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FCC RADIO TEST REPORT

Applicant's company	**Zebra Technologies, Corp.**
Applicant Address	1 Zebra Plaza Holtsville, NY 11742 USA
FCC ID	**UZ7CDR5G**
Manufacturer's company	**Wistron NeWeb Corporation**
Manufacturer Address	20 Park Avenue II, Hsinchu Science Park, Hsinchu 308 Taiwan

Product Name	802.11 an/ac radio module
Brand Name	ZEBRA
Model No.	CDR5G
Test Rule Part(s)	47 CFR FCC Part 15 Subpart E § 15.407
Test Freq. Range	5150 ~ 5250 MHz / 5725 ~ 5850 MHz
Received Date	Oct. 07, 2015
Final Test Date	Dec. 13, 2015
Submission Type	Original Equipment

Statement

Test result included is for the IEEE 802.11n and IEEE 802.11a/ac of the product.

The test result in this report refers exclusively to the presented test model / sample.

Without written approval of SPORTON International Inc., the test report shall not be reproduced except in full.

The measurements and test results shown in this test report were made in accordance with the procedures and found in compliance with the limit given in **ANSI C63.10-2013**, **47 CFR FCC Part 15 Subpart E, KDB789033 D02 v01, KDB662911 D01 v02r01, KDB644545 D03 v01.**

The test equipment used to perform the test is calibrated and traceable to NML/ROC.

TAF
Testing Laboratory
1190

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History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR592302-01	Rev. 01	Initial issue of report	Jan. 29, 2016

1. VERIFICATION OF COMPLIANCE

Product Name	:	802.11 an/ac radio module
Brand Name	:	ZEBRA
Model No.	:	CDR5G
Applicant	:	Zebra Technologies, Corp.
Test Rule Part(s)	:	47 CFR FCC Part 15 Subpart E § 15.407

Sporton International as requested by the applicant to evaluate the EMC performance of the product sample received on Oct. 07, 2015 would like to declare that the tested sample has been evaluated and found to be in compliance with the tested rule parts. The data recorded as well as the test configuration specified is true and accurate for showing the sample's EMC nature.

Sam Chen
SPORTON INTERNATIONAL INC.

2. SUMMARY OF THE TEST RESULT

Applied Standard: 47 CFR FCC Part 15 Subpart E				
Part	**Rule Section**	**Description of Test**	**Result**	**Under Limit**
4.1	15.207	AC Power Line Conducted Emissions	Complies	7.51 dB
4.2	15.407(a)	26dB Spectrum Bandwidth and 99% Occupied Bandwidth	Complies	-
4.3	15.407(e)	6dB Spectrum Bandwidth	Complies	-
4.4	15.407(a)	Maximum Conducted Output Power	Complies	0.02 dB
4.5	15.407(a)	Power Spectral Density	Complies	0.02 dB
4.6	15.407(b)	Radiated Emissions	Complies	3.65 dB
4.7	15.407(b)	Band Edge Emissions	Complies	1.00 dB
4.8	15.407(g)	Frequency Stability	Complies	-
4.9	15.203	Antenna Requirements	Complies	-

3. GENERAL INFORMATION

3.1. Product Details

Items	Description
Product Type	IEEE 802.11a/n/ac: WLAN (1TX/2TX/3TX/4TX, 4RX)
Radio Type	Intentional Transceiver
Power Type	From host system
Modulation	IEEE 802.11a: OFDM IEEE 802.11n/ac: see the below table
Data Modulation	IEEE 802.11a/n: OFDM (BPSK / QPSK / 16QAM / 64QAM) IEEE 802.11ac: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)
Data Rate (Mbps)	IEEE 802.11a: OFDM (6/9/12/18/24/36/48/54) IEEE 802.11n/ac: see the below table
Frequency Range	5150 ~ 5250 MHz / 5725 ~ 5850 MHz
Channel Number	9 for 20MHz bandwidth ; 4 for 40MHz bandwidth 2 for 80MHz bandwidth
Channel Band Width (99%)	**For Non-Beamforming Mode** For indoor / outdoor use Mode 1 (Set 1 Dipole antenna / 3.96dBi / 1TX) Band 1: IEEE 802.11a: 17.28 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.23 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.19 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 75.83 MHz Band 4: IEEE 802.11a: 17.80 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.58 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.34 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 75.83 MHz Mode 1 (Set 1 Dipole antenna / 3.96dBi / 2TX) Band 1: IEEE 802.11a: 17.11 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.97 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.90 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz Band 4: IEEE 802.11a: 18.41 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.41 MHz

	IEEE 802.11ac MCS0/Nss1 (VHT40): 37.34 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz Mode 1 (Set 1 Dipole antenna / 3.96dBi / 3TX) Band 1: IEEE 802.11a: 17.11 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.97 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.19 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.41 MHz Band 4: IEEE 802.11a: 17.28 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.23 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.34 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.41 MHz Mode 1 (Set 1 Dipole antenna / 3.96dBi / 4TX) Band 1: IEEE 802.11a: 17.37 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.89 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.76 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 75.83 MHz Band 4: IEEE 802.11a: 17.37 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.06 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.05 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.41 MHz For indoor / outdoor use Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*1 / 1TX) Band 1: IEEE 802.11a: 17.28 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.23 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.19 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 75.83 MHz Band 4: IEEE 802.11a: 17.80 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.58 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.34 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz

	Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*1, (2B)1.66dBi*1 / 2TX) Band 1: IEEE 802.11a: 17.11 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.97 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.90 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz Band 4: IEEE 802.11a: 18.41 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.84 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.34 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*1 / 3TX) Band 1: IEEE 802.11a: 17.11 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.97 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.05 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.41 MHz Band 4: IEEE 802.11a: 17.89 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.32 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.34 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.41 MHz Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*2 / 4TX) Band 1: IEEE 802.11a: 17.28 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.89 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.76 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz Band 4: IEEE 802.11a: 17.37 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.15 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.90 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.41 MHz

	For indoor / outdoor use Mode 3 (Set 6 Panel antenna / 2.66dBi / 1TX) Band 1: IEEE 802.11a: 17.28 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.23 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.90 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 75.54 MHz Band 4: IEEE 802.11a: 17.80 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.41 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.90 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 75.83 MHz Mode 3 (Set 6 Panel antenna / 2.66dBi / 2TX) Band 1: IEEE 802.11a: 16.93 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.97 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.76 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz Band 4: IEEE 802.11a: 17.54 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.15 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.90 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz Mode 3 (Set 6 Panel antenna / 2.66dBi / 3TX) Band 1: IEEE 802.11a: 17.11 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.97 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.05 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.41 MHz Band 4: IEEE 802.11a: 17.28 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.23 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.19 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz Mode 3 (Set 6 Panel antenna / 2.66dBi / 4TX) Band 1: IEEE 802.11a: 17.28 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.89 MHz

	IEEE 802.11ac MCS0/Nss1 (VHT40): 36.76 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 75.54 MHz Band 4: IEEE 802.11a: 17.37 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.63 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.90 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.41 MHz For indoor / outdoor use Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 1TX) Band 1: IEEE 802.11a: 17.28 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.23 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.19 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 75.83 MHz Band 4: IEEE 802.11a: 17.80 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.58 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.34 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 75.83 MHz Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 2TX) Band 1: IEEE 802.11a: 17.11 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.97 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.76 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz Band 4: IEEE 802.11a: 18.41 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.41 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.90 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 3TX) Band 1: IEEE 802.11a: 17.11 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.97 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.05 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.41 MHz Band 4: IEEE 802.11a: 17.89 MHz

	IEEE 802.11ac MCS0/Nss1 (VHT20): 18.23 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.34 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 4TX) Band 1: IEEE 802.11a: 17.28 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.89 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.76 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz Band 4: IEEE 802.11a: 17.37 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.71 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.05 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.41 MHz For indoor use Mode 5 (Set 8 Patch antenna / 3.26dBi / 1TX) Band 1: IEEE 802.11a: 17.28 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.23 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.05 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 75.83 MHz Band 4: IEEE 802.11a: 17.80 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.58 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.34 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz Mode 5 (Set 8 Patch antenna / 3.26dBi / 2TX) Band 1: IEEE 802.11a: 17.11 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.97 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.76 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz Band 4: IEEE 802.11a: 18.41 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.41 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.19 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz

	Mode 5 (Set 8 Patch antenna / 3.26dBi / 3TX) Band 1: IEEE 802.11a: 17.11 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.97 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.05 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.41 MHz Band 4: IEEE 802.11a: 17.89 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.23 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.19 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.70 MHz Mode 5 (Set 8 Patch antenna / 3.26dBi / 4TX) Band 1: IEEE 802.11a: 17.28 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.89 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.76 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 75.83 MHz Band 4: IEEE 802.11a: 17.37 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.89 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.05 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.41 MHz For indoor / outdoor use Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi / 1TX) Band 1: IEEE 802.11a: 17.45 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.32 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.05 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 75.83 MHz Band 4: IEEE 802.11a: 17.71 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.32 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.05 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 75.83 MHz

	Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi / 2TX) Band 1: IEEE 802.11a: 16.67 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.80 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.05 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.41 MHz Band 4: IEEE 802.11a: 17.37 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.15 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.90 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi / 3TX) Band 1: IEEE 802.11a: 17.28 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.97 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.19 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.70 MHz Band 4: IEEE 802.11a: 17.37 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.15 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.34 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.41 MHz Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi, Chain 4: 5.9dBi / 4TX) Band 1: IEEE 802.11a: 16.67 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.71 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.76 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz Band 4: IEEE 802.11a: 15.72 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.89 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.19 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.41 MHz

Maximum Conducted Output Power	**For Non-Beamforming Mode** For B1 indoor use / B4 indoor, outdoor use Mode 1 (Set 1 Dipole antenna / 3.96dBi / 1TX) Band 1: IEEE 802.11a: 20.96 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 20.97 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 20.99 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 20.85 dBm Band 4: IEEE 802.11a: 20.95 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 20.91 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 20.94 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.47 dBm Mode 1 (Set 1 Dipole antenna / 3.96dBi / 2TX) Band 1: IEEE 802.11a: 23.38 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 23.33 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.72 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 21.22 dBm Band 4: IEEE 802.11a: 23.76 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 23.56 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.54 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.32 dBm Mode 1 (Set 1 Dipole antenna / 3.96dBi / 3TX) Band 1: IEEE 802.11a: 25.22 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 24.92 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 25.18 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 22.77 dBm Band 4: IEEE 802.11a: 24.60 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 24.74 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 24.10 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 19.61 dBm

	Mode 1 (Set 1 Dipole antenna / 3.96dBi / 4TX) Band 1: IEEE 802.11a: 26.28 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 26.19 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 26.44 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 23.47 dBm Band 4: IEEE 802.11a: 26.44 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 26.31 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.92 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 20.00 dBm For outdoor use Mode 1 (Set 1 Dipole antenna / 3.96dBi / 1TX) Band 1: IEEE 802.11a: 18.55 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 18.62 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 18.56 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.39 dBm Mode 1 (Set 1 Dipole antenna / 3.96dBi / 2TX) Band 1: IEEE 802.11a: 18.59 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 18.59 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 18.53 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.55 dBm Mode 1 (Set 1 Dipole antenna / 3.96dBi / 3TX) Band 1: IEEE 802.11a: 18.65 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 18.61 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 18.65 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.64 dBm Mode 1 (Set 1 Dipole antenna / 3.96dBi / 4TX) Band 1: IEEE 802.11a: 18.64 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 18.65 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 18.52 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.63 dBm

	For B1 indoor use / B4 indoor, outdoor use Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*1 / 1TX) Band 1: IEEE 802.11a: 20.96 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 20.97 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 20.99 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 20.48 dBm Band 4: IEEE 802.11a: 20.96 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 20.91 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 20.94 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.91 dBm Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*1, (2B)1.66dBi*1 / 2TX) Band 1: IEEE 802.11a: 23.38 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 23.33 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.72 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 22.37 dBm Band 4: IEEE 802.11a: 23.76 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 23.63 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.54 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 19.63 dBm Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*1 / 3TX) Band 1: IEEE 802.11a: 25.22 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 24.92 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 25.18 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 23.29 dBm Band 4: IEEE 802.11a: 24.84 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 24.88 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 24.35 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 21.00 dBm

	Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*2 / 4TX) Band 1: IEEE 802.11a: 26.53 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 26.44 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 26.44 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 24.44 dBm Band 4: IEEE 802.11a: 26.21 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 26.31 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.26 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 21.38 dBm For outdoor use Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*1 / 1TX) Band 1: IEEE 802.11a: 18.55 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 18.62 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 18.56 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.39 dBm Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*1, (2B)1.66dBi*1 / 2TX) Band 1: IEEE 802.11a: 18.59 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 18.59 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 18.53 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.55 dBm Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*1 / 3TX) Band 1: IEEE 802.11a: 18.65 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 18.61 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 18.65 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.64 dBm Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*2 / 4TX) Band 1: IEEE 802.11a: 18.64 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 18.65 dBm

	IEEE 802.11ac MCS0/Nss1 (VHT40): 18.52 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.63 dBm For B1 indoor use / B4 indoor, outdoor use Mode 3 (Set 6 Panel antenna / 2.66dBi / 1TX) Band 1: IEEE 802.11a: 20.96 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 20.97 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 20.99 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 19.02 dBm Band 4: IEEE 802.11a: 20.95 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 20.91 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 19.44 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 17.36 dBm Mode 3 (Set 6 Panel antenna / 2.66dBi / 2TX) Band 1: IEEE 802.11a: 23.38 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 23.33 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.72 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 21.22 dBm Band 4: IEEE 802.11a: 23.72 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 23.56 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.06 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 19.46 dBm Mode 3 (Set 6 Panel antenna / 2.66dBi / 3TX) Band 1: IEEE 802.11a: 25.22 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 24.92 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 25.18 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 22.06 dBm Band 4: IEEE 802.11a: 24.60 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 24.74 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.84 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.95 dBm

	Mode 3 (Set 6 Panel antenna / 2.66dBi / 4TX) Band 1: IEEE 802.11a: 26.53 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 26.44 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 26.34 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 22.02 dBm Band 4: IEEE 802.11a: 26.21 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 26.31 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.83 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.86 dBm For outdoor use Mode 3 (Set 6 Panel antenna / 2.66dBi / 1TX) Band 1: IEEE 802.11a: 19.13 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 19.12 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 19.09 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 19.02 dBm Mode 3 (Set 6 Panel antenna / 2.66dBi / 2TX) Band 1: IEEE 802.11a: 19.13 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 19.05 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 19.06 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.95 dBm Mode 3 (Set 6 Panel antenna / 2.66dBi / 3TX) Band 1: IEEE 802.11a: 19.08 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 19.04 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 19.07 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.92 dBm Mode 3 (Set 6 Panel antenna / 2.66dBi / 4TX) Band 1: IEEE 802.11a: 19.12 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 19.13 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 19.13 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 19.02 dBm

	For B1 indoor use / B4 indoor, outdoor use Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 1TX) Band 1: IEEE 802.11a: 20.96 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 20.97 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 20.99 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 20.85 dBm Band 4: IEEE 802.11a: 20.96 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 20.91 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 20.94 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 19.03 dBm Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 2TX) Band 1: IEEE 802.11a: 23.38 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 23.33 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.72 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 21.90 dBm Band 4: IEEE 802.11a: 23.76 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 23.56 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.61 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 19.63 dBm Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 3TX) Band 1: IEEE 802.11a: 25.22 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 24.92 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 25.18 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 23.29 dBm Band 4: IEEE 802.11a: 24.84 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 24.74 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 24.10 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 20.32 dBm Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 4TX) Band 1: IEEE 802.11a: 26.53 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 26.44 dBm

	IEEE 802.11ac MCS0/Nss1 (VHT40): 26.34 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 23.24 dBm Band 4: IEEE 802.11a: 26.21 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 26.31 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.92 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 19.80 dBm For outdoor use Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 1TX) Band 1: IEEE 802.11a: 20.37 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 20.21 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 20.33 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 20.14 dBm Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 2TX) Band 1: IEEE 802.11a: 20.37 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 20.39 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 20.38 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 20.20 dBm Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 3TX) Band 1: IEEE 802.11a: 20.31 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 20.33 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 20.21 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 20.13 dBm Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 4TX) Band 1: IEEE 802.11a: 20.26 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 20.38 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 20.37 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 20.21 dBm For indoor use Mode 5 (Set 8 Patch antenna / 3.26dBi / 1TX) Band 1: IEEE 802.11a: 20.96 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 20.97 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 20.99 dBm

	IEEE 802.11ac MCS0/Nss1 (VHT80): 20.78 dBm Band 4: IEEE 802.11a: 20.95 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 20.91 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 20.94 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.91 dBm Mode 5 (Set 8 Patch antenna / 3.26dBi / 2TX) Band 1: IEEE 802.11a: 23.38 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 23.33 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.72 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 21.02 dBm Band 4: IEEE 802.11a: 23.76 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 23.56 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.90 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.62 dBm Mode 5 (Set 8 Patch antenna / 3.26dBi / 3TX) Band 1: IEEE 802.11a: 25.22 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 24.92 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 25.18 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 22.41 dBm Band 4: IEEE 802.11a: 24.84 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 24.74 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.92 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 20.85 dBm Mode 5 (Set 8 Patch antenna / 3.26dBi / 4TX) Band 1: IEEE 802.11a: 26.53 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 26.44 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 26.44 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 23.95 dBm Band 4: IEEE 802.11a: 26.21 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 26.31 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.50 dBm

	IEEE 802.11ac MCS0/Nss1 (VHT80): 21.16 dBm For B1 indoor use / B4 indoor, outdoor use Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi / 1TX) Band 1: IEEE 802.11a: 20.96 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 20.97 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 20.99 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.78 dBm Band 4: IEEE 802.11a: 20.95 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 20.91 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 19.44 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.07 dBm Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi / 2TX) Band 1: IEEE 802.11a: 23.38 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 23.33 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.72 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 19.61 dBm Band 4: IEEE 802.11a: 23.72 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 23.56 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.06 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 17.73 dBm Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi / 3TX) Band 1: IEEE 802.11a: 24.69 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 24.64 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 25.18 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 20.68 dBm Band 4: IEEE 802.11a: 24.60 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 24.74 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.98 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.02 dBm

	Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi, Chain 4: 5.9dBi / 4TX) Band 1: IEEE 802.11a: 23.79 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 23.73 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 26.34 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 23.24 dBm Band 4: IEEE 802.11a: 26.21 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 26.31 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.48 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.74 dBm For outdoor use Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi / 1TX) Band 1: IEEE 802.11a: 20.96 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 20.97 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 20.99 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.78 dBm Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi / 2TX) Band 1: IEEE 802.11a: 17.49 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 17.53 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 17.54 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 17.37 dBm Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi / 3TX) Band 1: IEEE 802.11a: 17.50 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 17.38 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 17.37 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 17.22 dBm Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi, Chain 4: 5.9dBi / 4TX) Band 1: IEEE 802.11a: 17.57 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 17.55 dBm

	IEEE 802.11ac MCS0/Nss1 (VHT40): 17.44 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 17.36 dBm **For Beamforming Mode** For B1 indoor use / B4 indoor, outdoor use Mode 1 (Set 1 Dipole antenna / 3.96dBi / 2TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 23.33 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.72 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 19.75 dBm Band 4: IEEE 802.11ac MCS0/Nss1 (VHT20): 23.56 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.40 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 17.58 dBm Mode 1 (Set 1 Dipole antenna / 3.96dBi / 3TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 24.88 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 25.18 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 20.93 dBm Band 4: IEEE 802.11ac MCS0/Nss1 (VHT20): 24.74 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.23 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.95 dBm Mode 1 (Set 1 Dipole antenna / 3.96dBi / 4TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 26.00 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 25.88 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 21.43 dBm Band 4: IEEE 802.11ac MCS0/Nss1 (VHT20): 24.55 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 21.83 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 17.92 dBm For outdoor use Mode 1 (Set 1 Dipole antenna / 3.96dBi / 2TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 15.55 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 15.64 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 15.55 dBm

	Mode 1 (Set 1 Dipole antenna / 3.96dBi / 3TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 13.87 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 13.84 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 13.80 dBm Mode 1 (Set 1 Dipole antenna / 3.96dBi / 4TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 12.63 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 12.57 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 12.63 dBm For B1 indoor use / B4 indoor, outdoor use Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*1, (2B)1.66dBi*1 / 2TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 23.33 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.72 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 20.73 dBm Band 4: IEEE 802.11ac MCS0/Nss1 (VHT20): 23.63 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.28 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 17.73 dBm Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*1 / 3TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 24.92 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 25.18 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 22.06 dBm Band 4: IEEE 802.11ac MCS0/Nss1 (VHT20): 24.74 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.68 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 19.47 dBm Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*2 / 4TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 26.44 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 26.34 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 22.96 dBm

	Band 4: IEEE 802.11ac MCS0/Nss1 (VHT20): 26.31 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.57 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 19.90 dBm For outdoor use Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*1, (2B)1.66dBi*1 / 2TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 18.59 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 18.53 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.55 dBm Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*1 / 3TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 17.09 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 17.09 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 17.16 dBm Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*2 / 4TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 16.72 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 16.72 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 16.69 dBm For B1 indoor use / B4 indoor, outdoor use Mode 3 (Set 6 Panel antenna / 2.66dBi / 2TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 23.33 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.72 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 20.13 dBm Band 4: IEEE 802.11ac MCS0/Nss1 (VHT20): 23.56 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.06 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.03 dBm Mode 3 (Set 6 Panel antenna / 2.66dBi / 3TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 24.90 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 25.18 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 21.21 dBm

	Band 4: IEEE 802.11ac MCS0/Nss1 (VHT20): 24.74 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.84 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.02 dBm Mode 3 (Set 6 Panel antenna / 2.66dBi / 4TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 26.44 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 26.34 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 22.02 dBm Band 4: IEEE 802.11ac MCS0/Nss1 (VHT20): 26.31 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.83 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.51 dBm For outdoor use Mode 3 (Set 6 Panel antenna / 2.66dBi / 2TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 16.11 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 16.10 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 16.09 dBm Mode 3 (Set 6 Panel antenna / 2.66dBi / 3TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 14.33 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 14.16 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 14.30 dBm Mode 3 (Set 6 Panel antenna / 2.66dBi / 4TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 13.06 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 13.11 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 12.87 dBm For B1 indoor use / B4 indoor, outdoor use Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 2TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 23.33 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.72 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 20.64 dBm Band 4: IEEE 802.11ac MCS0/Nss1 (VHT20): 23.56 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 21.81 dBm

	IEEE 802.11ac MCS0/Nss1 (VHT80): 18.03 dBm Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 3TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 24.90 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 25.18 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 21.21 dBm Band 4: IEEE 802.11ac MCS0/Nss1 (VHT20): 24.47 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.68 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 16.87 dBm Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 4TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 26.44 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 26.34 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 23.24 dBm Band 4: IEEE 802.11ac MCS0/Nss1 (VHT20): 26.31 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.21 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.86 dBm For outdoor use Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 2TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 20.39 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 20.38 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 20.20 dBm Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 3TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 18.48 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 18.49 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.37 dBm Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 4TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 17.34 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 17.35 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 17.22 dBm

	For indoor use Mode 5 (Set 8 Patch antenna / 3.26dBi / 2TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 23.33 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.72 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 20.13 dBm Band 4: IEEE 802.11ac MCS0/Nss1 (VHT20): 23.56 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.61 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.32 dBm Mode 5 (Set 8 Patch antenna / 3.26dBi / 3TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 24.92 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 25.18 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 22.33 dBm Band 4: IEEE 802.11ac MCS0/Nss1 (VHT20): 24.74 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.84 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 20.32 dBm Mode 5 (Set 8 Patch antenna / 3.26dBi / 4TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 26.44 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 26.44 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 23.71 dBm Band 4: IEEE 802.11ac MCS0/Nss1 (VHT20): 26.31 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.78 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.69 dBm For B1 indoor use / B4 indoor, outdoor use Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi / 2TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 23.33 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.72 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 19.61 dBm Band 4: IEEE 802.11ac MCS0/Nss1 (VHT20): 23.56 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 21.57 dBm

	IEEE 802.11ac MCS0/Nss1 (VHT80): 17.73 dBm Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi / 3TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 24.48 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.72 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 19.92 dBm Band 4: IEEE 802.11ac MCS0/Nss1 (VHT20): 22.60 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.03 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.02 dBm Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi, Chain 4: 5.9dBi / 4TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 23.32 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.40 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 20.81 dBm Band 4: IEEE 802.11ac MCS0/Nss1 (VHT20): 23.40 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 21.26 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 18.66 dBm For outdoor use Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi / 2TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 14.52 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 14.54 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 14.55 dBm Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi / 3TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 12.71 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 12.55 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 12.65 dBm Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi, Chain 4: 5.9dBi / 4TX) Band 1: IEEE 802.11ac MCS0/Nss1 (VHT20): 11.41 dBm

	IEEE 802.11ac MCS0/Nss1 (VHT40): 11.34 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 11.17 dBm
Carrier Frequencies	Please refer to section 3.4
Antenna	Please refer to section 3.3

Items	Description	
Communication Mode	☒ IP Based (Load Based)	☐ Frame Based
Beamforming Function	☒ With beamforming	☐ Without beamforming
Operating Mode	☒ Outdoor access point	
	☒ Indoor access point	
	☐ Fixed point-to-point access points	
	☐ Mobile and portable client devices	

Note: The product has beamforming function for 802.11n/ac.

Antenna and Band width

Antenna	Single (TX)			Two (TX)			Three (TX)			Four (TX)		
Band width Mode	20MHz	40MHz	80MHz	20MHz	40MHz	80MHz	20MHz	40MHz	80MHz	20MHz	40MHz	80MHz
IEEE 802.11a	V	X	X	V	X	X	V	X	X	V	X	X
IEEE 802.11n	V	V	X	V	V	X	V	V	X	V	V	X
IEEE 802.11ac	V	V	V	V	V	V	V	V	V	V	V	V

IEEE 11n/ac Spec.

Protocol	Number of Transmit Chains (NTX)	Data Rate / MCS
802.11n (HT20)	1,2,3,4	MCS0-7, MCS0-15, MCS0-23, MCS0-31
802.11n (HT40)	1,2,3,4	MCS0-7, MCS0-15, MCS0-23, MCS0-31
802.11ac (VHT20)	1,2,3,4	MCS0-9/Nss1, MCS0-9/Nss1-2, MCS0-9/Nss1-3, MCS0-9/Nss1-4
802.11ac (VHT40)	1,2,3,4	MCS0-9/Nss1, MCS0-9/Nss1-2, MCS0-9/Nss1-3, MCS0-9/Nss1-4
802.11ac (VHT80)	1,2,3,4	MCS0-9/Nss1, MCS0-9/Nss1-2, MCS0-9/Nss1-3, MCS0-9/Nss1-4

Note 1: IEEE Std. 802.11n modulation consists of HT20 and HT40 (HT: High Throughput). Then EUT supports HT20 and HT40.

Note 2: IEEE Std. 802.11ac modulation consists of VHT20, VHT40, VHT80 and VHT160 (VHT: Very High Throughput). Then EUT supports VHT20, VHT40 and VHT80.

Note 3: Modulation modes consist of below configuration: HT20/HT40: IEEE 802.11n, VHT20/VHT40/VHT80: IEEE 802.11ac

3.2. Accessories

N/A

3.3. Table for Filed Antenna

Set	Ant.	Brand	Model Name (Part Number)	Polarity	Antenna Type	Connector	Indoor/ Outdoor
1	1	ZEBRA	ML-2452-HPAG4A6-01	-	Dipole	N-Type male	Indoor/ Outdoor
2	2	ZEBRA	ML-2452-APAG2A1-01	-		RP-SMA male	Indoor
3	3	ZEBRA	ML-2452-HPA6-01	-		N-TYPE male	Indoor/ Outdoor
4	4	ZEBRA	ML-2452-APA2-01	-		RP-SMA male	Indoor
5	5 (2A)	ZEBRA	ML-2452-HPAG4A6-01	(V)	Polarized Dipole	N-TYPE male	Indoor/ Outdoor
	5 (2B)	ZEBRA	ML-5299-HPA5H-01	(H)		N-TYPE male	Indoor/ Outdoor
6	6	ZEBRA	ML-2452-PNA5-01R	-	Panel	N-TYPE male	Indoor/ Outdoor
7	7	ZEBRA	ML-2452-SEC5M4-N36	-	Polarized Panel	RP-SMA male	Indoor/ Outdoor
8	8	ZEBRA	ML-2452-PTA4M4-036	-	Patch	RP-SMA Male	Indoor
9	9	ZEBRA	CEDAR-INT-ANT	-	Monopole	U.FL	Indoor/ Outdoor

Note1:

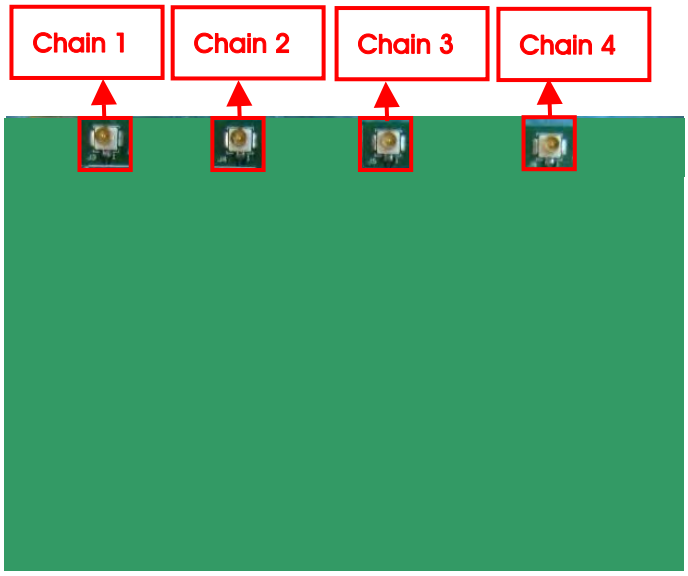
Set	Ant.	Antenna Gain (dBi)	Cable Loss (dB)	True Gain (dBi)
		5G	5G	5G
1	1	7.3	3.34	3.96
2	2	1.7	3.34	-1.64
3	3	6.1	3.34	2.76
4	4	4.85	3.34	1.51
5	5 (2A)	7.3	3.34	3.96
	5 (2B)	5	3.34	1.66
6	6	6	3.34	2.66
7	7	7.23	3.34	3.89
8	8	6.6	3.34	3.26

Set	Ant.	Antenna Gain (dBi)			
		5G			
		Chain 1	Chain 2	Chain 3	Chain 4
9	9	6.8	6.7	6.6	5.9

Note2:

There are 9 set antennas in the antenna table list. Besides, only set 1, 5, 6, 7, 8 and 9 were selected to perform the test and written in this report due to the highest gain.

For IEEE 802.11a/n/ac						
Mode	BF	Non BF	Chain 1	Chain 2	Chain 3	Chain 4
For 1TX	-	V	TX/RX	RX	RX	RX
For 2TX-Type 1 (Worst case)	-	V	TX/RX	TX/RX	RX	RX
For 2TX-Type 2	-	V	TX/RX	RX	TX/RX	RX
For 2TX	V	-	TX/RX	TX/RX	RX	RX
For 3TX	V	V	TX/RX	TX/RX	TX/RX	RX
For 4TX	V	V	TX/RX	TX/RX	TX/RX	TX/RX
Note: BF = Beamforming ; Non-BF = Non Beamforming						



3.4. Table for Carrier Frequencies

There are three bandwidth systems.

For 20MHz bandwidth systems, use Channel 36, 40, 44, 48, 149, 153, 157, 161, 165.

For 40MHz bandwidth systems, use Channel 38, 46, 151, 159.

For 80MHz bandwidth systems, use Channel 42, 155.

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
5150~5250 MHz Band 1	36	5180 MHz	44	5220 MHz
	38	5190 MHz	46	5230 MHz
	40	5200 MHz	48	5240 MHz
	42	5210 MHz	-	-
5725~5850 MHz Band 4	149	5745 MHz	157	5785 MHz
	151	5755 MHz	159	5795 MHz
	153	5765 MHz	161	5805 MHz
	155	5775 MHz	165	5825 MHz

3.5. Table for Test Modes

Preliminary tests were performed in different data rate to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

Test Items	Mode		Data Rate	Channel	Chain
AC Power Conducted Emission	CTX		-	-	-
Max. Conducted Output Power	**For Non-Beamforming Mode**				
	11a/BPSK	Band 1&4	6Mbps	36/40/48/149/157/165	1 1+2 1+2+3 1+2+3+4
	11ac VHT20	Band 1&4	MCS0/Nss1	36/40/48/149/157/165	1 1+2 1+2+3 1+2+3+4
	11ac VHT40	Band 1&4	MCS0/Nss1	38/46/151/159	1 1+2 1+2+3 1+2+3+4
	11ac VHT80	Band 1&4	MCS0/Nss1	42/155	1 1+2 1+2+3 1+2+3+4
	For Beamforming Mode				
	11ac VHT20	Band 1&4	MCS0/Nss1	36/40/48/149/157/165	1+2 1+2+3 1+2+3+4
	11ac VHT40	Band 1&4	MCS0/Nss1	38/46/151/159	1+2 1+2+3 1+2+3+4
	11ac VHT80	Band 1&4	MCS0/Nss1	42/155	1+2 1+2+3 1+2+3+4

Power Spectral Density	**For Non-Beamforming Mode**				
	11a/BPSK	Band 1&4	6Mbps	36/40/48/149/157/165	1 1+2 1+2+3 1+2+3+4
	11ac VHT20	Band 1&4	MCS0/Nss1	36/40/48/149/157/165	1 1+2 1+2+3 1+2+3+4
	11ac VHT40	Band 1&4	MCS0/Nss1	38/46/151/159	1 1+2 1+2+3 1+2+3+4
	11ac VHT80	Band 1&4	MCS0/Nss1	42/155	1 1+2 1+2+3 1+2+3+4
	For Beamforming Mode				
	11ac VHT20	Band 1&4	MCS0/Nss1	36/40/48/149/157/165	1+2 1+2+3 1+2+3+4
	11ac VHT40	Band 1&4	MCS0/Nss1	38/46/151/159	1+2 1+2+3 1+2+3+4
	11ac VHT80	Band 1&4	MCS0/Nss1	42/155	1+2 1+2+3 1+2+3+4
26dB Spectrum Bandwidth & 99% Occupied Bandwidth Measurement	**For Non-Beamforming Mode**				
	11a/BPSK	Band 1&4	6Mbps	36/40/48/149/157/165	1 1+2 1+2+3 1+2+3+4
	11ac VHT20	Band 1&4	MCS0/Nss1	36/40/48/149/157/165	1 1+2 1+2+3 1+2+3+4

	11ac VHT40	Band 1&4	MCS0/Nss1	38/46/151/159	1 1+2 1+2+3 1+2+3+4
	11ac VHT80	Band 1&4	MCS0/Nss1	42/155	1 1+2 1+2+3 1+2+3+4
6dB Spectrum Bandwidth Measurement	**For Non-Beamforming Mode**				
	11a/BPSK	Band 4	6Mbps	149/157/165	1 1+2 1+2+3 1+2+3+4
	11ac VHT20	Band 4	MCS0/Nss1	149/157/165	1 1+2 1+2+3 1+2+3+4
	11ac VHT40	Band 4	MCS0/Nss1	151/159	1 1+2 1+2+3 1+2+3+4
	11ac VHT80	Band 4	MCS0/Nss1	155	1 1+2 1+2+3 1+2+3+4
Radiated Emission Below 1GHz	CTX		-	-	-
Radiated Emission Above 1GHz	**For Non-Beamforming Mode**				
	11a/BPSK	Band 1&4	6Mbps	36/40/48/149/157/165	1+2+3+4
	11ac VHT20	Band 1&4	MCS0/Nss1	36/40/48/149/157/165	1+2+3+4
	11ac VHT40	Band 1&4	MCS0/Nss1	38/46/151/159	1+2+3+4
	11ac VHT80	Band 1&4	MCS0/Nss1	42/155	1+2+3+4
Band Edge Emission	**For Non-Beamforming Mode**				
	11a/BPSK	Band 1&4	6Mbps	36/40/48/149/157/165	1 1+2 1+2+3 1+2+3+4

	11ac VHT20	Band 1&4	MCS0/Nss1	36/40/48/149/157/165	1 1+2 1+2+3 1+2+3+4
	11ac VHT40	Band 1&4	MCS0/Nss1	38/46/151/159	1 1+2 1+2+3 1+2+3+4
	11ac VHT80	Band 1&4	MCS0/Nss1	42/155	1 1+2 1+2+3 1+2+3+4
	For Beamforming Mode				
	11ac VHT20	Band 1&4	MCS0/Nss1	36/40/48/149/157/165	1+2 1+2+3 1+2+3+4
	11ac VHT40	Band 1&4	MCS0/Nss1	38/46/151/159	1+2 1+2+3 1+2+3+4
	11ac VHT80	Band 1&4	MCS0/Nss1	42/155	1+2 1+2+3 1+2+3+4
Frequency Stability	20 MHz	Band 1&4	-	40/157	1/2/3/4
	40 MHz	Band 1&4	-	38/151	1/2/3/4
	80 MHz	Band 1&4	-	42/155	1/2/3/4

Note1: VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40.

Note2: There are two modes of EUT, one is beamforming mode, and the other is non-beamforming mode for 802 11n/ac. Beamforming mode and non-beamforming mode has been test and record in this test report for Maximum Conducted Output Power、Power Spectral Density and Band Edge Emissions tests.

Note3: After evaluating, non-beamforming mode had been evaluated to be the worst case, so it was selected to record in this test report for 26dB Bandwidth and 99% Occupied Bandwidth、 6dB Spectrum Bandwidth and Radiated Emissions 1GHz~10th Harmonic tests.

Note4: All the specification of test configurations and test modes were based on customer's request

The following test modes were performed for all tests:

Conducted Emission test		
Mode	EUT	Set 9
1	●	●

Radiated Emission below 1GHz test			
The EUT was performed at Y axis and Z axis position for Radiated emission above 1GHz test, and the worst case was found at Z axis. So the measurement will follow this same test configuration. (Only the higher gain antenna "Set 9" was tested)			
Mode	EUT	Z axis	Set 9
1	●	●	●

Radiated Emission above 1GHz test																
The EUT can only be placed in Y axis for Mode 1 ~ Mode 2. The Mode 3~Mode 6 was performed at Y axis and Z axis position. Z axis has been evaluated to be the worst case, thus measurement will follow this same test mode.																
Mode	Non BF	BF	1TX	2TX	3TX	4TX	EUT in Y axis	EUT in Z axis	Set in Y axis	Set in Z axis	Set 1	Set 5 (2A)	Set 5 (2B)	Set 6	Set 7	Set 8	Set 9
1	●	-	●	●	●	●	●	-	●	-	●	-	-	-	-	-	-
1	-	●	-	●	●	●	●	-	●	-	●	-	-	-	-	-	-
2	●	-	●	-	-	-	●	-	●	-	-	●	-	-	-	-	-
2	●	●	-	●	-	-	●	-	●	-	-	●*1	●*1	-	-	-	-
2	●	●	-	-	●	-	●	-	●	-	-	●*2	●*1	-	-	-	-
2	●	●	-	-	-	●	●	-	●	-	-	●*2	●*2	-	-	-	-
3	●	-	●	●	●	●	-	●	●	-	-	-	-	●	-	-	-
3	-	●	-	●	●	●	-	●	●	-	-	-	-	●	-	-	-
4	●	-	●	●	●	●	-	●	●	-	-	-	-	-	●	-	-
4	-	●	-	●	●	●	-	●	●	-	-	-	-	-	●	-	-
5	●	-	●	●	●	●	-	●	●	-	-	-	-	-	-	●	-
5	-	●	-	●	●	●	-	●	●	-	-	-	-	-	-	●	-
6	●	-	●	●	●	●	-	●	-	●	-	-	-	-	-	-	●
6	-	●	-	●	●	●	-	●	-	●	-	-	-	-	-	-	●

3.6. Table for Testing Locations

Test Site Location					
Address:	No.8, Lane 724, Bo-ai St., Jhubei City, Hsinchu County 302, Taiwan, R.O.C.				
TEL:	886-3-656-9065				
FAX:	886-3-656-9085				
Test Site No.	**Site Category**	**Location**	**FCC Reg. No.**	**IC File No.**	**VCCI Reg. No**
03CH01-CB	SAC	Hsin Chu	262045	IC 4086D	-
CO01-CB	Conduction	Hsin Chu	262045	IC 4086D	-
TH01-CB	OVEN Room	Hsin Chu	-	-	-

Open Area Test Site (OATS); Semi Anechoic Chamber (SAC).

3.7. Table for Supporting Units

For Test Site No: 03CH01-CB (For Below 1GHz and Above 1GHz / For Non-Beamforming Mode)

Support Unit	Brand	Model	FCC ID
Notebook	DELL	E4300	DoC
PoE	Symbol	APSBIAS-2P3-ATR	N/A
Fixture	Bplus	P22S-P22F	N/A

For Test Site No: 03CH01-CB (For Above 1GHz / For Beamforming Mode)

Support Unit	Brand	Model	FCC ID
Notebook*2	DELL	E4300	DoC
Client Device	Cedar	AP-8532	N/A
PoE	Symbol	APSBIAS-2P3-ATR	N/A
Fixture	Bplus	P22S-P22F	N/A

For Test Site No: CO01-CB

Support Unit	Brand	Model	FCC ID
Notebook	DELL	E6430	DoC
PoE	Symbol	APSBIAS-2P3-ATR	N/A
Fixture	Bplus	P22S-P22F	N/A

For Test Site No: TH01-CB

Support Unit	Brand	Model	FCC ID
Notebook	DELL	E4300	DoC
PoE	Symbol	APSBIAS-2P3-ATR	N/A
Fixture	Bplus	P22S-P22F	N/A

3.8. Table for Parameters of Test Software Setting

During testing, Channel and Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

For Non-Beamforming Mode

For B1 indoor use / B4 indoor, outdoor use

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 1TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	88	88	89	86	93	88
802.11ac MCS0/Nss1 VHT20	86	86	86	85	90	88
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	84		86		80	89
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	84				76	

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 2TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	78	80	82	78	88	88
802.11ac MCS0/Nss1 VHT20	81	81	82	77	88	85
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	81		85		64	83
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	71				60	

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 3TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	84	84	84	73	84	80
802.11ac MCS0/Nss1 VHT20	83	83	84	73	85	81
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	80		84		65	80
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	74				59	

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 4TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	78	78	79	80	80	77
802.11ac MCS0/Nss1 VHT20	77	79	79	67	80	77
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	78		78		57	75
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	71				57	

For outdoor use

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 1TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11a	79	79	81
802.11ac MCS0/Nss1 VHT20	77	78	79
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	75	77	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	76		

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 2TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11a	58	57	59
802.11ac MCS0/Nss1 VHT20	62	62	64
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	64	65	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	60		

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 3TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11a	56	56	58
802.11ac MCS0/Nss1 VHT20	56	56	58
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	56	57	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	56		

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 4TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11a	45	44	46
802.11ac MCS0/Nss1 VHT20	45	44	46
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	44	45	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	43		

For B1 indoor use / B4 indoor, outdoor use

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*1 / 1TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	88	88	89	88	93	90
802.11ac MCS0/Nss1 VHT20	86	86	86	89	90	89
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	84		86		83	89
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	81				77	

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*1, (2B)1.66dBi*1 / 2TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	78	80	82	80	88	88
802.11ac MCS0/Nss1 VHT20	81	81	82	80	88	88
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	83		85		70	83
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	76				65	

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*1 / 3TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	84	84	84	81	84	85
802.11ac MCS0/Nss1 VHT20	83	83	84	77	85	83
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	77		84		65	81
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	76				65	

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*2 / 4TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	78	79	80	71	80	80
802.11ac MCS0/Nss1 VHT20	78	80	80	71	80	78
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	78		78		60	72
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	75				62	

For outdoor use

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*1 / 1TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11a	79	79	81
802.11ac MCS0/Nss1 VHT20	77	78	79
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	75	77	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	76		

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*1, (2B)1.66dBi*1 / 2TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11a	58	57	59
802.11ac MCS0/Nss1 VHT20	62	62	64
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	64	65	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	60		

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*1 / 3TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11a	56	56	58
802.11ac MCS0/Nss1 VHT20	56	56	58
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	56	57	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	56		

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*2 / 4TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11a	45	44	46
802.11ac MCS0/Nss1 VHT20	45	44	46
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	44	45	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	43		

For B1 indoor use / B4 indoor, outdoor use

Mode 3 (Set 6 Panel antenna / 2.66dBi / 1TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	88	88	89	87	93	90
802.11ac MCS0/Nss1 VHT20	86	86	86	81	90	83
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	78		86		78	79
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	77				72	

Mode 3 (Set 6 Panel antenna / 2.66dBi / 2TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	78	80	82	81	88	83
802.11ac MCS0/Nss1 VHT20	81	81	82	76	88	81
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	78		85		63	76
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	71				64	

Mode 3 (Set 6 Panel antenna / 2.66dBi / 3TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	84	84	84	74	84	81
802.11ac MCS0/Nss1 VHT20	83	83	84	73	85	78
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	76		84		65	74
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	71				56	

Mode 3 (Set 6 Panel antenna / 2.66dBi / 4TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	78	79	80	68	80	77
802.11ac MCS0/Nss1 VHT20	78	80	80	68	80	71
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	74		78		54	70
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	65				52	

For outdoor use

Mode 3 (Set 6 Panel antenna / 2.66dBi / 1TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11a	81	81	83
802.11ac MCS0/Nss1 VHT20	79	80	80
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	77	79	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	77		

Mode 3 (Set 6 Panel antenna / 2.66dBi / 2TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11a	60	60	62
802.11ac MCS0/Nss1 VHT20	64	63	65
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	66	67	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	62		

Mode 3 (Set 6 Panel antenna / 2.66dBi / 3TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11a	57	57	60
802.11ac MCS0/Nss1 VHT20	58	58	60
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	58	59	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	57		

Mode 3 (Set 6 Panel antenna / 2.66dBi / 4TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11a	46	46	48
802.11ac MCS0/Nss1 VHT20	46	46	49
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	47	48	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	45		

For B1 indoor use / B4 indoor, outdoor use

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 1TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	88	88	89	88	93	90
802.11ac MCS0/Nss1 VHT20	86	86	86	88	90	89
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	84		86		83	89
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	84				78	

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 2TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	78	80	82	80	88	88
802.11ac MCS0/Nss1 VHT20	81	81	82	78	88	84
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	82		85		64	79
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	74				65	

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 3TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	84	84	84	76	84	85
802.11ac MCS0/Nss1 VHT20	83	83	84	75	85	78
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	78		84		65	80
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	76				62	

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 4TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	78	79	80	69	80	80
802.11ac MCS0/Nss1 VHT20	78	80	80	69	80	75
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	77		78		57	75
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	70				56	

For outdoor use

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 1TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11a	86	86	87
802.11ac MCS0/Nss1 VHT20	83	83	85
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	82	83	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	81		

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 2TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11a	65	65	66
802.11ac MCS0/Nss1 VHT20	69	69	70
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	71	72	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	67		

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 3TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11a	63	64	66
802.11ac MCS0/Nss1 VHT20	63	63	65
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	63	64	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	62		

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 4TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11a	51	51	53
802.11ac MCS0/Nss1 VHT20	52	52	54
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	52	53	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	50		

For indoor use

Mode 5 (Set 8 Patch antenna / 3.26dBi / 1TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	88	88	89	84	93	90
802.11ac MCS0/Nss1 VHT20	86	86	86	86	90	89
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	83		86		81	89
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	82				77	

Mode 5 (Set 8 Patch antenna / 3.26dBi / 2TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	78	80	82	81	88	88
802.11ac MCS0/Nss1 VHT20	81	81	82	79	88	86
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	78		85		66	80
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	70				61	

Mode 5 (Set 8 Patch antenna / 3.26dBi / 3TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	84	84	84	82	84	85
802.11ac MCS0/Nss1 VHT20	83	83	84	77	85	81
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	79		84		67	79
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	73				64	

Mode 5 (Set 8 Patch antenna / 3.26dBi / 4TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	78	79	80	73	80	79
802.11ac MCS0/Nss1 VHT20	78	80	80	72	80	76
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	78		78		63	73
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	73				61	

For B1 indoor use / B4 indoor, outdoor use

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi / 1TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	88	88	89	82	93	85
802.11ac MCS0/Nss1 VHT20	86	86	86	80	90	82
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	76		86		74	79
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	76				73	

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi / 2TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	78	80	82	76	88	85
802.11ac MCS0/Nss1 VHT20	81	81	82	73	88	82
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	71		85		62	76
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	64				58	

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi / 3TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	82	82	82	74	84	77
802.11ac MCS0/Nss1 VHT20	75	78	83	72	85	76
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	71		84		58	75
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	64				52	

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi, Chain 4: 5.9dBi / 4TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11a	71	71	73	65	80	73
802.11ac MCS0/Nss1 VHT20	72	72	74	68	80	70
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	71		78		57	67
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	70				51	

For outdoor use

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi / 1TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11a	74	76	76
802.11ac MCS0/Nss1 VHT20	74	76	76
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	74	74	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	73		

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi / 2TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11a	54	54	55
802.11ac MCS0/Nss1 VHT20	54	54	55
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	57	57	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	53		

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi / 3TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11a	52	52	53
802.11ac MCS0/Nss1 VHT20	52	52	53
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	52	54	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	52		

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi, Chain 4: 5.9dBi / 4TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11a	40	40	42
802.11ac MCS0/Nss1 VHT20	40	40	42
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	40	42	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	40		

For Beamforming Mode

For B1 indoor use / B4 indoor, outdoor use

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 2TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11ac MCS0/Nss1 VHT20	81	81	82	70	88	78
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	68		85		57	77
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	66				56	

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 3TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11ac MCS0/Nss1 VHT20	75	75	84	64	85	75
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	66		84		54	72
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	66				56	

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 4TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11ac MCS0/Nss1 VHT20	58	66	79	61	73	62
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	66		76		49	66
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	63				47	

For outdoor use

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 2TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11ac MCS0/Nss1 VHT20	49	49	51
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	51	53	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	48		

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 3TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11ac MCS0/Nss1 VHT20	34	34	36
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	32	33	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	32		

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 4TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11ac MCS0/Nss1 VHT20	16	17	16
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	14	16	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	13		

For B1 indoor use / B4 indoor, outdoor use

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*1, (2B)1.66dBi*1 / 2TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11ac MCS0/Nss1 VHT20	81	81	82	74	88	88
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	77		85		60	78
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	69				58	

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*1 / 3TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11ac MCS0/Nss1 VHT20	83	83	84	75	85	74
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	75		84		65	78
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	71				58	

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*2 / 4TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11ac MCS0/Nss1 VHT20	78	80	80	67	80	73
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	74		78		56	69
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	69				56	

For outdoor use

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*1, (2B)1.66dBi*1 / 2TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11ac MCS0/Nss1 VHT20	62	62	64
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	64	65	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	60		

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*1 / 3TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11ac MCS0/Nss1 VHT20	49	49	41
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	50	51	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	50		

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*2 / 4TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11ac MCS0/Nss1 VHT20	37	37	38
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	37	37	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	35		

For B1 indoor use / B4 indoor, outdoor use

Mode 3 (Set 6 Panel antenna / 2.66dBi / 2TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11ac MCS0/Nss1 VHT20	81	81	82	73	88	81
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	70		85		60	76
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	66				55	

Mode 3 (Set 6 Panel antenna / 2.66dBi / 3TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11ac MCS0/Nss1 VHT20	78	83	84	73	85	72
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	68		84		58	74
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	66				52	

Mode 3 (Set 6 Panel antenna / 2.66dBi / 4TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11ac MCS0/Nss1 VHT20	78	80	80	67	80	71
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	72		78		51	70
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	65				49	

For outdoor use

Mode 3 (Set 6 Panel antenna / 2.66dBi / 2TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11ac MCS0/Nss1 VHT20	51	51	53
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	53	54	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	50		

Mode 3 (Set 6 Panel antenna / 2.66dBi / 3TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11ac MCS0/Nss1 VHT20	36	36	38
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	34	35	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	34		

Mode 3 (Set 6 Panel antenna / 2.66dBi / 4TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11ac MCS0/Nss1 VHT20	18	18	20
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	16	18	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	14		

For B1 indoor use / B4 indoor, outdoor use

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 2TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11ac MCS0/Nss1 VHT20	81	81	82	76	88	74
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	76		85		60	75
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	68				55	

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 3TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11ac MCS0/Nss1 VHT20	81	83	84	70	84	71
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	68		84		60	78
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	66				47	

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 4TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11ac MCS0/Nss1 VHT20	74	80	80	66	80	72
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	70		78		57	68
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	70				52	

For outdoor use

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 2TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11ac MCS0/Nss1 VHT20	69	69	70
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	71	72	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	67		

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 3TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11ac MCS0/Nss1 VHT20	56	56	58
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	56	56	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	56		

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 4TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11ac MCS0/Nss1 VHT20	41	41	43
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	41	42	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	39		

For indoor use

Mode 5 (Set 8 Patch antenna / 3.26dBi / 2TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11ac MCS0/Nss1 VHT20	81	81	82	78	88	78
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	77		85		65	79
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	66				60	

Mode 5 (Set 8 Patch antenna / 3.26dBi / 3TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11ac MCS0/Nss1 VHT20	83	83	83	71	85	78
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	73		84		62	74
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	72				62	

Mode 5 (Set 8 Patch antenna / 3.26dBi / 4TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11ac MCS0/Nss1 VHT20	78	80	80	63	80	69
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	78		78		55	70
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	72				51	

For B1 indoor use / B4 indoor, outdoor use

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi / 2TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11ac MCS0/Nss1 VHT20	81	81	82	73	88	76
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	65		85		62	74
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	64				58	

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi / 3TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11ac MCS0/Nss1 VHT20	81	77	81	69	74	70
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	59		78		58	71
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	62				52	

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi, Chain 4: 5.9dBi / 4TX)

Test Software Version	Dos					
Mode	Test Frequency (MHz)					
	NCB: 20MHz					
	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
802.11ac MCS0/Nss1 VHT20	64	71	72	66	69	69
Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5190 MHz		5230 MHz		5755 MHz	5795 MHz
	57		68		56	62
Mode	NCB: 80MHz					
802.11ac MCS0/Nss1 VHT80	5210 MHz				5775 MHz	
	60				50	

For outdoor use

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi / 2TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11ac MCS0/Nss1 VHT20	42	42	43
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	45	45	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	39		

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi / 3TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11ac MCS0/Nss1 VHT20	32	32	32
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	30	30	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	30		

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi, Chain 4: 5.9dBi / 4TX)

Test Software Version	Dos		
Mode	Test Frequency (MHz)		
	NCB: 20MHz		
	5180 MHz	5200 MHz	5240 MHz
802.11ac MCS0/Nss1 VHT20	13	14	14
Mode	NCB: 40MHz		
802.11ac MCS0/Nss1 VHT40	5190 MHz	5230 MHz	
	11	12	
Mode	NCB: 80MHz		
802.11ac MCS0/Nss1 VHT80	5210 MHz		
	10		

3.9. EUT Operation during Test

For non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

For beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

During the test, the following programs under WIN XP were executed.

The program was executed as follows:

1. During the test, the EUT operation to normal function.
2. Executed command fixed test channel under DOS.
3. Executed "Lantest.exe " to link with the remote workstation to receive and transmit packet by Client Device and transmit duty cycle no less 98%

3.10. Duty Cycle

For non-beamforming mode:

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 1TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.049	2.083	98.37	0.07	0.01
802.11ac MCS0/Nss1 VHT20	1.932	1.950	99.08	0.04	0.01
802.11ac MCS0/Nss1 VHT40	0.920	0.975	94.36	0.25	1.09
802.11ac MCS0/Nss1 VHT80	0.415	0.475	87.37	0.59	2.41

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 2TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.049	2.083	98.37	0.07	0.01
802.11ac MCS0/Nss1 VHT20	1.932	1.950	99.08	0.04	0.01
802.11ac MCS0/Nss1 VHT40	0.920	0.975	94.36	0.25	1.09
802.11ac MCS0/Nss1 VHT80	0.415	0.475	87.37	0.59	2.41

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 3TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.049	2.083	98.37	0.07	0.01
802.11ac MCS0/Nss1 VHT20	1.932	1.950	99.08	0.04	0.01
802.11ac MCS0/Nss1 VHT40	0.920	0.975	94.36	0.25	1.09
802.11ac MCS0/Nss1 VHT80	0.415	0.475	87.37	0.59	2.41

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 4TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.030	2.060	98.54	0.06	0.01
802.11ac MCS0/Nss1 VHT20	1.910	1.950	97.95	0.09	0.52
802.11ac MCS0/Nss1 VHT40	0.920	0.976	94.26	0.26	1.09
802.11ac MCS0/Nss1 VHT80	0.422	0.480	87.92	0.56	2.37

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*1 / 1TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.049	2.083	98.37	0.07	0.01
802.11ac MCS0/Nss1 VHT20	1.932	1.950	99.08	0.04	0.01
802.11ac MCS0/Nss1 VHT40	0.920	0.975	94.36	0.25	1.09
802.11ac MCS0/Nss1 VHT80	0.415	0.475	87.37	0.59	2.41

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*1, (2B)1.66dBi*1 / 2TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.049	2.083	98.37	0.07	0.01
802.11ac MCS0/Nss1 VHT20	1.932	1.950	99.08	0.04	0.01
802.11ac MCS0/Nss1 VHT40	0.920	0.975	94.36	0.25	1.09
802.11ac MCS0/Nss1 VHT80	0.415	0.475	87.37	0.59	2.41

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*1 / 3TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.070	2.080	99.52	0.02	0.01
802.11ac MCS0/Nss1 VHT20	1.944	1.960	99.18	0.04	0.01
802.11ac MCS0/Nss1 VHT40	0.960	0.975	98.46	0.07	0.01
802.11ac MCS0/Nss1 VHT80	0.458	0.484	94.63	0.24	2.18

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*2 / 4TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.030	2.060	98.54	0.06	0.01
802.11ac MCS0/Nss1 VHT20	1.910	1.950	97.95	0.09	0.52
802.11ac MCS0/Nss1 VHT40	0.920	0.976	94.26	0.26	1.09
802.11ac MCS0/Nss1 VHT80	0.422	0.480	87.92	0.56	2.37

Mode 3 (Set 6 Panel antenna / 2.66dBi / 1TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.049	2.083	98.37	0.07	0.01
802.11ac MCS0/Nss1 VHT20	1.932	1.950	99.08	0.04	0.01
802.11ac MCS0/Nss1 VHT40	0.920	0.975	94.36	0.25	1.09
802.11ac MCS0/Nss1 VHT80	0.415	0.475	87.37	0.59	2.41

Mode 3 (Set 6 Panel antenna / 2.66dBi / 2TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.049	2.083	98.37	0.07	0.01
802.11ac MCS0/Nss1 VHT20	1.932	1.950	99.08	0.04	0.01
802.11ac MCS0/Nss1 VHT40	0.920	0.975	94.36	0.25	1.09
802.11ac MCS0/Nss1 VHT80	0.415	0.475	87.37	0.59	2.41

Mode 3 (Set 6 Panel antenna / 2.66dBi / 3TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.049	2.083	98.37	0.07	0.01
802.11ac MCS0/Nss1 VHT20	1.932	1.950	99.08	0.04	0.01
802.11ac MCS0/Nss1 VHT40	0.920	0.975	94.36	0.25	1.09
802.11ac MCS0/Nss1 VHT80	0.415	0.475	87.37	0.59	2.41

Mode 3 (Set 6 Panel antenna / 2.66dBi / 4TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.049	2.083	98.37	0.07	0.01
802.11ac MCS0/Nss1 VHT20	1.932	1.950	99.08	0.04	0.01
802.11ac MCS0/Nss1 VHT40	0.920	0.975	94.36	0.25	1.09
802.11ac MCS0/Nss1 VHT80	0.415	0.475	87.37	0.59	2.41

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 1TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.030	2.060	98.54	0.06	0.01
802.11ac MCS0/Nss1 VHT20	1.910	1.950	97.95	0.09	0.52
802.11ac MCS0/Nss1 VHT40	0.920	0.976	94.26	0.26	1.09
802.11ac MCS0/Nss1 VHT80	0.422	0.480	87.92	0.56	2.37

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 2TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.030	2.060	98.54	0.06	0.01
802.11ac MCS0/Nss1 VHT20	1.910	1.950	97.95	0.09	0.52
802.11ac MCS0/Nss1 VHT40	0.920	0.976	94.26	0.26	1.09
802.11ac MCS0/Nss1 VHT80	0.422	0.480	87.92	0.56	2.37

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 3TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.030	2.060	98.54	0.06	0.01
802.11ac MCS0/Nss1 VHT20	1.910	1.950	97.95	0.09	0.52
802.11ac MCS0/Nss1 VHT40	0.920	0.976	94.26	0.26	1.09
802.11ac MCS0/Nss1 VHT80	0.422	0.480	87.92	0.56	2.37

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 4TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.030	2.060	98.54	0.06	0.01
802.11ac MCS0/Nss1 VHT20	1.910	1.950	97.95	0.09	0.52
802.11ac MCS0/Nss1 VHT40	0.920	0.976	94.26	0.26	1.09
802.11ac MCS0/Nss1 VHT80	0.422	0.480	87.92	0.56	2.37

Mode 5 (Set 8 Patch antenna / 3.26dBi / 1TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.049	2.083	98.37	0.07	0.01
802.11ac MCS0/Nss1 VHT20	1.932	1.950	99.08	0.04	0.01
802.11ac MCS0/Nss1 VHT40	0.920	0.975	94.36	0.25	1.09
802.11ac MCS0/Nss1 VHT80	0.415	0.475	87.37	0.59	2.41

Mode 5 (Set 8 Patch antenna / 3.26dBi / 2TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.049	2.083	98.37	0.07	0.01
802.11ac MCS0/Nss1 VHT20	1.932	1.950	99.08	0.04	0.01
802.11ac MCS0/Nss1 VHT40	0.920	0.975	94.36	0.25	1.09
802.11ac MCS0/Nss1 VHT80	0.415	0.475	87.37	0.59	2.41

Mode 5 (Set 8 Patch antenna / 3.26dBi / 3TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.070	2.080	99.52	0.02	0.01
802.11ac MCS0/Nss1 VHT20	1.944	1.960	99.18	0.04	0.01
802.11ac MCS0/Nss1 VHT40	0.960	0.975	98.46	0.07	0.01
802.11ac MCS0/Nss1 VHT80	0.458	0.484	94.63	0.24	2.18

Mode 5 (Set 8 Patch antenna / 3.26dBi / 4TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.030	2.060	98.54	0.06	0.01
802.11ac MCS0/Nss1 VHT20	1.910	1.950	97.95	0.09	0.52
802.11ac MCS0/Nss1 VHT40	0.920	0.976	94.26	0.26	1.09
802.11ac MCS0/Nss1 VHT80	0.422	0.480	87.92	0.56	2.37

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi / 1TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.049	2.083	98.37	0.07	0.01
802.11ac MCS0/Nss1 VHT20	1.932	1.950	99.08	0.04	0.01
802.11ac MCS0/Nss1 VHT40	0.920	0.975	94.36	0.25	1.09
802.11ac MCS0/Nss1 VHT80	0.415	0.475	87.37	0.59	2.41

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi / 2TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.049	2.083	98.37	0.07	0.01
802.11ac MCS0/Nss1 VHT20	1.932	1.950	99.08	0.04	0.01
802.11ac MCS0/Nss1 VHT40	0.920	0.975	94.36	0.25	1.09
802.11ac MCS0/Nss1 VHT80	0.415	0.475	87.37	0.59	2.41

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi / 3TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.070	2.080	99.52	0.02	0.01
802.11ac MCS0/Nss1 VHT20	1.944	1.960	99.18	0.04	0.01
802.11ac MCS0/Nss1 VHT40	0.960	0.975	98.46	0.07	0.01
802.11ac MCS0/Nss1 VHT80	0.458	0.484	94.63	0.24	2.18

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi, Chain 4: 5.9dBi / 4TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.030	2.060	98.54	0.06	0.01
802.11ac MCS0/Nss1 VHT20	1.910	1.950	97.95	0.09	0.52
802.11ac MCS0/Nss1 VHT40	0.920	0.976	94.26	0.26	1.09
802.11ac MCS0/Nss1 VHT80	0.422	0.480	87.92	0.56	2.37

For beamforming mode:

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 2TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss1 VHT20	3.824	4.144	92.28	0.35	0.26
802.11ac MCS0/Nss1 VHT40	4.608	5.004	92.09	0.36	0.22
802.11ac MCS0/Nss1 VHT80	5.091	5.469	93.09	0.31	0.20

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 3TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss1 VHT20	3.840	4.144	92.66	0.33	0.26
802.11ac MCS0/Nss1 VHT40	4.577	4.899	93.43	0.30	0.22
802.11ac MCS0/Nss1 VHT80	5.086	5.491	92.62	0.33	0.20

Mode 1 (Set 1 Dipole antenna / 3.96dBi / 4TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss1 VHT20	3.770	4.140	91.06	0.41	0.27
802.11ac MCS0/Nss1 VHT40	4.566	4.967	91.93	0.37	0.22
802.11ac MCS0/Nss1 VHT80	5.049	5.426	93.06	0.31	0.20

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*1, (2B)1.66dBi*1 / 2TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss1 VHT20	3.824	4.144	92.28	0.35	0.26
802.11ac MCS0/Nss1 VHT40	4.608	5.004	92.09	0.36	0.22
802.11ac MCS0/Nss1 VHT80	5.091	5.469	93.09	0.31	0.20

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*1 / 3TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss1 VHT20	3.840	4.144	92.66	0.33	0.26
802.11ac MCS0/Nss1 VHT40	4.577	4.899	93.43	0.30	0.22
802.11ac MCS0/Nss1 VHT80	5.086	5.491	92.62	0.33	0.20

Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*2 / 4TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss1 VHT20	3.770	4.140	91.06	0.41	0.27
802.11ac MCS0/Nss1 VHT40	4.566	4.967	91.93	0.37	0.22
802.11ac MCS0/Nss1 VHT80	5.049	5.426	93.06	0.31	0.20

Mode 3 (Set 6 Panel antenna / 2.66dBi / 2TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss1 VHT20	3.824	4.144	92.28	0.35	0.26
802.11ac MCS0/Nss1 VHT40	4.608	5.004	92.09	0.36	0.22
802.11ac MCS0/Nss1 VHT80	5.091	5.469	93.09	0.31	0.20

Mode 3 (Set 6 Panel antenna / 2.66dBi / 3TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss1 VHT20	3.840	4.144	92.66	0.33	0.26
802.11ac MCS0/Nss1 VHT40	4.577	4.899	93.43	0.30	0.22
802.11ac MCS0/Nss1 VHT80	5.086	5.491	92.62	0.33	0.20

Mode 3 (Set 6 Panel antenna / 2.66dBi / 4TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss1 VHT20	3.770	4.140	91.06	0.41	0.27
802.11ac MCS0/Nss1 VHT40	4.566	4.967	91.93	0.37	0.22
802.11ac MCS0/Nss1 VHT80	5.049	5.426	93.06	0.31	0.20

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 2TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss1 VHT20	3.824	4.144	92.28	0.35	0.26
802.11ac MCS0/Nss1 VHT40	4.608	5.004	92.09	0.36	0.22
802.11ac MCS0/Nss1 VHT80	5.091	5.469	93.09	0.31	0.20

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 3TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss1 VHT20	3.770	4.140	91.06	0.41	0.27
802.11ac MCS0/Nss1 VHT40	4.566	4.967	91.93	0.37	0.22
802.11ac MCS0/Nss1 VHT80	5.049	5.426	93.06	0.31	0.20

Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 4TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss1 VHT20	3.770	4.140	91.06	0.41	0.27
802.11ac MCS0/Nss1 VHT40	4.566	4.967	91.93	0.37	0.22
802.11ac MCS0/Nss1 VHT80	5.049	5.426	93.06	0.31	0.20

Mode 5 (Set 8 Patch antenna / 3.26dBi / 2TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss1 VHT20	3.824	4.144	92.28	0.35	0.26
802.11ac MCS0/Nss1 VHT40	4.608	5.004	92.09	0.36	0.22
802.11ac MCS0/Nss1 VHT80	5.091	5.469	93.09	0.31	0.20

Mode 5 (Set 8 Patch antenna / 3.26dBi / 3TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss1 VHT20	3.840	4.144	92.66	0.33	0.26
802.11ac MCS0/Nss1 VHT40	4.577	4.899	93.43	0.30	0.22
802.11ac MCS0/Nss1 VHT80	5.086	5.491	92.62	0.33	0.20

Mode 5 (Set 8 Patch antenna / 3.26dBi / 4TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss1 VHT20	3.770	4.140	91.06	0.41	0.27
802.11ac MCS0/Nss1 VHT40	4.566	4.967	91.93	0.37	0.22
802.11ac MCS0/Nss1 VHT80	5.049	5.426	93.06	0.31	0.20

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi / 2TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss1 VHT20	3.824	4.144	92.28	0.35	0.26
802.11ac MCS0/Nss1 VHT40	4.608	5.004	92.09	0.36	0.22
802.11ac MCS0/Nss1 VHT80	5.091	5.469	93.09	0.31	0.20

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi / 3TX)

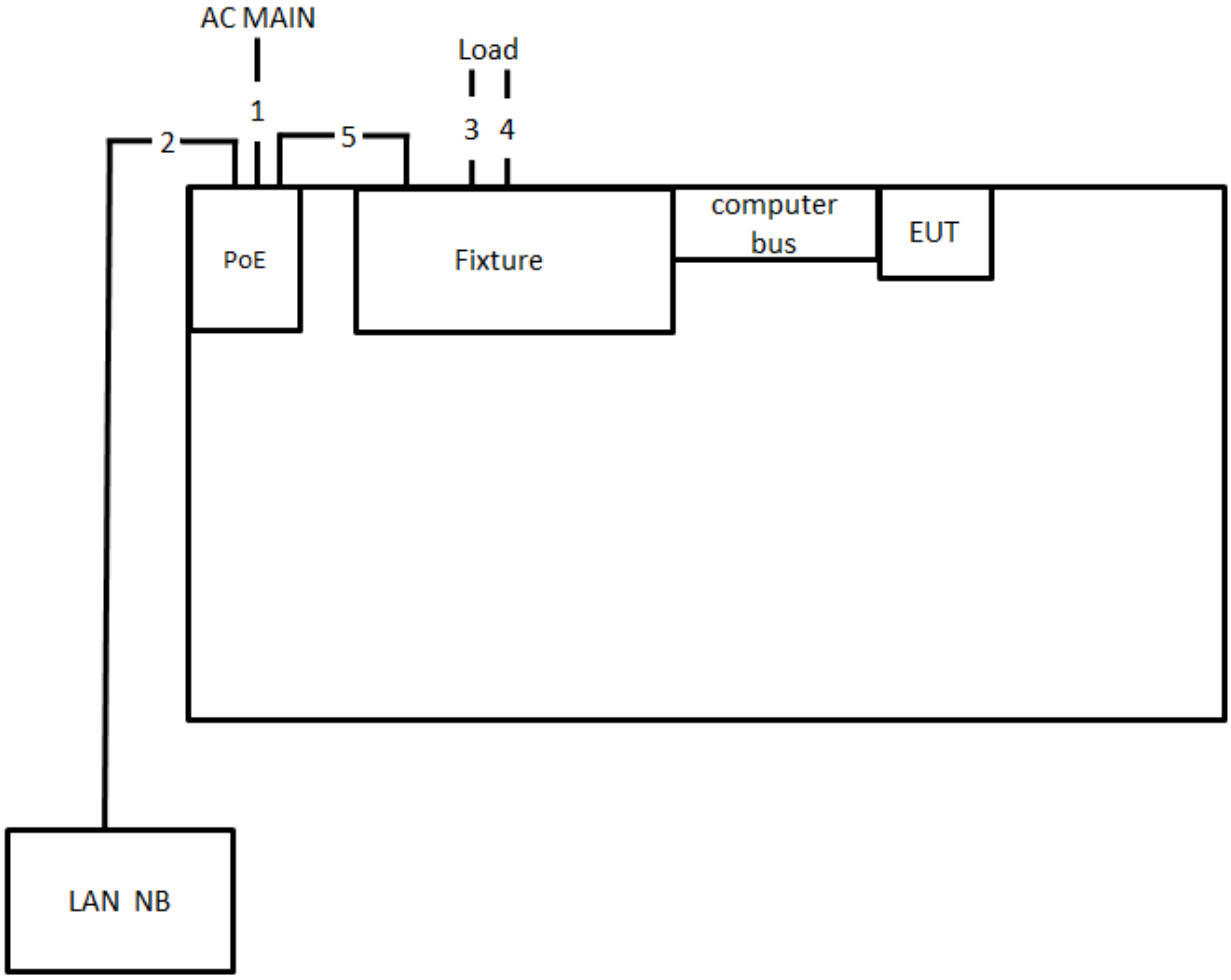
Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss1 VHT20	3.840	4.144	92.66	0.33	0.26
802.11ac MCS0/Nss1 VHT40	4.577	4.899	93.43	0.30	0.22
802.11ac MCS0/Nss1 VHT80	5.086	5.491	92.62	0.33	0.20

Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi, Chain 4: 5.9dBi / 4TX)

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss1 VHT20	3.770	4.140	91.06	0.41	0.27
802.11ac MCS0/Nss1 VHT40	4.566	4.967	91.93	0.37	0.22
802.11ac MCS0/Nss1 VHT80	5.049	5.426	93.06	0.31	0.20

3.11. Test Configurations

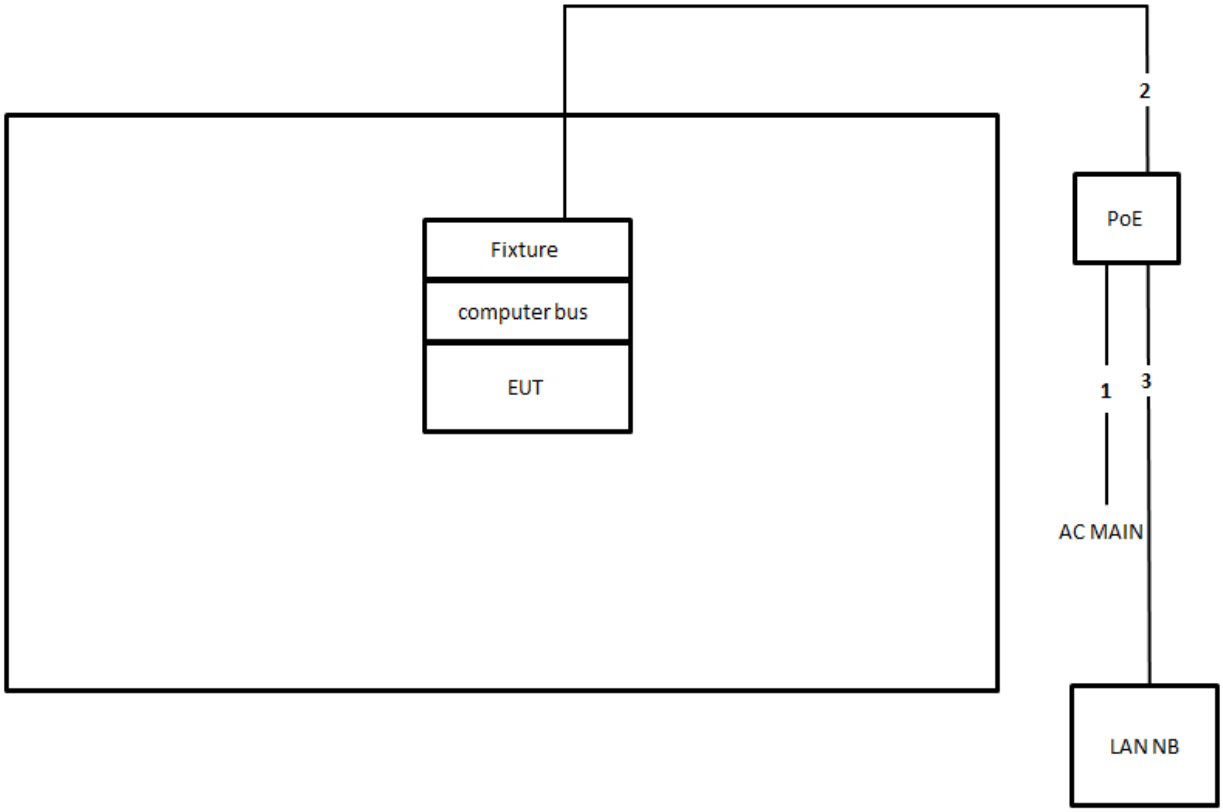
3.11.1. AC Power Line Conduction Emissions Test Configuration



Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	1.5m
4	Console cable	No	1.5m
5	RJ-45 cable	No	1.5m

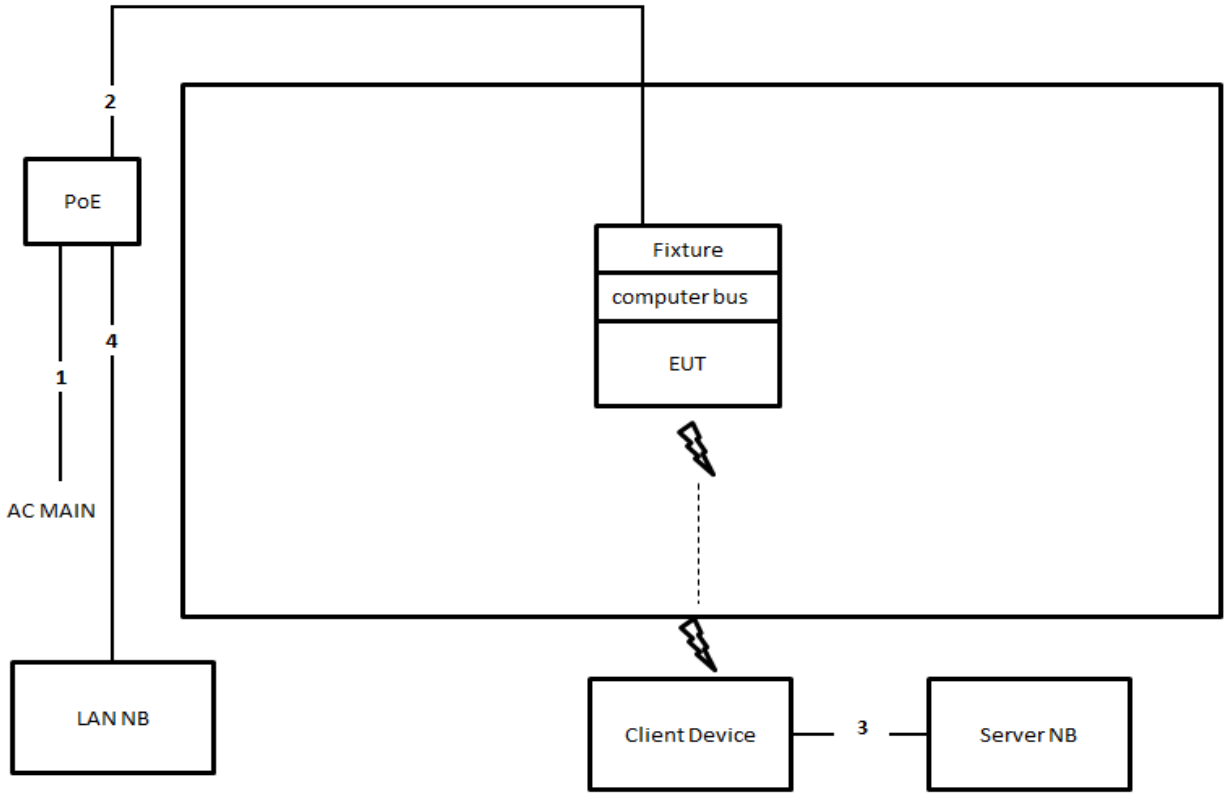
3.11.2. Radiation Emissions Test Configuration

Test Configuration: 30MHz ~1GHz and above 1GHz for non-beamforming mode



Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	1.5m
4	RJ-45 cable	No	1.5m

Test Configuration: above 1GHz for beamforming mode



Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	1.5m

4. TEST RESULT

4.1. AC Power Line Conducted Emissions Measurement

4.1.1. Limit

For this product that is designed to connect to the AC power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed below limits table.

Frequency (MHz)	QP Limit (dBuV)	AV Limit (dBuV)
0.15~0.5	66~56	56~46
0.5~5	56	46
5~30	60	50

4.1.2. Measuring Instruments and Setting

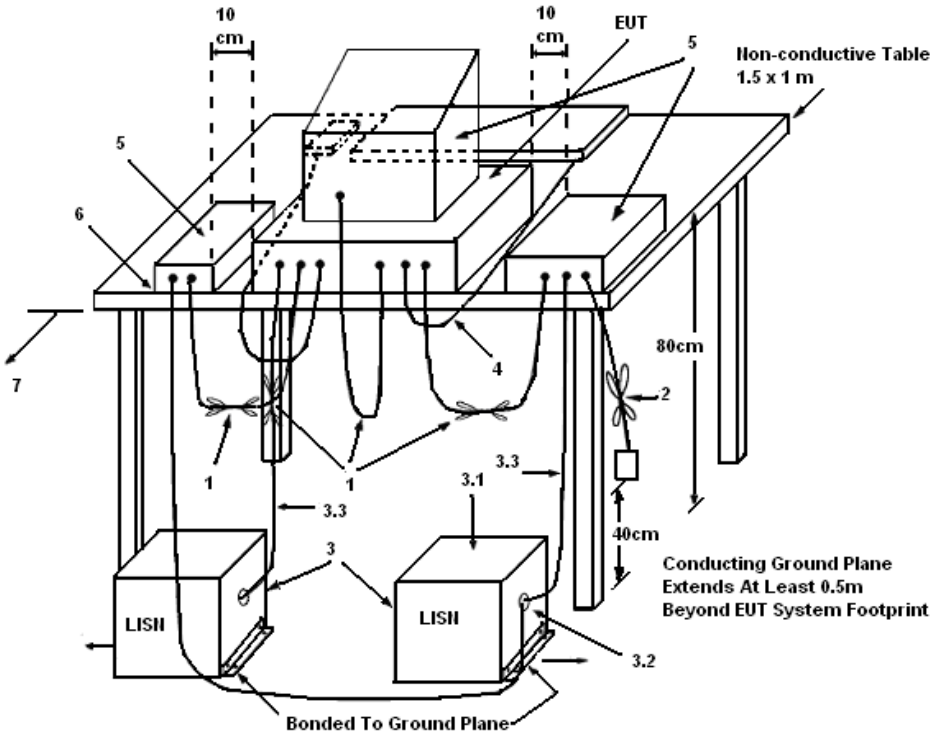
Please refer to section 5 of equipments list in this report. The following table is the setting of the receiver.

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

4.1.3. Test Procedures

1. Configure the EUT according to ANSI C63.10. The EUT or host of EUT has to be placed 0.4 meter far from the conducting wall of the shielding room and at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT or host of EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connected to the other LISNs. The LISN should provide 50uH/50ohms coupling impedance.
4. The frequency range from 150 kHz to 30 MHz was searched.
5. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. The measurement has to be done between each power line and ground at the power terminal.

4.1.4. Test Setup Layout



LEGEND:

(1) Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

(2) I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

(3) EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω. LISN can be placed on top of, or immediately beneath, reference ground plane.

(3.1) All other equipment powered from additional LISN(s).

(3.2) Multiple outlet strip can be used for multiple power cords of non-EUT equipment.

(3.3) LISN at least 80 cm from nearest part of EUT chassis.

(4) Cables of hand-operated devices, such as keyboards, mice, etc., shall be placed as for normal use.

(5) Non-EUT components of EUT system being tested.

(6) Rear of EUT, including peripherals, shall all be aligned and flush with rear of tabletop.

(7) Rear of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.

4.1.5. Test Deviation

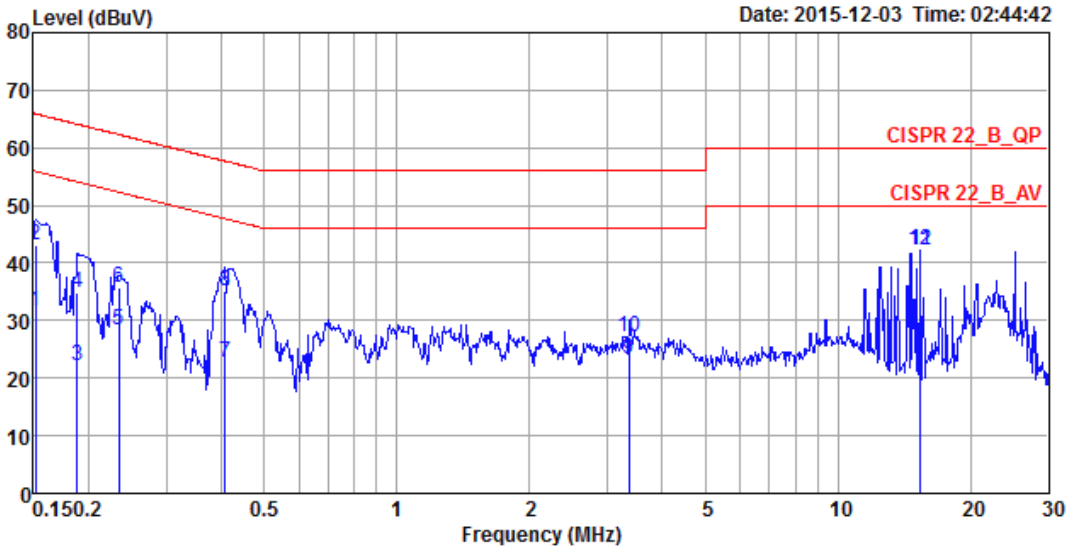
There is no deviation with the original standard.

4.1.6. EUT Operation during Test

The EUT was placed on the test table and programmed in normal function.

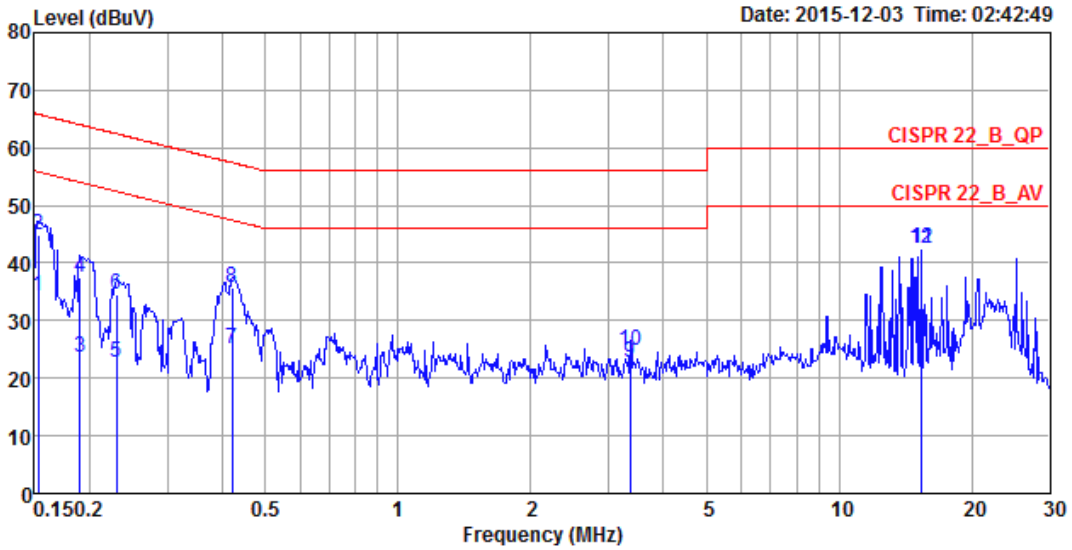
4.1.7. Results of AC Power Line Conducted Emissions Measurement

Temperature	25°C	Humidity	59%
Test Engineer	Da Deng	Phase	Line
Configuration	CTX		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1516	31.65	-24.26	55.91	21.70	9.93	0.02	LINE	Average
2	0.1516	43.23	-22.68	65.91	33.28	9.93	0.02	LINE	QP
3	0.1884	22.23	-31.88	54.11	12.28	9.93	0.02	LINE	Average
4	0.1884	34.97	-29.14	64.11	25.02	9.93	0.02	LINE	QP
5	0.2341	28.26	-24.04	52.30	18.30	9.93	0.03	LINE	Average
6	0.2341	35.70	-26.60	62.30	25.74	9.93	0.03	LINE	QP
7	0.4083	22.84	-24.84	47.68	12.87	9.93	0.04	LINE	Average
8	0.4083	35.19	-22.49	57.68	25.22	9.93	0.04	LINE	QP
9	3.3635	23.38	-22.62	46.00	13.31	10.01	0.06	LINE	Average
10	3.3635	27.11	-28.89	56.00	17.04	10.01	0.06	LINE	QP
11	15.3883	42.15	-7.85	50.00	31.55	10.34	0.26	LINE	Average
12	15.3883	42.28	-17.72	60.00	31.68	10.34	0.26	LINE	QP

Temperature	25°C	Humidity	59%
Test Engineer	Da Deng	Phase	Neutral
Configuration	CTX		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1532	34.25	-21.57	55.82	24.45	9.78	0.02	NEUTRAL	Average
2	0.1532	44.80	-21.02	65.82	35.00	9.78	0.02	NEUTRAL	QP
3	0.1904	23.70	-30.32	54.02	13.89	9.79	0.02	NEUTRAL	Average
4	0.1904	37.39	-26.63	64.02	27.58	9.79	0.02	NEUTRAL	QP
5	0.2304	22.63	-29.81	52.44	12.81	9.79	0.03	NEUTRAL	Average
6	0.2304	34.40	-28.04	62.44	24.58	9.79	0.03	NEUTRAL	QP
7	0.4215	25.18	-22.24	47.42	15.35	9.79	0.04	NEUTRAL	Average
8	0.4215	35.73	-21.69	57.42	25.90	9.79	0.04	NEUTRAL	QP
9	3.3635	22.73	-23.27	46.00	12.81	9.86	0.06	NEUTRAL	Average
10	3.3635	24.72	-31.28	56.00	14.80	9.86	0.06	NEUTRAL	QP
11	15.3883	42.49	-7.51	50.00	32.11	10.12	0.26	NEUTRAL	Average
12	15.3883	42.57	-17.43	60.00	32.19	10.12	0.26	NEUTRAL	QP

Note:

Level = Read Level + LISN Factor + Cable Loss.

4.2. 26dB Bandwidth and 99% Occupied Bandwidth Measurement

4.2.1. Limit

No restriction limits.

4.2.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

26dB Bandwidth	
Spectrum Parameters	**Setting**
Attenuation	Auto
Span Frequency	> 26dB Bandwidth
RBW	Approximately 1% of the emission bandwidth
VBW	VBW > RBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto
99% Occupied Bandwidth	
Spectrum Parameters	**Setting**
Span	1.5 times to 5.0 times the OBW
RBW	1 % to 5 % of the OBW
VBW	≥ 3 x RBW
Detector	Peak
Trace	Max Hold

4.2.3. Test Procedures

For Radiated 26dB Bandwidth and 99% Occupied Bandwidth Measurement:

1. The transmitter was radiated to the spectrum analyzer in peak hold mode.
2. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

4.2.4. Test Setup Layout

For Radiated 26dB Bandwidth and 99% Occupied Bandwidth Measurement:

This test setup layout is the same as that shown in section 4.6.4.

4.2.5. Test Deviation

There is no deviation with the original standard.

4.2.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.2.7. Test Result of 26dB Bandwidth and 99% Occupied Bandwidth

For Non-Beamforming Mode

Temperature	25℃	Humidity	46%
Test Engineer	Eddie Weng		
Test Mode	Mode 1 (Set 1 Dipole antenna / 3.96dBi / 1TX)		

For indoor / outdoor use

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	21.74	17.28
	5200 MHz	21.65	17.11
	5240 MHz	21.74	17.11
	5745 MHz	21.74	17.28
	5785 MHz	33.13	17.80
	5825 MHz	26.26	17.54
802.11ac MCS0/Nss1 VHT20	5180 MHz	22.00	18.23
	5200 MHz	21.91	18.23
	5240 MHz	22.00	18.23
	5745 MHz	22.00	18.32
	5785 MHz	22.26	18.41
	5825 MHz	24.70	18.58
802.11ac MCS0/Nss1 VHT40	5190 MHz	41.01	37.19
	5230 MHz	41.01	36.90
	5755 MHz	41.30	37.05
	5795 MHz	87.39	37.34
802.11ac MCS0/Nss1 VHT80	5210 MHz	82.61	75.83
	5775 MHz	82.32	75.83

Temperature	25℃	Humidity	46%
Test Engineer	Eddie Weng		
Test Mode	Mode 1 (Set 1 Dipole antenna / 3.96dBi / 2TX)		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	21.22	16.93
	5200 MHz	21.30	16.76
	5240 MHz	21.22	17.11
	5745 MHz	21.39	17.19
	5785 MHz	26.70	17.54
	5825 MHz	35.48	18.41
802.11ac MCS0/Nss1 VHT20	5180 MHz	21.30	17.97
	5200 MHz	21.39	17.89
	5240 MHz	21.57	17.97
	5745 MHz	21.57	18.15
	5785 MHz	23.04	18.15
	5825 MHz	25.65	18.41
802.11ac MCS0/Nss1 VHT40	5190 MHz	41.01	36.90
	5230 MHz	40.72	36.76
	5755 MHz	40.73	36.76
	5795 MHz	80.43	37.34
802.11ac MCS0/Nss1 VHT80	5210 MHz	81.74	76.12
	5775 MHz	81.74	76.12

Temperature	25℃	Humidity	46%
Test Engineer	Eddie Weng		
Test Mode	Mode 1 (Set 1 Dipole antenna / 3.96dBi / 3TX)		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	20.87	17.02
	5200 MHz	21.22	17.11
	5240 MHz	21.22	17.02
	5745 MHz	21.04	17.11
	5785 MHz	25.30	17.28
	5825 MHz	21.13	17.28
802.11ac MCS0/Nss1 VHT20	5180 MHz	21.30	17.97
	5200 MHz	21.48	17.97
	5240 MHz	21.48	17.97
	5745 MHz	21.48	17.89
	5785 MHz	25.39	18.23
	5825 MHz	22.78	18.15
802.11ac MCS0/Nss1 VHT40	5190 MHz	40.87	37.19
	5230 MHz	41.01	37.05
	5755 MHz	40.58	36.90
	5795 MHz	40.87	37.34
802.11ac MCS0/Nss1 VHT80	5210 MHz	81.74	76.41
	5775 MHz	81.74	76.41

Temperature	25℃	Humidity	46%
Test Engineer	Eddie Weng		
Test Mode	Mode 1 (Set 1 Dipole antenna / 3.96dBi / 4TX)		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	20.52	17.19
	5200 MHz	20.87	17.28
	5240 MHz	20.43	17.37
	5745 MHz	20.78	16.67
	5785 MHz	24.00	17.37
	5825 MHz	20.43	16.24
802.11ac MCS0/Nss1 VHT20	5180 MHz	21.48	17.80
	5200 MHz	21.48	17.80
	5240 MHz	21.57	17.89
	5745 MHz	21.13	17.63
	5785 MHz	22.70	17.63
	5825 MHz	22.61	18.06
802.11ac MCS0/Nss1 VHT40	5190 MHz	40.58	36.61
	5230 MHz	40.00	36.76
	5755 MHz	40.73	36.90
	5795 MHz	47.10	37.05
802.11ac MCS0/Nss1 VHT80	5210 MHz	81.45	75.83
	5775 MHz	81.74	76.41

Temperature	25℃	Humidity	46%
Test Engineer	Eddie Weng		
Test Mode	Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*1 / 1TX)		

For indoor / outdoor use

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	21.74	17.28
	5200 MHz	21.65	17.11
	5240 MHz	21.74	17.11
	5745 MHz	21.83	17.37
	5785 MHz	33.13	17.80
	5825 MHz	28.87	17.45
802.11ac MCS0/Nss1 VHT20	5180 MHz	22.00	18.23
	5200 MHz	21.91	18.23
	5240 MHz	22.00	18.23
	5745 MHz	22.17	18.41
	5785 MHz	22.26	18.41
	5825 MHz	22.52	18.58
802.11ac MCS0/Nss1 VHT40	5190 MHz	41.01	37.19
	5230 MHz	41.01	36.90
	5755 MHz	41.16	37.05
	5795 MHz	87.39	37.34
802.11ac MCS0/Nss1 VHT80	5210 MHz	81.74	75.83
	5775 MHz	82.32	76.12

Temperature	25℃	Humidity	46%
Test Engineer	Eddie Weng		
Test Mode	Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*1, (2B)1.66dBi*1 / 2TX)		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	21.22	16.93
	5200 MHz	21.30	16.76
	5240 MHz	21.22	17.11
	5745 MHz	21.48	17.11
	5785 MHz	26.70	17.54
	5825 MHz	35.48	18.41
802.11ac MCS0/Nss1 VHT20	5180 MHz	21.30	17.97
	5200 MHz	21.39	17.89
	5240 MHz	21.57	17.97
	5745 MHz	21.57	18.06
	5785 MHz	23.04	18.15
	5825 MHz	35.39	18.84
802.11ac MCS0/Nss1 VHT40	5190 MHz	40.87	36.90
	5230 MHz	40.73	36.76
	5755 MHz	40.87	36.76
	5795 MHz	80.44	37.34
802.11ac MCS0/Nss1 VHT80	5210 MHz	81.74	76.12
	5775 MHz	81.74	76.12

Temperature	25℃	Humidity	46%
Test Engineer	Eddie Weng		
Test Mode	Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*1 / 3TX)		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	20.87	17.02
	5200 MHz	21.22	17.11
	5240 MHz	21.22	17.02
	5745 MHz	21.13	17.19
	5785 MHz	25.30	17.28
	5825 MHz	35.87	17.89
802.11ac MCS0/Nss1 VHT20	5180 MHz	21.30	17.97
	5200 MHz	21.48	17.97
	5240 MHz	21.48	17.97
	5745 MHz	21.57	18.06
	5785 MHz	25.39	18.23
	5825 MHz	25.48	18.32
802.11ac MCS0/Nss1 VHT40	5190 MHz	40.58	37.05
	5230 MHz	41.01	37.05
	5755 MHz	40.58	36.90
	5795 MHz	57.10	37.34
802.11ac MCS0/Nss1 VHT80	5210 MHz	82.03	76.41
	5775 MHz	82.03	76.41

Temperature	25℃	Humidity	46%
Test Engineer	Eddie Weng		
Test Mode	Mode 2 (Set 5 Polarized Dipole antenna / (2A)3.96dBi*2, (2B)1.66dBi*2 / 4TX)		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	20.52	17.19
	5200 MHz	20.70	17.28
	5240 MHz	20.43	17.11
	5745 MHz	20.96	17.02
	5785 MHz	24.00	17.37
	5825 MHz	25.04	17.28
802.11ac MCS0/Nss1 VHT20	5180 MHz	20.96	17.89
	5200 MHz	21.04	17.80
	5240 MHz	21.30	17.54
	5745 MHz	21.22	17.54
	5785 MHz	22.70	17.63
	5825 MHz	22.70	18.15
802.11ac MCS0/Nss1 VHT40	5190 MHz	40.58	36.61
	5230 MHz	40.00	36.76
	5755 MHz	40.58	36.90
	5795 MHz	40.87	36.90
802.11ac MCS0/Nss1 VHT80	5210 MHz	81.45	76.12
	5775 MHz	81.74	76.41

Temperature	25°C	Humidity	46%
Test Engineer	Eddie Weng		
Test Mode	Mode 3 (Set 6 Panel antenna / 2.66dBi / 1TX)		

For indoor / outdoor use

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	21.74	17.28
	5200 MHz	21.65	17.11
	5240 MHz	21.74	17.11
	5745 MHz	21.74	17.19
	5785 MHz	33.13	17.80
	5825 MHz	28.87	17.45
802.11ac MCS0/Nss1 VHT20	5180 MHz	22.00	18.23
	5200 MHz	21.91	18.23
	5240 MHz	22.00	18.23
	5745 MHz	22.00	18.23
	5785 MHz	22.26	18.41
	5825 MHz	21.83	18.15
802.11ac MCS0/Nss1 VHT40	5190 MHz	41.16	36.76
	5230 MHz	41.01	36.90
	5755 MHz	40.87	36.90
	5795 MHz	41.16	36.90
802.11ac MCS0/Nss1 VHT80	5210 MHz	81.74	75.54
	5775 MHz	82.32	75.83

Temperature	25℃	Humidity	46%
Test Engineer	Eddie Weng		
Test Mode	Mode 3 (Set 6 Panel antenna / 2.66dBi / 2TX)		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	21.22	16.93
	5200 MHz	21.30	16.76
	5240 MHz	21.22	17.11
	5745 MHz	21.13	17.02
	5785 MHz	26.70	17.54
	5825 MHz	21.65	17.28
802.11ac MCS0/Nss1 VHT20	5180 MHz	21.30	17.97
	5200 MHz	21.39	17.89
	5240 MHz	21.57	17.97
	5745 MHz	21.39	17.97
	5785 MHz	23.04	18.15
	5825 MHz	21.48	17.97
802.11ac MCS0/Nss1 VHT40	5190 MHz	41.16	36.76
	5230 MHz	40.72	36.76
	5755 MHz	40.72	36.76
	5795 MHz	41.01	36.90
802.11ac MCS0/Nss1 VHT80	5210 MHz	81.74	76.12
	5775 MHz	81.45	76.12

Temperature	25℃	Humidity	46%
Test Engineer	Eddie Weng		
Test Mode	Mode 3 (Set 6 Panel antenna / 2.66dBi / 3TX)		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	20.87	17.02
	5200 MHz	21.22	17.11
	5240 MHz	21.22	17.02
	5745 MHz	20.87	17.11
	5785 MHz	25.30	17.28
	5825 MHz	21.04	17.19
802.11ac MCS0/Nss1 VHT20	5180 MHz	21.30	17.97
	5200 MHz	21.48	17.97
	5240 MHz	21.48	17.97
	5745 MHz	21.48	17.89
	5785 MHz	25.39	18.23
	5825 MHz	21.30	18.06
802.11ac MCS0/Nss1 VHT40	5190 MHz	40.58	37.05
	5230 MHz	41.01	37.05
	5755 MHz	40.58	36.90
	5795 MHz	40.72	37.19
802.11ac MCS0/Nss1 VHT80	5210 MHz	80.87	76.41
	5775 MHz	81.45	76.12

Temperature	25℃	Humidity	46%
Test Engineer	Eddie Weng		
Test Mode	Mode 3 (Set 6 Panel antenna / 2.66dBi / 4TX)		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	20.52	17.19
	5200 MHz	20.70	17.28
	5240 MHz	20.43	17.11
	5745 MHz	19.57	16.06
	5785 MHz	24.00	17.37
	5825 MHz	20.43	16.24
802.11ac MCS0/Nss1 VHT20	5180 MHz	20.96	17.89
	5200 MHz	21.04	17.80
	5240 MHz	21.30	17.54
	5745 MHz	21.04	17.19
	5785 MHz	22.70	17.63
	5825 MHz	21.22	17.63
802.11ac MCS0/Nss1 VHT40	5190 MHz	40.29	36.47
	5230 MHz	40.00	36.76
	5755 MHz	40.43	36.90
	5795 MHz	40.58	36.76
802.11ac MCS0/Nss1 VHT80	5210 MHz	80.87	75.54
	5775 MHz	81.16	76.41

Temperature	25℃	Humidity	46%
Test Engineer	Eddie Weng		
Test Mode	Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 1TX)		

For indoor / outdoor use

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	21.74	17.28
	5200 MHz	21.65	17.11
	5240 MHz	21.74	17.11
	5745 MHz	21.83	17.37
	5785 MHz	33.13	17.80
	5825 MHz	28.87	17.45
802.11ac MCS0/Nss1 VHT20	5180 MHz	22.00	18.23
	5200 MHz	21.91	18.23
	5240 MHz	22.00	18.23
	5745 MHz	22.00	18.41
	5785 MHz	22.26	18.41
	5825 MHz	22.52	18.58
802.11ac MCS0/Nss1 VHT40	5190 MHz	41.01	37.19
	5230 MHz	41.01	36.90
	5755 MHz	41.16	37.05
	5795 MHz	87.39	37.34
802.11ac MCS0/Nss1 VHT80	5210 MHz	82.61	75.83
	5775 MHz	82.03	75.83

Temperature	25℃	Humidity	46%
Test Engineer	Eddie Weng		
Test Mode	Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 2TX)		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	21.22	16.93
	5200 MHz	21.30	16.76
	5240 MHz	21.22	17.11
	5745 MHz	21.48	17.11
	5785 MHz	26.70	17.54
	5825 MHz	35.48	18.41
802.11ac MCS0/Nss1 VHT20	5180 MHz	21.30	17.97
	5200 MHz	21.39	17.89
	5240 MHz	21.57	17.97
	5745 MHz	21.74	18.06
	5785 MHz	23.04	18.15
	5825 MHz	24.78	18.41
802.11ac MCS0/Nss1 VHT40	5190 MHz	40.87	36.76
	5230 MHz	40.72	36.76
	5755 MHz	40.72	36.76
	5795 MHz	41.16	36.90
802.11ac MCS0/Nss1 VHT80	5210 MHz	82.03	76.12
	5775 MHz	81.74	76.12

Temperature	25℃	Humidity	46%
Test Engineer	Eddie Weng		
Test Mode	Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 3TX)		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	20.87	17.02
	5200 MHz	21.22	17.11
	5240 MHz	21.22	17.02
	5745 MHz	21.04	16.85
	5785 MHz	25.30	17.28
	5825 MHz	32.87	17.89
802.11ac MCS0/Nss1 VHT20	5180 MHz	21.30	17.97
	5200 MHz	21.48	17.97
	5240 MHz	21.48	17.97
	5745 MHz	21.74	17.97
	5785 MHz	25.39	18.23
	5825 MHz	21.30	18.06
802.11ac MCS0/Nss1 VHT40	5190 MHz	40.87	37.05
	5230 MHz	41.01	37.05
	5755 MHz	40.58	36.90
	5795 MHz	40.87	37.34
802.11ac MCS0/Nss1 VHT80	5210 MHz	82.03	76.41
	5775 MHz	82.03	76.12

Temperature	25℃	Humidity	46%
Test Engineer	Eddie Weng		
Test Mode	Mode 4 (Set 7 Polarized Panel antenna / 3.89dBi / 4TX)		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	20.52	17.19
	5200 MHz	20.70	17.28
	5240 MHz	20.43	17.11
	5745 MHz	20.35	16.15
	5785 MHz	24.00	17.37
	5825 MHz	25.04	17.28
802.11ac MCS0/Nss1 VHT20	5180 MHz	20.96	17.89
	5200 MHz	21.04	17.80
	5240 MHz	21.30	17.54
	5745 MHz	21.39	17.63
	5785 MHz	22.70	17.63
	5825 MHz	21.22	17.71
802.11ac MCS0/Nss1 VHT40	5190 MHz	40.58	36.61
	5230 MHz	40.00	36.76
	5755 MHz	40.72	36.90
	5795 MHz	64.78	37.05
802.11ac MCS0/Nss1 VHT80	5210 MHz	81.16	76.12
	5775 MHz	81.45	76.41

Temperature	25℃	Humidity	46%
Test Engineer	Eddie Weng		
Test Mode	Mode 5 (Set 8 Patch antenna / 3.26dBi / 1TX)		

For indoor use

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	21.74	17.28
	5200 MHz	21.65	17.11
	5240 MHz	21.74	17.11
	5745 MHz	21.74	17.28
	5785 MHz	33.13	17.80
	5825 MHz	28.87	17.45
802.11ac MCS0/Nss1 VHT20	5180 MHz	22.00	18.23
	5200 MHz	21.91	18.23
	5240 MHz	22.00	18.23
	5745 MHz	22.00	18.32
	5785 MHz	22.26	18.41
	5825 MHz	22.52	18.58
802.11ac MCS0/Nss1 VHT40	5190 MHz	41.30	37.05
	5230 MHz	41.01	36.90
	5755 MHz	41.30	37.05
	5795 MHz	87.39	37.34
802.11ac MCS0/Nss1 VHT80	5210 MHz	82.32	75.83
	5775 MHz	82.32	76.12

Temperature	25℃	Humidity	46%
Test Engineer	Eddie Weng		
Test Mode	Mode 5 (Set 8 Patch antenna / 3.26dBi / 2TX)		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	21.22	16.93
	5200 MHz	21.30	16.76
	5240 MHz	21.22	17.11
	5745 MHz	21.13	17.02
	5785 MHz	26.70	17.54
	5825 MHz	35.48	18.41
802.11ac MCS0/Nss1 VHT20	5180 MHz	21.30	17.97
	5200 MHz	21.39	17.89
	5240 MHz	21.57	17.97
	5745 MHz	21.65	17.97
	5785 MHz	23.04	18.15
	5825 MHz	30.61	18.41
802.11ac MCS0/Nss1 VHT40	5190 MHz	41.16	36.76
	5230 MHz	40.72	36.76
	5755 MHz	41.01	36.76
	5795 MHz	41.45	37.19
802.11ac MCS0/Nss1 VHT80	5210 MHz	82.03	76.12
	5775 MHz	81.45	76.12

Temperature	25℃	Humidity	46%
Test Engineer	Eddie Weng		
Test Mode	Mode 5 (Set 8 Patch antenna / 3.26dBi / 3TX)		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	20.87	17.02
	5200 MHz	21.22	17.11
	5240 MHz	21.22	17.02
	5745 MHz	21.22	17.19
	5785 MHz	25.30	17.28
	5825 MHz	32.87	17.89
802.11ac MCS0/Nss1 VHT20	5180 MHz	21.30	17.97
	5200 MHz	21.48	17.97
	5240 MHz	21.48	17.97
	5745 MHz	21.57	18.06
	5785 MHz	25.39	18.23
	5825 MHz	22.78	18.15
802.11ac MCS0/Nss1 VHT40	5190 MHz	40.87	37.05
	5230 MHz	41.01	37.05
	5755 MHz	40.72	37.19
	5795 MHz	41.16	37.19
802.11ac MCS0/Nss1 VHT80	5210 MHz	82.03	76.41
	5775 MHz	81.45	76.70

Temperature	25℃	Humidity	46%
Test Engineer	Eddie Weng		
Test Mode	Mode 5 (Set 8 Patch antenna / 3.26dBi / 4TX)		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	20.52	17.19
	5200 MHz	20.70	17.28
	5240 MHz	20.43	17.11
	5745 MHz	20.43	15.80
	5785 MHz	24.00	17.37
	5825 MHz	23.30	16.58
802.11ac MCS0/Nss1 VHT20	5180 MHz	20.96	17.89
	5200 MHz	21.04	17.80
	5240 MHz	21.30	17.54
	5745 MHz	21.22	17.54
	5785 MHz	22.70	17.63
	5825 MHz	21.13	17.89
802.11ac MCS0/Nss1 VHT40	5190 MHz	40.58	36.61
	5230 MHz	40.00	36.76
	5755 MHz	40.58	36.90
	5795 MHz	40.72	37.05
802.11ac MCS0/Nss1 VHT80	5210 MHz	81.16	75.83
	5775 MHz	81.74	76.41

Temperature	25°C	Humidity	46%
Test Engineer	Lucas Huang		
Test Mode	Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi / 1TX)		

For indoor / outdoor use

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	26.00	17.45
	5200 MHz	22.00	17.19
	5240 MHz	21.57	17.19
	5745 MHz	21.57	17.11
	5785 MHz	31.39	17.71
	5825 MHz	21.65	17.19
802.11ac MCS0/Nss1 VHT20	5180 MHz	22.35	18.32
	5200 MHz	21.83	18.23
	5240 MHz	21.91	18.23
	5745 MHz	22.00	18.23
	5785 MHz	23.39	18.32
	5825 MHz	21.83	18.23
802.11ac MCS0/Nss1 VHT40	5190 MHz	41.16	37.05
	5230 MHz	40.87	36.90
	5755 MHz	41.16	37.05
	5795 MHz	41.45	36.76
802.11ac MCS0/Nss1 VHT80	5210 MHz	82.32	75.83
	5775 MHz	82.03	75.83

Temperature	25℃	Humidity	46%
Test Engineer	Lucas Huang		
Test Mode	Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi / 2TX)		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	21.04	16.67
	5200 MHz	21.39	16.67
	5240 MHz	20.96	16.58
	5745 MHz	21.30	16.76
	5785 MHz	26.70	17.37
	5825 MHz	28.78	17.28
802.11ac MCS0/Nss1 VHT20	5180 MHz	21.48	17.71
	5200 MHz	21.39	17.71
	5240 MHz	21.39	17.80
	5745 MHz	21.39	17.80
	5785 MHz	25.57	18.15
	5825 MHz	21.57	18.06
802.11ac MCS0/Nss1 VHT40	5190 MHz	40.72	36.90
	5230 MHz	40.87	37.05
	5755 MHz	41.01	36.90
	5795 MHz	40.72	36.90
802.11ac MCS0/Nss1 VHT80	5210 MHz	81.45	76.41
	5775 MHz	81.74	76.12

Temperature	25℃	Humidity	46%
Test Engineer	Lucas Huang		
Test Mode	Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi / 3TX)		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	21.48	17.19
	5200 MHz	21.57	17.28
	5240 MHz	21.30	17.11
	5745 MHz	20.96	17.02
	5785 MHz	25.83	17.37
	5825 MHz	21.13	17.37
802.11ac MCS0/Nss1 VHT20	5180 MHz	21.13	17.97
	5200 MHz	21.48	17.89
	5240 MHz	21.30	17.97
	5745 MHz	21.22	17.89
	5785 MHz	30.43	18.15
	5825 MHz	21.30	17.89
802.11ac MCS0/Nss1 VHT40	5190 MHz	40.58	37.19
	5230 MHz	40.58	37.19
	5755 MHz	40.43	37.19
	5795 MHz	40.58	37.34
802.11ac MCS0/Nss1 VHT80	5210 MHz	81.74	76.70
	5775 MHz	81.45	76.41

Temperature	25℃	Humidity	46%
Test Engineer	Lucas Huang		
Test Mode	Mode 6 (Set 9 Monopole antenna / Chain 1: 6.8dBi, Chain 2: 6.7dBi, Chain 3: 6.6dBi, Chain 4: 5.9dBi / 4TX)		

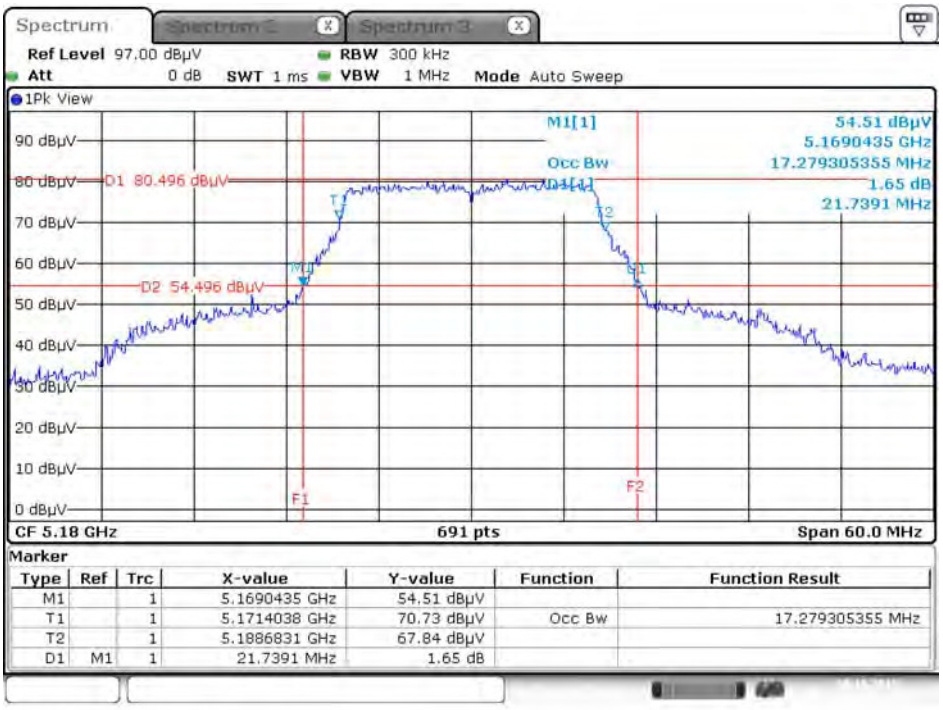
Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180 MHz	20.52	15.72
	5200 MHz	20.78	16.67
	5240 MHz	19.83	16.50
	5745 MHz	20.09	15.20
	5785 MHz	24.26	15.54
	5825 MHz	20.61	15.72
802.11ac MCS0/Nss1 VHT20	5180 MHz	21.13	17.71
	5200 MHz	21.13	17.45
	5240 MHz	21.22	17.45
	5745 MHz	21.22	17.54
	5785 MHz	21.13	17.89
	5825 MHz	20.87	17.71
802.11ac MCS0/Nss1 VHT40	5190 MHz	40.43	36.76
	5230 MHz	40.43	36.76
	5755 MHz	40.29	37.19
	5795 MHz	40.72	37.05
802.11ac MCS0/Nss1 VHT80	5210 MHz	82.03	76.12
	5775 MHz	81.45	76.41

For Non-Beamforming Mode

For indoor / outdoor use

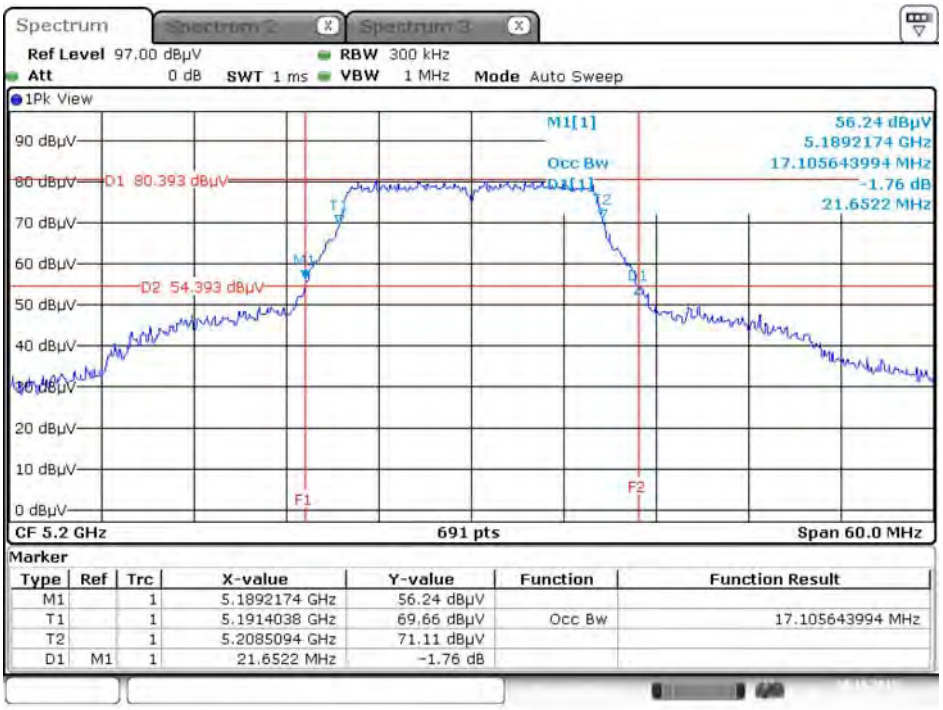
Mode 1 (Set 1 Dipole antenna / 3.96dBi / 1TX)

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 / 5180 MHz



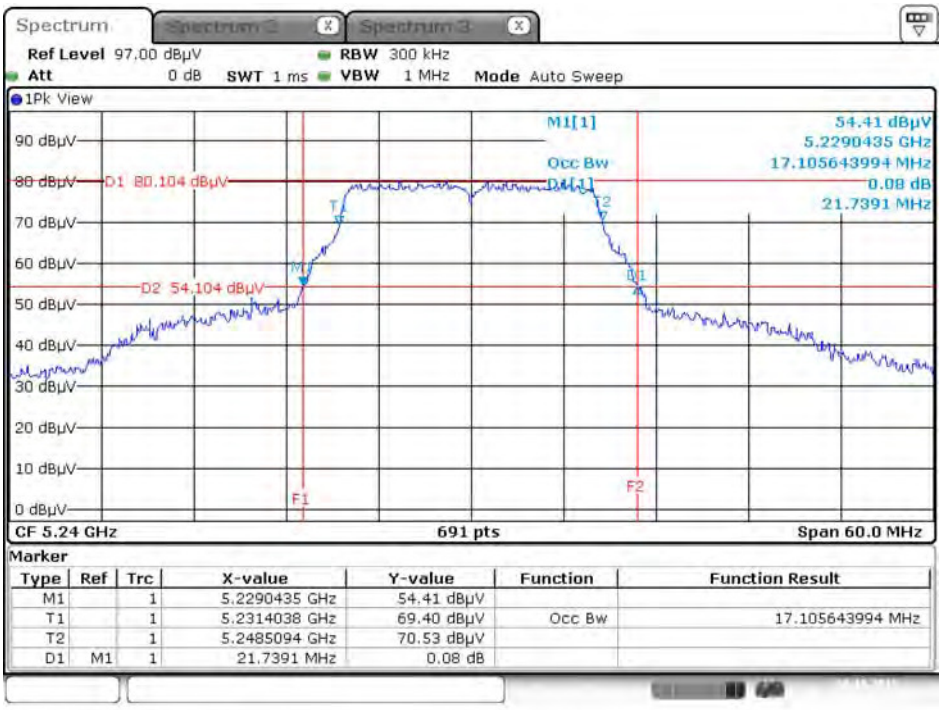
Date: 20.OCT.2015 10:21:30

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 / 5200 MHz



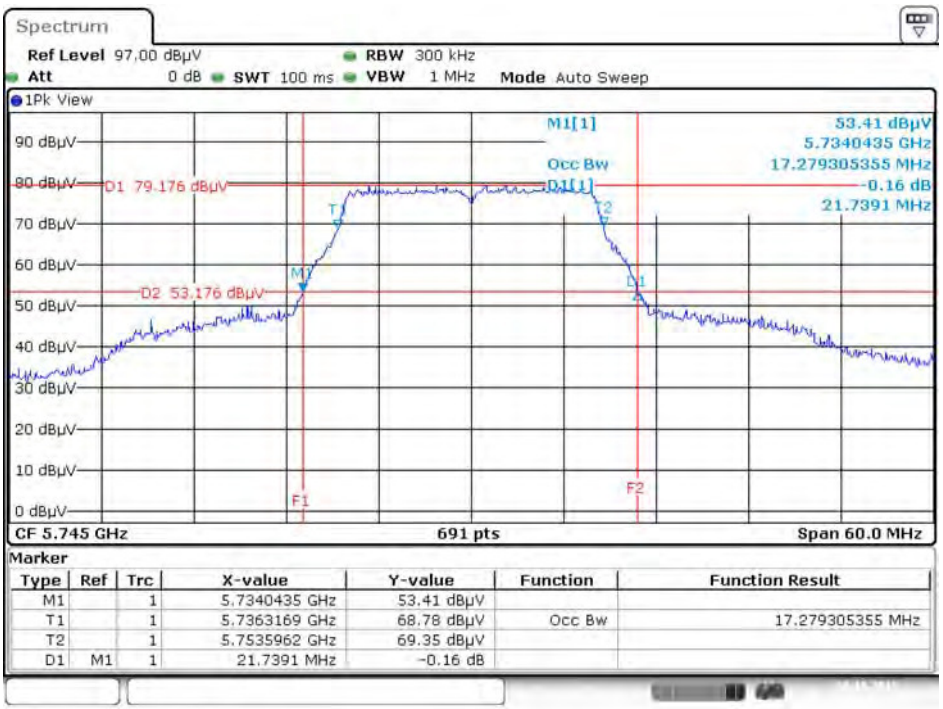
Date: 20.OCT.2015 10:22:19

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 / 5240 MHz



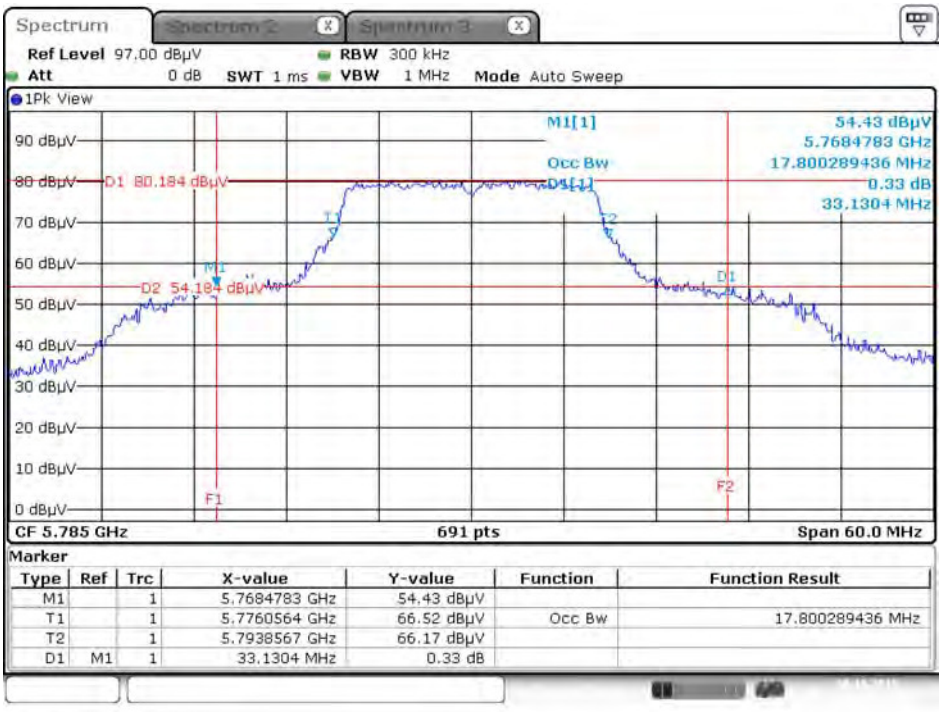
Date: 20.OCT.2015 10:22:58

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 / 5745 MHz



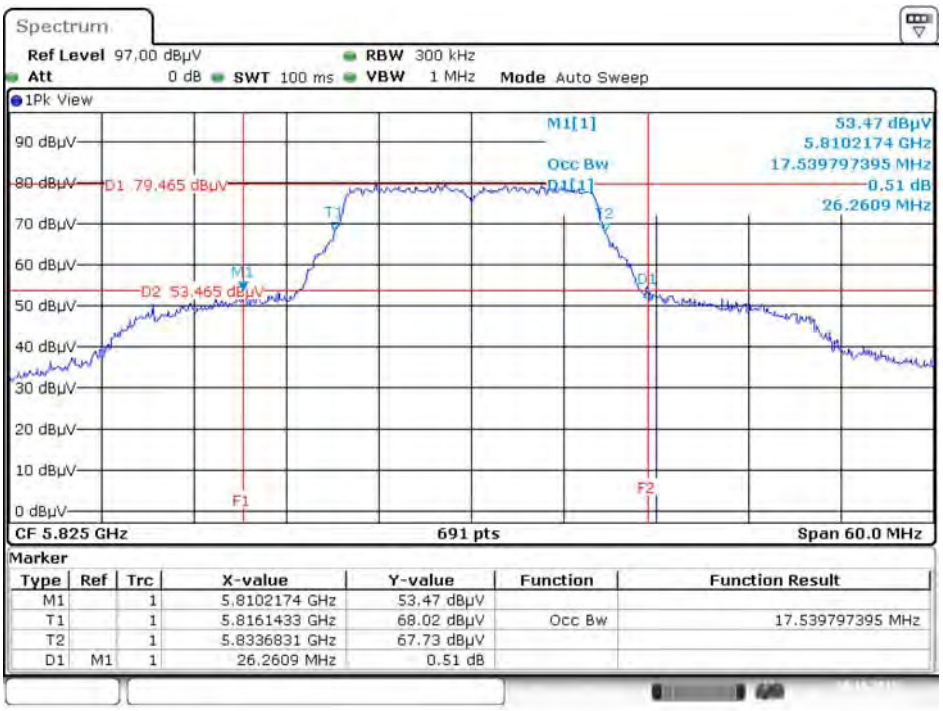
Date: 20.OCT.2015 23:11:37

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 / 5785 MHz



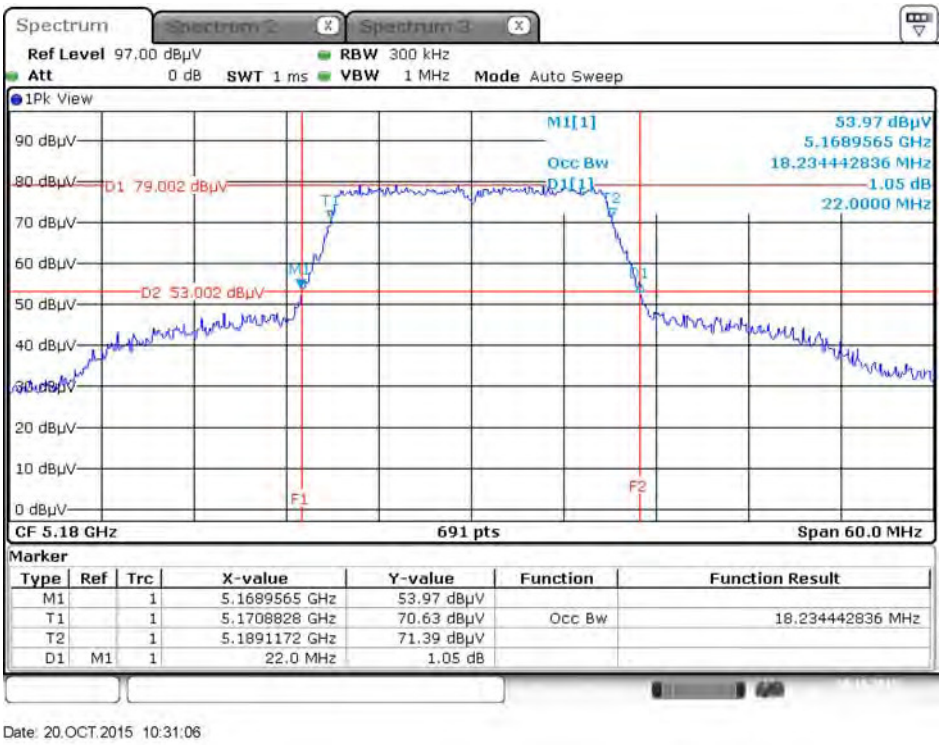
Date: 20.OCT.2015 10:27:03

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 / 5825 MHz



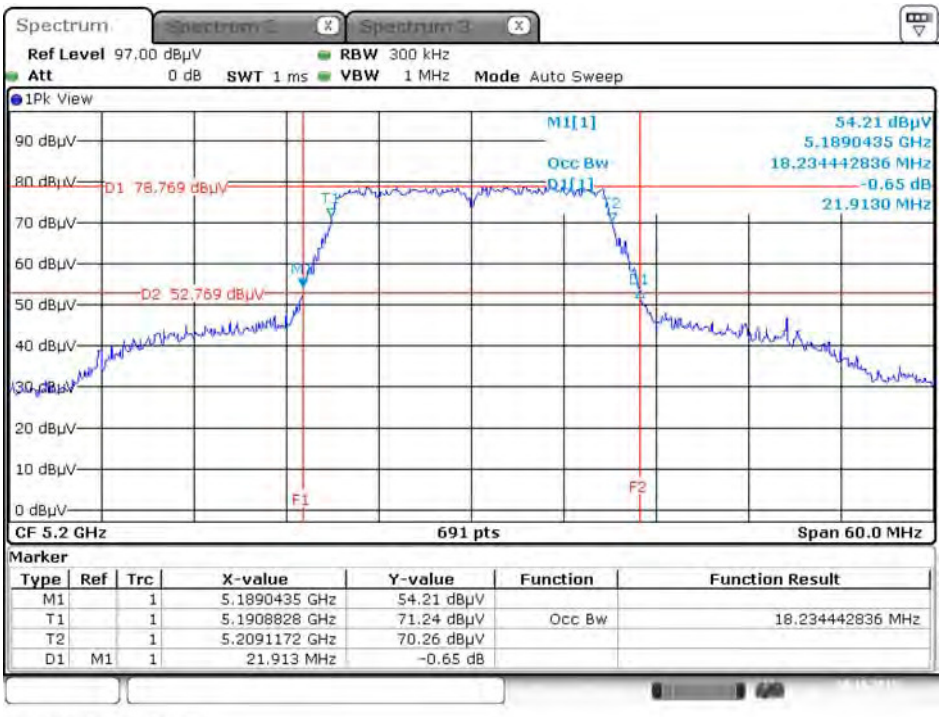
Date: 20.OCT.2015 23:13:57

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 / 5180 MHz



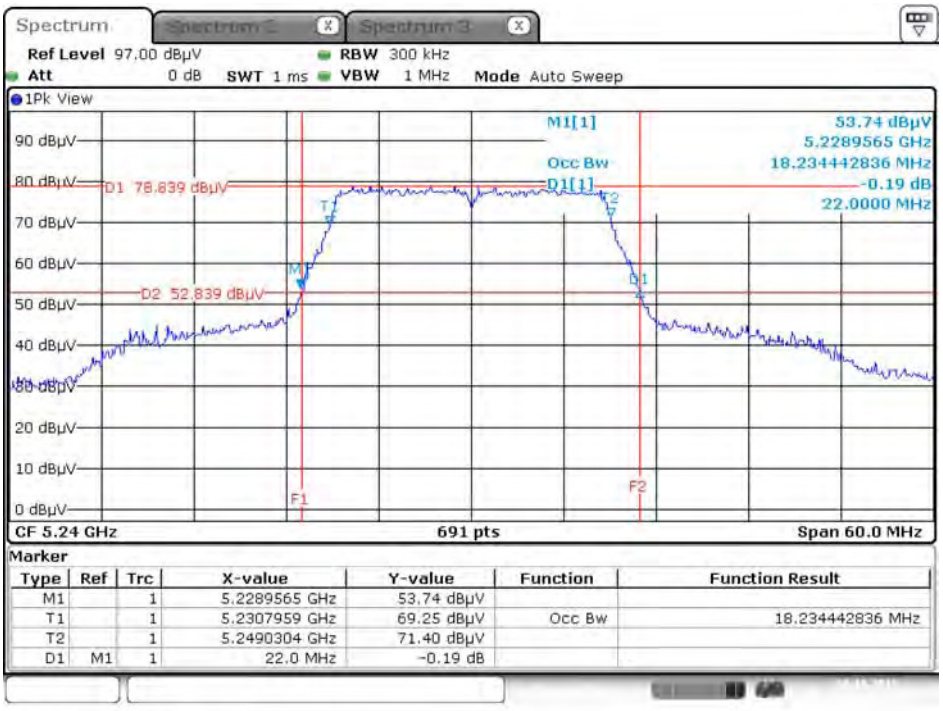
Date: 20.OCT.2015 10:31:06

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 / 5200 MHz



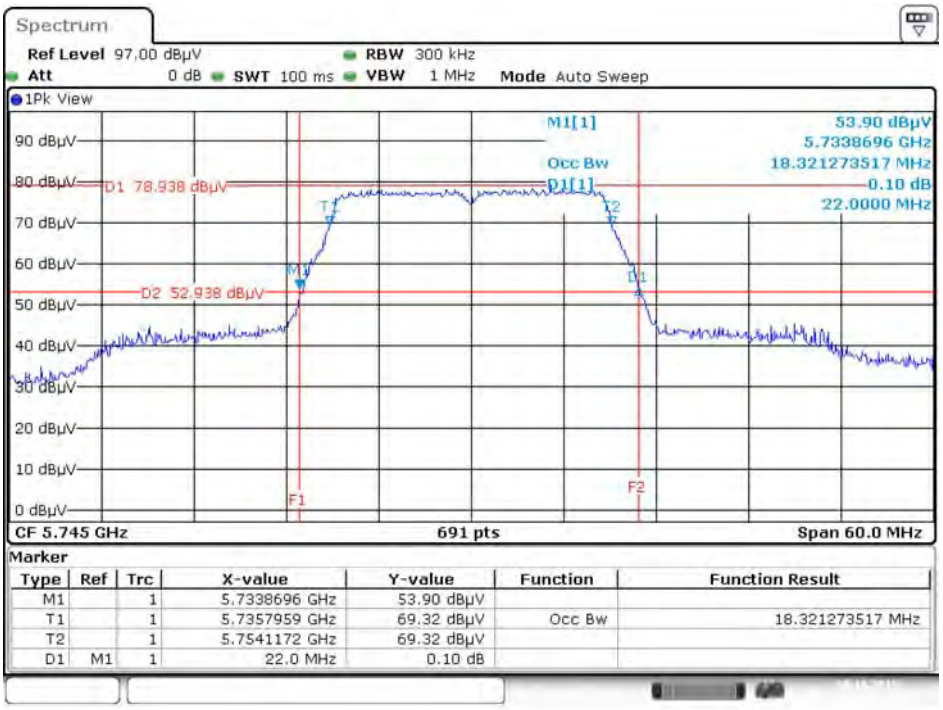
Date: 20.OCT.2015 10:31:50

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 / 5240 MHz



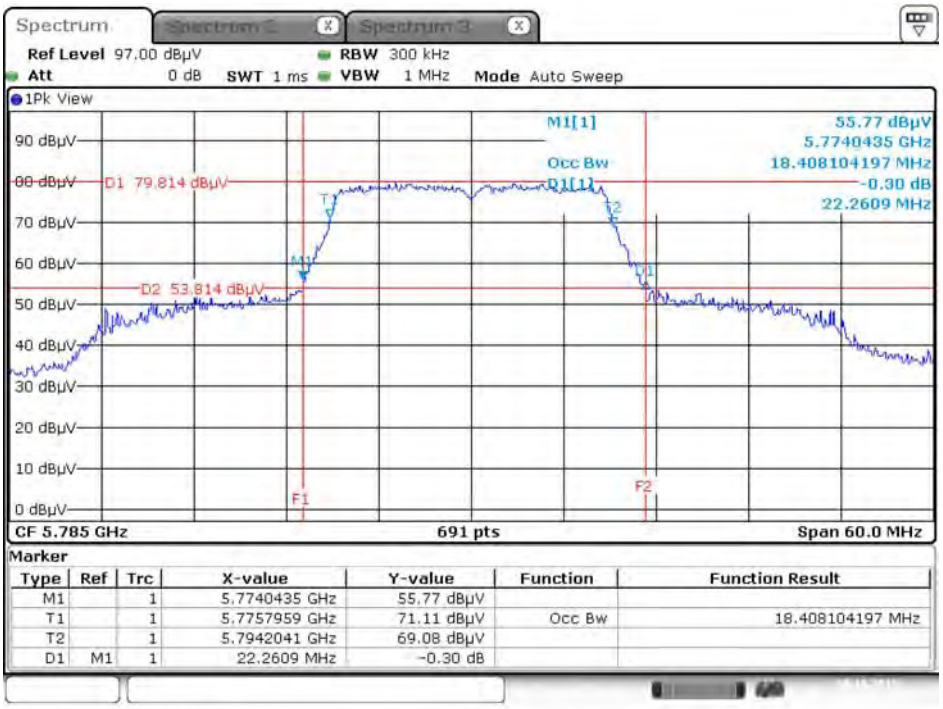
Date: 20.OCT.2015 10:32:28

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 / 5745 MHz



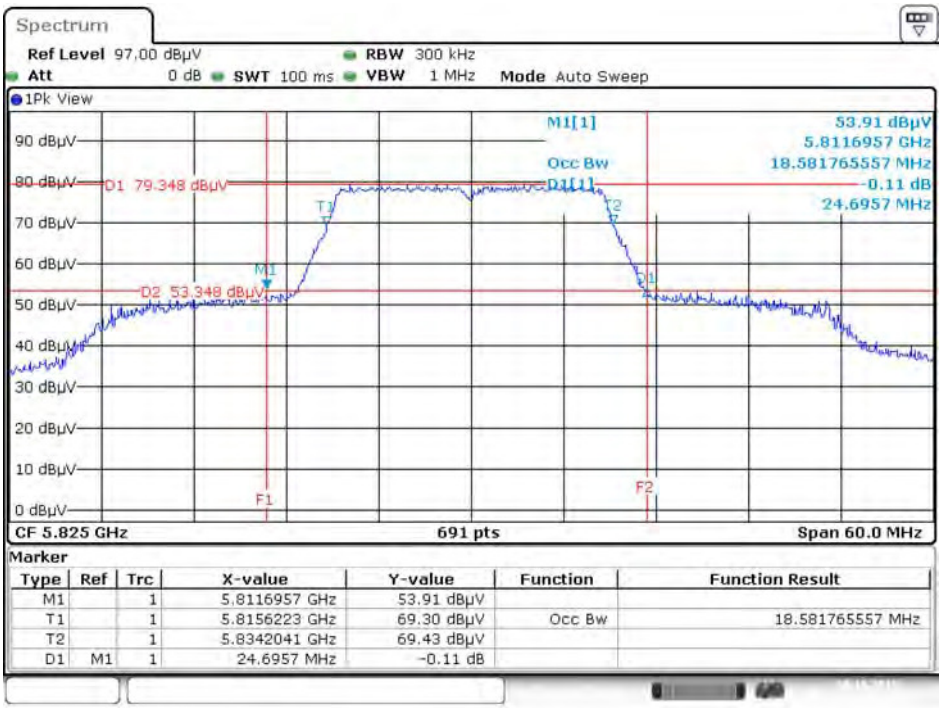
Date: 20.OCT.2015 23:38:58

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 / 5785 MHz



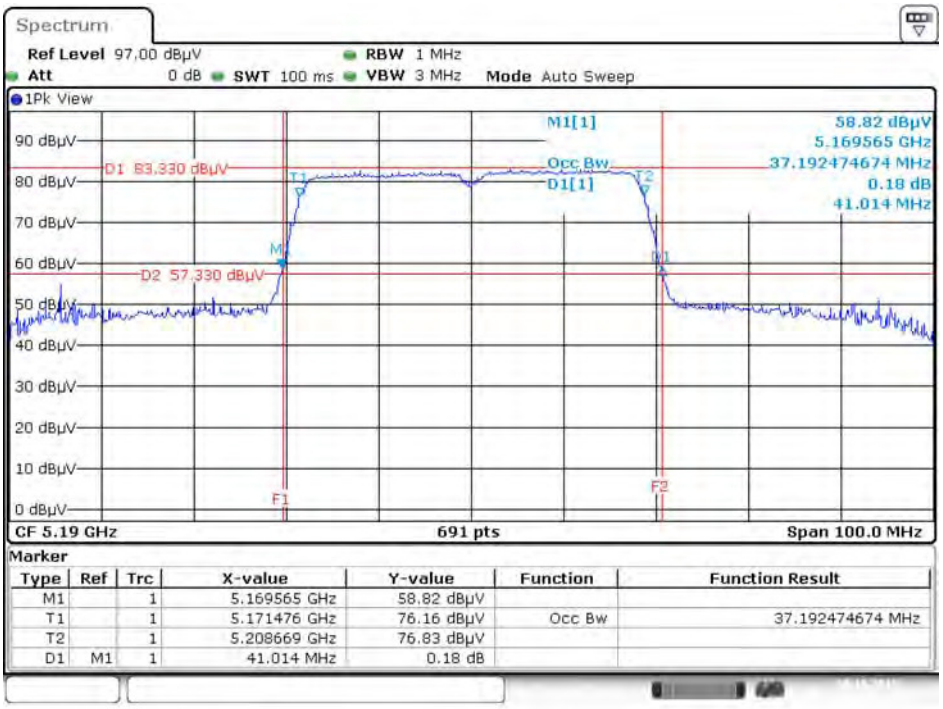
Date: 20.OCT.2015 10:34:45

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 / 5825 MHz



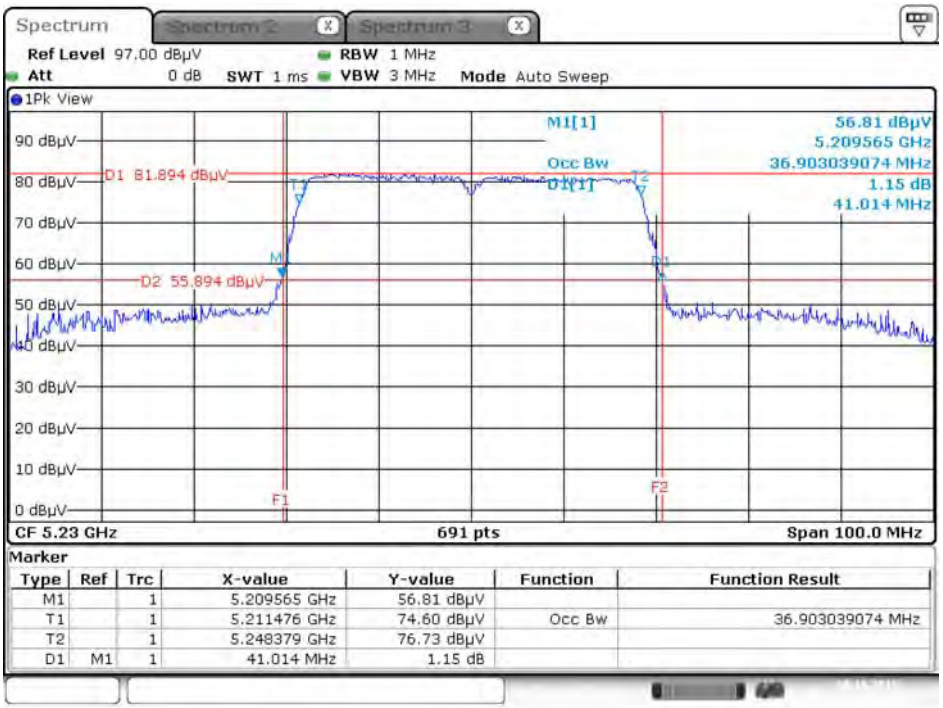
Date: 20.OCT.2015 23:36:28

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 / 5190 MHz



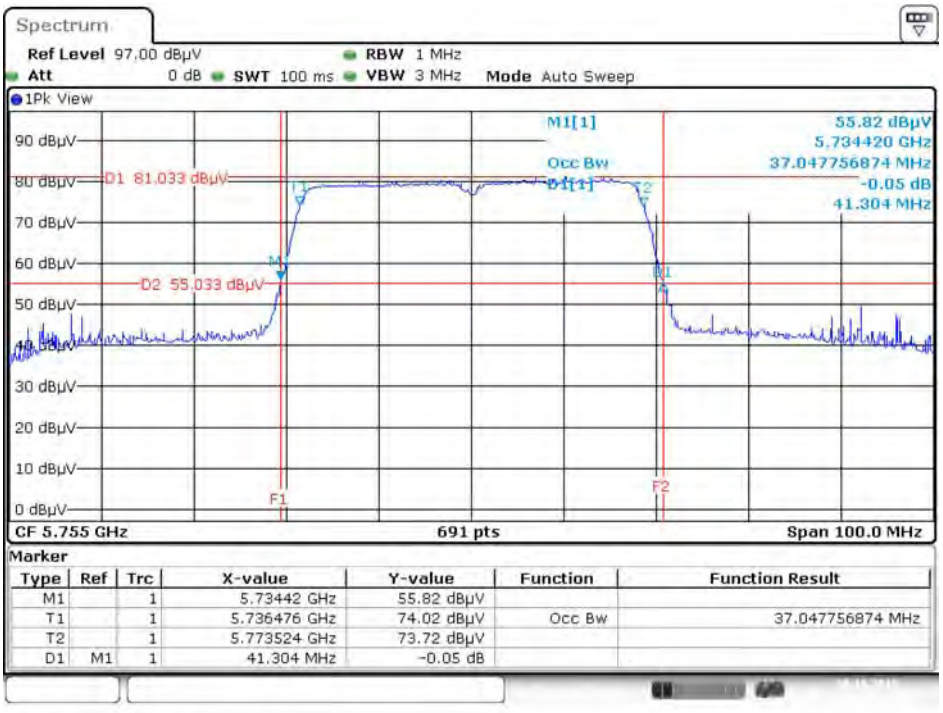
Date: 20.OCT.2015 22:16:24

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 / 5230 MHz



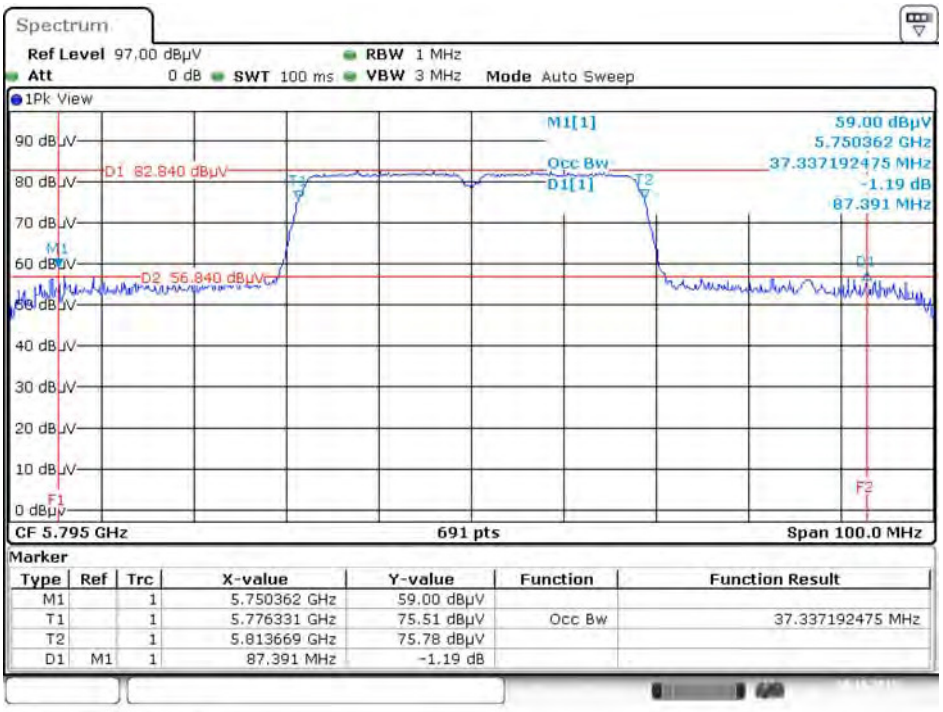
Date: 20.OCT.2015 10:41:01

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 / 5755 MHz



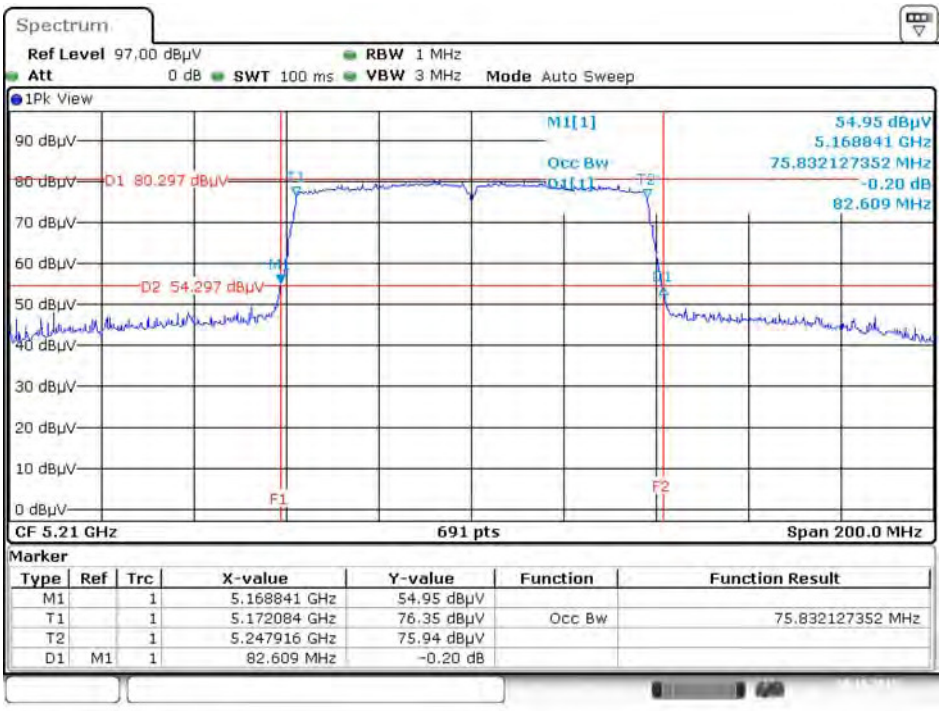
Date: 20.OCT.2015 23:40:13

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 / 5795 MHz



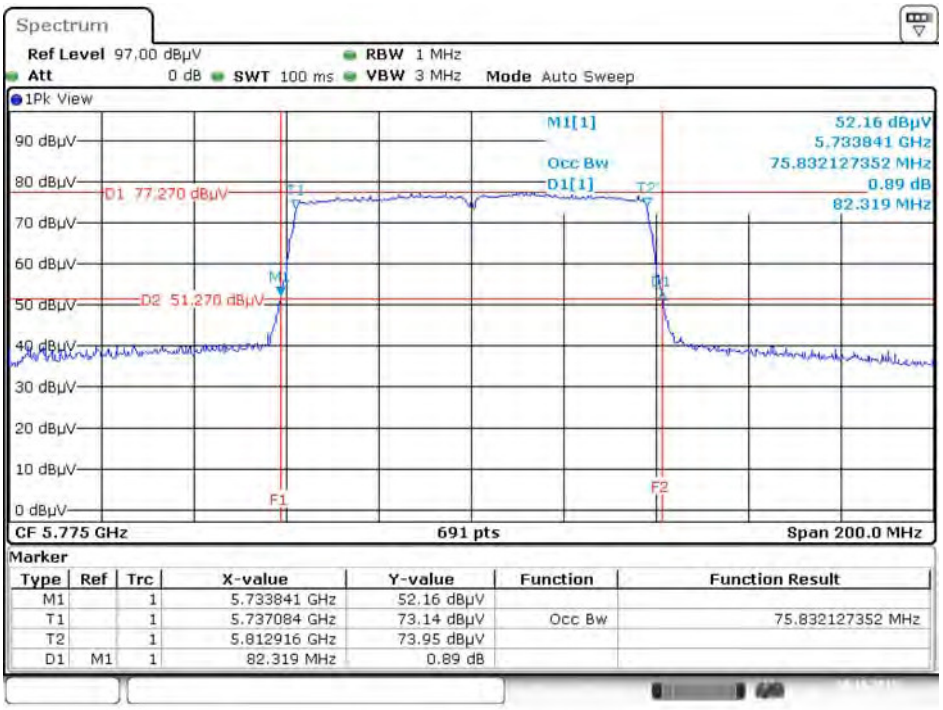
Date: 20.OCT.2015 19:46:45

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 / 5210 MHz



Date: 20.OCT.2015 22:22:24

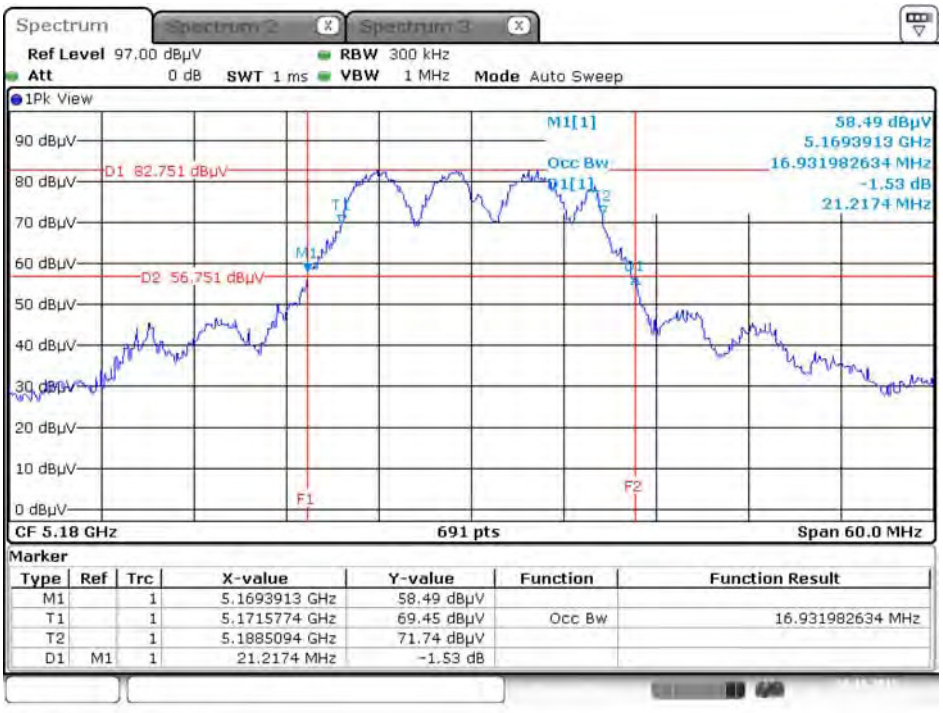
26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 / 5775 MHz



Date: 20.OCT.2015 23:42:59

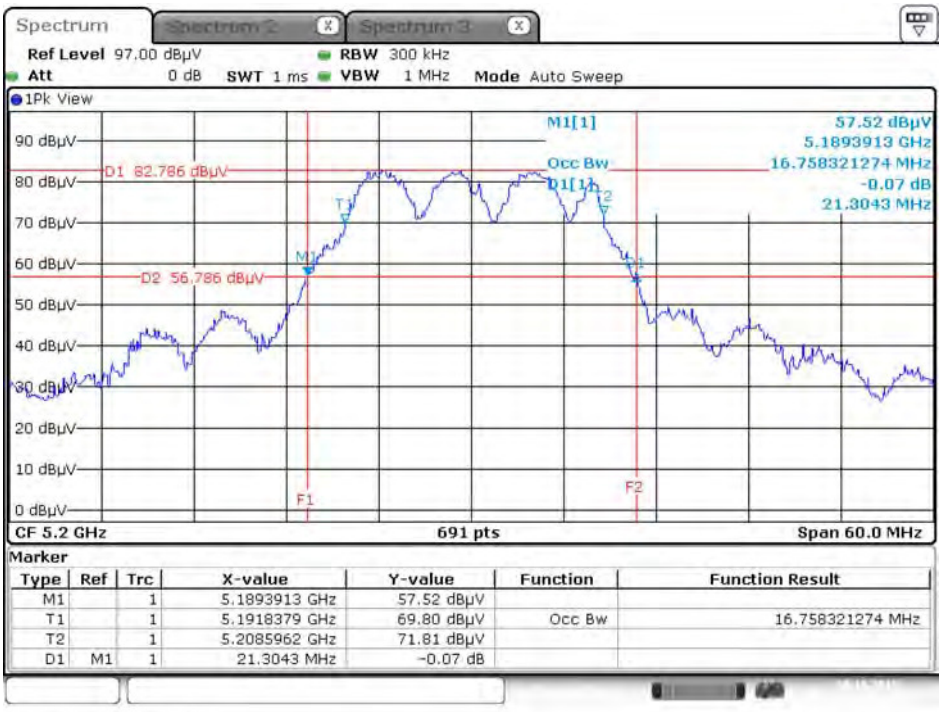
Mode 1 (Set 1 Dipole antenna / 3.96dBi / 2TX)

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 / 5180 MHz



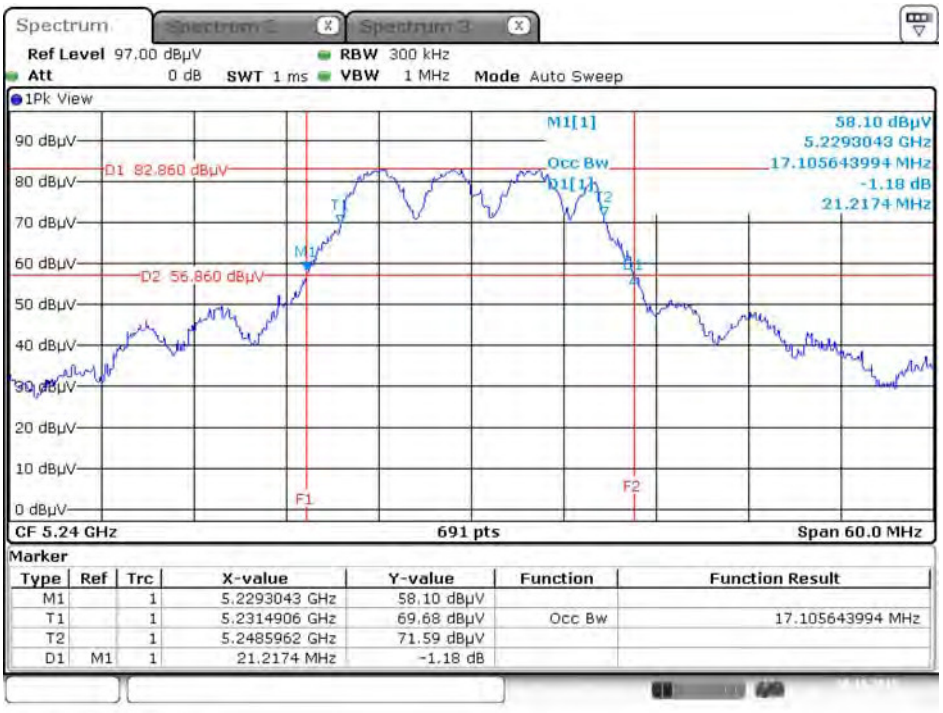
Date: 20.OCT.2015 10:50:56

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 / 5200 MHz



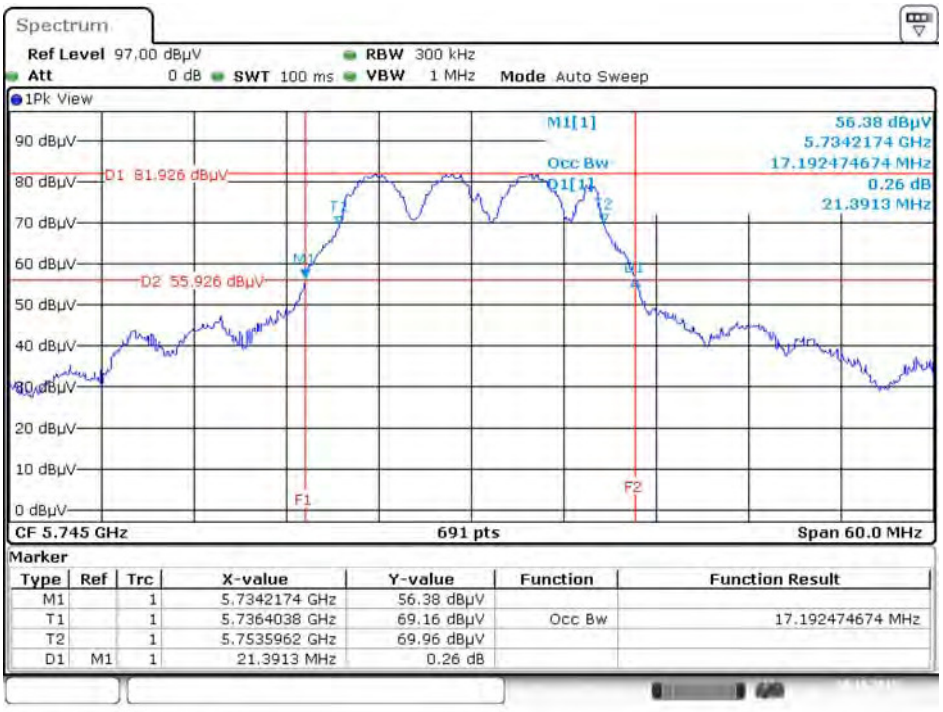
Date: 20.OCT.2015 10:51:26

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 / 5240 MHz



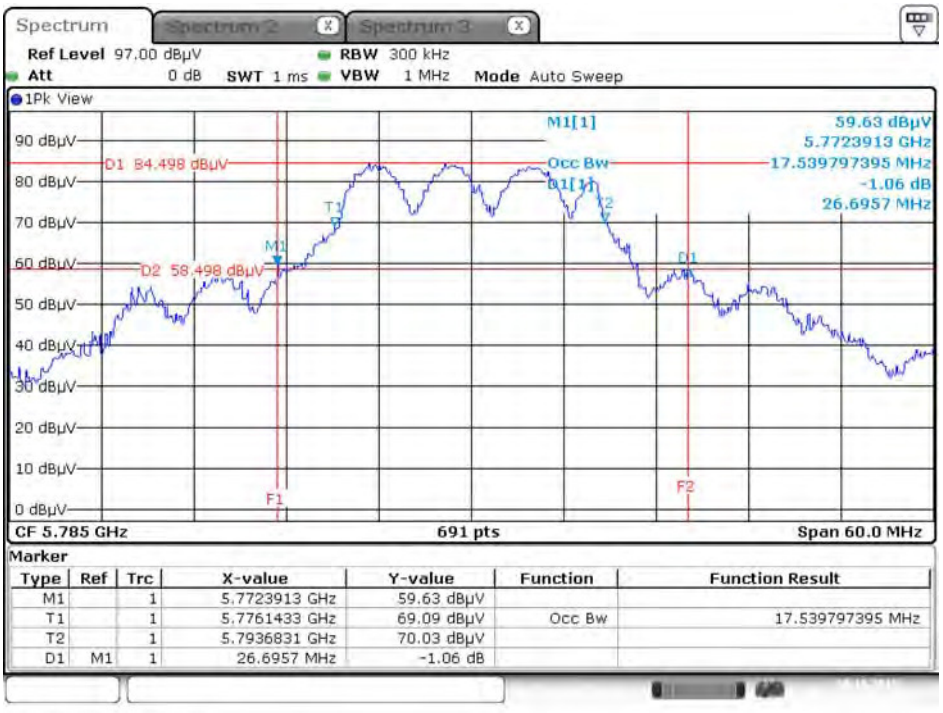
Date: 20.OCT.2015 10:52:13

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 / 5745 MHz



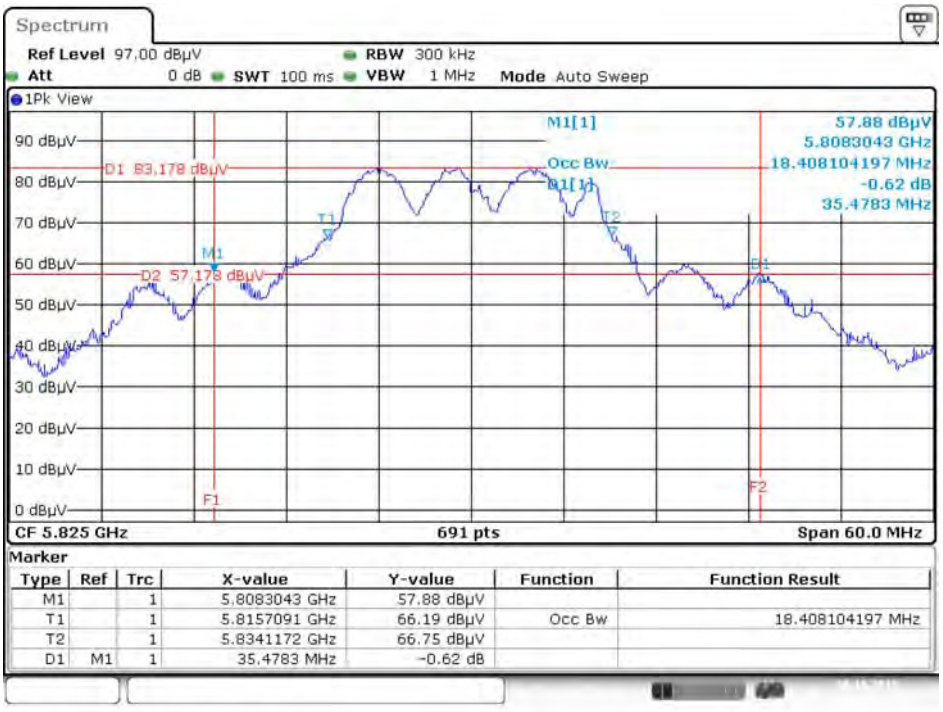
Date: 20.OCT.2015 23:44:46

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 / 5785 MHz



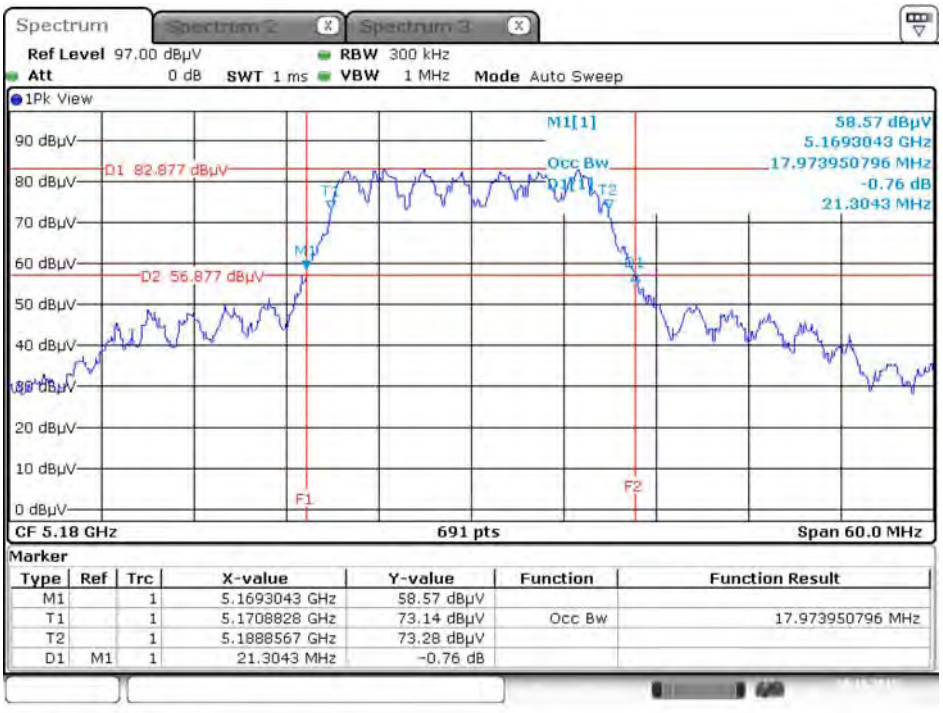
Date: 20.OCT.2015 10:53:32

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 / 5825 MHz



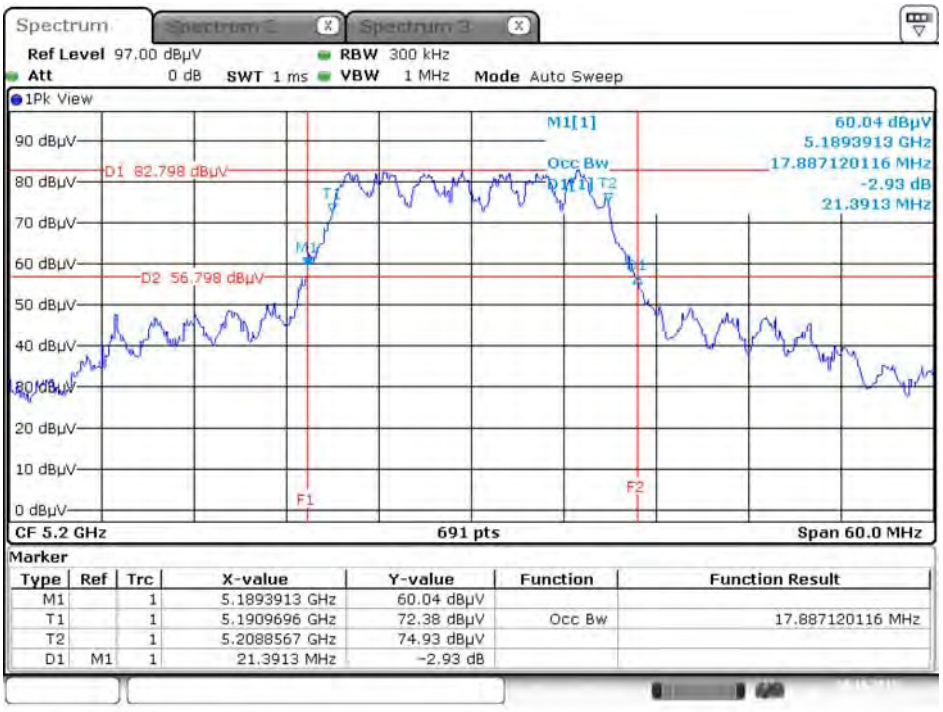
Date: 20.OCT.2015 22:27:36

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 / 5180 MHz



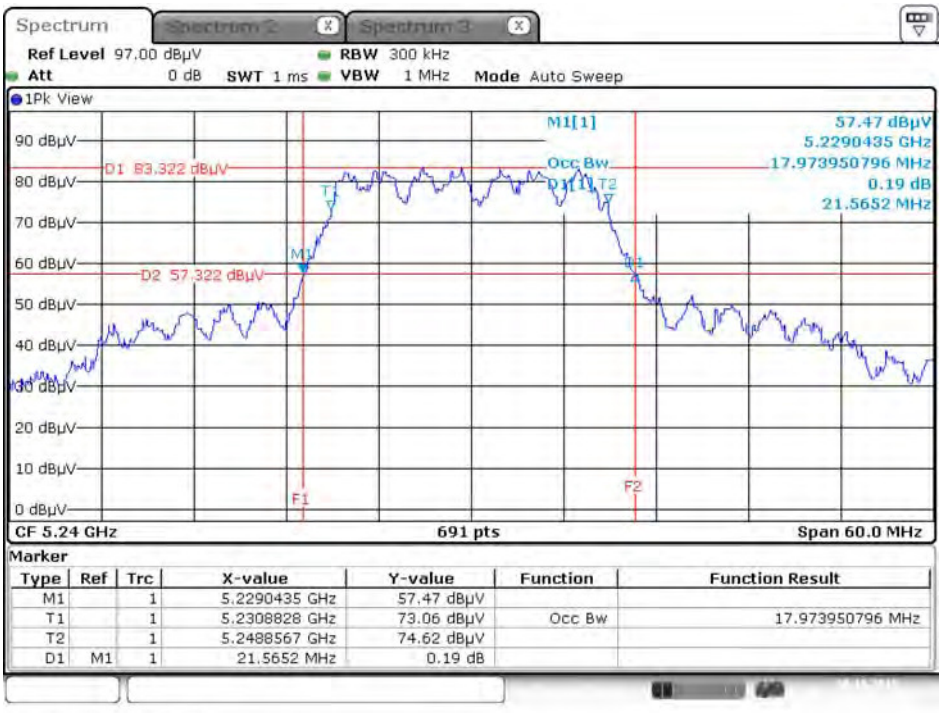
Date: 20.OCT.2015 10:55:06

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 / 5200 MHz



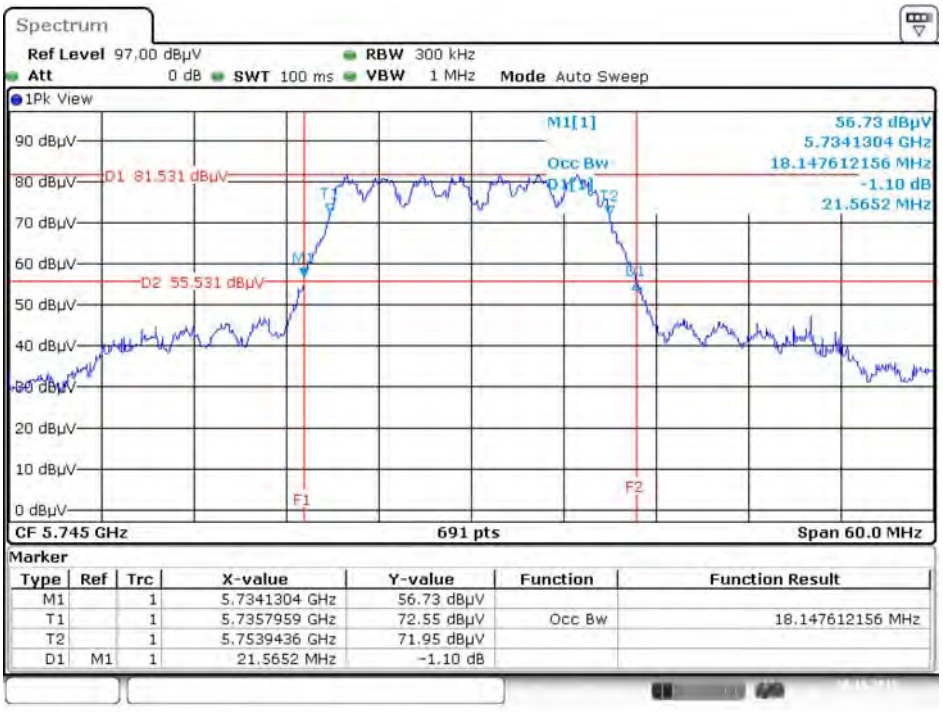
Date: 20.OCT.2015 10:55:59

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 / 5240 MHz



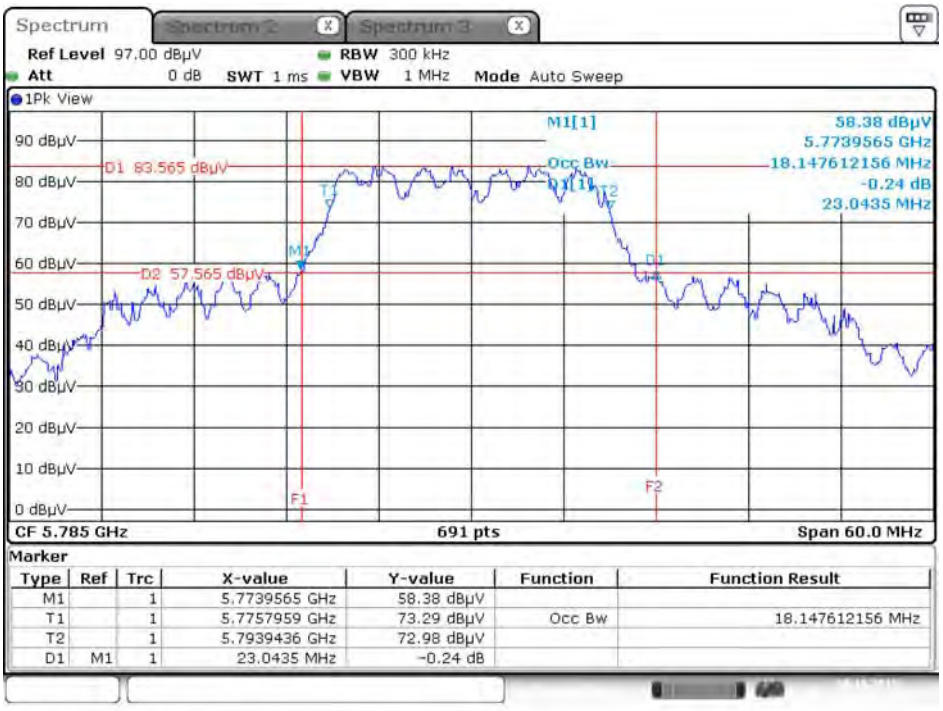
Date: 20.OCT.2015 10:56:30

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 / 5745 MHz



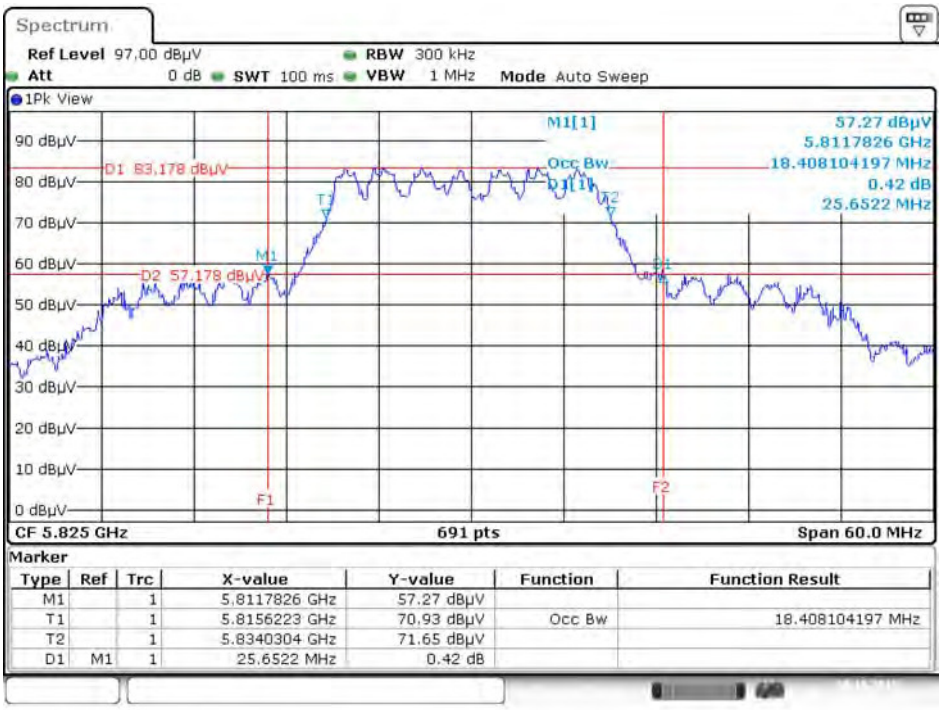
Date: 20.OCT.2015 23:47:33

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 / 5785 MHz



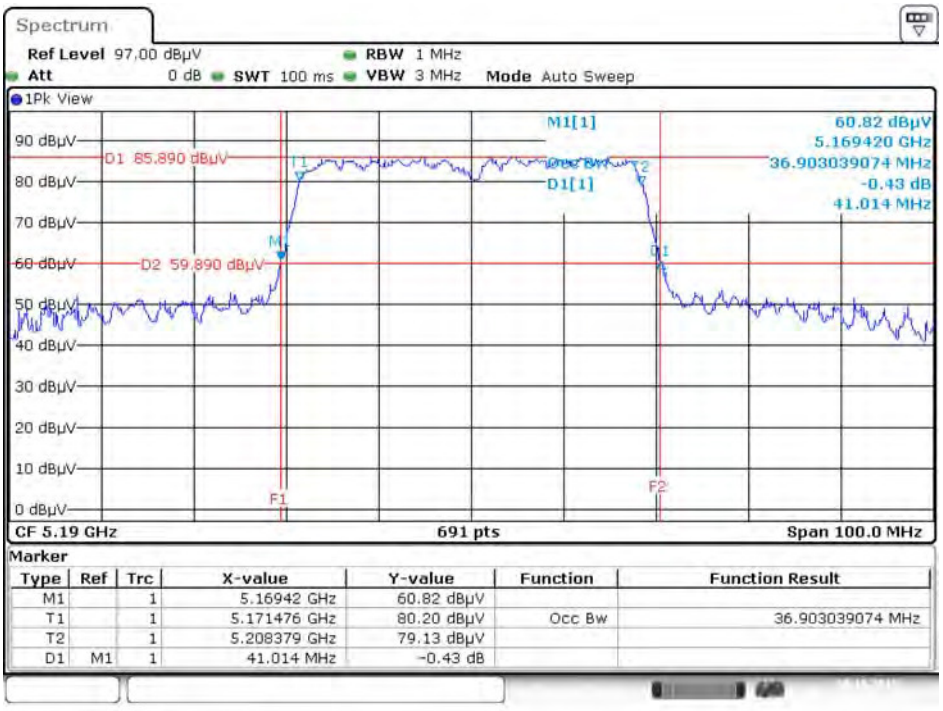
Date: 20.OCT.2015 10:59:33

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 / 5825 MHz



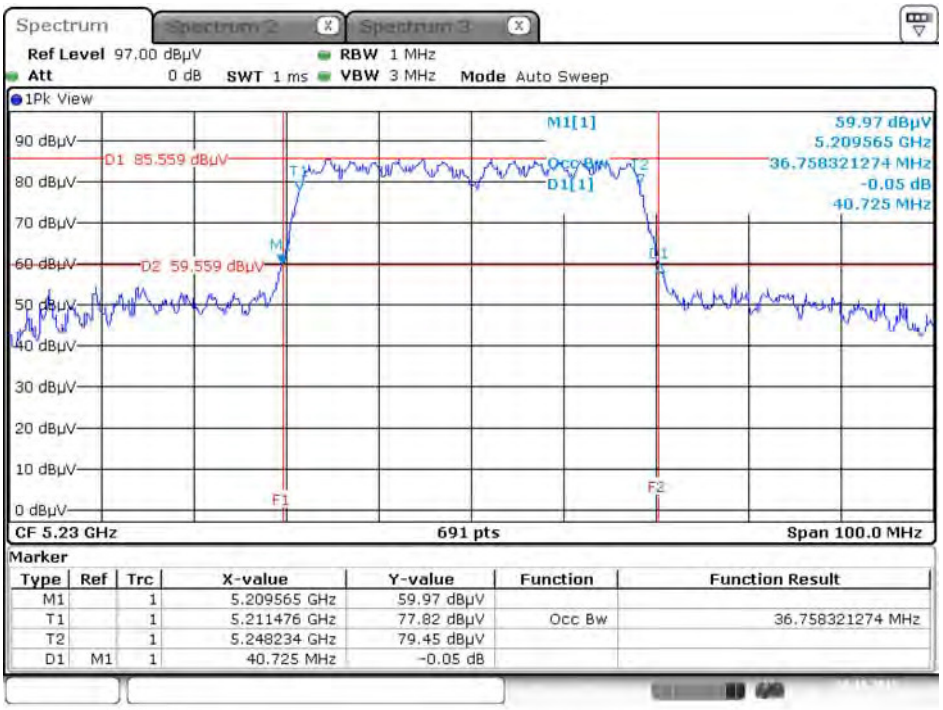
Date: 20.OCT.2015 23:48:20

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 / 5190 MHz



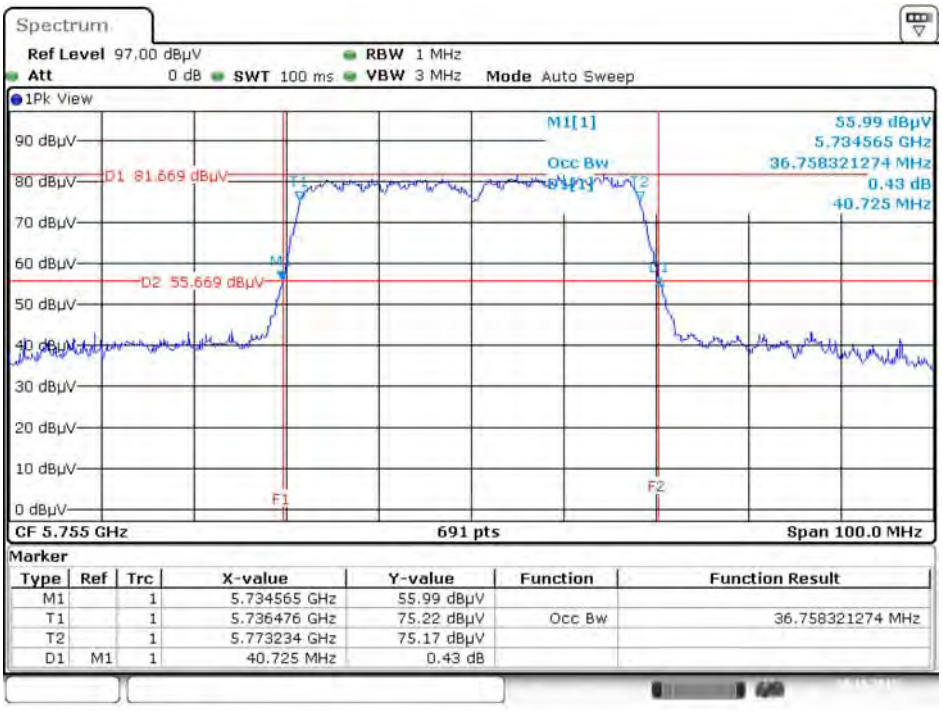
Date: 20.OCT.2015 23:52:11

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 / 5230 MHz



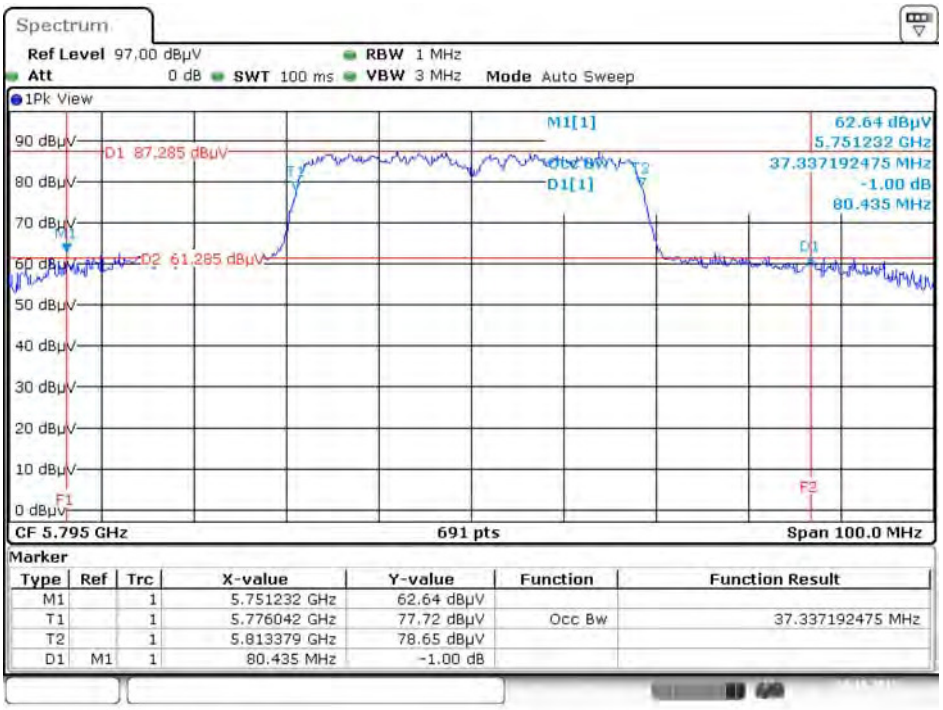
Date: 20.OCT.2015 11:04:23

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 / 5755 MHz



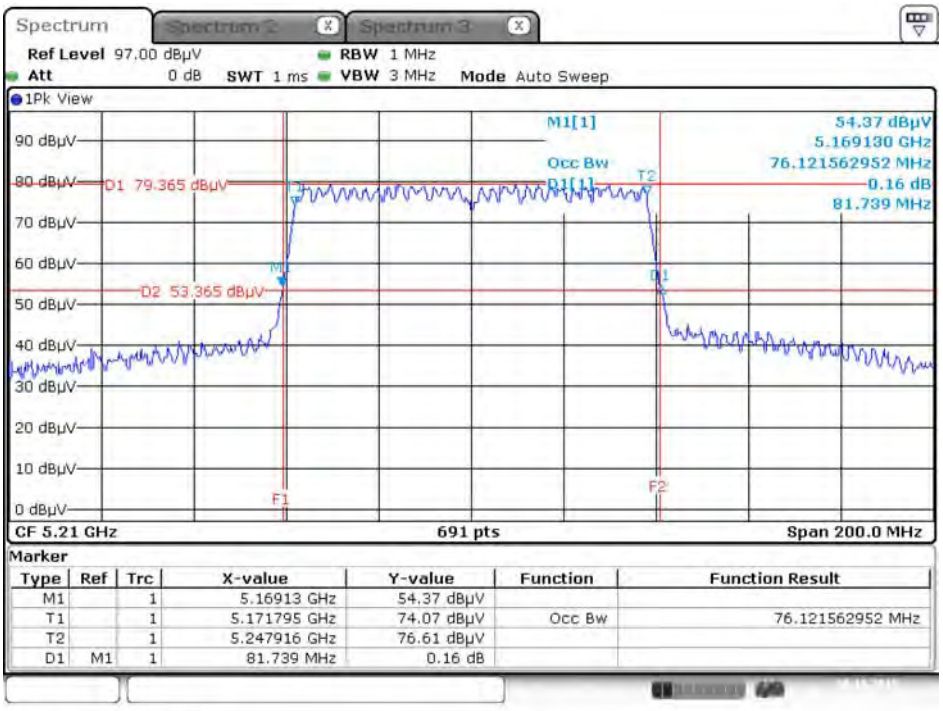
Date: 20.OCT.2015 22:33:43

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 / 5795 MHz



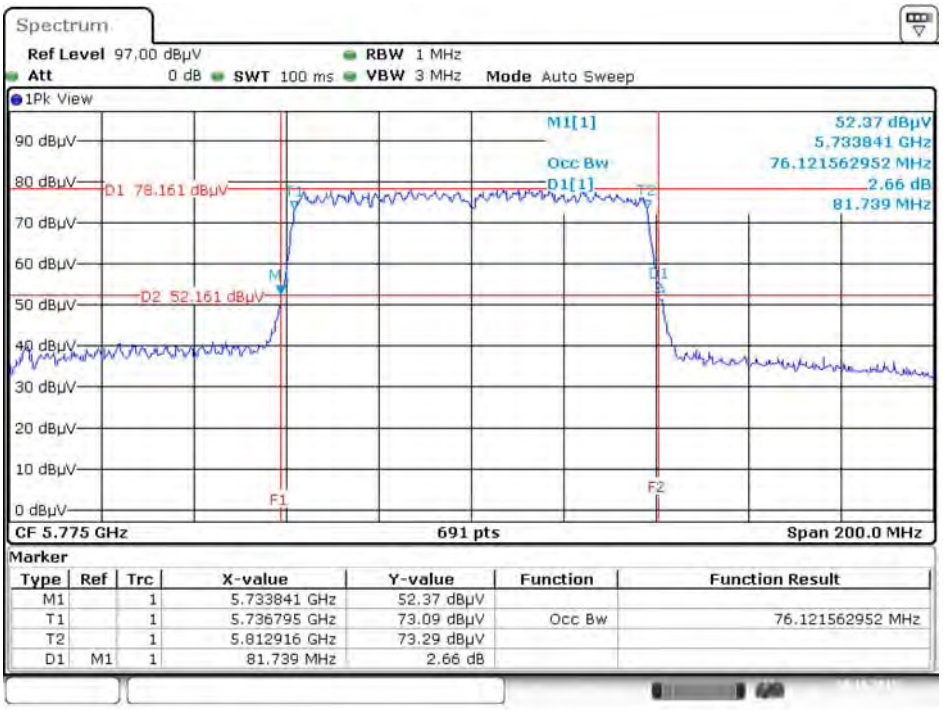
Date: 20.OCT.2015 23:51:04

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 / 5210 MHz



Date: 20.OCT.2015 11:08:27

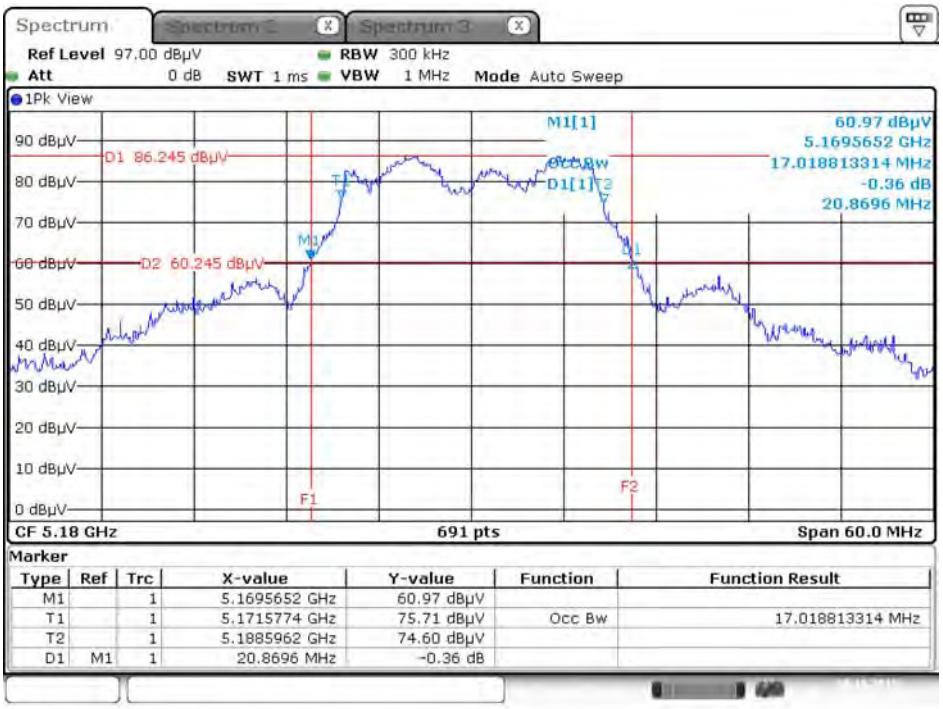
26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 / 5775 MHz



Date: 20.OCT.2015 23:53:30

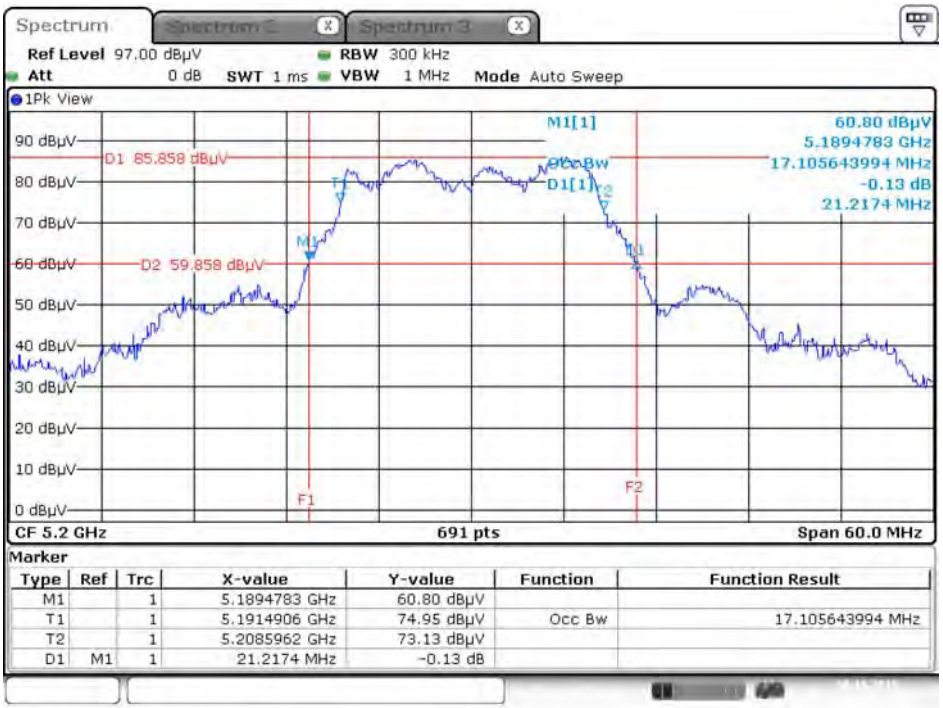
Mode 1 (Set 1 Dipole antenna / 3.96dBi / 3TX)

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



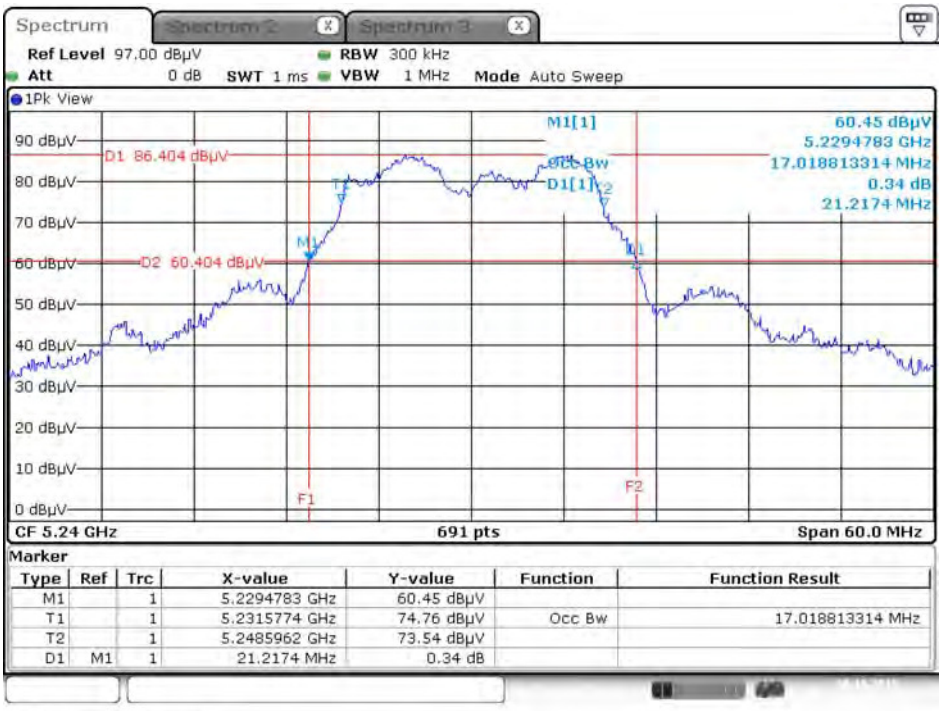
Date: 20.OCT.2015 11:17:15

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



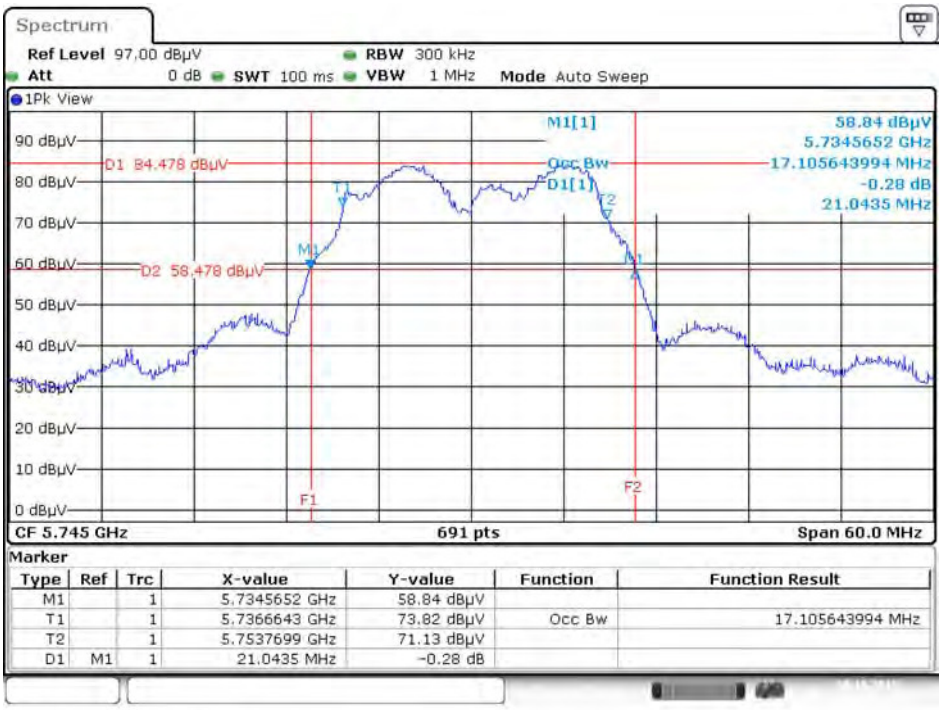
Date: 20.OCT.2015 11:17:53

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



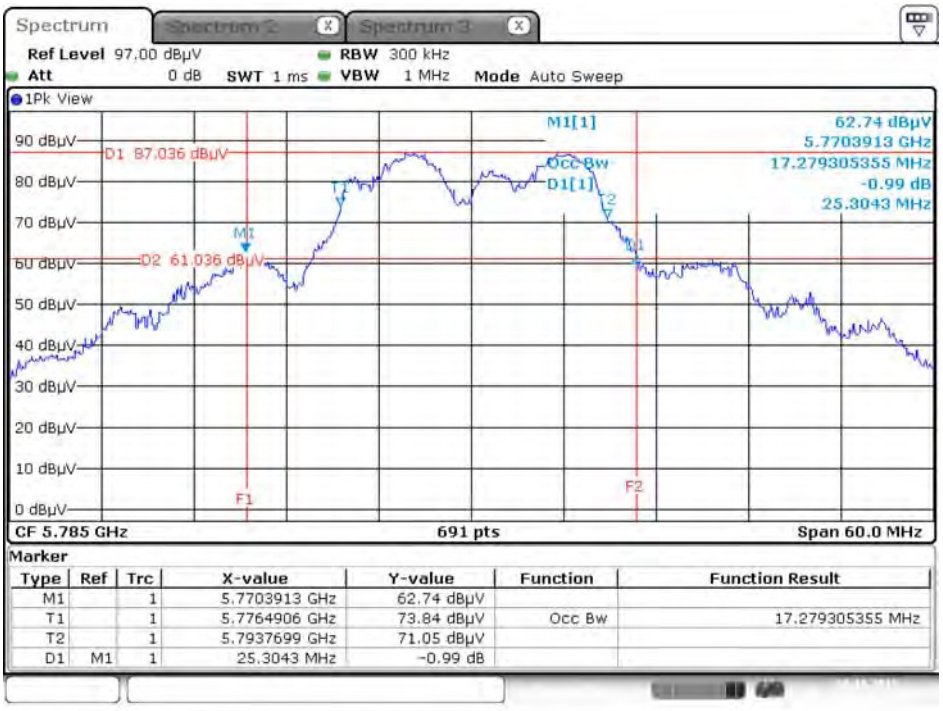
Date: 20.OCT.2015 11:18:27

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5745 MHz



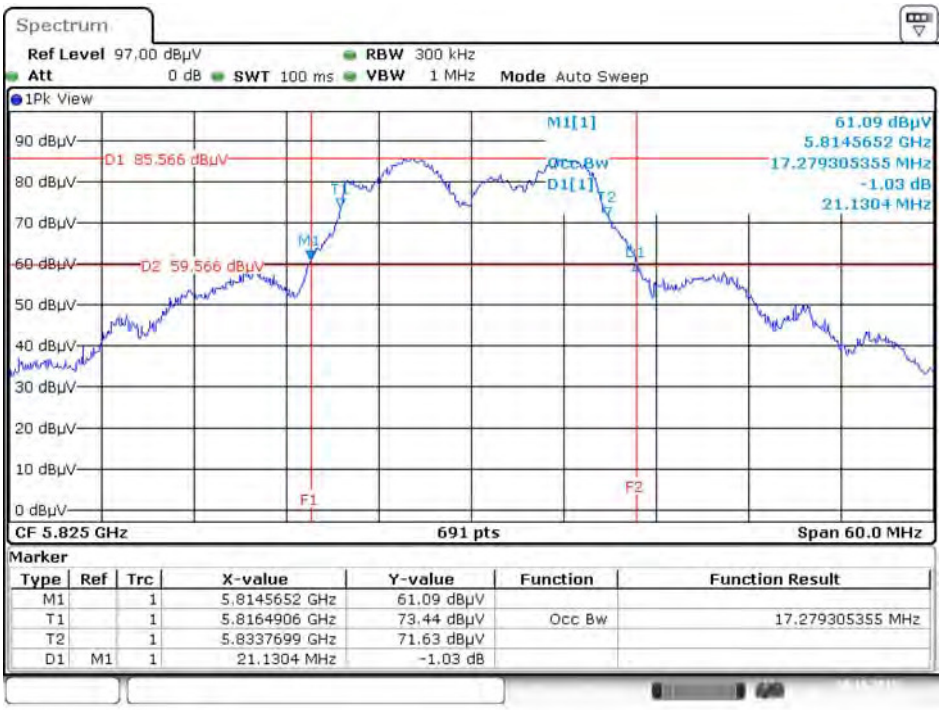
Date: 20.OCT.2015 23:56:35

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5785 MHz



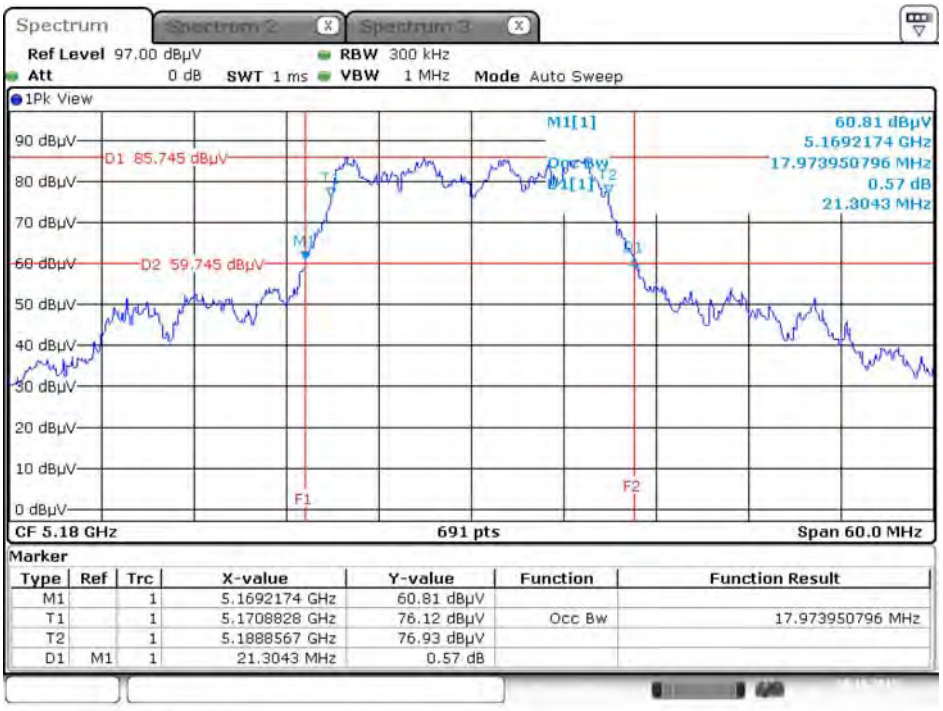
Date: 20.OCT.2015 11:19:23

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5825 MHz



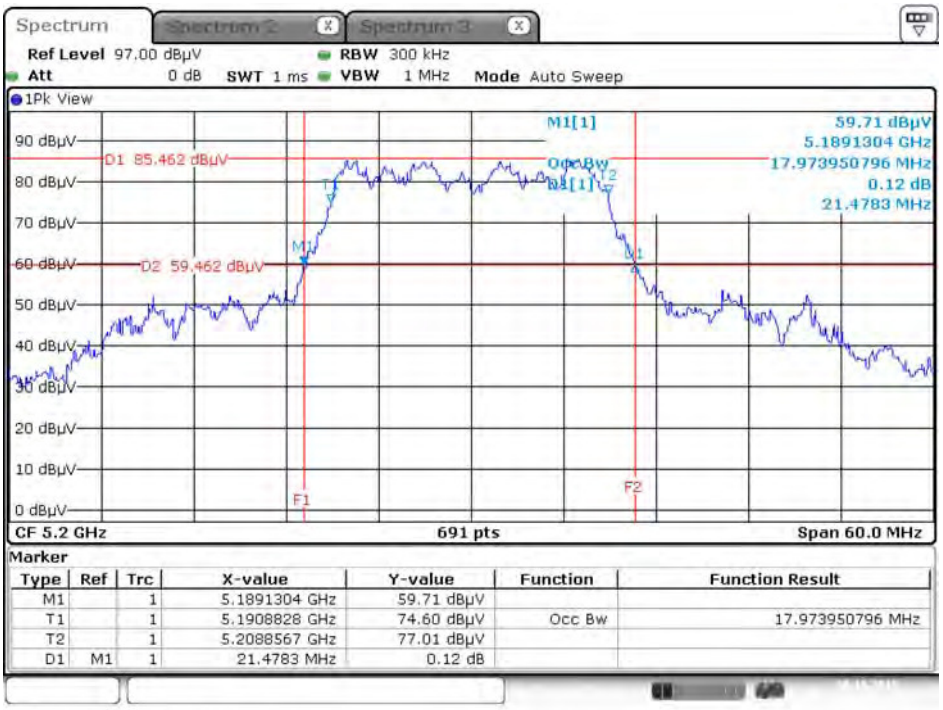
Date: 20.OCT.2015 23:57:32

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



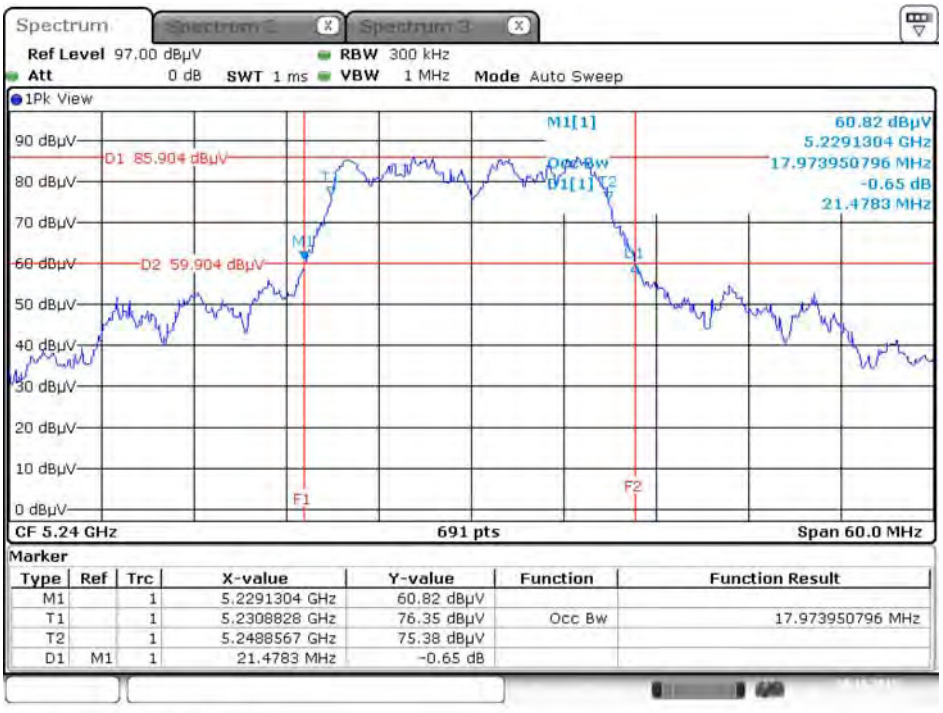
Date: 20.OCT.2015 11:21:14

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



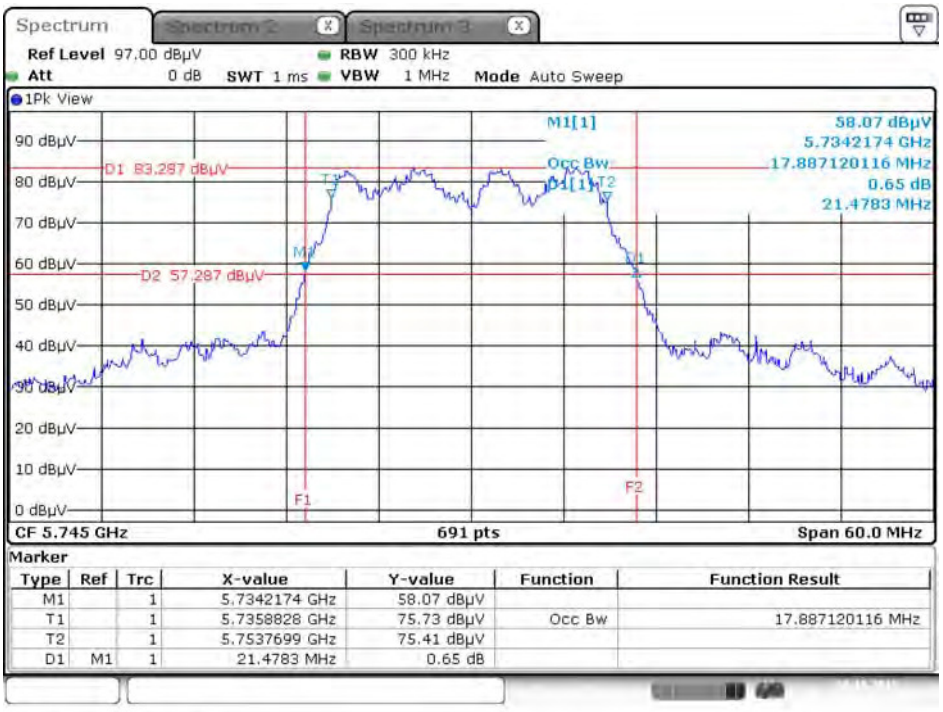
Date: 20.OCT.2015 11:21:42

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



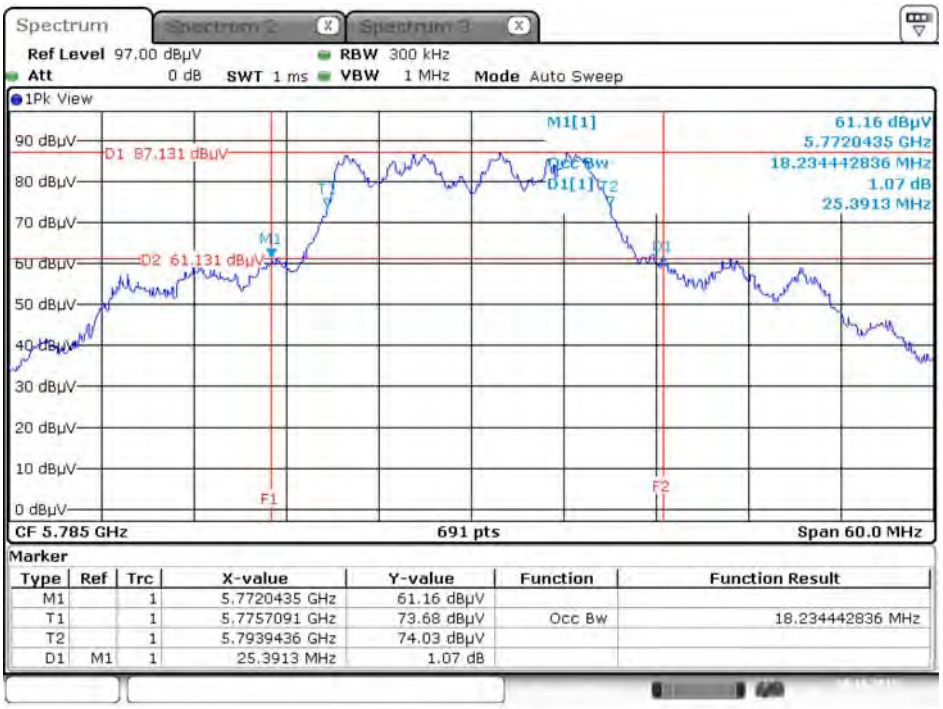
Date: 20.OCT.2015 11:22:07

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 / 5745 MHz



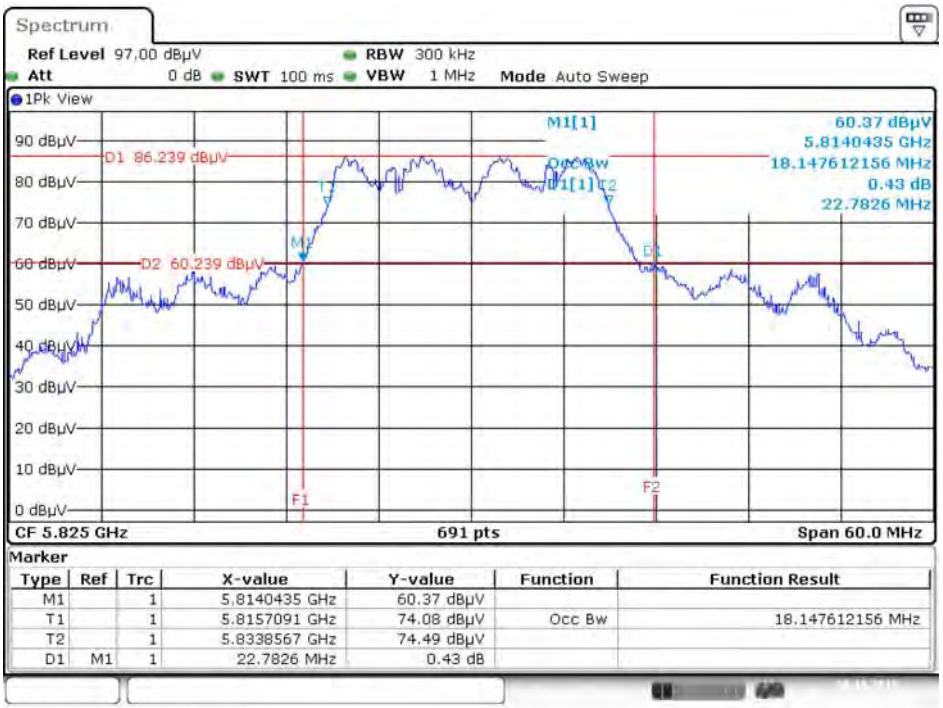
Date: 20.OCT.2015 11:22:42

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 / 5785 MHz



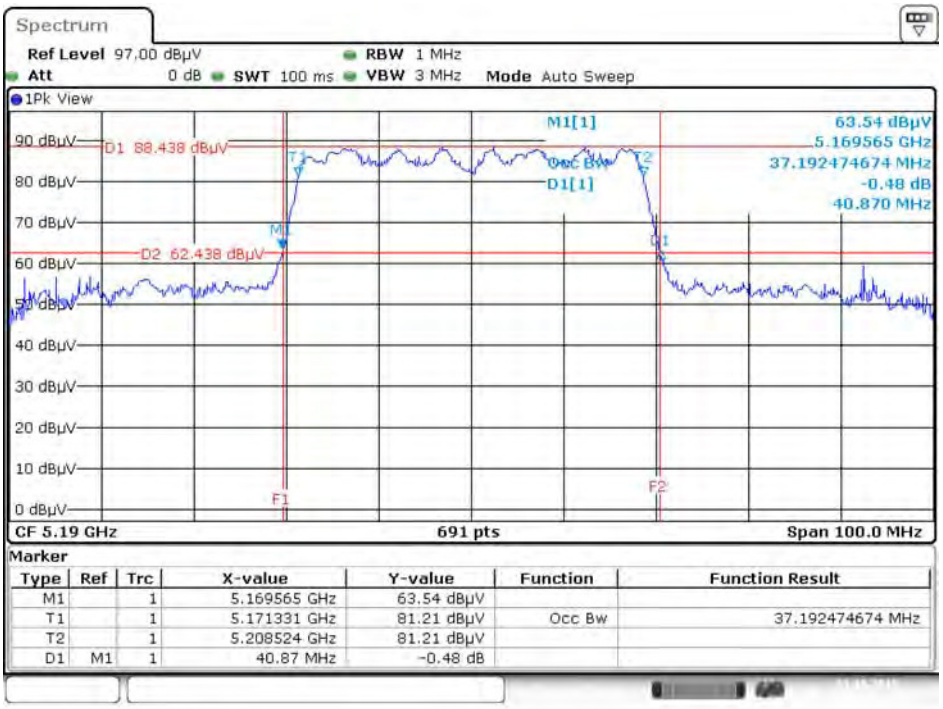
Date: 20.OCT.2015 11:23:03

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 / 5825 MHz



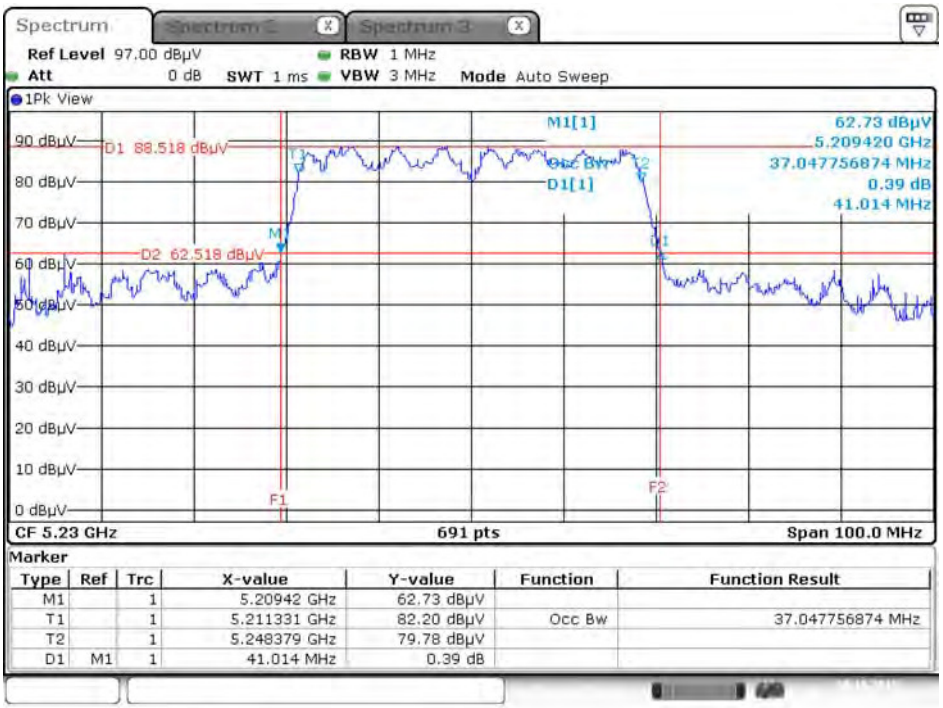
Date: 20.OCT.2015 20:16:54

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 / 5190 MHz



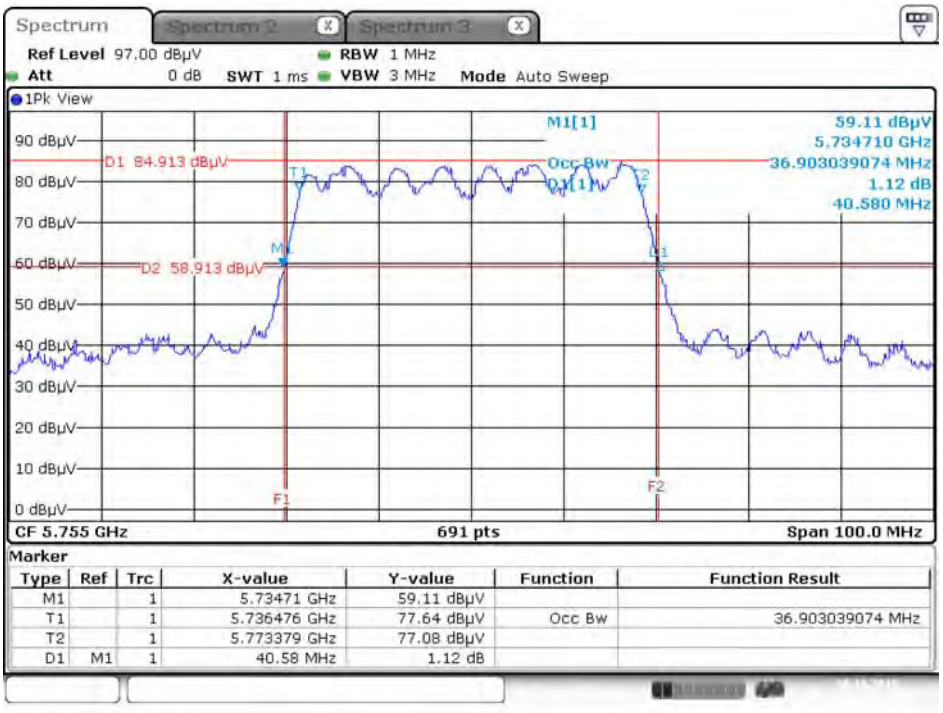
Date: 20.OCT.2015 23:59:59

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



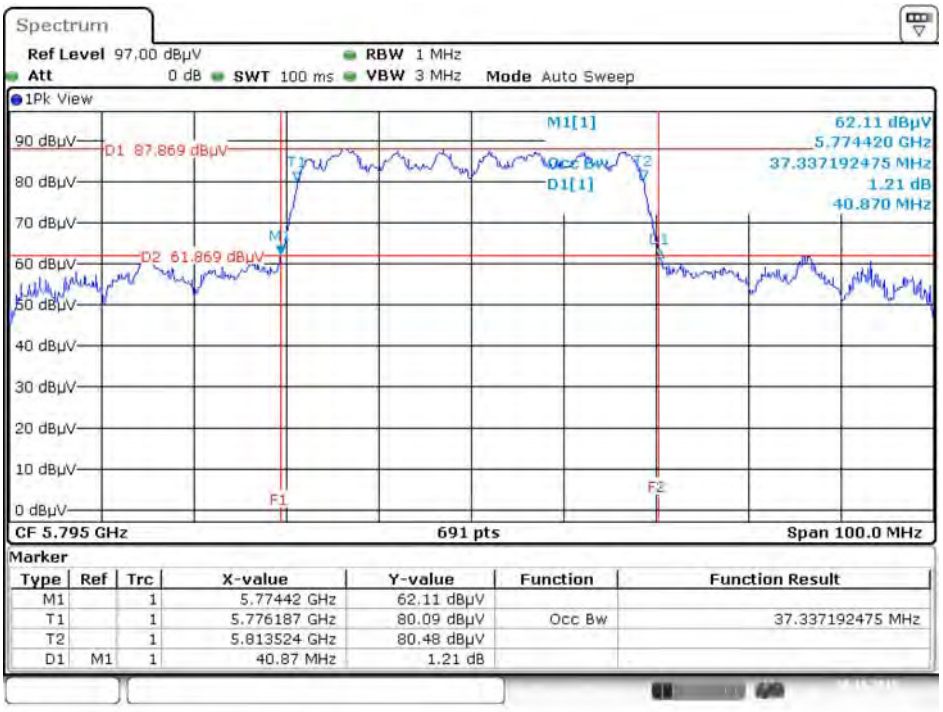
Date: 20.OCT.2015 11:24:30

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 / 5755 MHz



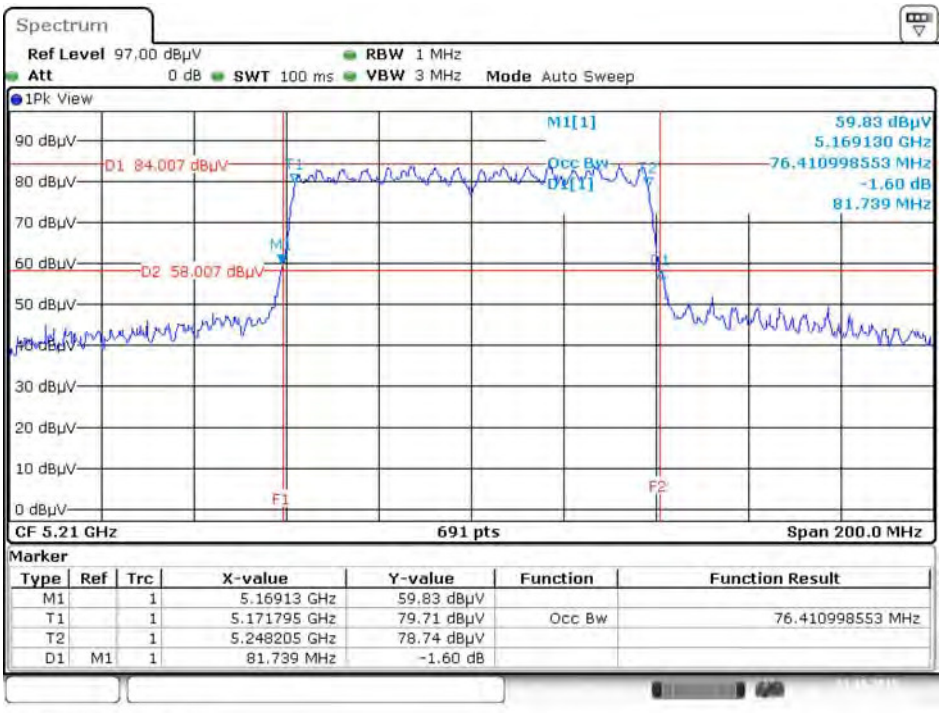
Date: 20.OCT.2015 11:25:28

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 / 5795 MHz



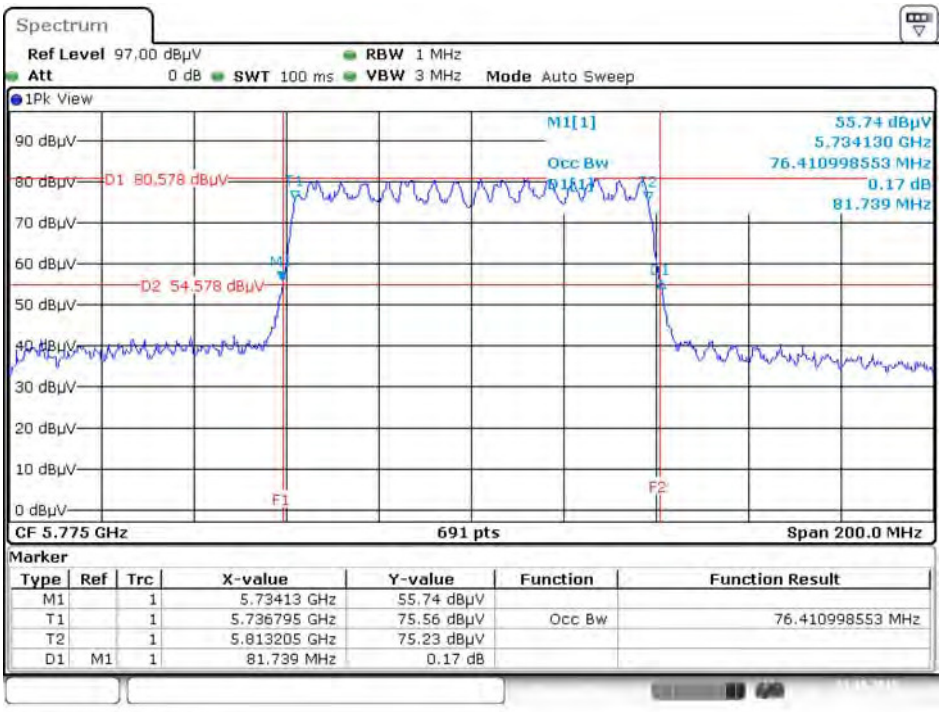
Date: 20.OCT.2015 22:45:44

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



Date: 21.OCT.2015 00:01:56

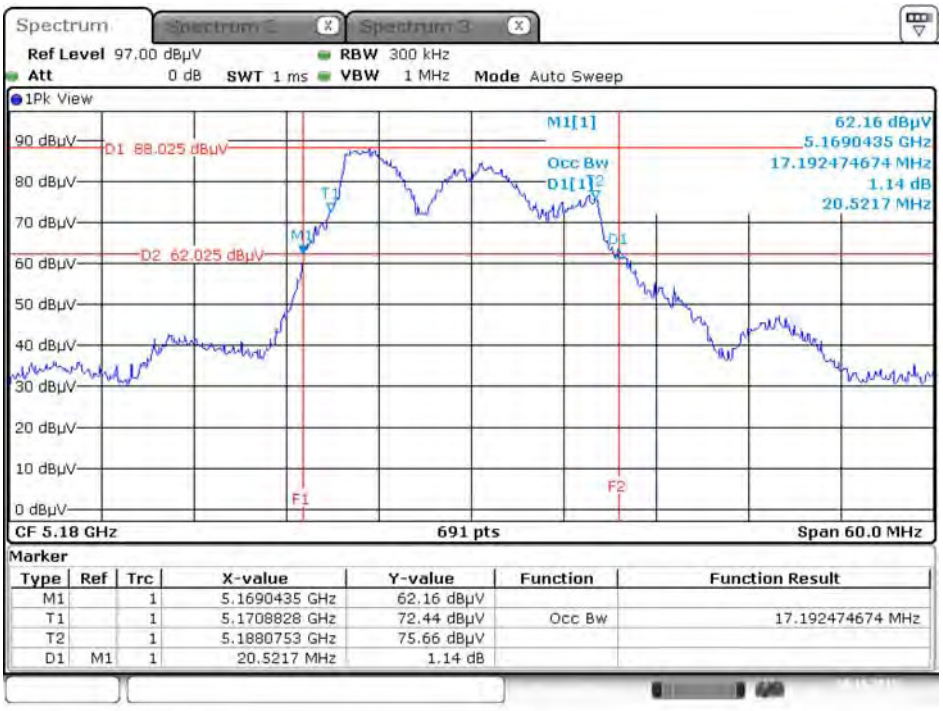
26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 1 + Chain 2 + Chain 3 / 5775 MHz



Date: 21.OCT.2015 00:02:39

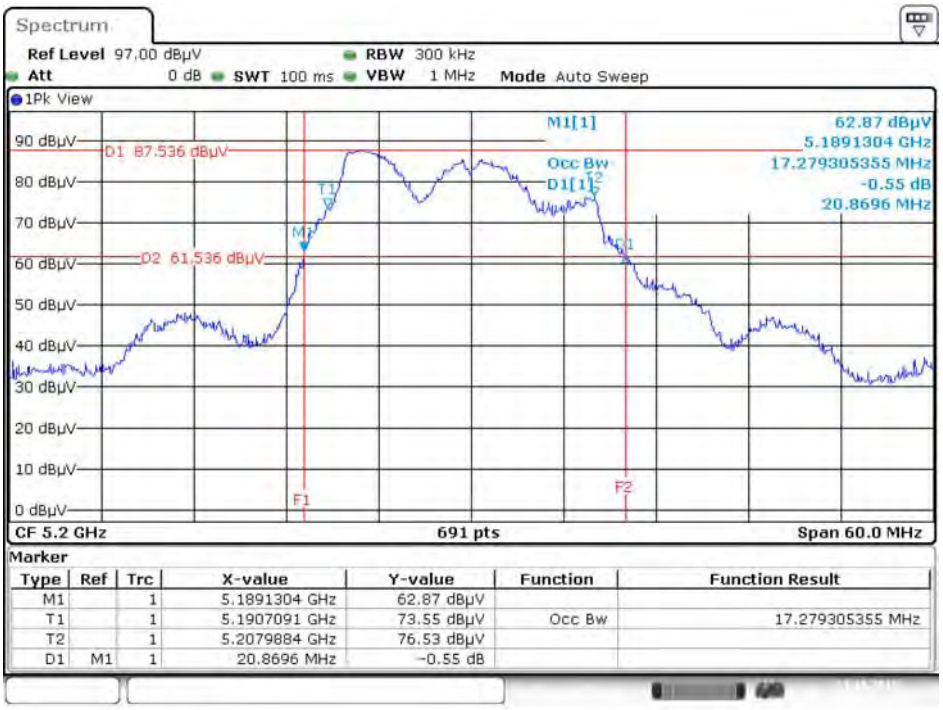
Mode 1 (Set 1 Dipole antenna / 3.96dBi / 4TX)

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5180 MHz



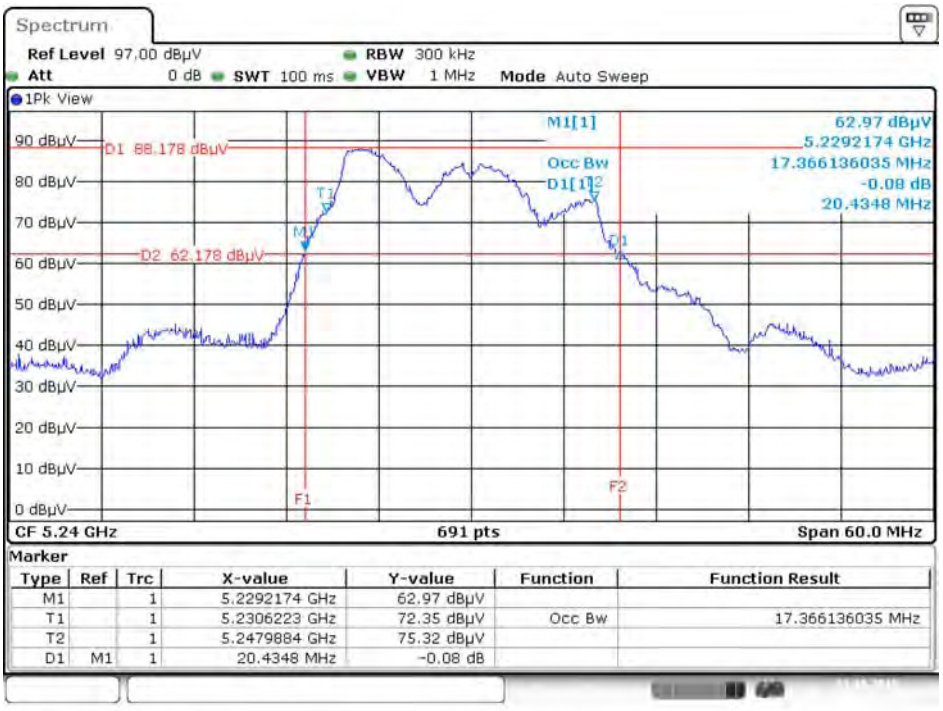
Date: 20.OCT.2015 11:34:01

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5200 MHz



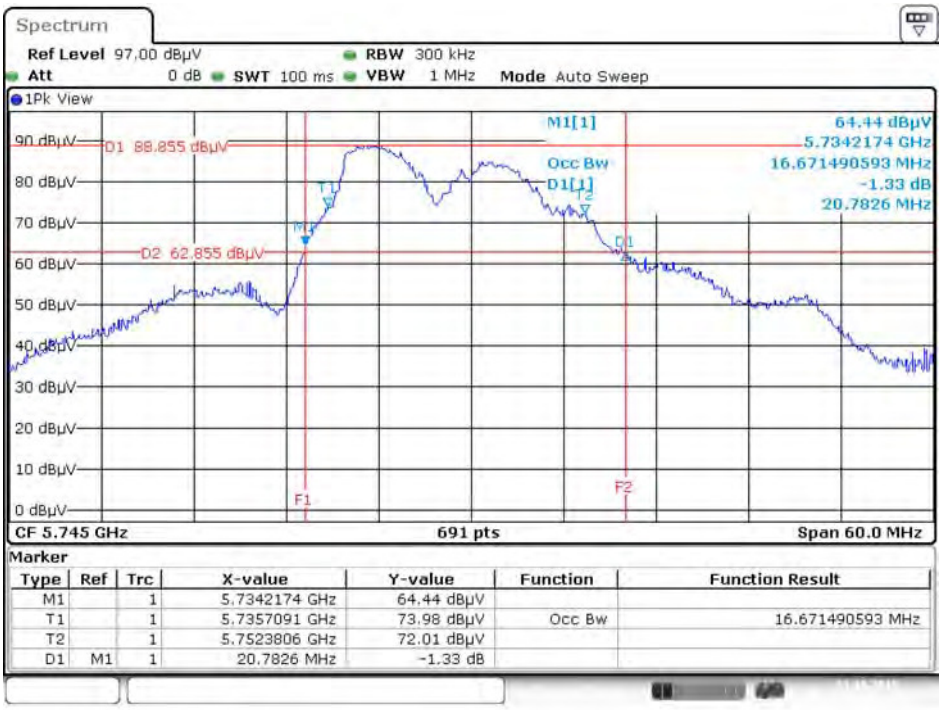
Date: 21.OCT.2015 00:19:42

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5240 MHz



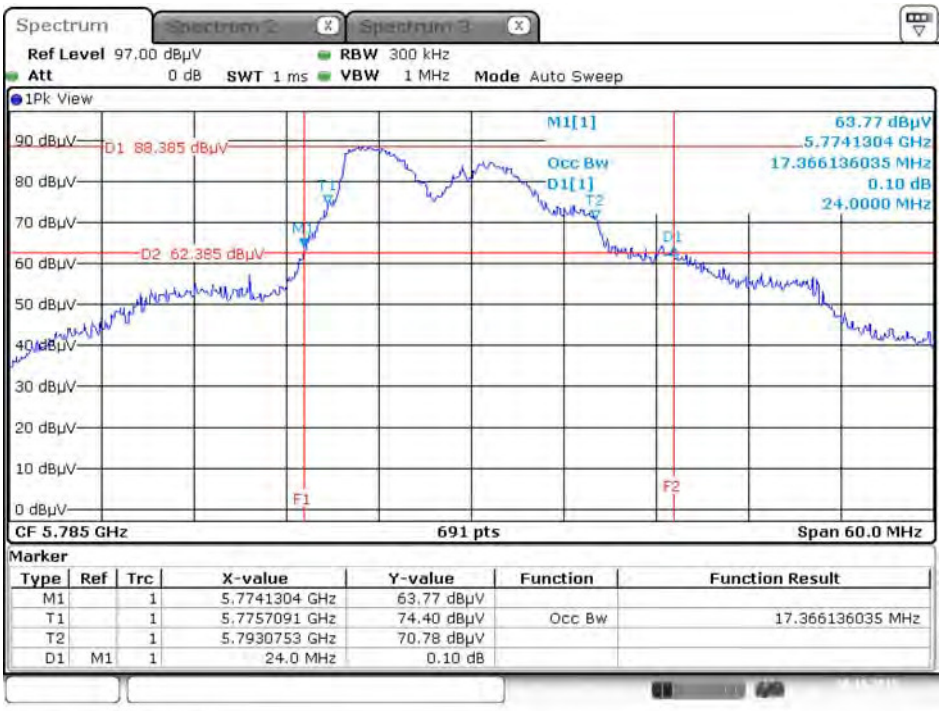
Date: 21.OCT.2015 00:21:15

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5745 MHz



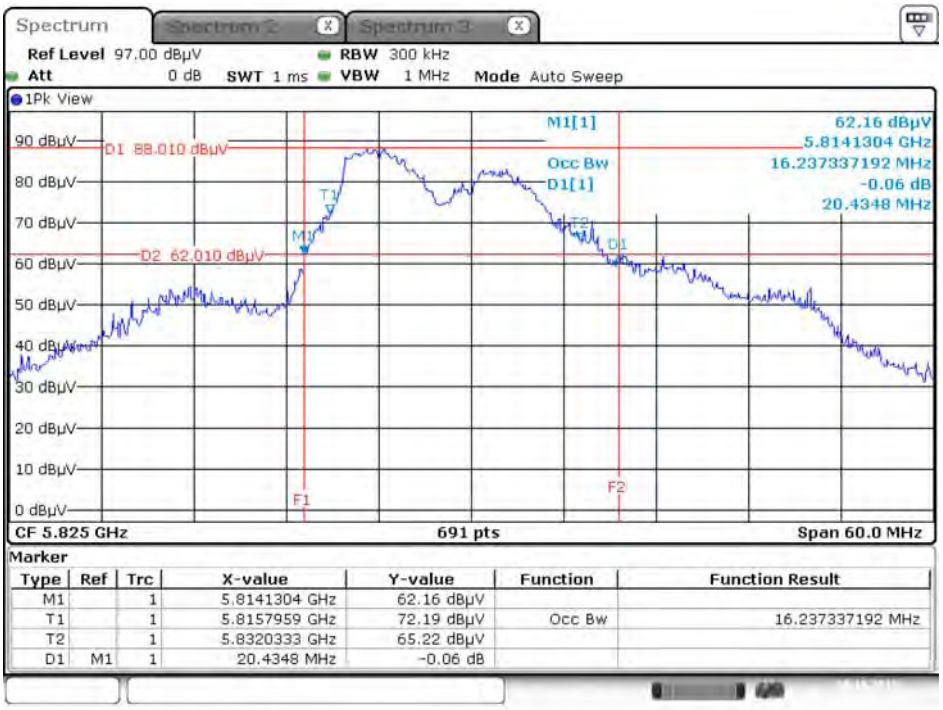
Date: 21.OCT.2015 00:18:52

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5785 MHz



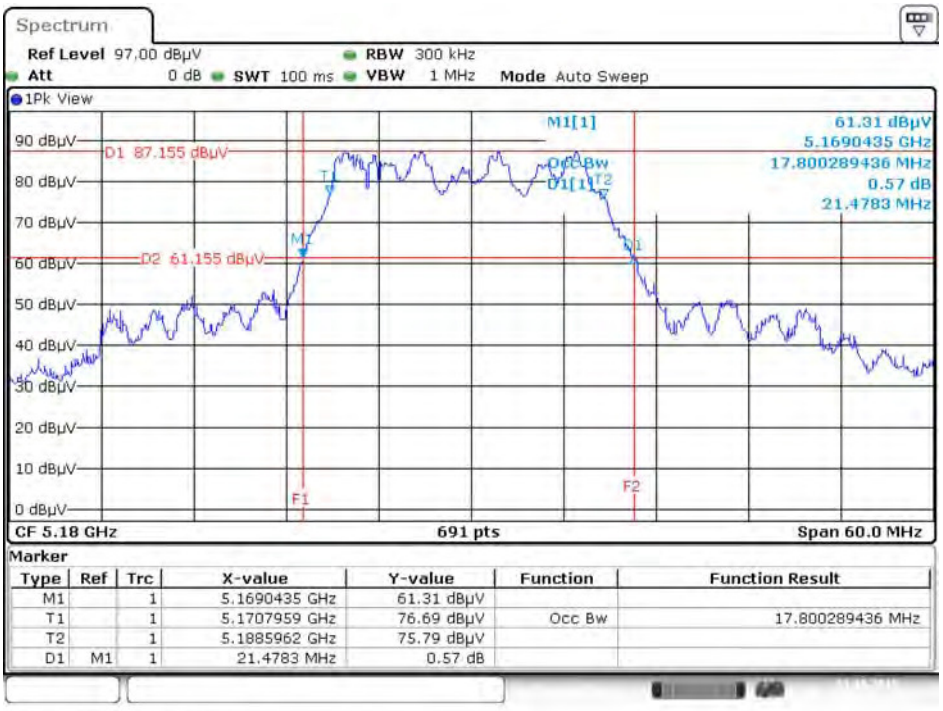
Date: 20.OCT.2015 11:35:57

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5825 MHz



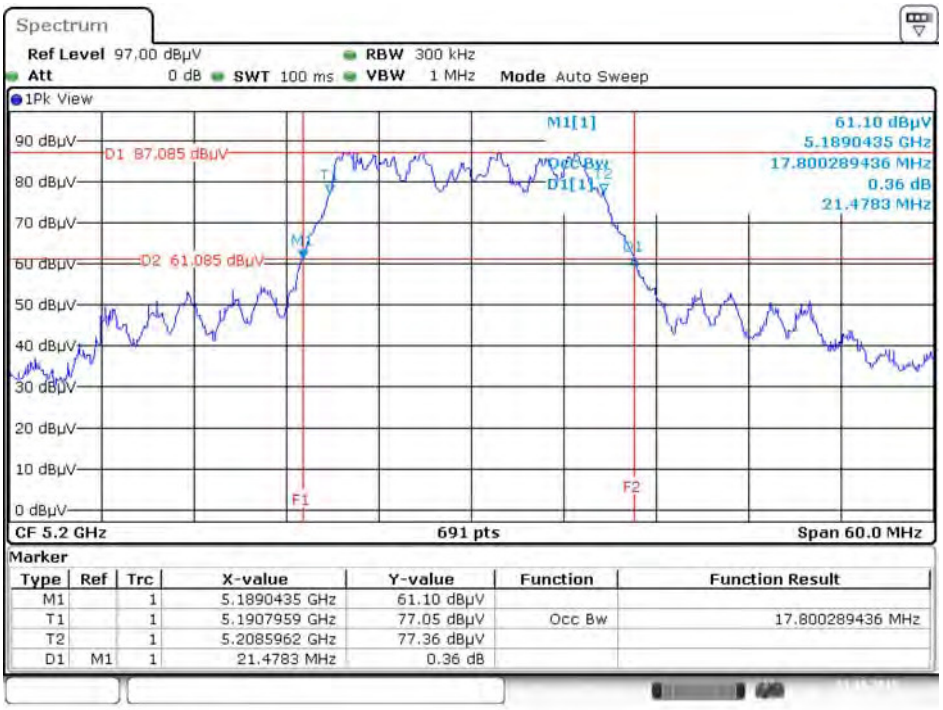
Date: 20.OCT.2015 11:36:34

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5180 MHz



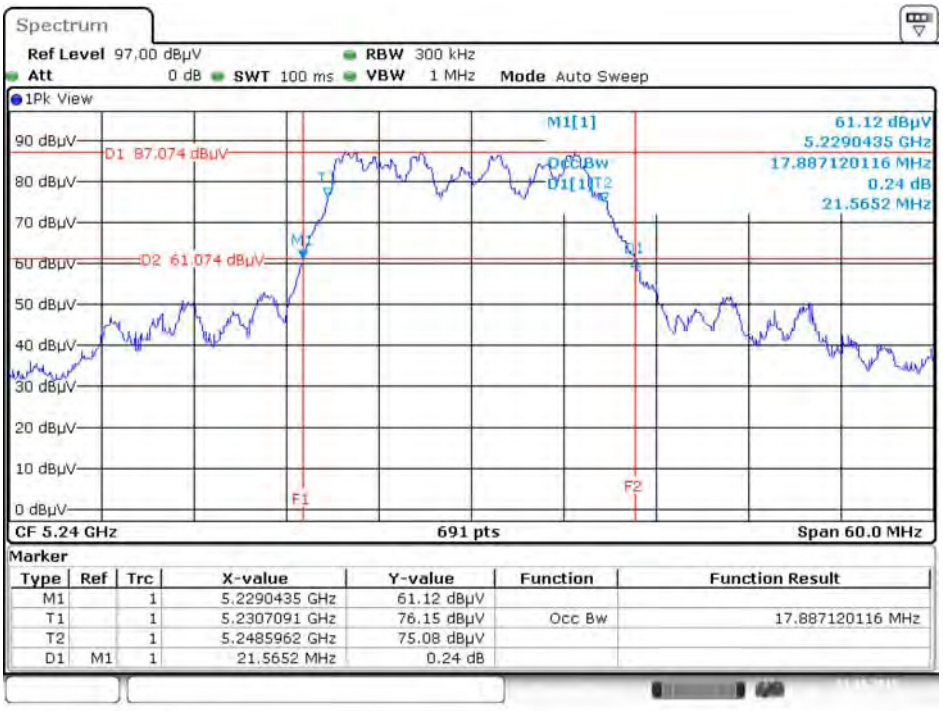
Date: 21.OCT.2015 00:22:28

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5200 MHz



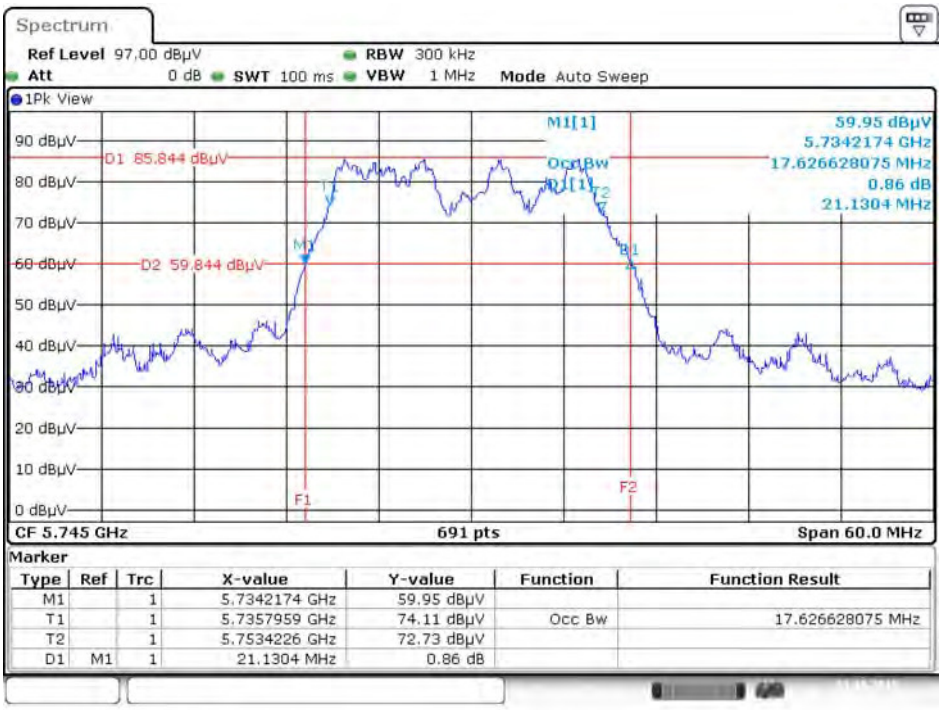
Date: 21.OCT.2015 00:23:26

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5240 MHz



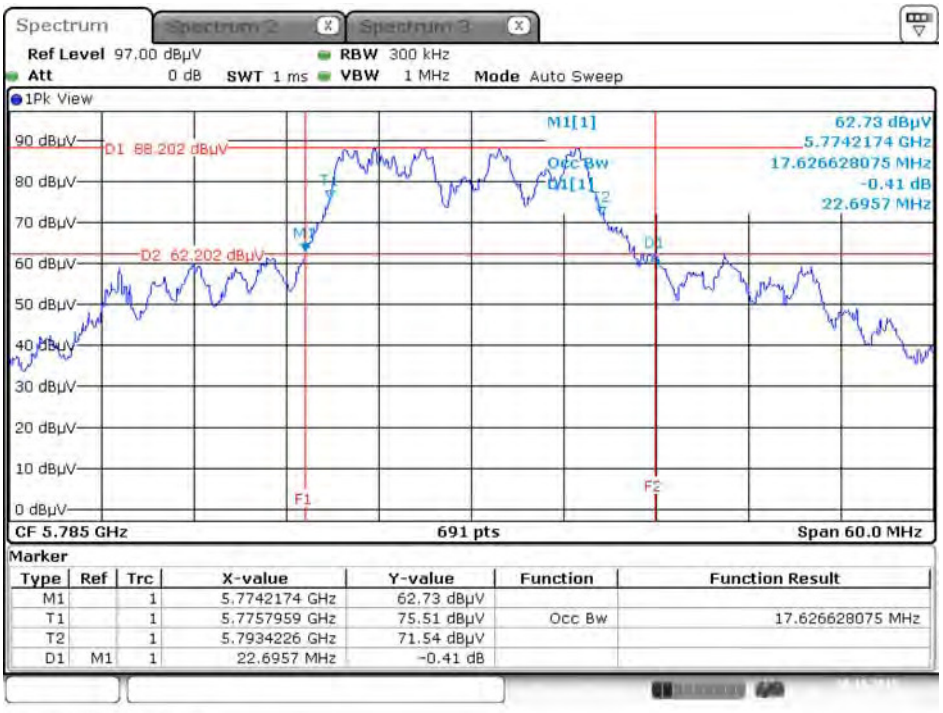
Date: 21.OCT.2015 00:24:09

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5745 MHz



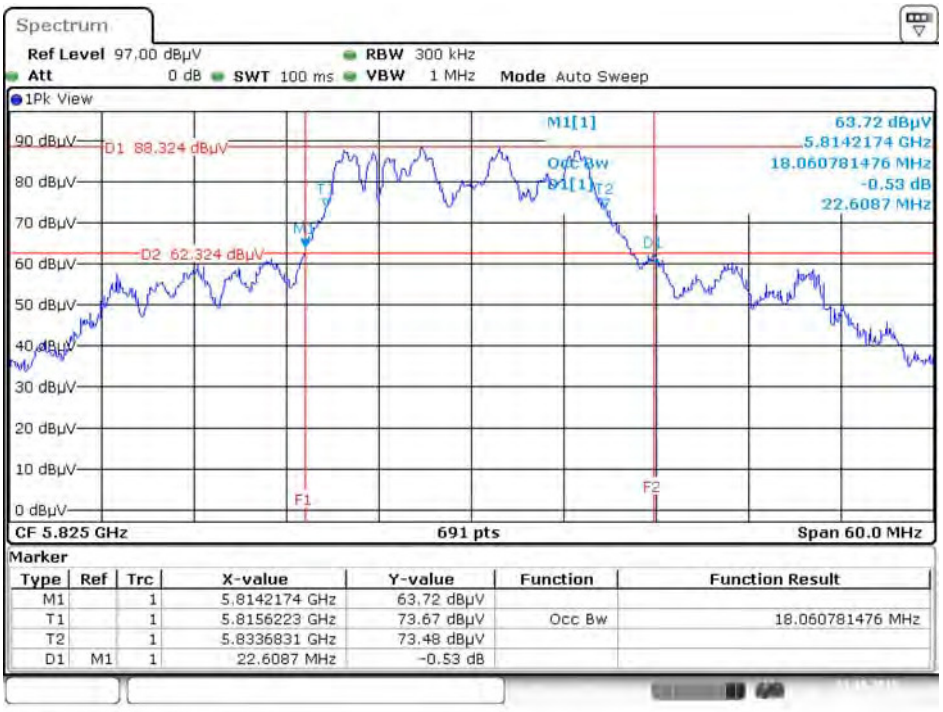
Date: 21.OCT.2015 00:24:52

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5785 MHz



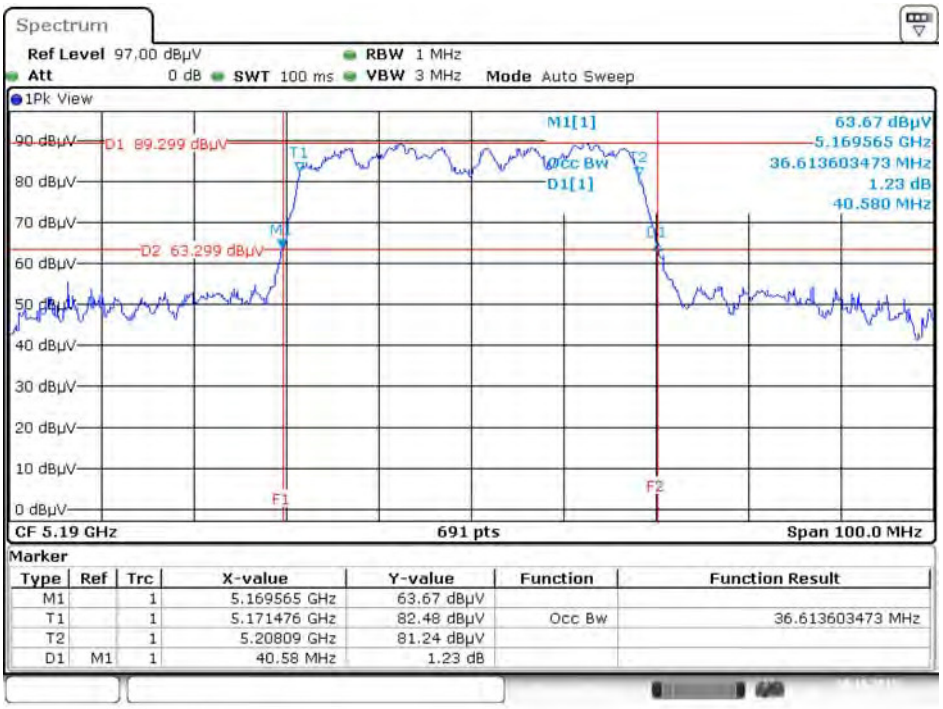
Date: 20.OCT.2015 11:39:40

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5825 MHz



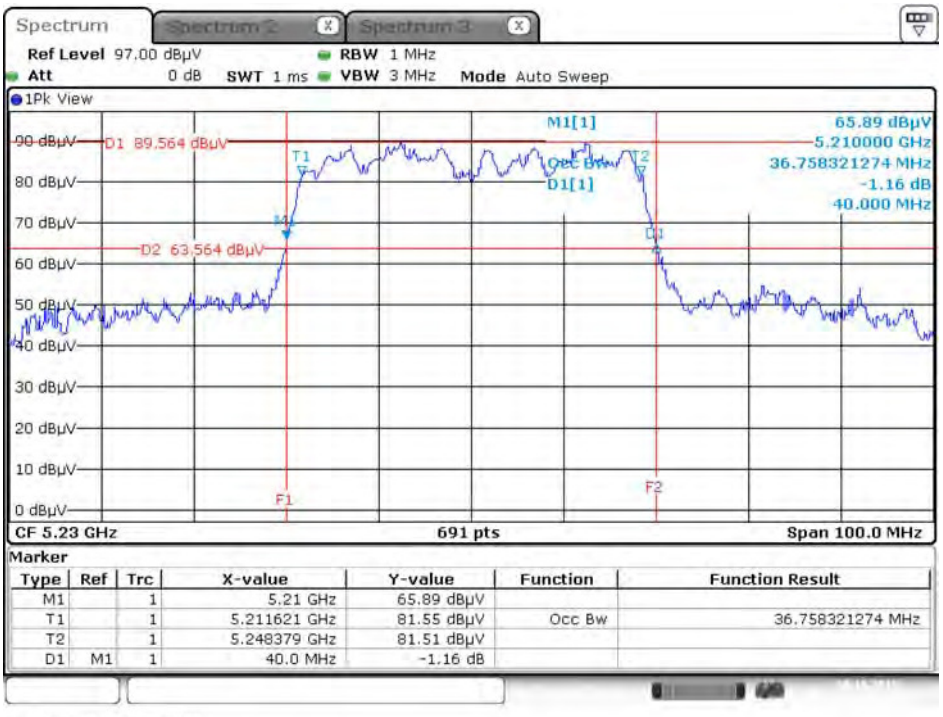
Date: 21.OCT.2015 00:27:09

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5190 MHz



Date: 20.OCT.2015 23:03:00

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 1 + Chain 2 + Chain 3 + Chain 4 / 5230 MHz



Date: 20.OCT.2015 11:41:25