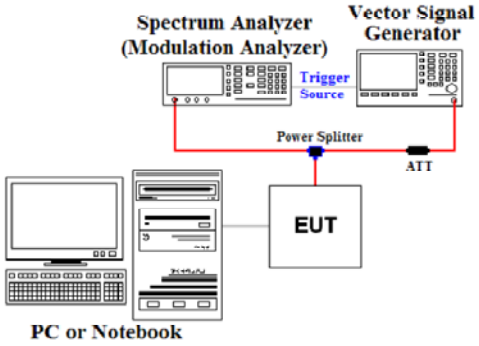
1. Please provide detail description of how the device was tested in AMC zone configuration for WiMAX compliance, test description should include test conditions, set up configuration for each bandwidth/channel /modulation and for Emission/occupied bandwidth compliance.

The test set-up for RF testing is shown in the below picture. The WiMAX CPE (EUT) is connected to the RJ-45 port of the notebook computer.



Telnet program is used for all the testing as below picture.

The telnet program is used for verifying a connection status between notebook computer and EUT and to control maximum transmitting power, channel selection, BW(5MHz & 10MHz) and TX/RX status of the DUT.
Modulation types and zone format were controlled by the Vector Signal Generator(VSG).

The EUT uses 29:18 WiMAX frame (Downlink : Uplink Symbols). Currently this is the maximum duty for WiMAX device for BRS/EBS operators. This WiMAX frame is selected using the specific downlink waveform in the VSG (Vector Signal Generator).
The EUT is 2.5 GHz WiMAX transceiver using GCT chipset which supports antenna structure for 1 TX and 2 RX. Only one antenna is used for both transmitting and receiving while the other antenna is strictly used for RX diversity.

The EUT has capable of both 10 MHz and 5 MHz uplink bandwidths.
For the 10 MHz bandwidth of AMC zone format, it has 48 sub-channels structured from 1024 subcarriers; 160 are used as spare/safeguard subcarriers, leaving 864 available for transmission. From this, 768 subcarriers for data transmission with 96 subcarriers intended for pilot use.
For the 5 MHz bandwidth of AMC zone, it contains 24 sub-channels using 512 subcarriers; 80 subcarriers as spare/safeguard subcarriers, 384 for data transmission, and 48 for pilot.
The up-link sub-frame is triggered by an Allocation Start Time contained in the information of UL-MAP. This information specifies the starting times of the Uplink and Downlink frames. In any UL sub-frame, the duty factor ranging and bandwidth information is used to ensure optimal system operation. In normal transmission, the device will transmit control signaling at the first 3 uplink symbols and then use the rest of the uplink symbols for data traffic bursts in the uplink sub-frame.

Since the first 3 symbols are also used for ranging detection purposes and are shared among other devices , its transmitting power is much smaller than the data burst symbol power. In the real usage, the data burst power will be adjusted according to the signal strength of the communication.

The VSG produces a downlink burst every 5 milliseconds which simulates the transmission of a BS operating under normal mode. This downlink burst instructs the MS to transmit for 15 symbols in the UL data zone. This UL transmission is repeated every 5 milliseconds. The transmitting power of the MS is set to maximum power.

The VSG and MS use same frequency. Since both the VSG (Base station simulator) and MS are working in TDD mode, co-operation under same frequency is not an issue.

The VSG is loaded with a BS (Base Station) downlink signal which contains the 29:18 information. The mobile station synchronizes to the signal from the VSG in frequency and time and then demodulates two maps contained in the VSG DL frame. The first map, called the DL map, specifies the number of DL symbols(29). The second map, called the UL map, specifies the number of UL symbols(18). The UL map also tells the MS to transmit a burst which occupies all data symbols and all sub-channels.

For the signal from the VSG, it looks identical to the signal that would come from a BS in the field. The intent is to make the think it is in EUT a real network. The transmission from the EUT under test conditions is exactly the same as in the field in normal operation. The only difference is that normally in the field there will be information in some of the control symbols.

The testing was done using a common 29:18 ratio as specified in the WiMAX specifications. The 29 indicates the number of downlink (from the base station) symbols, and the 18 indicates the number of uplink (transmitted from the MS) symbols. Inside the uplink, 15 of the symbols are used for data, and three of the symbols are used for sending control information to the network.

Regarding to why these numbers don't total to 48: Since AMC is dominant, this determines the allowed DL:UL ratios. In DL AMC, bursts require two symbols so DL symbol count must be an even number+1 symbol for the preamble. Hence the number of DL symbols must be an odd number. In the UL, AMC bursts require 3 symbols so UL must be a multiple of three symbols. In addition, the total number of symbols(DL+UL) is chosen to be 47 or less to allow for sufficient time to switch between DL and UL and vice versa.

There is a quiet time between the DL and UL transmission and a quiet time between the UL and DL transmission. During these quiet intervals the Base Station is neither transmitting nor receiving. The unoccupied symbols become part of this quiet time.

Ranging is performed to make sure the MS transmits in the correct time window. Data transmission is disabled when the MS is ranging. This is done to prevent the MS from transmitting at the wrong time and interfering with other users. Hence the MS is not allowed to range and transmit data at the same time.

2. Clarify if AMC is the only zone operating capability of your device. How about PUSC etc.

V7MSWC-5100 and V7MSWC-5100W have 2 zone formats such as AMC and PUSC.
The tabulated test results for both zone formats are included clause 3 of this document.

3. Provide tabulated data that confirms device emission/occupied bandwidth compliance for each bandwidth/channel/modulation

- **Occupied bandwidth data**

1. FCCID: V7MSWC-5100

Bandwidth	Zone Format	Tested Channel	QPSK 1/2 (MHz)	QPSK 3/4 (MHz)	16QAM 1/2 (MHz)	16QAM 3/4 (MHz)
5MHz	PUSC	Lowest	4.4423	4.4338	4.4329	4.4596
		Middle	4.4383	4.4404	4.4446	4.4671
		Highest	4.4415	4.4386	4.4321	4.4577
	AMC	Lowest	4.7116	4.7136	4.7130	4.7010
		Middle	4.7175	4.7070	4.7116	4.7022
		Highest	4.7023	4.7169	4.7154	4.7037
10MHz	PUSC	Lowest	9.0881	9.1126	9.0860	9.1214
		Middle	9.0940	9.1294	9.0932	9.1191
		Highest	9.1219	9.1304	9.1093	9.1130
	AMC	Lowest	9.3664	9.3453	9.3647	9.3358
		Middle	9.3698	9.3508	9.3744	9.3463
		Highest	9.3485	9.3567	9.3589	9.3438

2. FCCID: V7MSWC-5100W

Bandwidth	Zone Format	Tested Channel	QPSK 1/2 (MHz)	QPSK 3/4 (MHz)	16QAM 1/2 (MHz)	16QAM 3/4 (MHz)
5MHz	PUSC	Lowest	4.4365	4.4277	4.4412	4.4616
		Middle	4.4328	4.4405	4.4326	4.4665
		Highest	4.4378	4.4352	4.4431	4.4569
	AMC	Lowest	4.7102	4.7131	4.7022	4.7034
		Middle	4.7107	4.7121	4.6983	4.6997
		Highest	4.7061	4.7016	4.7003	4.7021
10MHz	PUSC	Lowest	9.1077	9.1049	9.1022	9.1105
		Middle	9.1188	9.1078	9.0999	9.0992
		Highest	9.1063	9.1099	9.0935	9.1173
	AMC	Lowest	9.3482	9.3566	9.3845	9.3362
		Middle	9.3536	9.3673	9.3625	9.3388
		Highest	9.3560	9.3388	9.3832	9.3434

▪ Channel Edge data

1. FCCID: V7MSWC-5100

- From channel edge and 1MHz of the channel edge(RBW: 1% of Bandwidth)

Bandwidth	Zone Format	Tested Channel	QPSK 1/2						QPSK 3/4					
			Lower			Upper			Lower			Upper		
			Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)
5MHz	PUSC	Lowest	-28.91	-13.00	15.91	-29.27	-13.00	16.27	-27.44	-13.00	14.44	-24.79	-13.00	11.79
		Middle	-25.20	-13.00	12.20	-25.85	-13.00	12.85	-25.45	-13.00	12.45	-24.83	-13.00	11.83
		Highest	-25.40	-13.00	12.40	-27.75	-13.00	14.75	-25.83	-13.00	12.83	-26.94	-13.00	13.94
	AMC	Lowest	-24.83	-13.00	11.83	-19.63	-13.00	6.63	-18.15	-13.00	5.15	-19.79	-13.00	6.79
		Middle	-24.16	-13.00	11.16	-19.71	-13.00	6.71	-23.23	-13.00	10.23	-24.73	-13.00	11.73
		Highest	-13.66	-13.00	0.66	-19.68	-13.00	6.68	-15.58	-13.00	2.58	-24.47	-13.00	11.47
10MHz	PUSC	Lowest	-29.72	-13.00	16.72	-29.32	-13.00	16.32	-29.42	-13.00	16.42	-31.23	-13.00	18.23
		Middle	-27.89	-13.00	14.89	-29.88	-13.00	16.88	-28.56	-13.00	15.56	-30.82	-13.00	17.82
		Highest	-32.07	-13.00	19.07	-31.97	-13.00	18.97	-30.89	-13.00	17.89	-32.17	-13.00	19.17
	AMC	Lowest	-29.21	-13.00	16.21	-32.73	-13.00	19.73	-23.46	-13.00	10.46	-30.13	-13.00	17.13
		Middle	-27.66	-13.00	14.66	-26.01	-13.00	13.01	-23.39	-13.00	10.39	-27.17	-13.00	14.17
		Highest	-27.22	-13.00	14.22	-26.81	-13.00	13.81	-25.96	-13.00	12.96	-32.89	-13.00	19.89

Bandwidth	Zone Format	Tested Channel	QPSK 1/2						QPSK 3/4					
			Lower			Upper			Lower			Upper		
			Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)
5MHz	PUSC	Lowest	-25.74	-13.00	12.74	-27.03	-13.00	14.03	-29.25	-13.00	16.25	-24.00	-13.00	11.00
		Middle	-24.57	-13.00	11.57	-26.01	-13.00	13.01	-27.77	-13.00	14.77	-27.94	-13.00	14.94
		Highest	-27.72	-13.00	14.72	-28.64	-13.00	15.64	-25.18	-13.00	12.18	-27.70	-13.00	14.70
	AMC	Lowest	-18.90	-13.00	5.90	-21.95	-13.00	8.95	-23.91	-13.00	10.91	-25.99	-13.00	12.99
		Middle	-21.21	-13.00	8.21	-16.28	-13.00	3.28	-23.36	-13.00	10.36	-25.07	-13.00	12.07
		Highest	-19.79	-13.00	6.79	-16.01	-13.00	3.01	-22.21	-13.00	9.21	-23.65	-13.00	10.65
10MHz	PUSC	Lowest	-29.67	-13.00	16.67	-31.49	-13.00	18.49	-29.74	-13.00	16.74	-32.85	-13.00	19.85
		Middle	-29.24	-13.00	16.24	-28.73	-13.00	15.73	-24.86	-13.00	11.86	-28.23	-13.00	15.23
		Highest	-30.08	-13.00	17.08	-27.96	-13.00	14.96	-31.78	-13.00	18.78	-30.41	-13.00	17.41
	AMC	Lowest	-24.31	-13.00	11.31	-30.05	-13.00	17.05	-28.37	-13.00	15.37	-28.30	-13.00	15.30
		Middle	-27.00	-13.00	14.00	-28.41	-13.00	15.41	-27.35	-13.00	14.35	-29.15	-13.00	16.15
		Highest	-26.03	-13.00	13.03	-27.65	-13.00	14.65	-31.00	-13.00	18.00	-28.72	-13.00	15.72

▪ Channel Edge data (Continued…)

1. FCCID: V7MSWC-5100

- Above 1MHz of the channel edge(RBW: 1MHz)

Bandwidth	Zone Format	Tested Channel	QPSK 1/2						QPSK 3/4					
			Lower			Upper			Lower			Upper		
			Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Limit (dBm)	Margin (dB)
5MHz	PUSC	Lowest	-21.99	-13.00	8.99	-23.71	-13.00	10.71	-22.97	-13.00	9.97	-27.03	-13.00	14.03
		Middle	-19.75	-13.00	6.75	-20.83	-13.00	7.83	-19.47	-13.00	6.47	-21.33	-13.00	8.33
		Highest	-21.59	-13.00	8.59	-23.82	-13.00	10.82	-22.65	-13.00	9.65	-22.85	-13.00	9.85
	AMC	Lowest	-20.61	-13.00	7.61	-22.70	-13.00	9.70	-22.31	-13.00	9.31	-23.19	-13.00	10.19
		Middle	-17.50	-13.00	4.50	-19.84	-13.00	6.84	-17.38	-13.00	4.38	-20.47	-13.00	7.47
		Highest	-17.32	-13.00	4.32	-17.42	-13.00	4.42	-18.31	-13.00	5.31	-19.07	-13.00	6.07
10MHz	PUSC	Lowest	-21.70	-13.00	8.70	-23.33	-13.00	10.33	-23.38	-13.00	10.38	-23.77	-13.00	10.77
		Middle	-19.49	-13.00	6.49	-20.15	-13.00	7.15	-20.37	-13.00	7.37	-22.95	-13.00	9.95
		Highest	-21.55	-13.00	8.55	-22.33	-13.00	9.33	-23.92	-13.00	10.92	-23.27	-13.00	10.27
	AMC	Lowest	-22.12	-13.00	9.12	-23.36	-13.00	10.36	-23.57	-13.00	10.57	-21.35	-13.00	8.35
		Middle	-18.33	-13.00	5.33	-20.16	-13.00	7.16	-19.62	-13.00	6.62	-20.92	-13.00	7.92
		Highest	-20.15	-13.00	7.15	-23.10	-13.00	10.10	-21.02	-13.00	8.02	-22.87	-13.00	9.87

Bandwidth	Zone Format	Tested Channel	QPSK 1/2						QPSK 3/4					
			Lower			Upper			Lower			Upper		
			Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Limit (dBm)	Margin (dB)
5MHz	PUSC	Lowest	-23.49	-13.00	10.49	-24.06	-13.00	11.06	-23.17	-13.00	10.17	-25.00	-13.00	12.00
		Middle	-19.21	-13.00	6.21	-21.89	-13.00	8.89	-19.35	-13.00	6.35	-21.23	-13.00	8.23
		Highest	-23.10	-13.00	10.10	-22.85	-13.00	9.85	-21.17	-13.00	8.17	-23.30	-13.00	10.30
	AMC	Lowest	-20.98	-13.00	7.98	-21.55	-13.00	8.55	-21.91	-13.00	8.91	-23.03	-13.00	10.03
		Middle	-18.96	-13.00	5.96	-20.57	-13.00	7.57	-17.86	-13.00	4.86	-20.77	-13.00	7.77
		Highest	-17.85	-13.00	4.85	-17.91	-13.00	4.91	-18.16	-13.00	5.16	-18.84	-13.00	5.84
10MHz	PUSC	Lowest	-23.35	-13.00	10.35	-22.96	-13.00	9.96	-23.37	-13.00	10.37	-22.26	-13.00	9.26
		Middle	-19.82	-13.00	6.82	-21.72	-13.00	8.72	-20.64	-13.00	7.64	-21.29	-13.00	8.29
		Highest	-23.02	-13.00	10.02	-23.93	-13.00	10.93	-21.43	-13.00	8.43	-23.24	-13.00	10.24
	AMC	Lowest	-21.25	-13.00	8.25	-22.81	-13.00	9.81	-22.53	-13.00	9.53	-22.19	-13.00	9.19
		Middle	-19.70	-13.00	6.70	-19.77	-13.00	6.77	-20.74	-13.00	7.74	-20.47	-13.00	7.47
		Highest	-20.23	-13.00	7.23	-20.56	-13.00	7.56	-22.58	-13.00	9.58	-23.57	-13.00	10.57

▪ Channel Edge data (Continued…)

2. FCCID: V7MSWC-5100W
- From channel edge and 1MHz of the channel edge(RBW: 1% of Bandwidth)

Bandwidth	Zone Format	Tested Channel	QPSK 1/2						QPSK 3/4					
			Lower			Upper			Lower			Upper		
			Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Limit (dBm)	Margin (dB)
5MHz	PUSC	Lowest	-29.27	-13.00	16.27	-28.84	-13.00	15.84	-28.02	-13.00	15.02	-25.63	-13.00	12.63
		Middle	-26.10	-13.00	13.10	-26.47	-13.00	13.47	-23.84	-13.00	10.84	-26.57	-13.00	13.57
		Highest	-25.97	-13.00	12.97	-28.07	-13.00	15.07	-26.98	-13.00	13.98	-24.90	-13.00	11.90
	AMC	Lowest	-17.26	-13.00	4.26	-22.34	-13.00	9.34	-18.39	-13.00	5.39	-19.51	-13.00	6.51
		Middle	-16.46	-13.00	3.46	-18.85	-13.00	5.85	-17.44	-13.00	4.44	-19.14	-13.00	6.14
		Highest	-18.99	-13.00	5.99	-17.03	-13.00	4.03	-19.53	-13.00	6.53	-21.79	-13.00	8.79
10MHz	PUSC	Lowest	-30.14	-13.00	17.14	-28.12	-13.00	15.12	-30.54	-13.00	17.54	-31.59	-13.00	18.59
		Middle	-27.43	-13.00	14.43	-27.97	-13.00	14.97	-27.26	-13.00	14.26	-30.37	-13.00	17.37
		Highest	-29.28	-13.00	16.28	-31.59	-13.00	18.59	-32.04	-13.00	19.04	-32.61	-13.00	19.61
	AMC	Lowest	-25.50	-13.00	12.50	-29.75	-13.00	16.75	-29.72	-13.00	16.72	-29.55	-13.00	16.55
		Middle	-25.90	-13.00	12.90	-28.21	-13.00	15.21	-23.61	-13.00	10.61	-28.48	-13.00	15.48
		Highest	-27.98	-13.00	14.98	-27.28	-13.00	14.28	-24.11	-13.00	11.11	-29.19	-13.00	16.19

Bandwidth	Zone Format	Tested Channel	QPSK 1/2						QPSK 3/4					
			Lower			Upper			Lower			Upper		
			Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Limit (dBm)	Margin (dB)
5MHz	PUSC	Lowest	-28.30	-13.00	15.30	-28.20	-13.00	15.20	-28.39	-13.00	15.39	-23.71	-13.00	10.71
		Middle	-27.58	-13.00	14.58	-25.32	-13.00	12.32	-25.51	-13.00	12.51	-22.26	-13.00	9.26
		Highest	-27.80	-13.00	14.80	-27.51	-13.00	14.51	-30.91	-13.00	17.91	-23.19	-13.00	10.19
	AMC	Lowest	-20.62	-13.00	7.62	-22.15	-13.00	9.15	-24.38	-13.00	11.38	-25.92	-13.00	12.92
		Middle	-22.27	-13.00	9.27	-25.40	-13.00	12.40	-18.01	-13.00	5.01	-24.94	-13.00	11.94
		Highest	-21.95	-13.00	8.95	-26.88	-13.00	13.88	-22.54	-13.00	9.54	-25.18	-13.00	12.18
10MHz	PUSC	Lowest	-29.82	-13.00	16.82	-29.94	-13.00	16.94	-30.55	-13.00	17.55	-30.34	-13.00	17.34
		Middle	-27.12	-13.00	14.12	-29.32	-13.00	16.32	-27.32	-13.00	14.32	-29.93	-13.00	16.93
		Highest	-29.14	-13.00	16.14	-31.06	-13.00	18.06	-30.27	-13.00	17.27	-29.21	-13.00	16.21
	AMC	Lowest	-27.61	-13.00	14.61	-23.95	-13.00	10.95	-19.70	-13.00	6.70	-29.69	-13.00	16.69
		Middle	-25.02	-13.00	12.02	-26.05	-13.00	13.05	-20.63	-13.00	7.63	-25.76	-13.00	12.76
		Highest	-22.16	-13.00	9.16	-25.84	-13.00	12.84	-21.81	-13.00	8.81	-30.49	-13.00	17.49

▪ Channel Edge data (Continued…)

2. FCCID: V7MSWC-5100W

- Above edge and 1MHz of the channel edge(RBW: 1MHz)

Bandwidth	Zone Format	Tested Channel	QPSK 1/2						QPSK 3/4					
			Lower			Upper			Lower			Upper		
			Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Limit (dBm)	Margin (dB)
5MHz	PUSC	Lowest	-22.11	-13.00	9.11	-24.08	-13.00	11.08	-24.06	-13.00	11.06	-24.67	-13.00	11.67
		Middle	-20.00	-13.00	7.00	-21.08	-13.00	8.08	-19.28	-13.00	6.28	-21.33	-13.00	8.33
		Highest	-21.10	-13.00	8.10	-21.80	-13.00	8.80	-22.16	-13.00	9.16	-22.20	-13.00	9.20
	AMC	Lowest	-21.36	-13.00	8.36	-23.25	-13.00	10.25	-21.87	-13.00	8.87	-23.63	-13.00	10.63
		Middle	-17.62	-13.00	4.62	-17.99	-13.00	4.99	-18.61	-13.00	5.61	-21.43	-13.00	8.43
		Highest	-17.79	-13.00	4.79	-19.58	-13.00	6.58	-18.75	-13.00	5.75	-21.01	-13.00	8.01
10MHz	PUSC	Lowest	-23.41	-13.00	10.41	-23.86	-13.00	10.86	-23.47	-13.00	10.47	-22.57	-13.00	9.57
		Middle	-20.86	-13.00	7.86	-22.11	-13.00	9.11	-19.58	-13.00	6.58	-21.25	-13.00	8.25
		Highest	-21.88	-13.00	8.88	-22.38	-13.00	9.38	-21.23	-13.00	8.23	-23.18	-13.00	10.18
	AMC	Lowest	-21.35	-13.00	8.35	-22.57	-13.00	9.57	-20.57	-13.00	7.57	-21.50	-13.00	8.50
		Middle	-19.04	-13.00	6.04	-20.04	-13.00	7.04	-18.02	-13.00	5.02	-22.04	-13.00	9.04
		Highest	-18.03	-13.00	5.03	-18.63	-13.00	5.63	-21.87	-13.00	8.87	-23.88	-13.00	10.88

Bandwidth	Zone Format	Tested Channel	QPSK 1/2						QPSK 3/4					
			Lower			Upper			Lower			Upper		
			Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Result (dBm)	Limit (dBm)	Margin (dB)
5MHz	PUSC	Lowest	-23.22	-13.00	10.22	-24.27	-13.00	11.27	-23.86	-13.00	10.86	-25.50	-13.00	12.50
		Middle	-19.55	-13.00	6.55	-21.68	-13.00	8.68	-19.16	-13.00	6.16	-21.46	-13.00	8.46
		Highest	-21.61	-13.00	8.61	-23.11	-13.00	10.11	-21.55	-13.00	8.55	-23.05	-13.00	10.05
	AMC	Lowest	-21.40	-13.00	8.40	-23.09	-13.00	10.09	-21.48	-13.00	8.48	-22.79	-13.00	9.79
		Middle	-17.50	-13.00	4.50	-19.33	-13.00	6.33	-17.99	-13.00	4.99	-20.15	-13.00	7.15
		Highest	-18.29	-13.00	5.29	-20.21	-13.00	7.21	-18.57	-13.00	5.57	-20.45	-13.00	7.45
10MHz	PUSC	Lowest	-22.78	-13.00	9.78	-22.37	-13.00	9.37	-22.30	-13.00	9.30	-23.64	-13.00	10.64
		Middle	-18.65	-13.00	5.65	-22.65	-13.00	9.65	-20.04	-13.00	7.04	-22.63	-13.00	9.63
		Highest	-21.40	-13.00	8.40	-23.24	-13.00	10.24	-21.90	-13.00	8.90	-22.64	-13.00	9.64
	AMC	Lowest	-23.06	-13.00	10.06	-20.76	-13.00	7.76	-23.18	-13.00	10.18	-22.33	-13.00	9.33
		Middle	-19.20	-13.00	6.20	-18.89	-13.00	5.89	-19.58	-13.00	6.58	-22.34	-13.00	9.34
		Highest	-17.87	-13.00	4.87	-21.39	-13.00	8.39	-20.90	-13.00	7.90	-22.36	-13.00	9.36

▪ Conducted Spurious Emissions data

1. FCCID: V7MSWC-5100

Bandwidth	Zone Format	Tested Channel	QPSK 1/2				QPSK 3/4			
			Freq. (GHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Freq. (GHz)	Level (dBm)	Limit (dBm)	Margin (dB)
5MHz	PUSC	Lowest	26.190	-19.24	-13.00	6.24	26.090	-18.56	-13.00	5.56
		Middle	25.760	-18.82	-13.00	5.82	24.700	-19.02	-13.00	6.02
		Highest	25.790	-19.19	-13.00	6.19	26.140	-18.54	-13.00	5.54
	AMC	Lowest	25.040	-19.77	-13.00	6.77	25.570	-18.40	-13.00	5.40
		Middle	26.150	-19.65	-13.00	6.65	26.160	-18.00	-13.00	5.00
		Highest	25.880	-19.93	-13.00	6.93	26.200	-18.10	-13.00	5.10
10MHz	PUSC	Lowest	25.830	-22.88	-13.00	9.88	25.730	-22.93	-13.00	9.93
		Middle	25.840	-23.03	-13.00	10.03	26.120	-22.95	-13.00	9.95
		Highest	25.650	-23.17	-13.00	10.17	25.800	-23.08	-13.00	10.08
	AMC	Lowest	26.320	-23.30	-13.00	10.30	26.200	-22.61	-13.00	9.61
		Middle	25.560	-22.90	-13.00	9.90	25.430	-22.21	-13.00	9.21
		Highest	26.390	-22.73	-13.00	9.73	25.940	-22.33	-13.00	9.33

Bandwidth	Zone Format	Tested Channel	16QAM 1/2				16QAM 3/4			
			Freq. (GHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Freq. (GHz)	Level (dBm)	Limit (dBm)	Margin (dB)
5MHz	PUSC	Lowest	26.090	-18.77	-13.00	5.77	25.760	-18.50	-13.00	5.50
		Middle	26.120	-18.62	-13.00	5.62	25.690	-18.47	-13.00	5.47
		Highest	25.130	-19.14	-13.00	6.14	25.450	-18.68	-13.00	5.68
	AMC	Lowest	26.170	-19.39	-13.00	6.39	26.110	-18.61	-13.00	5.61
		Middle	24.960	-19.51	-13.00	6.51	26.370	-19.11	-13.00	6.11
		Highest	26.240	-19.91	-13.00	6.91	26.170	-18.64	-13.00	5.64
10MHz	PUSC	Lowest	26.150	-22.80	-13.00	9.80	26.170	-22.75	-13.00	9.75
		Middle	26.490	-22.78	-13.00	9.78	26.080	-23.43	-13.00	10.43
		Highest	26.500	-22.91	-13.00	9.91	26.250	-22.96	-13.00	9.96
	AMC	Lowest	26.250	-22.60	-13.00	9.60	25.570	-22.59	-13.00	9.59
		Middle	25.830	-22.33	-13.00	9.33	26.090	-22.27	-13.00	9.27
		Highest	25.830	-22.20	-13.00	9.20	24.910	-22.63	-13.00	9.63

▪ **Conducted Spurious Emissions data** (Continued…)

2. FCCID: V7MSWC-5100W

Bandwidth	Zone Format	Tested Channel	QPSK 1/2				QPSK 3/4			
			Freq. (GHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Freq. (GHz)	Level (dBm)	Limit (dBm)	Margin (dB)
5MHz	PUSC	Lowest	26.070	-19.42	-13.00	6.42	26.120	-19.67	-13.00	6.67
		Middle	25.470	-19.90	-13.00	6.90	25.790	-19.65	-13.00	6.65
		Highest	25.840	-19.74	-13.00	6.74	26.200	-19.64	-13.00	6.64
	AMC	Lowest	25.630	-19.63	-13.00	6.63	25.410	-18.93	-13.00	5.93
		Middle	25.390	-19.83	-13.00	6.83	25.510	-19.61	-13.00	6.61
		Highest	26.300	-19.36	-13.00	6.36	26.130	-19.77	-13.00	6.77
10MHz	PUSC	Lowest	26.190	-18.64	-13.00	5.64	25.800	-19.83	-13.00	6.83
		Middle	26.230	-19.47	-13.00	6.47	25.790	-19.64	-13.00	6.64
		Highest	26.140	-19.32	-13.00	6.32	25.120	-19.72	-13.00	6.72
	AMC	Lowest	25.800	-19.74	-13.00	6.74	25.880	-19.92	-13.00	6.92
		Middle	26.120	-19.82	-13.00	6.82	26.440	-19.79	-13.00	6.79
		Highest	25.590	-19.95	-13.00	6.95	25.700	-19.58	-13.00	6.58

Bandwidth	Zone Format	Tested Channel	16QAM 1/2				16QAM 3/4			
			Freq. (GHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Freq. (GHz)	Level (dBm)	Limit (dBm)	Margin (dB)
5MHz	PUSC	Lowest	25.130	-19.59	-13.00	6.59	25.380	-20.00	-13.00	7.00
		Middle	26.120	-19.09	-13.00	6.09	25.470	-19.55	-13.00	6.55
		Highest	26.110	-20.20	-13.00	7.20	25.580	-19.94	-13.00	6.94
	AMC	Lowest	25.850	-19.48	-13.00	6.48	26.150	-19.34	-13.00	6.34
		Middle	26.170	-19.12	-13.00	6.12	25.500	-19.40	-13.00	6.40
		Highest	25.830	-19.52	-13.00	6.52	25.830	-19.75	-13.00	6.75
10MHz	PUSC	Lowest	25.850	-19.04	-13.00	6.04	26.190	-19.45	-13.00	6.45
		Middle	26.160	-18.41	-13.00	5.41	26.170	-18.68	-13.00	5.68
		Highest	26.240	-19.29	-13.00	6.29	25.830	-19.75	-13.00	6.75
	AMC	Lowest	25.560	-19.15	-13.00	6.15	26.140	-19.37	-13.00	6.37
		Middle	26.090	-19.97	-13.00	6.97	25.680	-19.21	-13.00	6.21
		Highest	25.810	-19.70	-13.00	6.70	26.110	-19.60	-13.00	6.60

▪ Radiated Spurious Emissions data

1. FCCID: V7MSWC-5100

Bandwidth	Harmonics	Zone Format	Modulation Type	Lowest Channel			Middle Channel			Highest Channel		
				Result (dB)	Limit (dBm)	Margin (dB)	Result (dB)	Limit (dBm)	Margin (dB)	Result (dB)	Limit (dBm)	Margin (dB)
5MHz	Second	PUSC	QPSK 1/2	-25.06	-13.00	12.06	-20.46	-13.00	7.46	-23.69	-13.00	10.69
			QPSK 3/4	-25.10	-13.00	12.10	-20.58	-13.00	7.58	-23.68	-13.00	10.68
			16QAM 1/2	-24.96	-13.00	11.96	-19.90	-13.00	6.90	-22.81	-13.00	9.81
			16QAM 3/4	-25.45	-13.00	12.45	-20.48	-13.00	7.48	-23.34	-13.00	10.34
		AMC	QPSK 1/2	-24.68	-13.00	11.68	-20.08	-13.00	7.08	-23.31	-13.00	10.31
			QPSK 3/4	-24.79	-13.00	11.79	-20.27	-13.00	7.27	-23.37	-13.00	10.37
			16QAM 1/2	-24.56	-13.00	11.56	-19.50	-13.00	6.50	-22.41	-13.00	9.41
			16QAM 3/4	-24.84	-13.00	11.84	-19.87	-13.00	6.87	-22.73	-13.00	9.73
	Third	PUSC	QPSK 1/2	-15.49	-13.00	2.49	-15.12	-13.00	2.12	-15.57	-13.00	2.57
			QPSK 3/4	-15.48	-13.00	2.48	-16.75	-13.00	3.75	-15.71	-13.00	2.71
			16QAM 1/2	-14.85	-13.00	1.85	-14.58	-13.00	1.58	-14.67	-13.00	1.67
			16QAM 3/4	-15.68	-13.00	2.68	-16.48	-13.00	3.48	-14.94	-13.00	1.94
		AMC	QPSK 1/2	-15.11	-13.00	2.11	-14.74	-13.00	1.74	-15.19	-13.00	2.19
			QPSK 3/4	-15.17	-13.00	2.17	-16.44	-13.00	3.44	-15.40	-13.00	2.40
			16QAM 1/2	-14.45	-13.00	1.45	-14.18	-13.00	1.18	-14.27	-13.00	1.27
			16QAM 3/4	-15.07	-13.00	2.07	-15.87	-13.00	2.87	-14.33	-13.00	1.33
	Fourth	PUSC	QPSK 1/2	-39.57	-13.00	26.57	-22.83	-13.00	9.83	-20.49	-13.00	7.49
			QPSK 3/4	-39.58	-13.00	26.58	-22.87	-13.00	9.87	-21.04	-13.00	8.04
			16QAM 1/2	-39.00	-13.00	26.00	-22.34	-13.00	9.34	-19.92	-13.00	6.92
			16QAM 3/4	-39.55	-13.00	26.55	-23.39	-13.00	10.39	-21.12	-13.00	8.12
		AMC	QPSK 1/2	-39.19	-13.00	26.19	-22.45	-13.00	9.45	-20.11	-13.00	7.11
			QPSK 3/4	-39.27	-13.00	26.27	-22.56	-13.00	9.56	-20.73	-13.00	7.73
			16QAM 1/2	-38.60	-13.00	25.60	-21.94	-13.00	8.94	-19.52	-13.00	6.52
			16QAM 3/4	-38.94	-13.00	25.94	-22.78	-13.00	9.78	-20.51	-13.00	7.51
10MHz	Second	PUSC	QPSK 1/2	-26.23	-13.00	13.23	-21.67	-13.00	8.67	-23.86	-13.00	10.86
			QPSK 3/4	-26.27	-13.00	13.27	-21.79	-13.00	8.79	-23.85	-13.00	10.85
			16QAM 1/2	-26.03	-13.00	13.03	-21.26	-13.00	8.26	-23.62	-13.00	10.62
			16QAM 3/4	-26.52	-13.00	13.52	-21.84	-13.00	8.84	-24.15	-13.00	11.15
		AMC	QPSK 1/2	-25.85	-13.00	12.85	-21.29	-13.00	8.29	-23.48	-13.00	10.48
			QPSK 3/4	-25.96	-13.00	12.96	-21.48	-13.00	8.48	-23.54	-13.00	10.54
			16QAM 1/2	-25.63	-13.00	12.63	-20.86	-13.00	7.86	-23.22	-13.00	10.22
			16QAM 3/4	-25.91	-13.00	12.91	-21.23	-13.00	8.23	-23.54	-13.00	10.54
	Third	PUSC	QPSK 1/2	-20.65	-13.00	7.65	-18.73	-13.00	5.73	-20.97	-13.00	7.97
			QPSK 3/4	-20.64	-13.00	7.64	-20.36	-13.00	7.36	-21.11	-13.00	8.11
			16QAM 1/2	-20.16	-13.00	7.16	-18.30	-13.00	5.30	-20.28	-13.00	7.28
			16QAM 3/4	-21.08	-13.00	8.08	-20.48	-13.00	7.48	-20.55	-13.00	7.55
		AMC	QPSK 1/2	-20.27	-13.00	7.27	-18.35	-13.00	5.35	-20.59	-13.00	7.59
			QPSK 3/4	-20.33	-13.00	7.33	-20.05	-13.00	7.05	-20.80	-13.00	7.80
			16QAM 1/2	-19.76	-13.00	6.76	-17.90	-13.00	4.90	-19.88	-13.00	6.88
			16QAM 3/4	-20.47	-13.00	7.47	-19.87	-13.00	6.87	-19.94	-13.00	6.94
	Fourth	PUSC	QPSK 1/2	-41.70	-13.00	28.70	-30.78	-13.00	17.78	-23.87	-13.00	10.87
			QPSK 3/4	-41.85	-13.00	28.85	-30.79	-13.00	17.79	-24.42	-13.00	11.42
			16QAM 1/2	-41.99	-13.00	28.99	-30.15	-13.00	17.15	-23.02	-13.00	10.02
			16QAM 3/4	-42.54	-13.00	29.54	-31.40	-13.00	18.40	-23.88	-13.00	10.88
		AMC	QPSK 1/2	-41.32	-13.00	28.32	-30.40	-13.00	17.40	-23.49	-13.00	10.49
			QPSK 3/4	-41.54	-13.00	28.54	-30.48	-13.00	17.48	-24.11	-13.00	11.11
			16QAM 1/2	-41.59	-13.00	28.59	-29.75	-13.00	16.75	-22.62	-13.00	9.62
			16QAM 3/4	-41.93	-13.00	28.93	-30.79	-13.00	17.79	-23.27	-13.00	10.27

▪ Radiated Spurious Emissions data (Continued…)

2. FCCID: V7MSWC-5100W

Bandwidth	Harmonics	Zone Format	Modulation Type	Lowest Channel			Middle Channel			Highest Channel		
				Result (dB)	Limit (dBm)	Margin (dB)	Result (dB)	Limit (dBm)	Margin (dB)	Result (dB)	Limit (dBm)	Margin (dB)
5MHz	Second	PUSC	QPSK 1/2	-20.68	-13.00	7.68	-21.00	-13.00	8.00	-16.30	-13.00	3.30
			QPSK 3/4	-20.72	-13.00	7.72	-21.12	-13.00	8.12	-16.29	-13.00	3.29
			16QAM 1/2	-20.26	-13.00	7.26	-20.46	-13.00	7.46	-15.71	-13.00	2.71
			16QAM 3/4	-20.75	-13.00	7.75	-21.04	-13.00	8.04	-16.24	-13.00	3.24
		AMC	QPSK 1/2	-20.30	-13.00	7.30	-20.62	-13.00	7.62	-15.92	-13.00	2.92
			QPSK 3/4	-20.41	-13.00	7.41	-20.81	-13.00	7.81	-15.98	-13.00	2.98
			16QAM 1/2	-19.86	-13.00	6.86	-20.06	-13.00	7.06	-15.31	-13.00	2.31
			16QAM 3/4	-20.14	-13.00	7.14	-20.43	-13.00	7.43	-15.63	-13.00	2.63
	Third	PUSC	QPSK 1/2	-18.48	-13.00	5.48	-19.62	-13.00	6.62	-15.50	-13.00	2.50
			QPSK 3/4	-18.47	-13.00	5.47	-21.25	-13.00	8.25	-15.64	-13.00	2.64
			16QAM 1/2	-17.93	-13.00	4.93	-18.95	-13.00	5.95	-15.27	-13.00	2.27
			16QAM 3/4	-19.02	-13.00	6.02	-21.18	-13.00	8.18	-15.54	-13.00	2.54
		AMC	QPSK 1/2	-18.10	-13.00	5.10	-19.24	-13.00	6.24	-15.12	-13.00	2.12
			QPSK 3/4	-18.16	-13.00	5.16	-20.94	-13.00	7.94	-15.33	-13.00	2.33
			16QAM 1/2	-17.53	-13.00	4.53	-18.55	-13.00	5.55	-14.87	-13.00	1.87
			16QAM 3/4	-18.41	-13.00	5.41	-20.57	-13.00	7.57	-14.93	-13.00	1.93
	Fourth	PUSC	QPSK 1/2	-29.47	-13.00	16.47	-20.35	-13.00	7.35	-21.05	-13.00	8.05
			QPSK 3/4	-29.46	-13.00	16.46	-20.44	-13.00	7.44	-21.60	-13.00	8.60
			16QAM 1/2	-29.21	-13.00	16.21	-19.90	-13.00	6.90	-21.18	-13.00	8.18
			16QAM 3/4	-29.76	-13.00	16.76	-20.88	-13.00	7.88	-22.04	-13.00	9.04
		AMC	QPSK 1/2	-29.09	-13.00	16.09	-19.97	-13.00	6.97	-20.67	-13.00	7.67
			QPSK 3/4	-29.15	-13.00	16.15	-20.13	-13.00	7.13	-21.29	-13.00	8.29
			16QAM 1/2	-28.81	-13.00	15.81	-19.50	-13.00	6.50	-20.78	-13.00	7.78
			16QAM 3/4	-29.15	-13.00	16.15	-20.27	-13.00	7.27	-21.43	-13.00	8.43
10MHz	Second	PUSC	QPSK 1/2	-24.45	-13.00	11.45	-21.92	-13.00	8.92	-18.58	-13.00	5.58
			QPSK 3/4	-24.49	-13.00	11.49	-22.04	-13.00	9.04	-18.57	-13.00	5.57
			16QAM 1/2	-24.00	-13.00	11.00	-21.57	-13.00	8.57	-18.51	-13.00	5.51
			16QAM 3/4	-24.49	-13.00	11.49	-22.15	-13.00	9.15	-19.04	-13.00	6.04
		AMC	QPSK 1/2	-24.07	-13.00	11.07	-21.54	-13.00	8.54	-18.20	-13.00	5.20
			QPSK 3/4	-24.18	-13.00	11.18	-21.73	-13.00	8.73	-18.26	-13.00	5.26
			16QAM 1/2	-23.60	-13.00	10.60	-21.17	-13.00	8.17	-18.11	-13.00	5.11
			16QAM 3/4	-23.88	-13.00	10.88	-21.54	-13.00	8.54	-18.43	-13.00	5.43
	Third	PUSC	QPSK 1/2	-23.74	-13.00	10.74	-23.66	-13.00	10.66	-18.43	-13.00	5.43
			QPSK 3/4	-23.73	-13.00	10.73	-25.29	-13.00	12.29	-18.57	-13.00	5.57
			16QAM 1/2	-23.48	-13.00	10.48	-23.04	-13.00	10.04	-17.65	-13.00	4.65
			16QAM 3/4	-24.32	-13.00	11.32	-24.34	-13.00	11.34	-17.92	-13.00	4.92
		AMC	QPSK 1/2	-23.36	-13.00	10.36	-23.28	-13.00	10.28	-18.05	-13.00	5.05
			QPSK 3/4	-23.42	-13.00	10.42	-24.98	-13.00	11.98	-18.26	-13.00	5.26
			16QAM 1/2	-23.08	-13.00	10.08	-22.64	-13.00	9.64	-17.25	-13.00	4.25
			16QAM 3/4	-23.71	-13.00	10.71	-23.73	-13.00	10.73	-17.31	-13.00	4.31
	Fourth	PUSC	QPSK 1/2	-37.46	-13.00	24.46	-27.22	-13.00	14.22	-25.41	-13.00	12.41
			QPSK 3/4	-37.43	-13.00	24.43	-27.23	-13.00	14.23	-25.96	-13.00	12.96
			16QAM 1/2	-37.08	-13.00	24.08	-25.84	-13.00	12.84	-24.93	-13.00	11.93
			16QAM 3/4	-37.63	-13.00	24.63	-27.24	-13.00	14.24	-25.78	-13.00	12.78
		AMC	QPSK 1/2	-37.08	-13.00	24.08	-26.84	-13.00	13.84	-25.03	-13.00	12.03
			QPSK 3/4	-37.12	-13.00	24.12	-26.92	-13.00	13.92	-25.65	-13.00	12.65
			16QAM 1/2	-36.68	-13.00	23.68	-25.44	-13.00	12.44	-24.53	-13.00	11.53
			16QAM 3/4	-37.02	-13.00	24.02	-26.63	-13.00	13.63	-25.17	-13.00	12.17