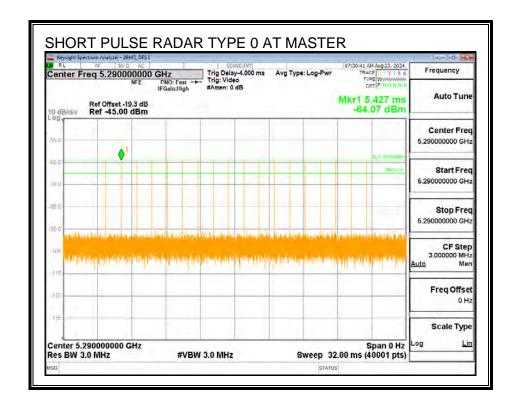
MODEL A3410 PEER TO PEER MODE PEER SLAVE DEVICE 8.25. SPOT CHECK RESULTS FOR 80 MHz BANDWIDTH

8.25.1. **TEST CHANNEL**

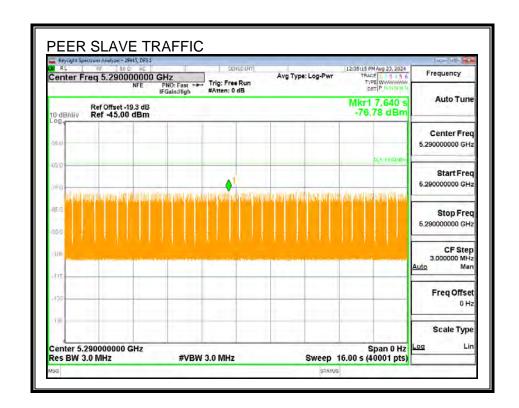
All tests were performed at a channel center frequency of 5290 MHz.

8.25.2. RADAR WAVEFORM AND TRAFFIC

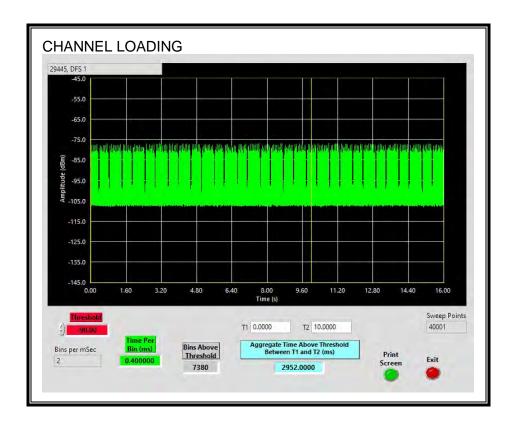
RADAR WAVEFORM



TRAFFIC



CHANNEL LOADING



The level of traffic loading on the channel by the Peer Slave is 29.52%

8.25.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

8.25.4. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

Channel Move Time	Limit
(sec)	(sec)
0.0760	10

Aggregate Channel Closing Transmission Time	Limit
(msec)	(msec)
0.0	60

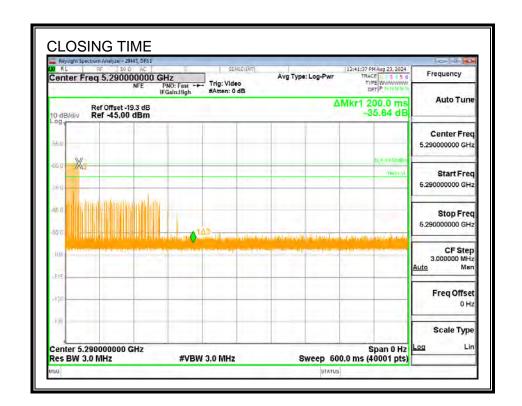
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MOVE TIME



CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

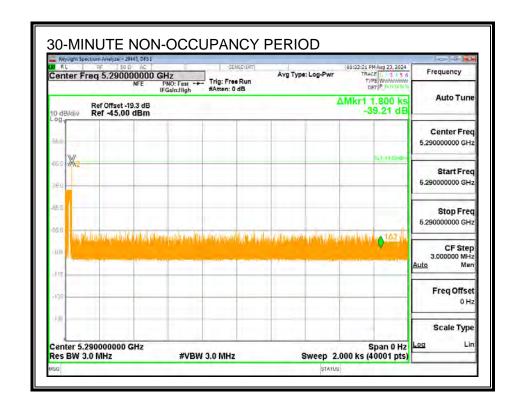
No transmissions are observed during the aggregate monitoring period.



30-MINUTE NON-OCCUPANCY PERIOD 8.25.5.

RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation



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9. SETUP PHOTOS

Please refer to 15175342-EP1V1 for setup photos

END OF REPORT