

			NV	10	-40000.00	-6.962576	20	PASS
			NV	20	-60000.00	-10.443864	20	PASS
			NV	30	-60000.00	-10.443864	20	PASS
			NV	40	-60000.00	-10.443864	20	PASS
			NV	50	-80000.00	-13.925152	20	PASS
	Ant1	5785	NV	-30	-60000.00	-10.371651	20	PASS
			NV	-20	-60000.00	-10.371651	20	PASS
			NV	-10	-60000.00	-10.371651	20	PASS
			NV	0	-60000.00	-10.371651	20	PASS
			NV	10	-40000.00	-6.914434	20	PASS
			NV	20	-40000.00	-6.914434	20	PASS
			NV	30	-40000.00	-6.914434	20	PASS
			NV	40	-40000.00	-6.914434	20	PASS
			NV	50	-40000.00	-6.914434	20	PASS
			Ant2	5785	NV	-30	-40000.00	-6.914434
	NV	-20			-60000.00	-10.371651	20	PASS
	NV	-10			-60000.00	-10.371651	20	PASS
	NV	0			-40000.00	-6.914434	20	PASS
	NV	10			-60000.00	-10.371651	20	PASS
	NV	20			-60000.00	-10.371651	20	PASS
	NV	30			-60000.00	-10.371651	20	PASS
	NV	40			-40000.00	-6.914434	20	PASS
	Ant1	5825	NV	50	-40000.00	-6.914434	20	PASS
			NV	-30	-60000.00	-10.300429	20	PASS
			NV	-20	-40000.00	-6.866953	20	PASS
			NV	-10	-60000.00	-10.300429	20	PASS
			NV	0	-60000.00	-10.300429	20	PASS
			NV	10	-40000.00	-6.866953	20	PASS
			NV	20	-40000.00	-6.866953	20	PASS
			NV	30	-60000.00	-10.300429	20	PASS
	Ant2	5825	NV	40	-60000.00	-10.300429	20	PASS
			NV	50	-60000.00	-10.300429	20	PASS
			NV	-30	-60000.00	-10.300429	20	PASS
			NV	-20	-60000.00	-10.300429	20	PASS
			NV	-10	-60000.00	-10.300429	20	PASS
NV			0	-60000.00	-10.300429	20	PASS	
NV			10	-40000.00	-6.866953	20	PASS	
NV			20	-60000.00	-10.300429	20	PASS	
11N40MIMO	Ant1	5190	NV	30	-60000.00	-10.300429	20	PASS
			NV	40	-60000.00	-10.300429	20	PASS
			NV	50	-40000.00	-6.866953	20	PASS
			NV	-30	-40000.00	-7.707129	20	PASS
			NV	-20	-40000.00	-7.707129	20	PASS
			NV	-10	-40000.00	-7.707129	20	PASS
			NV	0	-40000.00	-7.707129	20	PASS
			NV	10	-40000.00	-7.707129	20	PASS
	Ant2	5190	NV	20	-40000.00	-7.707129	20	PASS
			NV	30	-40000.00	-7.707129	20	PASS
			NV	40	-40000.00	-7.707129	20	PASS
			NV	50	-40000.00	-7.707129	20	PASS
			NV	-30	-40000.00	-7.707129	20	PASS
			NV	-20	-40000.00	-7.707129	20	PASS
			NV	-10	-40000.00	-7.707129	20	PASS
Ant1	5230	NV	0	-40000.00	-7.707129	20	PASS	
		NV	10	-40000.00	-7.707129	20	PASS	
		NV	20	-40000.00	-7.707129	20	PASS	
		NV	30	-40000.00	-7.707129	20	PASS	
		NV	40	0.00	0.000000	20	PASS	
			NV	50	-40000.00	-7.707129	20	PASS
			NV	-30	-40000.00	-7.648184	20	PASS
			NV	-20	-40000.00	-7.648184	20	PASS
			NV	-10	-40000.00	-7.648184	20	PASS
			NV	0	-40000.00	-7.648184	20	PASS
			NV	10	0.00	0.000000	20	PASS

		NV	20	-40000.00	-7.648184	20	PASS
		NV	30	-40000.00	-7.648184	20	PASS
		NV	40	-40000.00	-7.648184	20	PASS
		NV	50	-40000.00	-7.648184	20	PASS
		NV	-30	-40000.00	-7.648184	20	PASS
		NV	-20	0.00	0.000000	20	PASS
		NV	-10	-40000.00	-7.648184	20	PASS
		NV	0	-40000.00	-7.648184	20	PASS
		NV	10	-40000.00	-7.648184	20	PASS
		NV	20	-40000.00	-7.648184	20	PASS
		NV	30	-40000.00	-7.648184	20	PASS
		NV	40	-40000.00	-7.648184	20	PASS
		NV	50	-40000.00	-7.648184	20	PASS
		NV	-30	-40000.00	-7.590133	20	PASS
		NV	-20	-40000.00	-7.590133	20	PASS
		NV	-10	-40000.00	-7.590133	20	PASS
		NV	0	0.00	0.000000	20	PASS
		NV	10	-80000.00	-15.180266	20	PASS
		NV	20	-40000.00	-7.590133	20	PASS
		NV	30	-40000.00	-7.590133	20	PASS
		NV	40	-40000.00	-7.590133	20	PASS
		NV	50	-40000.00	-7.590133	20	PASS
		NV	-30	-40000.00	-7.590133	20	PASS
		NV	-20	0.00	0.000000	20	PASS
		NV	-10	-40000.00	-7.590133	20	PASS
		NV	0	0.00	0.000000	20	PASS
		NV	10	-40000.00	-7.590133	20	PASS
		NV	20	-40000.00	-7.590133	20	PASS
		NV	30	-40000.00	-7.590133	20	PASS
		NV	40	-40000.00	-7.590133	20	PASS
		NV	50	0.00	0.000000	20	PASS
		NV	-30	-40000.00	-7.532957	20	PASS
		NV	-20	-40000.00	-7.532957	20	PASS
		NV	-10	-40000.00	-7.532957	20	PASS
		NV	0	-40000.00	-7.532957	20	PASS
		NV	10	-40000.00	-7.532957	20	PASS
		NV	20	-40000.00	-7.532957	20	PASS
		NV	30	-40000.00	-7.532957	20	PASS
		NV	40	0.00	0.000000	20	PASS
		NV	50	-40000.00	-7.532957	20	PASS
		NV	-30	0.00	0.000000	20	PASS
		NV	-20	-40000.00	-7.532957	20	PASS
		NV	-10	-40000.00	-7.532957	20	PASS
		NV	0	-40000.00	-7.532957	20	PASS
		NV	10	0.00	0.000000	20	PASS
		NV	20	0.00	0.000000	20	PASS
		NV	30	-40000.00	-7.532957	20	PASS
		NV	40	-40000.00	-7.532957	20	PASS
		NV	50	-40000.00	-7.532957	20	PASS
		NV	-30	-40000.00	-7.259528	20	PASS
		NV	-20	-40000.00	-7.259528	20	PASS
		NV	-10	-40000.00	-7.259528	20	PASS
		NV	0	-40000.00	-7.259528	20	PASS
		NV	10	-40000.00	-7.259528	20	PASS
		NV	20	-40000.00	-7.259528	20	PASS
		NV	30	-40000.00	-7.259528	20	PASS
		NV	40	-40000.00	-7.259528	20	PASS
		NV	50	-40000.00	-7.259528	20	PASS
		NV	-30	0.00	0.000000	20	PASS
		NV	-20	-40000.00	-7.259528	20	PASS
		NV	-10	-40000.00	-7.259528	20	PASS
		NV	0	-40000.00	-7.259528	20	PASS
		NV	10	-40000.00	-7.259528	20	PASS
		NV	20	-40000.00	-7.259528	20	PASS

		NV	30	-40000.00	-7.259528	20	PASS		
		NV	40	-40000.00	-7.259528	20	PASS		
		NV	50	-40000.00	-7.259528	20	PASS		
Ant1	5550	NV	-30	-40000.00	-7.207207	20	PASS		
		NV	-20	-40000.00	-7.207207	20	PASS		
		NV	-10	0.00	0.000000	20	PASS		
		NV	0	-80000.00	-14.414414	20	PASS		
		NV	10	-40000.00	-7.207207	20	PASS		
		NV	20	-40000.00	-7.207207	20	PASS		
		NV	30	-40000.00	-7.207207	20	PASS		
		NV	40	-40000.00	-7.207207	20	PASS		
		NV	50	-40000.00	-7.207207	20	PASS		
		Ant2	5550	NV	-30	-40000.00	-7.207207	20	PASS
				NV	-20	-40000.00	-7.207207	20	PASS
NV	-10			-80000.00	-14.414414	20	PASS		
NV	0			-40000.00	-7.207207	20	PASS		
NV	10			-40000.00	-7.207207	20	PASS		
NV	20			-40000.00	-7.207207	20	PASS		
NV	30			-40000.00	-7.207207	20	PASS		
NV	40			-40000.00	-7.207207	20	PASS		
Ant1	5670	NV	-30	0.00	0.000000	20	PASS		
		NV	-20	-40000.00	-7.054674	20	PASS		
		NV	-10	0.00	0.000000	20	PASS		
		NV	0	-40000.00	-7.054674	20	PASS		
		NV	10	-40000.00	-7.054674	20	PASS		
		NV	20	-40000.00	-7.054674	20	PASS		
		NV	30	-40000.00	-7.054674	20	PASS		
		NV	40	-40000.00	-7.054674	20	PASS		
Ant2	5670	NV	-30	-40000.00	-7.054674	20	PASS		
		NV	-20	-40000.00	-7.054674	20	PASS		
		NV	-10	-40000.00	-7.054674	20	PASS		
		NV	0	80000.00	14.109347	20	PASS		
		NV	10	-40000.00	-7.054674	20	PASS		
		NV	20	-40000.00	-7.054674	20	PASS		
		NV	30	-40000.00	-7.054674	20	PASS		
		NV	40	0.00	0.000000	20	PASS		
Ant1	5710	NV	50	-40000.00	-7.054674	20	PASS		
		NV	-30	-40000.00	-7.005254	20	PASS		
		NV	-20	-40000.00	-7.005254	20	PASS		
		NV	-10	-40000.00	-7.005254	20	PASS		
		NV	0	-40000.00	-7.005254	20	PASS		
		NV	10	-40000.00	-7.005254	20	PASS		
		NV	20	-40000.00	-7.005254	20	PASS		
		NV	30	-40000.00	-7.005254	20	PASS		
Ant2	5710	NV	40	-40000.00	-7.005254	20	PASS		
		NV	50	-40000.00	-7.005254	20	PASS		
		NV	-30	-40000.00	-7.005254	20	PASS		
		NV	-20	-40000.00	-7.005254	20	PASS		
		NV	-10	-40000.00	-7.005254	20	PASS		
		NV	0	-40000.00	-7.005254	20	PASS		
		NV	10	-40000.00	-7.005254	20	PASS		
		NV	20	-40000.00	-7.005254	20	PASS		
Ant1	5755	NV	30	-80000.00	-14.010508	20	PASS		
		NV	40	-40000.00	-7.005254	20	PASS		
		NV	50	-40000.00	-7.005254	20	PASS		
		NV	-30	-40000.00	-6.950478	20	PASS		
		NV	-20	-40000.00	-6.950478	20	PASS		
		NV	-10	-40000.00	-6.950478	20	PASS		
		NV	0	-40000.00	-6.950478	20	PASS		
		NV	10	-40000.00	-6.950478	20	PASS		
NV	20	-40000.00	-6.950478	20	PASS				
NV	30	-80000.00	-13.900956	20	PASS				

	Ant2	5755	NV	40	-40000.00	-6.950478	20	PASS	
			NV	50	-40000.00	-6.950478	20	PASS	
			NV	-30	-40000.00	-6.950478	20	PASS	
			NV	-20	0.00	0.000000	20	PASS	
			NV	-10	-40000.00	-6.950478	20	PASS	
			NV	0	-40000.00	-6.950478	20	PASS	
			NV	10	-40000.00	-6.950478	20	PASS	
			NV	20	-80000.00	-13.900956	20	PASS	
			NV	30	-40000.00	-6.950478	20	PASS	
			NV	40	-40000.00	-6.950478	20	PASS	
	Ant1	5795	NV	-30	-40000.00	-6.902502	20	PASS	
			NV	-20	-40000.00	-6.902502	20	PASS	
			NV	-10	-40000.00	-6.902502	20	PASS	
			NV	0	-40000.00	-6.902502	20	PASS	
			NV	10	-40000.00	-6.902502	20	PASS	
			NV	20	-40000.00	-6.902502	20	PASS	
			NV	30	-40000.00	-6.902502	20	PASS	
			NV	40	-40000.00	-6.902502	20	PASS	
			NV	50	-40000.00	-6.902502	20	PASS	
			Ant2	5795	NV	-30	0.00	0.000000	20
	NV	-20			-40000.00	-6.902502	20	PASS	
	NV	-10			-40000.00	-6.902502	20	PASS	
	NV	0			-40000.00	-6.902502	20	PASS	
	NV	10			-40000.00	-6.902502	20	PASS	
	NV	20			-40000.00	-6.902502	20	PASS	
	NV	30			-40000.00	-6.902502	20	PASS	
	NV	40			-40000.00	-6.902502	20	PASS	
	11AC80MIMO	Ant1	5210	NV	-30	0.00	0.000000	20	PASS
				NV	-20	0.00	0.000000	20	PASS
				NV	-10	0.00	0.000000	20	PASS
NV				0	0.00	0.000000	20	PASS	
NV				10	0.00	0.000000	20	PASS	
NV				20	0.00	0.000000	20	PASS	
NV				30	0.00	0.000000	20	PASS	
NV				40	-80000.00	-15.355086	20	PASS	
NV				50	0.00	0.000000	20	PASS	
Ant2				5210	NV	-30	-80000.00	-15.355086	20
		NV	-20		0.00	0.000000	20	PASS	
		NV	-10		-80000.00	-15.355086	20	PASS	
		NV	0		-80000.00	-15.355086	20	PASS	
		NV	10		80000.00	15.355086	20	PASS	
		NV	20		0.00	0.000000	20	PASS	
		NV	30		0.00	0.000000	20	PASS	
		NV	40		0.00	0.000000	20	PASS	
		NV	50		-80000.00	-15.355086	20	PASS	
		Ant1	5290		NV	-30	-80000.00	-15.122873	20
NV				-20	0.00	0.000000	20	PASS	
NV				-10	0.00	0.000000	20	PASS	
NV				0	0.00	0.000000	20	PASS	
NV				10	-80000.00	-15.122873	20	PASS	
NV				20	0.00	0.000000	20	PASS	
NV				30	0.00	0.000000	20	PASS	
NV				40	0.00	0.000000	20	PASS	
NV				50	0.00	0.000000	20	PASS	
Ant2				5290	NV	-30	0.00	0.000000	20
		NV	-20		0.00	0.000000	20	PASS	
		NV	-10		0.00	0.000000	20	PASS	
	NV	0	0.00		0.000000	20	PASS		
	NV	10	0.00		0.000000	20	PASS		
	NV	20	0.00		0.000000	20	PASS		
	NV	30	0.00		0.000000	20	PASS		
	NV	40	0.00		0.000000	20	PASS		

Ant1	5530	NV	50	0.00	0.000000	20	PASS
		NV	-30	0.00	0.000000	20	PASS
		NV	-20	0.00	0.000000	20	PASS
		NV	-10	0.00	0.000000	20	PASS
		NV	0	0.00	0.000000	20	PASS
		NV	10	0.00	0.000000	20	PASS
		NV	20	0.00	0.000000	20	PASS
		NV	30	0.00	0.000000	20	PASS
		NV	40	-80000.00	-14.466546	20	PASS
		NV	50	0.00	0.000000	20	PASS
		NV	-30	0.00	0.000000	20	PASS
		NV	-20	0.00	0.000000	20	PASS
		NV	-10	-80000.00	-14.466546	20	PASS
		NV	0	0.00	0.000000	20	PASS
		NV	10	0.00	0.000000	20	PASS
		NV	20	0.00	0.000000	20	PASS
		NV	30	-80000.00	-14.466546	20	PASS
		NV	40	-80000.00	-14.466546	20	PASS
NV	50	-80000.00	-14.466546	20	PASS		
Ant1	5610	NV	-30	0.00	0.000000	20	PASS
		NV	-20	-80000.00	-14.260250	20	PASS
		NV	-10	0.00	0.000000	20	PASS
		NV	0	0.00	0.000000	20	PASS
		NV	10	0.00	0.000000	20	PASS
		NV	20	0.00	0.000000	20	PASS
		NV	30	-80000.00	-14.260250	20	PASS
		NV	40	0.00	0.000000	20	PASS
		NV	50	0.00	0.000000	20	PASS
		NV	-30	0.00	0.000000	20	PASS
Ant2	5610	NV	-20	0.00	0.000000	20	PASS
		NV	-10	0.00	0.000000	20	PASS
		NV	0	0.00	0.000000	20	PASS
		NV	10	-80000.00	-14.260250	20	PASS
		NV	20	0.00	0.000000	20	PASS
		NV	30	-80000.00	-14.260250	20	PASS
		NV	40	-80000.00	-14.260250	20	PASS
		NV	50	0.00	0.000000	20	PASS
		NV	-30	0.00	0.000000	20	PASS
		NV	-20	0.00	0.000000	20	PASS
Ant1	5690	NV	-10	0.00	0.000000	20	PASS
		NV	0	0.00	0.000000	20	PASS
		NV	10	0.00	0.000000	20	PASS
		NV	20	0.00	0.000000	20	PASS
		NV	30	0.00	0.000000	20	PASS
		NV	40	80000.00	14.059754	20	PASS
		NV	50	0.00	0.000000	20	PASS
		NV	-30	-80000.00	-14.059754	20	PASS
		NV	-20	0.00	0.000000	20	PASS
		NV	-10	0.00	0.000000	20	PASS
Ant2	5690	NV	0	0.00	0.000000	20	PASS
		NV	10	0.00	0.000000	20	PASS
		NV	20	0.00	0.000000	20	PASS
		NV	30	0.00	0.000000	20	PASS
		NV	40	0.00	0.000000	20	PASS
		NV	50	0.00	0.000000	20	PASS
		NV	-30	0.00	0.000000	20	PASS
		NV	-20	0.00	0.000000	20	PASS
		NV	-10	0.00	0.000000	20	PASS
		NV	0	-80000.00	-13.852814	20	PASS
Ant1	5775	NV	10	0.00	0.000000	20	PASS
		NV	20	0.00	0.000000	20	PASS
		NV	30	0.00	0.000000	20	PASS
		NV	40	-80000.00	-13.852814	20	PASS
		NV	50	0.00	0.000000	20	PASS
		NV	-30	0.00	0.000000	20	PASS
		NV	-20	0.00	0.000000	20	PASS
		NV	-10	0.00	0.000000	20	PASS

Ant2	5775	NV	-30	0.00	0.000000	20	PASS
		NV	-20	0.00	0.000000	20	PASS
		NV	-10	0.00	0.000000	20	PASS
		NV	0	-80000.00	-13.852814	20	PASS
		NV	10	0.00	0.000000	20	PASS
		NV	20	0.00	0.000000	20	PASS
		NV	30	0.00	0.000000	20	PASS
		NV	40	0.00	0.000000	20	PASS
		NV	50	0.00	0.000000	20	PASS

11. Dynamic Frequency Selection

11.1. Applicability of DFS requirements

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	<input type="checkbox"/> Master	<input checked="" type="checkbox"/> Client Without Radar Detection	<input type="checkbox"/> Client with Radar Detection
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode	
	<input type="checkbox"/> Master Device or Client with Radar Detection	<input checked="" type="checkbox"/> Client Without Radar Detection
DFS Detection Threshold	Yes	Not required
Channel Closing Transmission Time	Yes	Yes
Channel Move Time	Yes	Yes
U-NII Detection Bandwidth	Yes	Not required

Additional requirements for devices with multiple bandwidth modes	<input type="checkbox"/> Master Device or Client with Radar Detection	<input checked="" type="checkbox"/> Client Without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required

Note: Frequencies selected for statistical performance check should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.

11.2. Limit

(1) DFS Detection Thresholds

Table 3: DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP \geq 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm

Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.
 Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.
 Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.

(2) DFS Response Requirements

Table 4: DFS Response Requirement Values

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

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.
 Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required facilitating a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.
 Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

11.3. Parameters of radar test waveforms

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

Table 5 Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A	Roundup $\left\{ \frac{1}{360} \cdot \left(\frac{19 \cdot 10^6}{\text{PRI}_{\mu\text{sec}}} \right) \right\}$	60%	30
		Test B			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120
<p>Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.</p> <p>Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a</p> <p>Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A</p>					

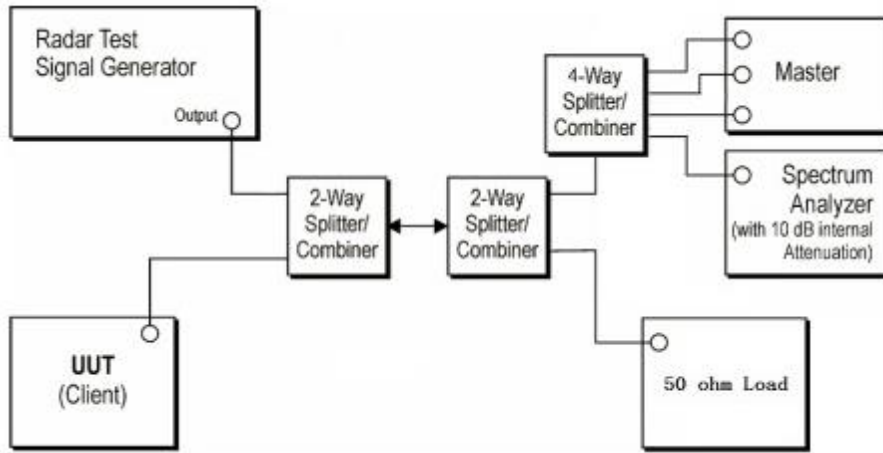
A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B. Test aggregate is average of the percentage of successful detections of short pulse radar types 1-4

11.4. Calibration of radar waveform

Radar Waveform Calibration Procedure:

- (1) A 50 ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to place of the master
- (2) The interference Radar Detection Threshold Level is $-62\text{dBm} + 0\text{dBi} + 1\text{dB} = -61\text{dBm}$ that had been taken into account the output power range and antenna gain.
- (3) The following equipment setup was used to calibrate the conducted radar waveform. A vector signal generator was utilized to establish the test signal level for radar type 0. During this process there were no transmissions by either the master or client device. The spectrum analyzer was switched to the zero spans (time domain) at the frequency of the radar waveform generator. Peak detection was used. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3 MHz. The spectrum analyzer had offset -1.0dB to compensate RF cable loss 1.0dB .
- (4) The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was $-62\text{dBm} + 0\text{dBi} + 1\text{dB} = -61\text{dBm}$. Capture the spectrum analyzer plots on short pulse radar waveform.

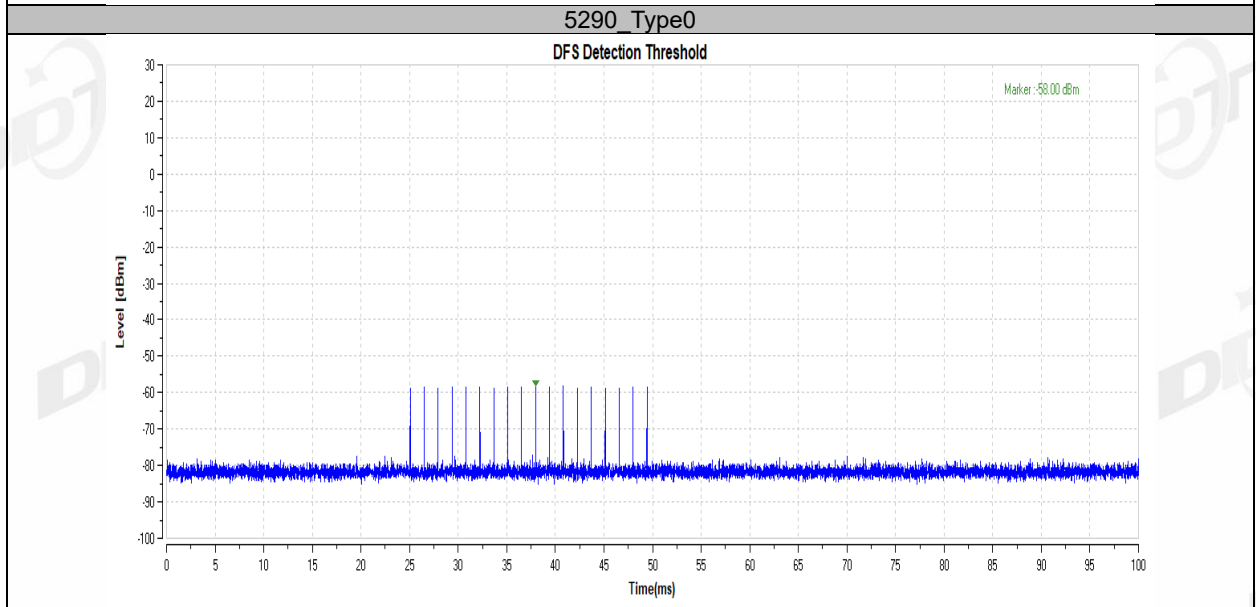
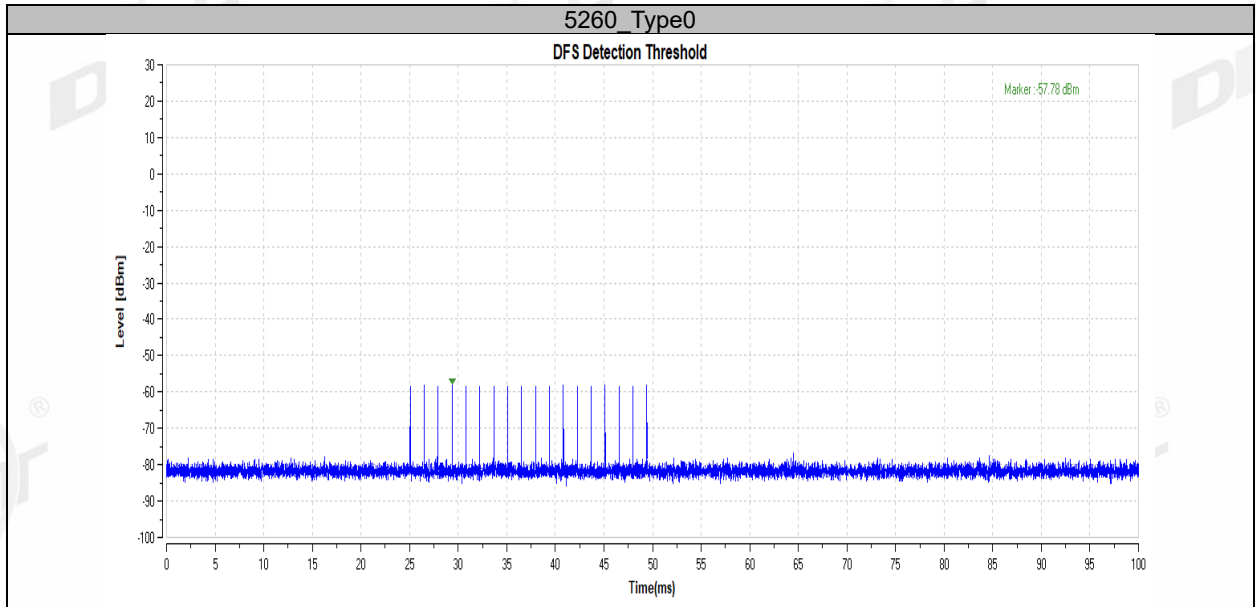
Conducted Calibration Setup:



- Note: 1. Use the software "Web" to set the frequency channel.
 2. EUT is not support TPC and not with Radar detection.

Radar Waveform Calibration Result:

Frequency[dbm]	Radar Type	Result	Limit[dbm]	Verdict
5260	Type0	-57.78	-57.67	PASS
5290	Type0	-58.00	-57.67	PASS



11.5. Channel closing transmission time, channel move time and non-occupancy period

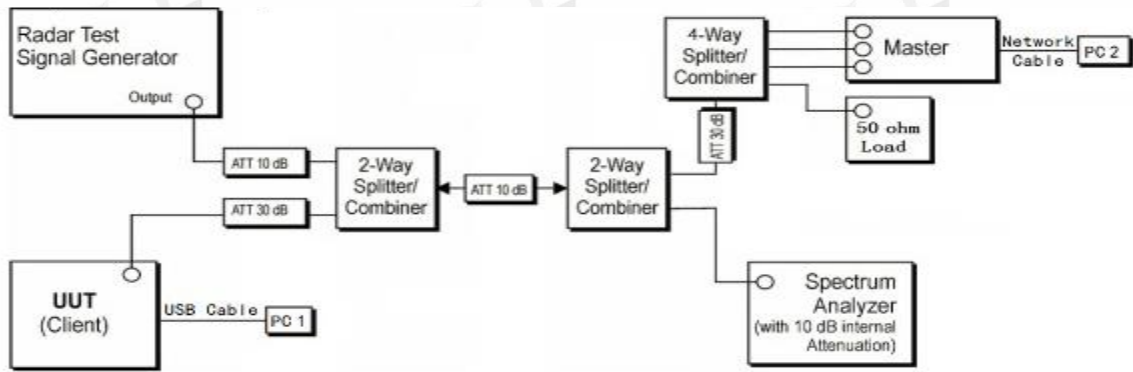
Block diagram of test setup Test Procedure:

- (1) The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428us PRI is used for the testing.
- (2) The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61dBm at the antenna port of the master device.
- (3) A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.
- (4) EUT will associate with the master at channel. The file "iperf.exe" specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Test Software in order to properly load the network for the entire period of the test.
- (5) When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.
- (6) Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type.
- (7) Measurement of the aggregate duration of the Channel Closed Transmission Time method.
With the
- (8) spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: $Dwell (0.3ms) = S (12000ms) / B (4000)$; where Dwell is the dwell time per spectrum analyzer sampling bin, S is sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: $C (ms) = N \times Dwell (0.3ms)$; where C is the Closing Time, N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.

Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

11.6. Test setup

Setup for Client with injection at the Master

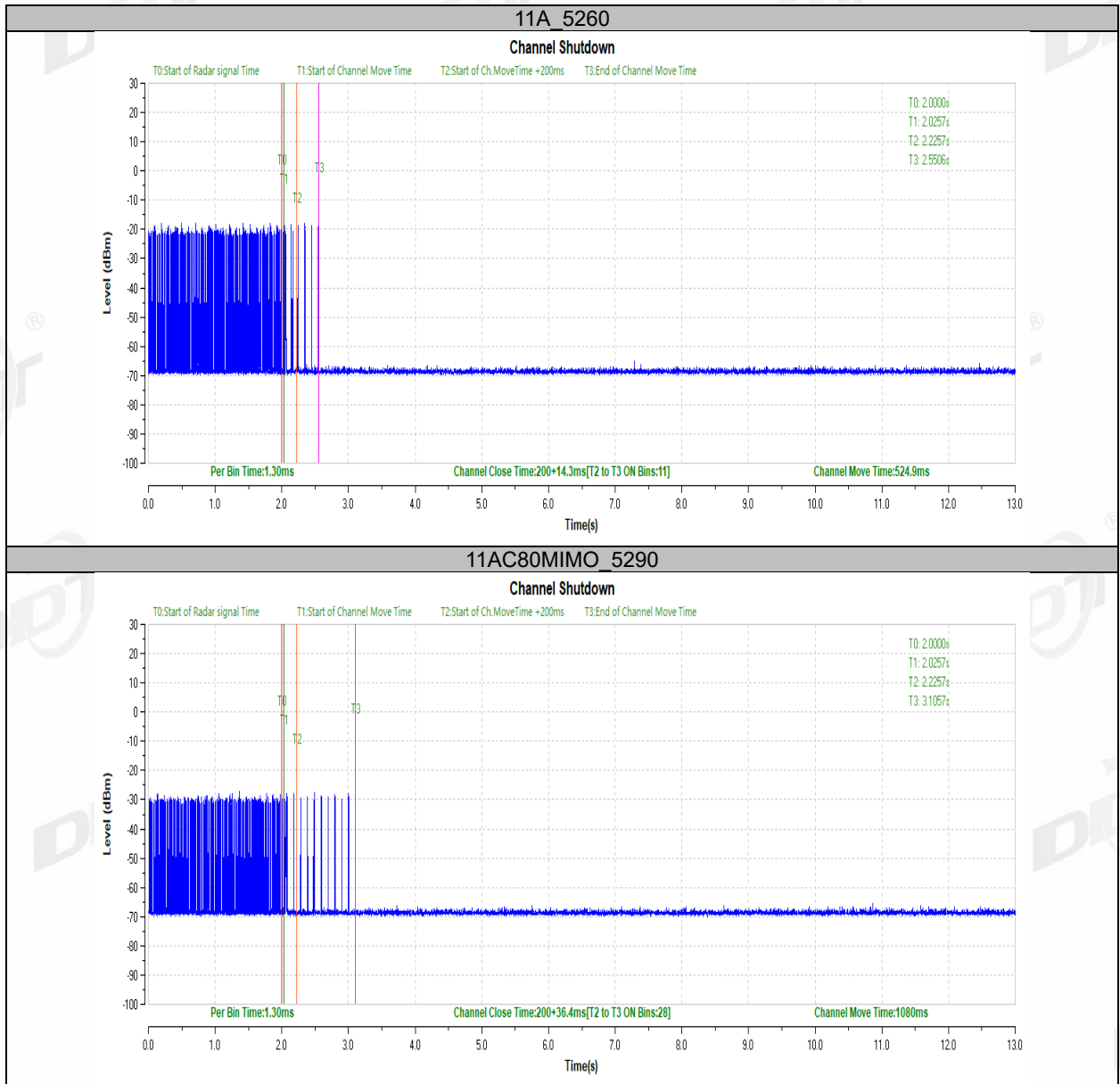


11.7. Test result

Test Engineer:	Haofeng	Test Site:	RF Measurement System 4#
Ambient Condition:	24.4°C,45.3%RH	Test Date:	2024.02.20-2024.02.22
Test Power Supply:	Battery	EUT:	Wireless Speaker
Sample Number:	S23111313-04	Model No.:	CHARGE5 Wi-Fi

TestMode	Frequency[M Hz]	CCTT[ms]	Limit[ms]	CMT[ms]	Limit[ms]	Verdict
11A	5260	200+14.3	200+60	524.9	10000	PASS
11AC80MIMO	5290	200+36.4	200+60	1080	10000	PASS

Test plots as follows:

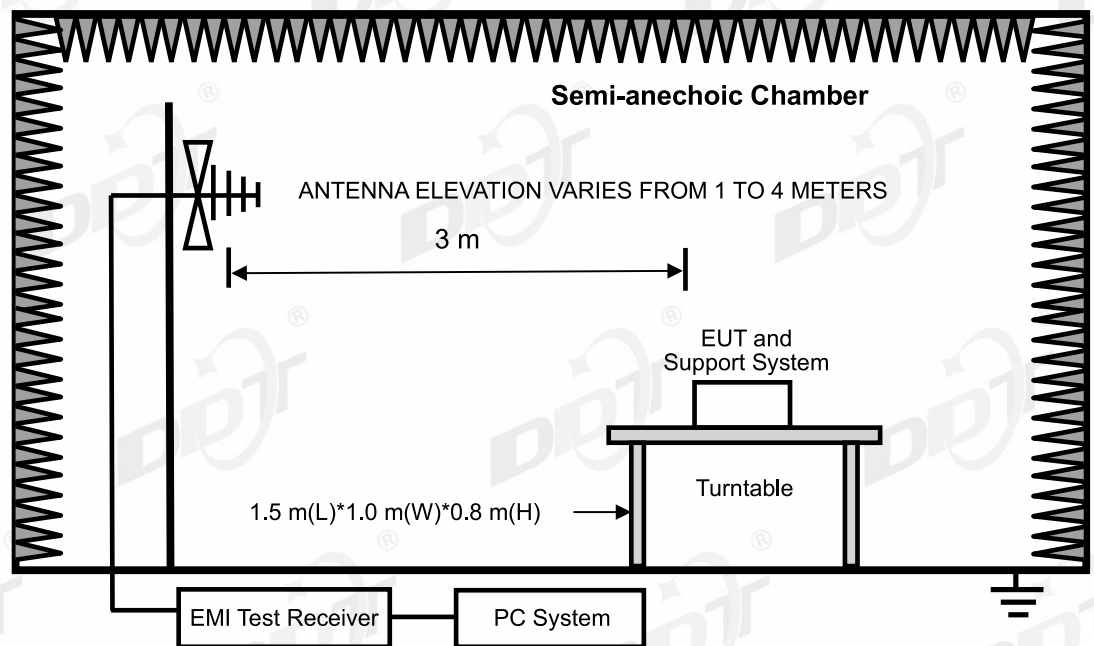
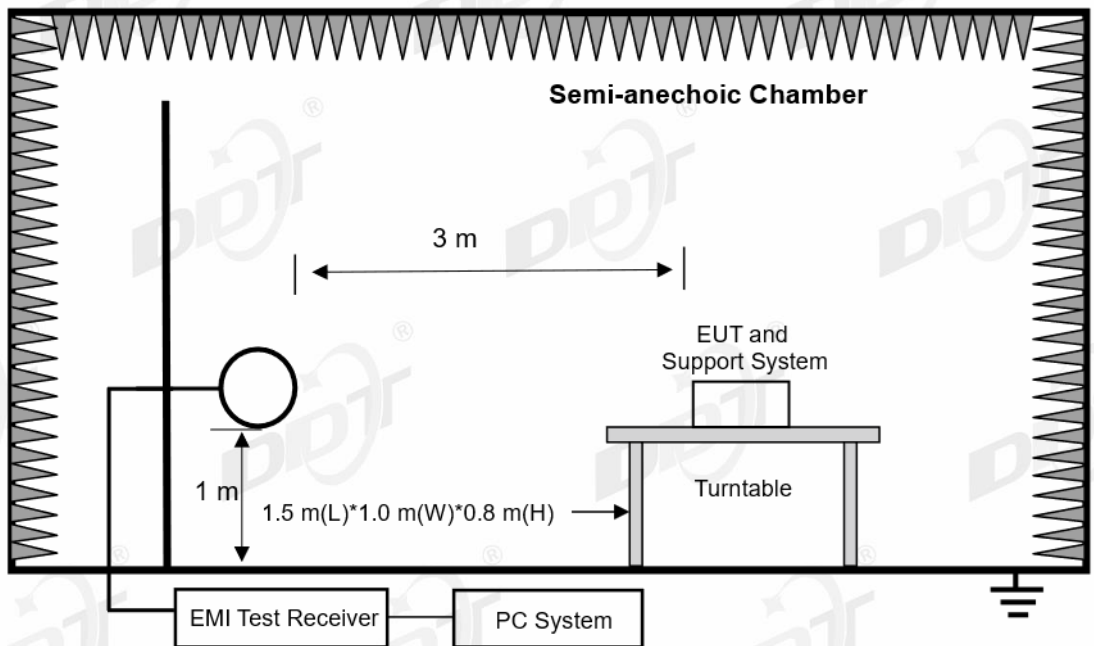


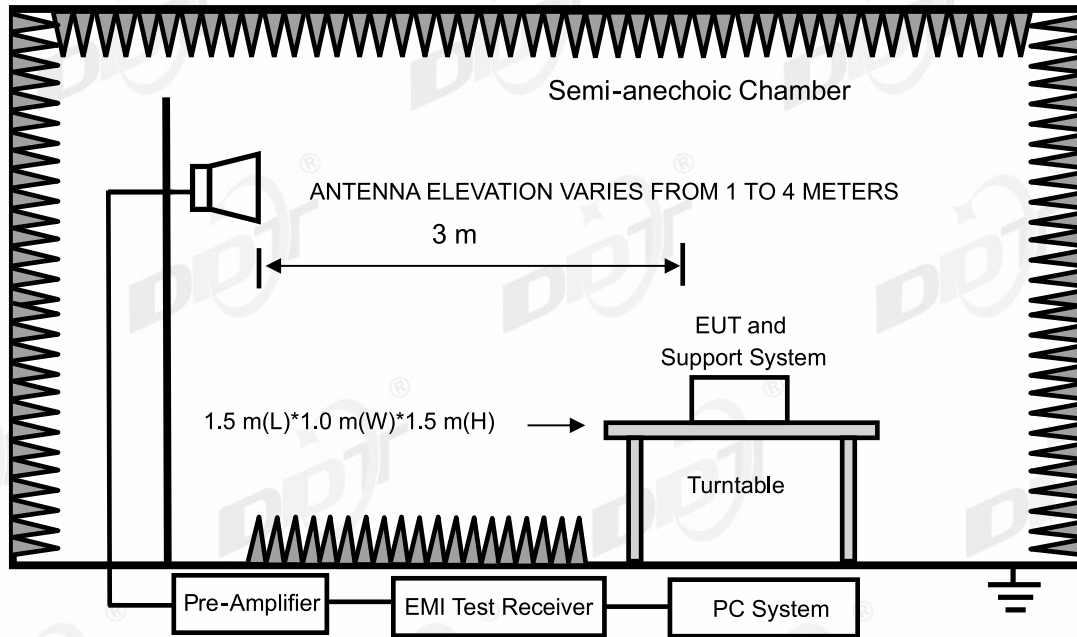
12.Radiated Emission

12.1. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Cal Due To
High Pass filter	Xi'an Xingbo	XBLBQ-GTA67	DDT-ZC02179	2025/04/22
RF Cable	N/A	W13.02 AP1-X2	DDT-ZC04023	2025/03/31
Micro-Tronics filters	REBES	BRM50716	DDT-ZC03240	/
RF cable	Zhongke Junchuang	JCT26S-NJ-NJ-1.5M	DDT-ZC02762	2025/03/31
Pre-amplifier	COM-POWER	PAM-840A	DDT-ZC01693	2025/03/31
Trilog Broadband Antenna	Schwarzbeck	VULB 9163	DDT-ZC02050	2024/07/11
Micro-Tronics filters	REBES	BRM50702	DDT-ZC03242	/
Pre-amplifier	COM-POWER	PAM-118A	DDT-ZC01293	2024/07/14
Active Loop Antenna	Schwarzbeck	FMZB1519	DDT-ZC00524	2025/09/11
ELECTRIC AND MAGNETIC FIELD ANALYZER	Narda	EHP-200A	DDT-ZC01401	2024/09/20
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	DDT-ZC00506	2025/04/26
RF cable	Yuhu Technology	JCTB810-NJ-NJ-9M	DDT-ZC02538	2025/03/31
RF Cable	N/A	W24.02 HL-562	DDT-ZC04022	2025/03/31
High pass filter	Micro-Tronics	HPM50102	DDT-ZC00561	2025/04/22
PSA Series Spectrum Analyzer	Agilent	E4447A	DDT-ZC00517	2025/03/31
High pass filter	Micro-Tronics	HPM50108	DDT-ZC00560	2025/04/22
Hochgewinn-Hornantenne	SCHWARZBEC K	BBHA 9120 D	DDT-ZC02129	2025/09/18
EMI TEST RECEIVER	R&S	ESU26	DDT-ZC01909	2025/03/31
RF cable	Yuhu Technology	ZT26S-SMAJ-SMAJ-1M	DDT-ZC02037	2025/03/31

12.2. Block diagram of test setup





12.3. Limits

(1) FCC 15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.1772&4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.2072&4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			

¹Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

²Above 38.6

RSS-Gen section 8.10 Restricted frequency bands*

MHz	MHz	MHz	GHz
0.090-0.110	12.51975-12.52025	240-285	3.5-4.4
0.495-0.505	12.57675-12.57725	322-335.4	4.5-5.15
2.1735-2.1905	13.36-13.41	399.9-410	5.35-5.46
3.020-3.026	16.42-16.423	608-614	7.25-7.75
4.125-4.128	16.69475-16.69525	960-1427	8.025-8.5
4.1772&4.17775	16.80425-16.80475	1435-1626.5	9.0-9.2
4.2072&4.20775	25.5-25.67	1645.5-1646.5	9.3-9.5
5.677-5.683	37.5-38.25	1660-1710	10.6-12.7
6.215-6.218	73-74.6	1718.8-1722.2	13.25-13.4
6.26775-6.26825	74.8-75.2	2200-2300	14.47-14.5
6.31175-6.31225	108-138	2310-2390	15.35-16.2
8.291-8.294	149.9-150.05	2483.5-2500	17.7-21.4
8.362-8.366	156.52475-156.52525	2655-2900	22.01-23.12
8.37625-8.38675	156.7-156.9	3260-3267	23.6-24.0
8.41425-8.41475	162.0125-167.17	3332-3339	31.2-31.8
12.29-12.293	167.72-173.2	3345.8-3358	36.43-36.5
			Above 38.6

* Certain frequency bands listed in table and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to related devices are set out in the 200 and 300 series of RSSs.

(2) FCC 15.209 Limit & RSS-Gen section 8.9 Limit

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		mV/m	dB(mV)/m
0.009 ~ 0.490	300	2400/F(kHz)	67.6-20log(F)
0.490 ~ 1.705	30	24000/F(kHz)	87.6-20log(F)
1.705 ~ 30.0	30	30	29.54
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above	1000	74.0 dB(mV)/m (Peak) 54.0 dB(mV)/m (Average)	

Note:

(1) The emission limits shown in the above table are based on measurements employing a CISPR QP detector except for the frequency bands 9 - 90 kHz, 110 - 490 kHz and above 1000 MHz, radiated emissions limits in these three bands are based on measurements employing an average detector.

(2) At frequencies below 30 MHz, measurement may be performed at a distance closer than that specified, and the limit at closer measurement distance can be extrapolated by below formula:

$$\text{Limit}_{3\text{m}}(\text{dBuV/m}) = \text{Limit}_{30\text{m}}(\text{dBuV/m}) + 40\text{Log}(30\text{m}/3\text{m})$$

(3) Limit for this EUT

The emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, and the emissions appearing within RSS-Gen section 8.10 Restricted frequency bands shall not exceed the limits shown in RSS-Gen section 8.9, all the other emissions shall be at least 20 dB below the fundamental emissions or comply with 15.209 limits and RSS-Gen section 8.9 limits.

12.4. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description	other
/	/	/	/	/

12.5. Test procedure

(1) EUT was placed on a non-metallic table, 80 cm above the ground plane inside a semi-anechoic chamber for below 1G and 150 cm above the ground plane inside a fully-anechoic chamber for above 1G.

(2) Test antenna was located 3 m from the EUT on an adjustable mast, and the antenna used as below table.

Test frequency range	Test antenna used	Test antenna distance
9 kHz - 30 MHz	Active Loop antenna	3 m
30 MHz - 1 GHz	Trilog Broadband Antenna	3 m
1 GHz - 18 GHz	Double Ridged Horn Antenna(1 GHz-18 GHz)	3 m
18 GHz - 40 GHz	Horn Antenna(18 GHz-40 GHz)	1 m

According ANSI C63.10:2013 clause 6.4.6 and 6.5.3, for measurements below 30 MHz, Antenna was located 3 m from EUT, the loop antenna was positioned in three antenna orientations (parallel, perpendicular, and round-parallel), for each measurement antenna alignment, the EUT shall be rotated through 0° to 360° on a turntable, and the lowest height of the magnetic antenna shall be 1 m above the ground. For measurement above 30MHz, the trilog Broadband Antenna or Horn Antenna was located 3m from EUT, Measurements were made with the antenna positioned in both the horizontal and vertical planes of Polarization, and the measurement antenna was varied from 1 m to 4 m. in height above the reference ground plane to obtain the maximum signal strength.

(3) Below pre-scan procedure was first performed in order to find prominent frequency spectrum radiated emissions from 9 kHz to 25 GHz:

(a) Scanning the peak frequency spectrum with the antenna specified in step (3), and the EUT was rotated 360 degree, the antenna height was varied from 1 m to 4 m (Except loop antenna, it's fixed 1 m above ground.)

(b) Change work frequency or channel of device if practicable.

(c) Change modulation type of device if practicable.

(d) Change power supply range from 85% to 115% of the rated supply voltage

(e) Rotated EUT through three orthogonal axes to determine the attitude of EUT arrangement produces highest emissions.

Spectrum frequency from 9 kHz to 25 GHz (tenth harmonic of fundamental frequency) was investigated, and no any obvious emission were detected from 18 GHz to 25 GHz, so below final test was performed with frequency range from 9 kHz to 18 GHz.

(4) For final emissions measurements at each frequency of interest, the EUT was rotated and the antenna height was varied between 1 m and 4 m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipment and all of the interface cables were changed according to ANSI C63.10:2013 on Radiated Emission test.

(5) The emissions from 9 kHz to 1 GHz were measured based on CISPR QP detector except for the frequency bands 9 - 90 kHz, 110 - 490 kHz, for emissions from 9 kHz - 90 kHz, 110 kHz - 490 kHz and above 1 GHz were measured based on average detector, for emissions above 1 GHz, peak emissions also be measured and need comply with Peak limit.

(6) The emissions from 9 kHz to 1 GHz, QP or average values were measured with EMI receiver with below RBW.

Frequency band	RBW
9 kHz - 150 kHz	200 Hz
150 kHz - 30 MHz	9 kHz
30 MHz - 1 GHz	120 kHz

(7) For emissions above 1GHz, both Peak and Average level were measured with Spectrum Analyzer, and the RBW is set at 1 MHz, VBW is set at 3 MHz for Peak measure; According ANSI C63.10:2013 clause 4.1.4.2.2 procedure for average measure.

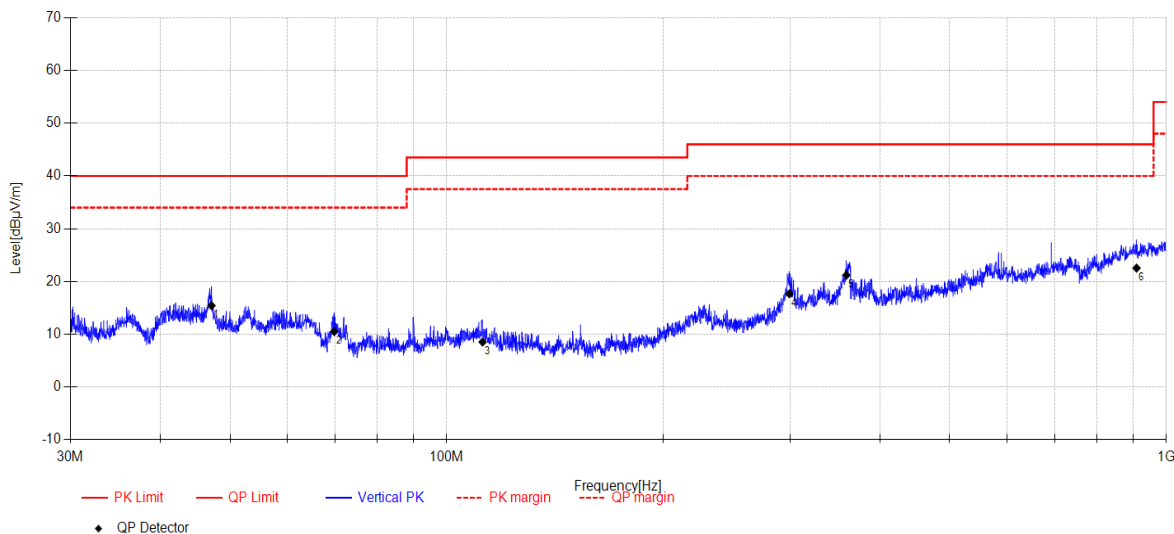
(8) For portable device, X axis, Y axis, Z axis are tested, and worse setup is reported.

12.6. Test result

PASS. (See below detailed test result)

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-27 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 5G WIFI TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC BELOW 1G\20240127-010658_V
Memo: Sample Number:S23111313-02 Power Setting:NA



Data List										
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable Loss [dB]	AMP [dB]	Result [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	47.12	28.58	12.89	4.69	-30.74	15.42	40.00	24.58	QP	Vertical
2	69.78	26.34	9.95	4.79	-30.57	10.51	40.00	29.49	QP	Vertical
3	112.18	22.63	11.63	5.13	-30.86	8.53	43.50	34.97	QP	Vertical
4	299.39	28.25	13.58	6.15	-30.30	17.68	46.00	28.32	QP	Vertical
5	359.26	29.91	14.99	6.48	-30.18	21.20	46.00	24.80	QP	Vertical
6	909.05	21.59	21.50	8.37	-28.92	22.54	46.00	23.46	QP	Vertical

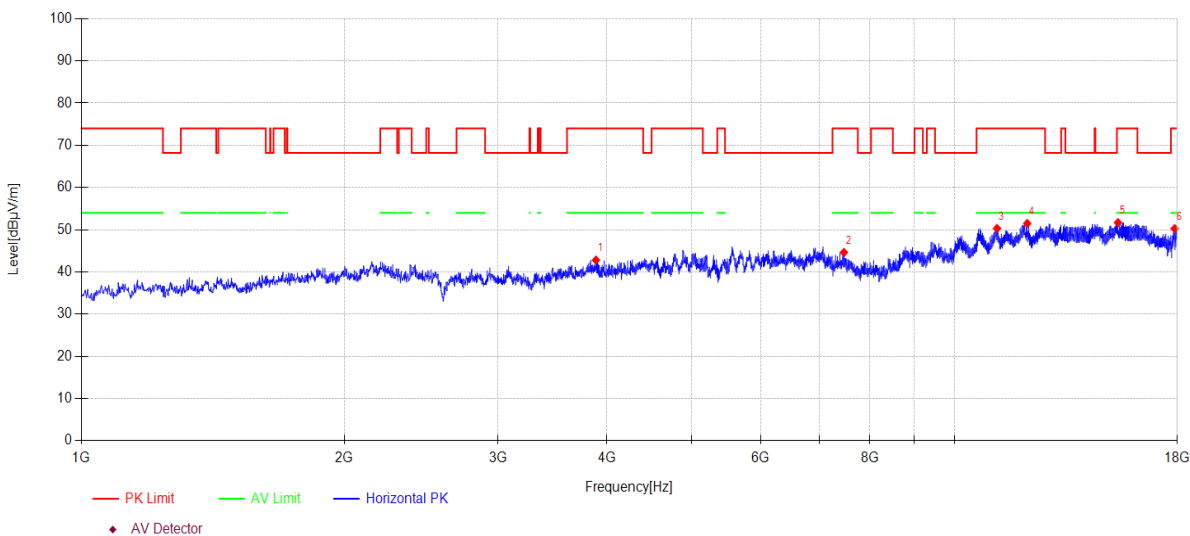
Note:

1. Result Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-29 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11AX20MIMO 5180MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\1
Memo: Sample Number:S23111313-02 Power Setting:NA

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	3884.90	46.08	31.11	6.00	-40.38	42.81	74.00	31.19	PK	Horizontal
2	7471.90	41.06	36.56	8.88	-41.88	44.62	74.00	29.38	PK	Horizontal
3	11186.40	40.61	39.21	9.67	-39.18	50.31	74.00	23.69	PK	Horizontal
4	12116.30	41.46	39.30	10.33	-39.61	51.48	74.00	22.52	PK	Horizontal
5	15393.90	38.61	39.05	13.02	-39.00	51.68	74.00	22.32	PK	Horizontal
6	17870.80	38.08	41.58	12.72	-42.11	50.27	74.00	23.73	PK	Horizontal

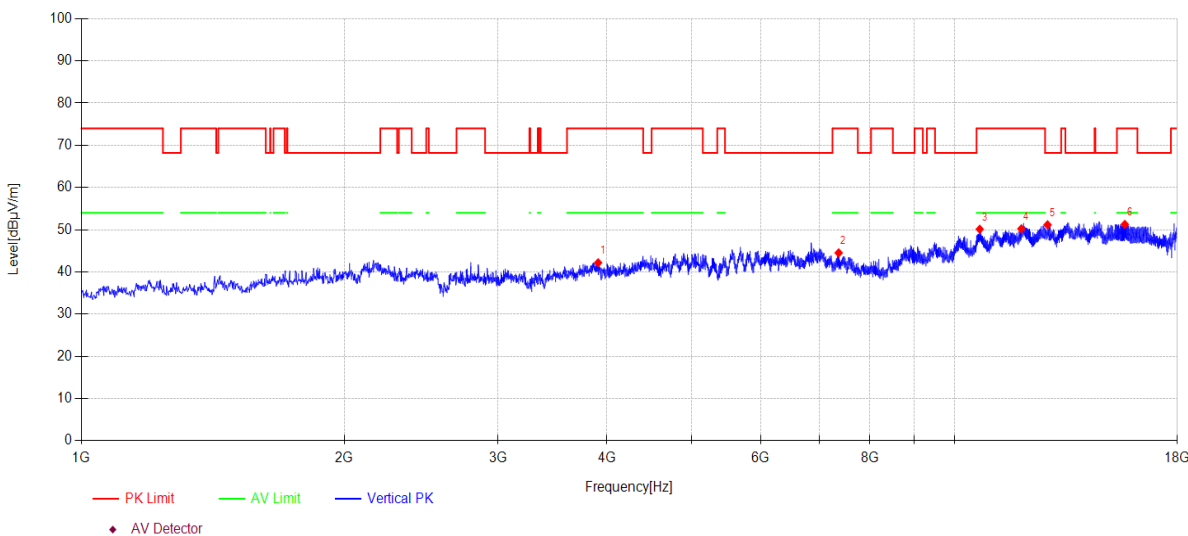
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-29 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11AX20MIMO 5180MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\2
Memo: Sample Number:S23111313-02 Power Setting:NA

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	3907.00	45.36	31.19	6.01	-40.39	42.17	74.00	31.83	PK	Vertical
2	7368.20	40.47	36.76	8.90	-41.62	44.51	74.00	29.49	PK	Vertical
3	10690.00	40.24	39.38	9.49	-38.98	50.13	74.00	23.87	PK	Vertical
4	11929.30	40.49	38.99	10.26	-39.53	50.21	74.00	23.79	PK	Vertical
5	12782.70	40.90	39.77	10.37	-39.87	51.17	68.20	17.03	PK	Vertical
6	15672.70	37.47	38.53	14.42	-39.16	51.26	74.00	22.74	PK	Vertical

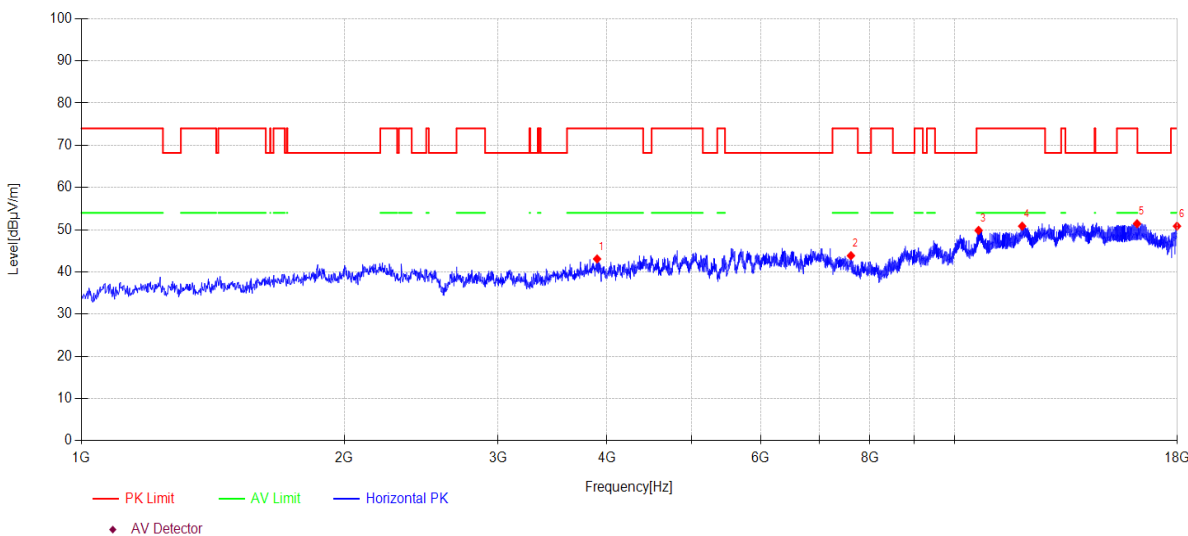
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-29 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11AX20MIMO 5200MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\3
Memo: Sample Number:S23111313-02 Power Setting:NA

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	3896.80	46.29	31.18	6.00	-40.39	43.08	74.00	30.92	PK	Horizontal
2	7611.30	40.70	36.52	8.86	-42.23	43.85	74.00	30.15	PK	Horizontal
3	10656.00	40.00	39.31	9.49	-38.96	49.84	74.00	24.16	PK	Horizontal
4	11954.80	41.05	39.06	10.28	-39.54	50.85	74.00	23.15	PK	Horizontal
5	16187.80	37.84	37.81	15.28	-39.51	51.42	74.00	22.58	PK	Horizontal
6	17983.00	38.06	42.32	12.83	-42.36	50.85	74.00	23.15	PK	Horizontal

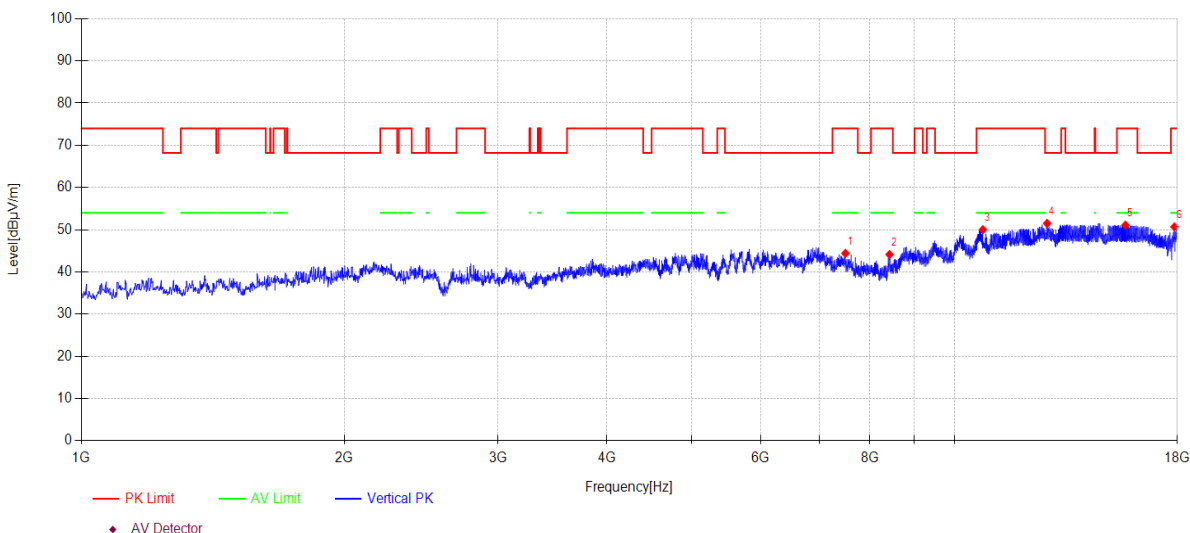
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-29 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11AX20MIMO 5200MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\4
Memo: Sample Number:S23111313-02 Power Setting:NA

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	7500.80	40.97	36.50	8.88	-41.95	44.40	74.00	29.60	PK	Vertical
2	8425.60	39.05	37.50	8.90	-41.32	44.13	74.00	29.87	PK	Vertical
3	10778.40	40.12	39.40	9.50	-39.01	50.01	74.00	23.99	PK	Vertical
4	12767.40	41.25	39.73	10.37	-39.86	51.49	68.20	16.71	PK	Vertical
5	15696.50	37.21	38.50	14.54	-39.18	51.07	74.00	22.93	PK	Vertical
6	17860.60	38.58	41.47	12.71	-42.09	50.67	74.00	23.33	PK	Vertical

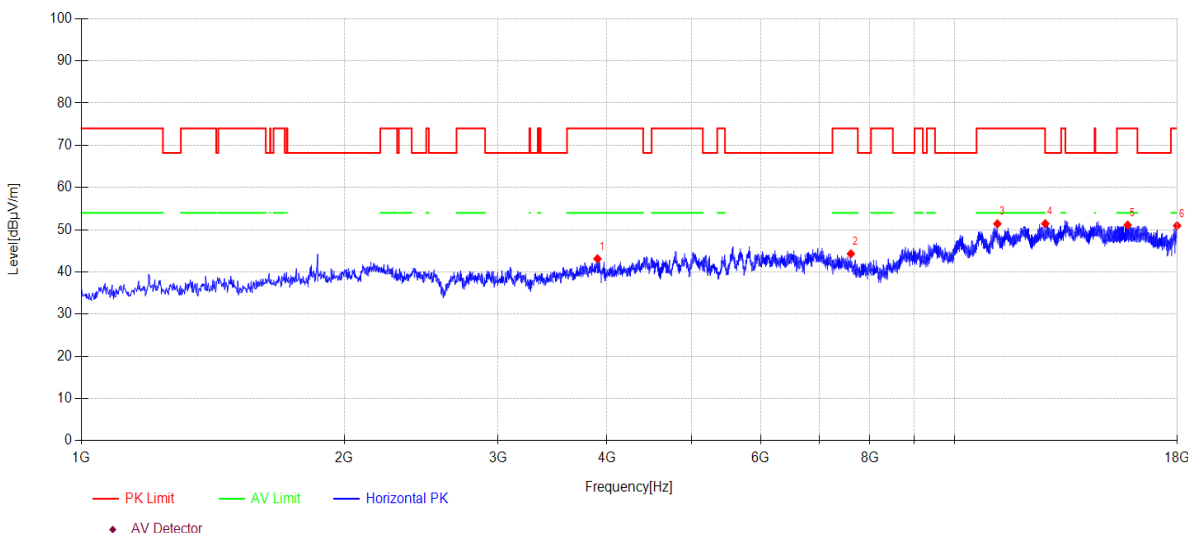
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-29 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11AX20MIMO 5240MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\5
Memo: Sample Number:S23111313-02 Power Setting:NA

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	3900.20	46.31	31.20	6.01	-40.39	43.13	74.00	30.87	PK	Horizontal
2	7609.60	41.14	36.52	8.86	-42.22	44.30	74.00	29.70	PK	Horizontal
3	11198.30	41.70	39.20	9.68	-39.18	51.40	74.00	22.60	PK	Horizontal
4	12706.20	41.31	39.61	10.36	-39.84	51.44	68.20	16.76	PK	Horizontal
5	15791.70	37.00	38.32	15.02	-39.24	51.10	74.00	22.90	PK	Horizontal
6	17988.10	38.14	42.34	12.84	-42.37	50.95	74.00	23.05	PK	Horizontal

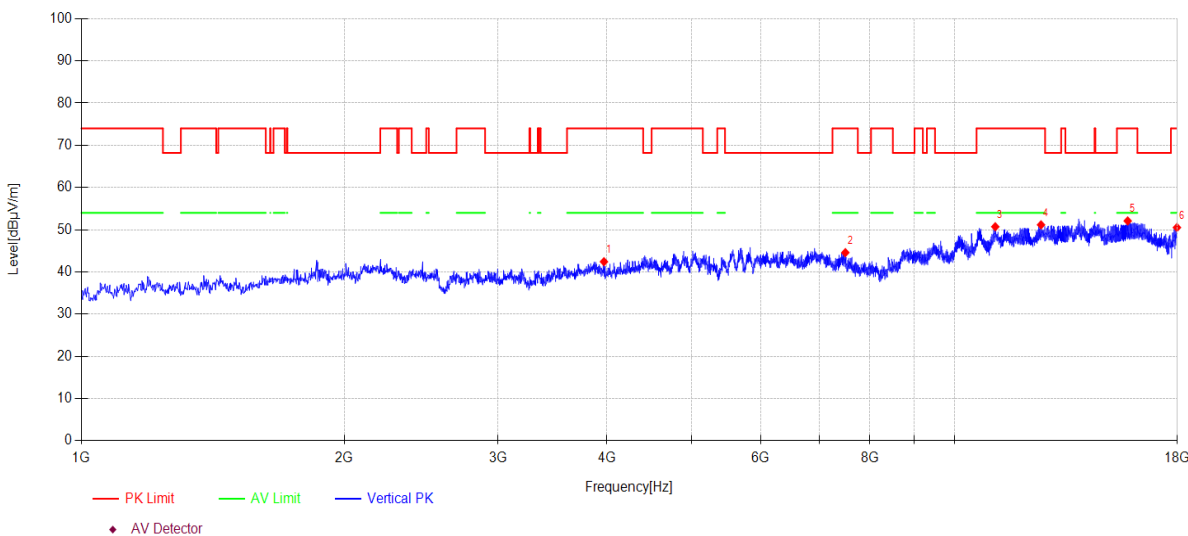
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-29 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11AX20MIMO 5240MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\6
Memo: Sample Number:S23111313-02 Power Setting:NA

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	3968.20	45.76	31.03	6.06	-40.43	42.42	74.00	31.58	PK	Vertical
2	7499.10	41.14	36.50	8.88	-41.95	44.57	74.00	29.43	PK	Vertical
3	11137.10	40.97	39.26	9.63	-39.15	50.71	74.00	23.29	PK	Vertical
4	12565.10	41.19	39.40	10.35	-39.78	51.16	74.00	22.84	PK	Vertical
5	15791.70	37.98	38.32	15.02	-39.24	52.08	74.00	21.92	PK	Vertical
6	17981.30	37.74	42.31	12.83	-42.36	50.52	74.00	23.48	PK	Vertical

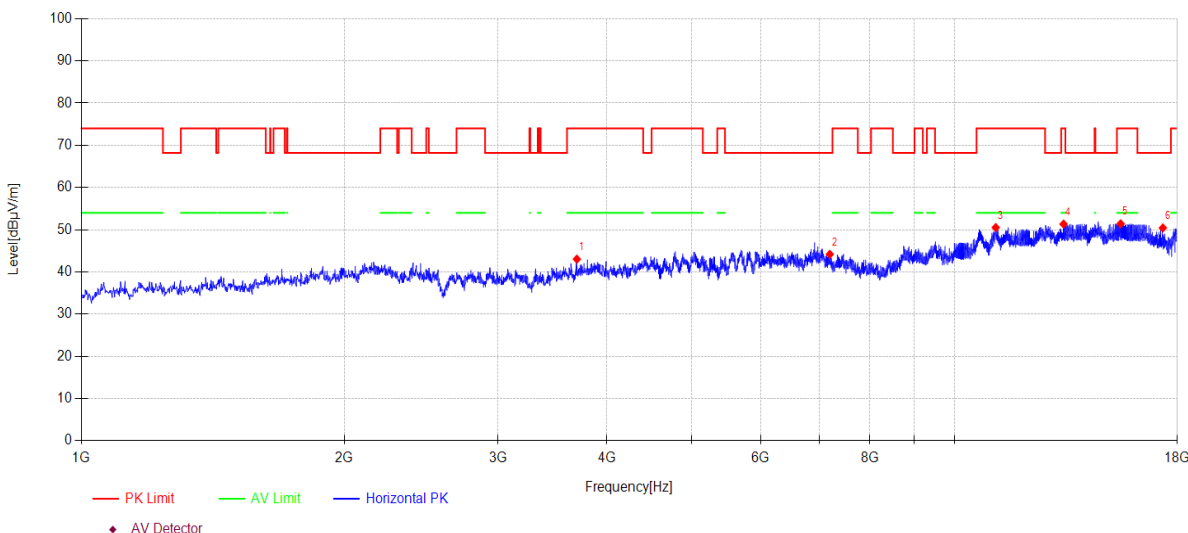
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-29 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11AX20MIMO 5260MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\7
Memo: Sample Number:S23111313-02 Power Setting:NA

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	3694.50	47.05	30.38	5.86	-40.26	43.03	74.00	30.97	PK	Horizontal
2	7198.20	39.65	36.80	8.93	-41.20	44.18	68.20	24.02	PK	Horizontal
3	11150.70	40.80	39.25	9.64	-39.16	50.53	74.00	23.47	PK	Horizontal
4	13333.50	40.58	40.10	10.51	-39.85	51.34	74.00	22.66	PK	Horizontal
5	15499.30	38.12	38.80	13.55	-39.06	51.41	74.00	22.59	PK	Horizontal
6	17325.10	40.28	38.85	12.19	-40.89	50.43	68.20	17.77	PK	Horizontal

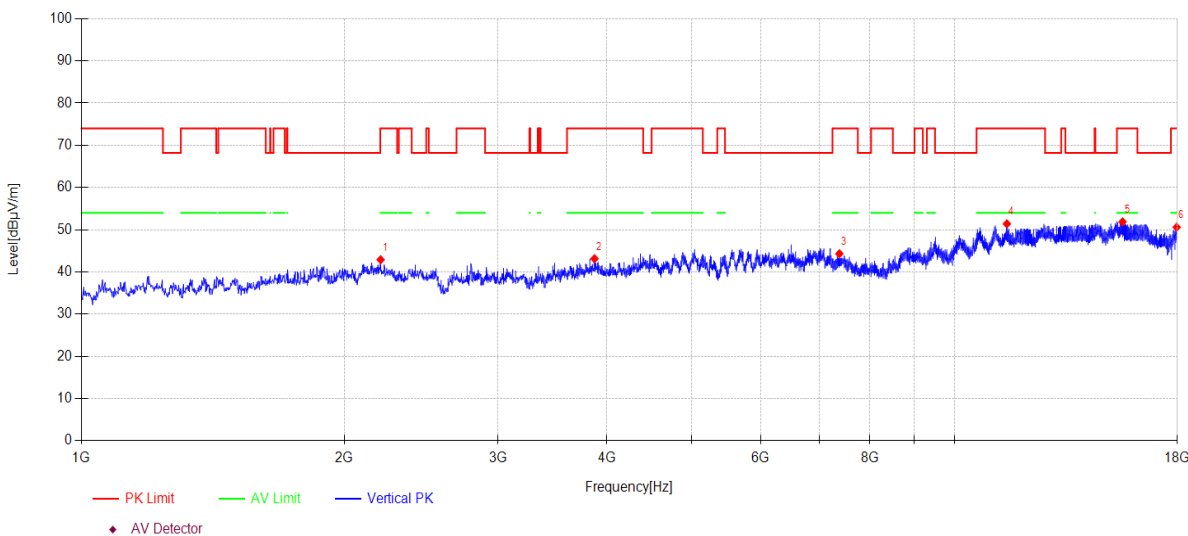
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-29 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11AX20MIMO 5260MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\8
Memo: Sample Number:S23111313-02 Power Setting:NA

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2201.90	46.65	27.78	6.05	-37.58	42.90	74.00	31.10	PK	Vertical
2	3869.60	46.50	31.02	5.98	-40.37	43.13	74.00	30.87	PK	Vertical
3	7381.80	40.32	36.74	8.90	-41.65	44.31	74.00	29.69	PK	Vertical
4	11482.20	41.59	39.22	9.91	-39.32	51.40	74.00	22.60	PK	Vertical
5	15579.20	38.38	38.64	13.95	-39.11	51.86	74.00	22.14	PK	Vertical
6	17969.40	37.86	42.25	12.82	-42.33	50.60	74.00	23.40	PK	Vertical

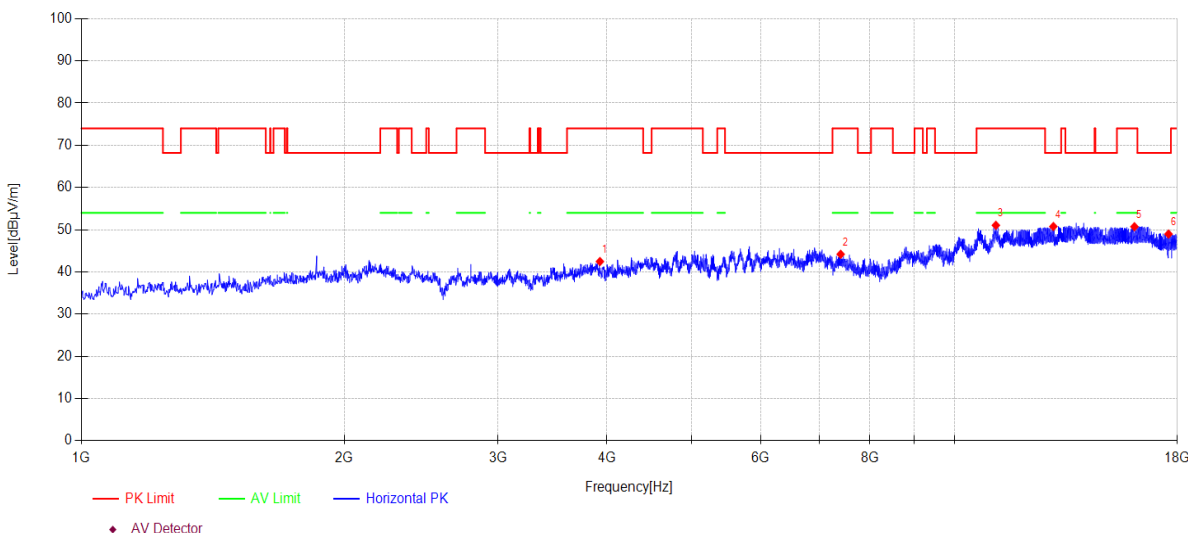
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-29 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11AX20MIMO 5280MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\9
Memo: Sample Number:S23111313-02 Power Setting:NA

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	3925.70	45.69	31.15	6.03	-40.40	42.47	74.00	31.53	PK	Horizontal
2	7407.30	40.33	36.69	8.89	-41.72	44.19	74.00	29.81	PK	Horizontal
3	11154.10	41.32	39.25	9.64	-39.16	51.05	74.00	22.95	PK	Horizontal
4	12979.90	40.42	39.90	10.38	-39.94	50.76	68.20	17.44	PK	Horizontal
5	16073.90	36.45	37.93	15.76	-39.42	50.72	74.00	23.28	PK	Horizontal
6	17586.90	38.27	39.73	12.45	-41.48	48.97	68.20	19.23	PK	Horizontal

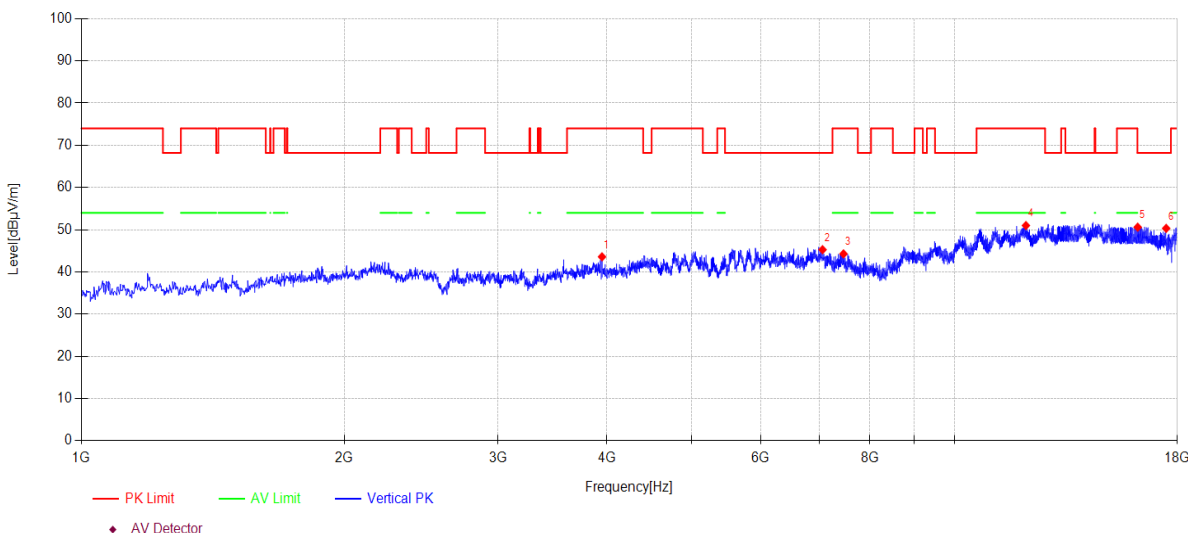
Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-29 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11AX20MIMO 5280MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\10
Memo: Sample Number:S23111313-02 Power Setting:NA

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	3947.80	46.86	31.10	6.04	-40.42	43.58	74.00	30.42	PK	Vertical
2	7062.20	40.81	36.37	8.95	-40.86	45.27	68.20	22.93	PK	Vertical
3	7463.40	40.68	36.57	8.89	-41.86	44.28	74.00	29.72	PK	Vertical
4	12073.80	40.99	39.27	10.32	-39.59	50.99	74.00	23.01	PK	Vertical
5	16213.30	37.17	37.80	15.17	-39.53	50.61	68.20	17.59	PK	Vertical
6	17478.10	39.99	39.23	12.34	-41.24	50.32	68.20	17.88	PK	Vertical

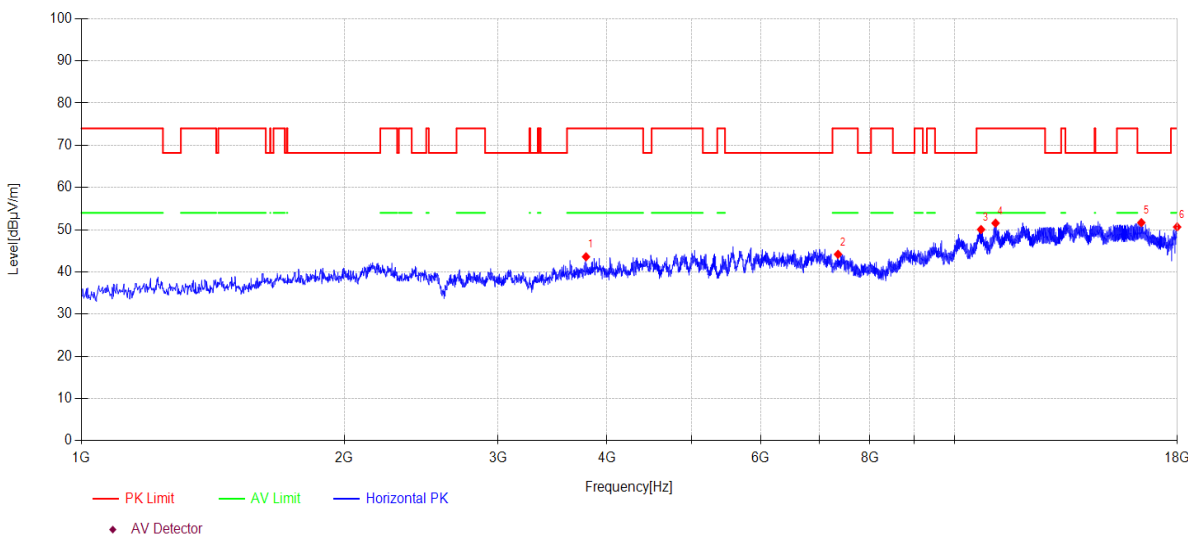
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-29 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11AX20MIMO 5320MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\11
Memo: Sample Number:S23111313-02 Power Setting:NA

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	3784.60	47.35	30.64	5.92	-40.32	43.59	74.00	30.41	PK	Horizontal
2	7356.30	40.08	36.79	8.90	-41.59	44.18	74.00	29.82	PK	Horizontal
3	10725.70	40.14	39.40	9.49	-38.99	50.04	74.00	23.96	PK	Horizontal
4	11143.90	41.82	39.26	9.64	-39.16	51.56	74.00	22.44	PK	Horizontal
5	16368.00	39.08	37.73	14.52	-39.66	51.67	68.20	16.53	PK	Horizontal
6	17991.50	37.83	42.36	12.84	-42.38	50.65	74.00	23.35	PK	Horizontal

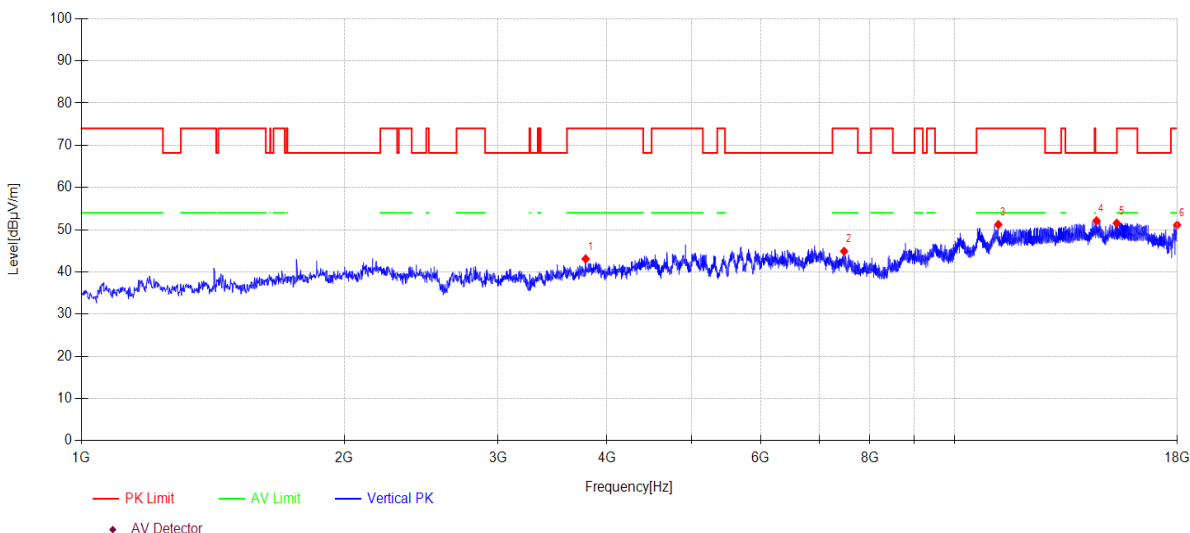
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-29 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11AX20MIMO 5320MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\12
Memo: Sample Number:S23111313-02 Power Setting:NA

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	3781.20	46.87	30.62	5.92	-40.32	43.09	74.00	30.91	PK	Vertical
2	7475.30	41.36	36.55	8.88	-41.89	44.90	74.00	29.10	PK	Vertical
3	11225.50	41.52	39.20	9.70	-39.20	51.22	74.00	22.78	PK	Vertical
4	14543.90	40.51	39.86	10.91	-39.16	52.12	68.20	16.08	PK	Vertical
5	15342.90	38.30	39.46	12.76	-38.97	51.55	68.20	16.65	PK	Vertical
6	17991.50	38.31	42.36	12.84	-42.38	51.13	74.00	22.87	PK	Vertical

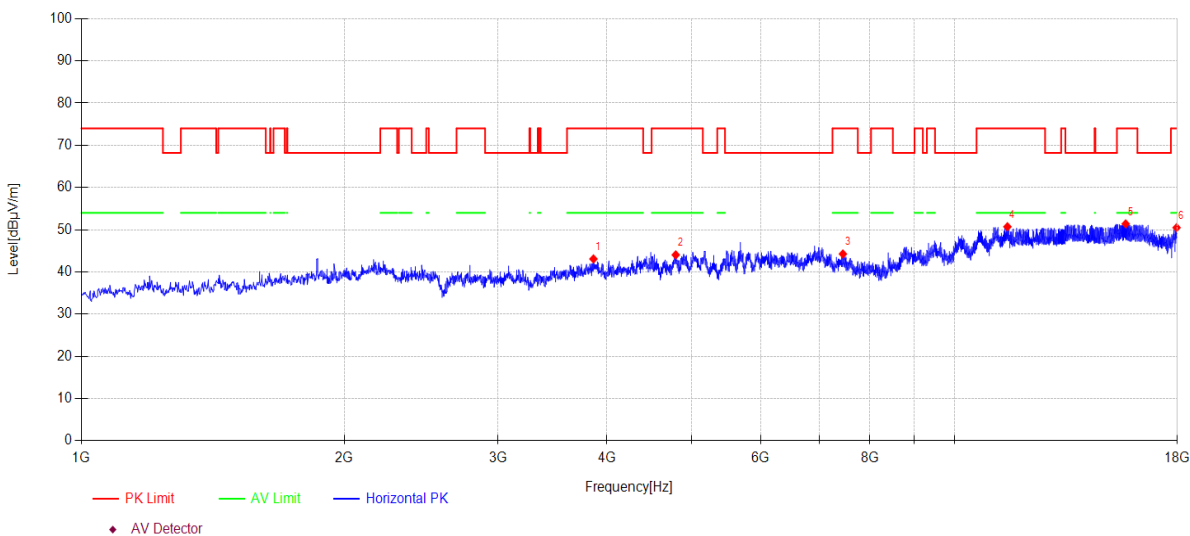
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-29 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11AX20MIMO 5500MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\13
Memo: Sample Number:S23111313-02 Power Setting:NA

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	3859.40	46.50	30.96	5.98	-40.36	43.08	74.00	30.92	PK	Horizontal
2	4794.40	44.11	32.48	7.61	-40.16	44.04	74.00	29.96	PK	Horizontal
3	7451.50	40.60	36.60	8.89	-41.83	44.26	74.00	29.74	PK	Horizontal
4	11499.20	40.90	39.20	9.92	-39.32	50.70	74.00	23.30	PK	Horizontal
5	15708.40	37.49	38.48	14.60	-39.19	51.38	74.00	22.62	PK	Horizontal
6	17964.30	37.77	42.22	12.82	-42.32	50.49	74.00	23.51	PK	Horizontal

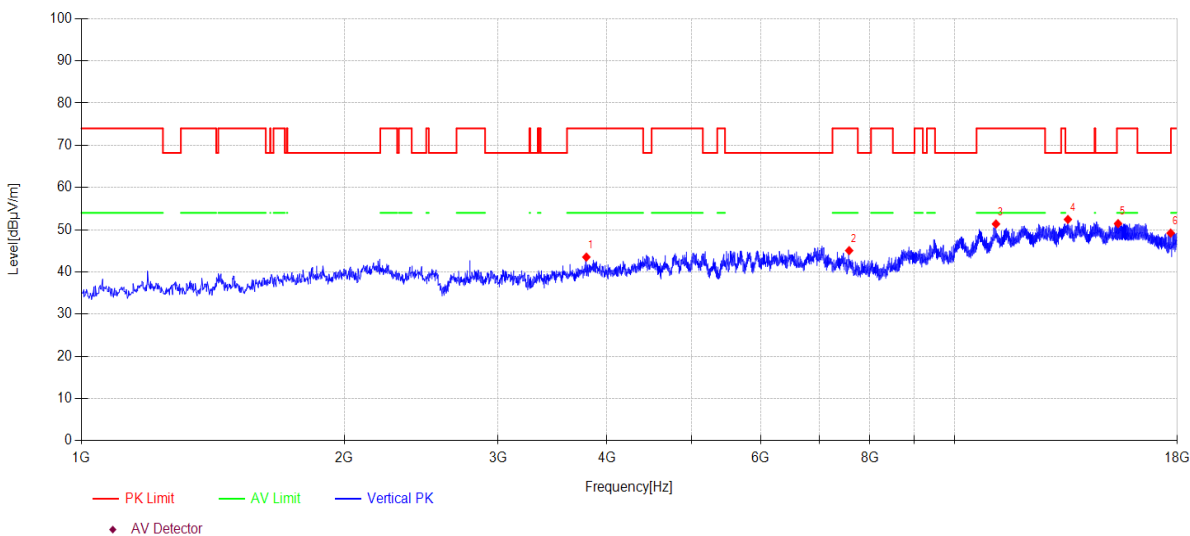
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-29 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11AX20MIMO 5500MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\14
Memo: Sample Number:S23111313-02 Power Setting:NA

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	3788.00	47.26	30.65	5.93	-40.32	43.52	74.00	30.48	PK	Vertical
2	7575.60	41.87	36.45	8.87	-42.14	45.05	74.00	28.95	PK	Vertical
3	11157.50	41.64	39.24	9.65	-39.16	51.37	74.00	22.63	PK	Vertical
4	13488.20	41.38	40.28	10.57	-39.80	52.43	68.20	15.77	PK	Vertical
5	15395.60	38.39	39.04	13.02	-39.00	51.45	74.00	22.55	PK	Vertical
6	17685.50	38.05	40.31	12.54	-41.70	49.20	68.20	19.00	PK	Vertical

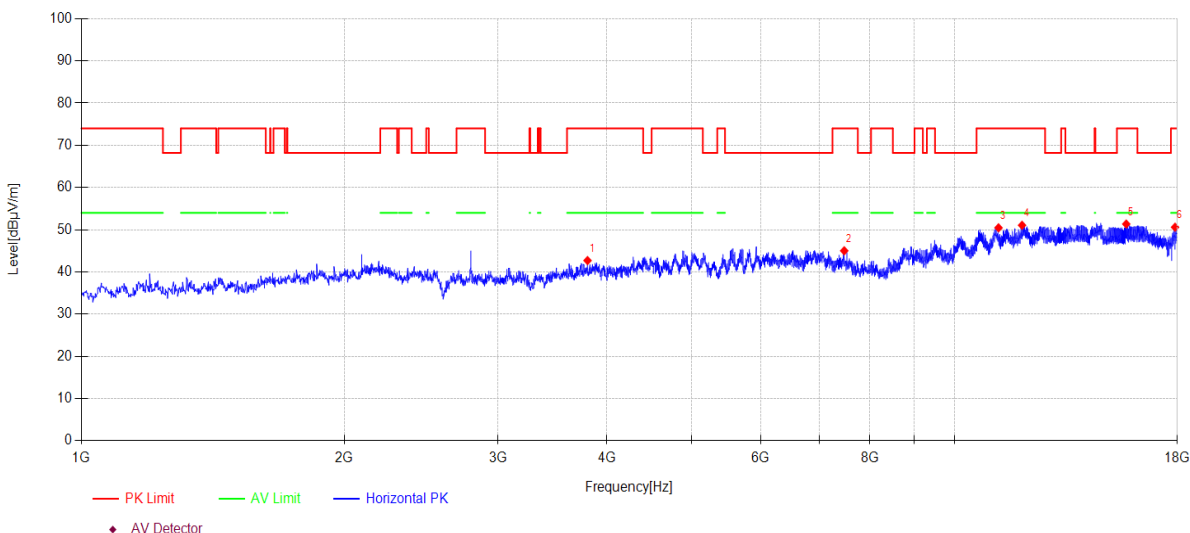
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-29 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11AX20MIMO 5580MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\15
Memo: Sample Number:S23111313-02 Power Setting:NA

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	3799.90	46.40	30.70	5.93	-40.33	42.70	74.00	31.30	PK	Horizontal
2	7477.00	41.48	36.55	8.88	-41.89	45.02	74.00	28.98	PK	Horizontal
3	11232.30	40.75	39.20	9.71	-39.20	50.46	74.00	23.54	PK	Horizontal
4	11951.40	41.27	39.05	10.28	-39.54	51.06	74.00	22.94	PK	Horizontal
5	15730.50	37.40	38.44	14.71	-39.20	51.35	74.00	22.65	PK	Horizontal
6	17891.20	38.22	41.80	12.74	-42.16	50.60	74.00	23.40	PK	Horizontal

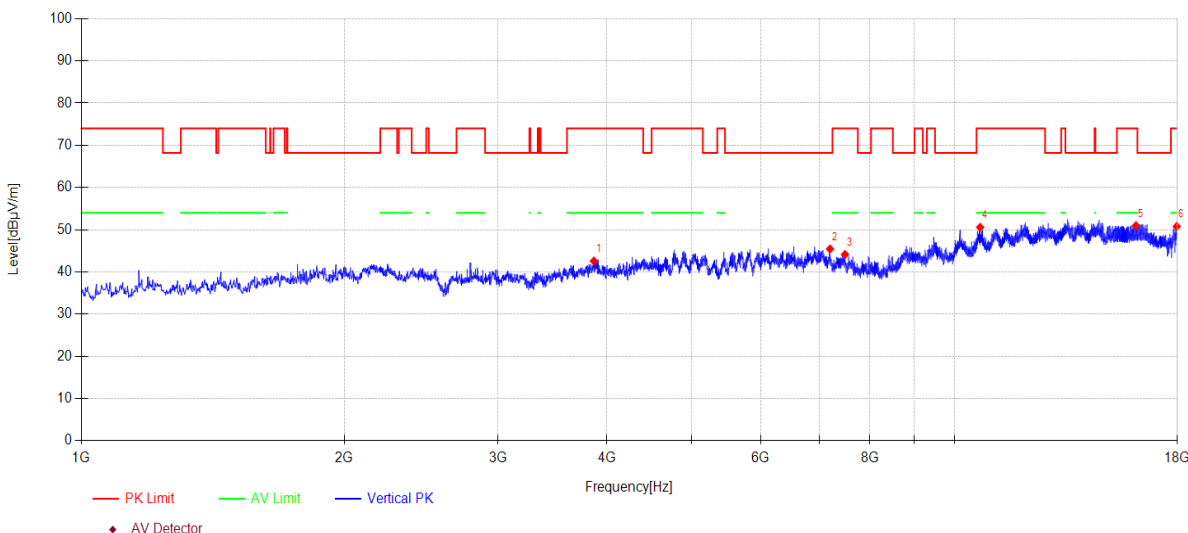
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-29 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11AX20MIMO 5580MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\16
Memo: Sample Number:S23111313-02 Power Setting:NA

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	3864.50	45.97	30.99	5.98	-40.37	42.57	74.00	31.43	PK	Vertical
2	7201.60	40.91	36.80	8.93	-41.20	45.44	68.20	22.76	PK	Vertical
3	7492.30	40.67	36.52	8.88	-41.93	44.14	74.00	29.86	PK	Vertical
4	10701.90	40.66	39.40	9.49	-38.98	50.57	74.00	23.43	PK	Vertical
5	16140.20	37.08	37.86	15.48	-39.47	50.95	74.00	23.05	PK	Vertical
6	17969.40	38.05	42.25	12.82	-42.33	50.79	74.00	23.21	PK	Vertical

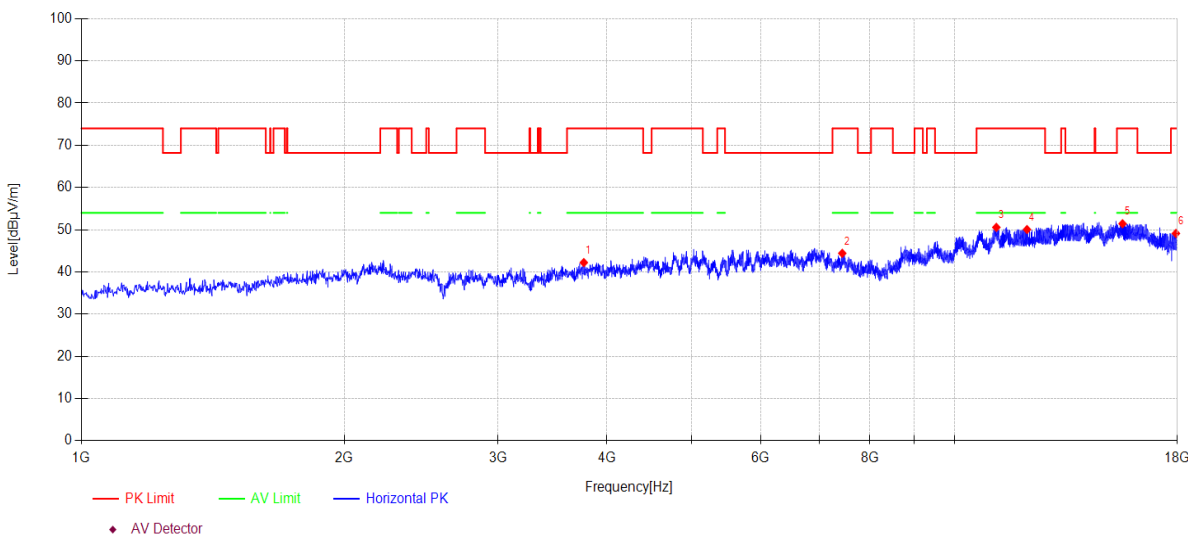
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-29 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11AX20MIMO 5700MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\17
Memo: Sample Number:S23111313-02 Power Setting:NA

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	3762.50	46.07	30.55	5.91	-40.31	42.22	74.00	31.78	PK	Horizontal
2	7439.60	40.70	36.62	8.89	-41.80	44.41	74.00	29.59	PK	Horizontal
3	11167.70	40.85	39.23	9.65	-39.17	50.56	74.00	23.44	PK	Horizontal
4	12109.50	40.02	39.30	10.33	-39.60	50.05	74.00	23.95	PK	Horizontal
5	15579.20	37.94	38.64	13.95	-39.11	51.42	74.00	22.58	PK	Horizontal
6	17933.70	36.51	42.07	12.79	-42.25	49.12	74.00	24.88	PK	Horizontal

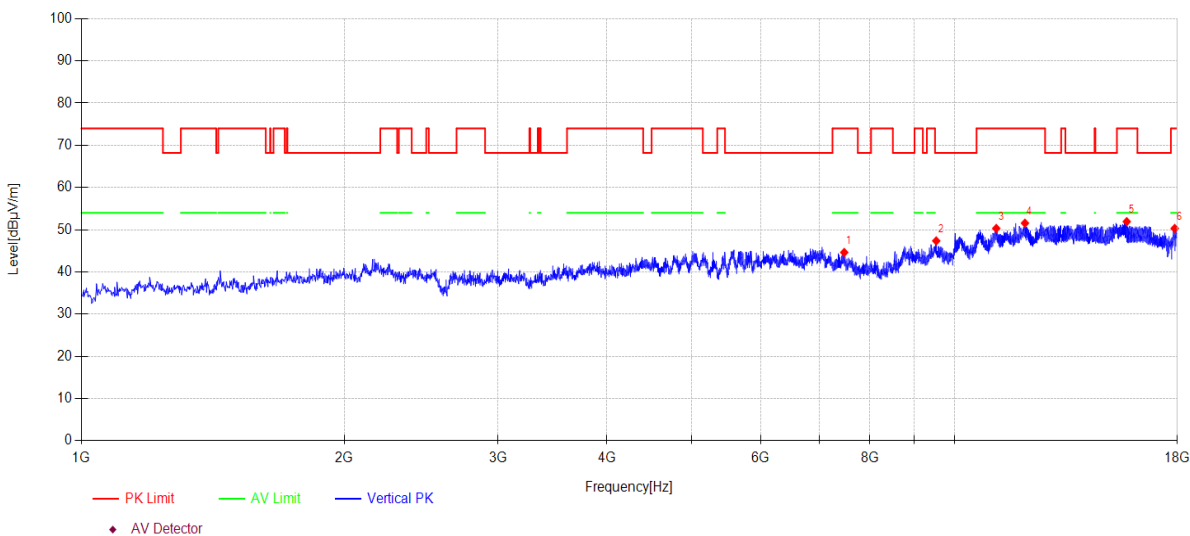
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-29 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11AX20MIMO 5700MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\18
Memo: Sample Number:S23111313-02 Power Setting:NA

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	7477.00	41.08	36.55	8.88	-41.89	44.62	74.00	29.38	PK	Vertical
2	9530.60	38.23	38.64	9.24	-38.75	47.36	68.20	20.84	PK	Vertical
3	11166.00	40.61	39.23	9.65	-39.17	50.32	74.00	23.68	PK	Vertical
4	12043.20	41.58	39.24	10.32	-39.58	51.56	74.00	22.44	PK	Vertical
5	15750.90	37.92	38.40	14.81	-39.21	51.92	74.00	22.08	PK	Vertical
6	17872.50	38.10	41.60	12.73	-42.12	50.31	74.00	23.69	PK	Vertical

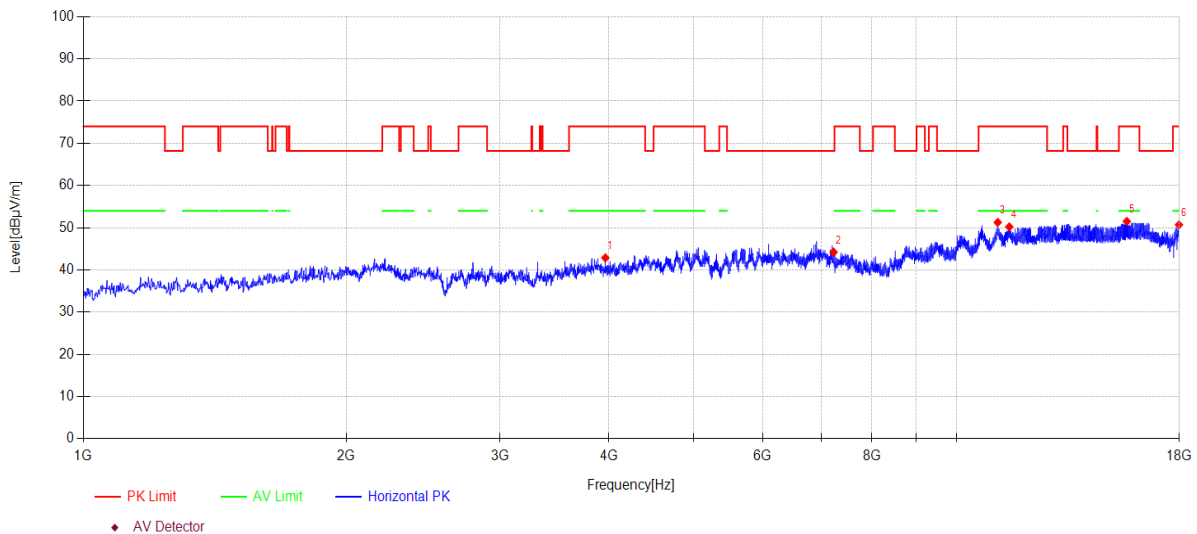
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-29 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11AX20MIMO 5720MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\19
Memo: Sample Number:S23111313-02 Power Setting:NA

Test Graph



Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	3961.40	46.19	31.05	6.05	-40.43	42.86	74.00	31.14	PK	Horizontal
2	7232.20	39.77	36.80	8.92	-41.28	44.21	68.20	23.99	PK	Horizontal
3	11150.70	41.54	39.25	9.64	-39.16	51.27	74.00	22.73	PK	Horizontal
4	11495.80	40.40	39.20	9.92	-39.32	50.20	74.00	23.80	PK	Horizontal
5	15672.70	37.71	38.53	14.42	-39.16	51.50	74.00	22.50	PK	Horizontal
6	17983.00	37.89	42.32	12.83	-42.36	50.68	74.00	23.32	PK	Horizontal

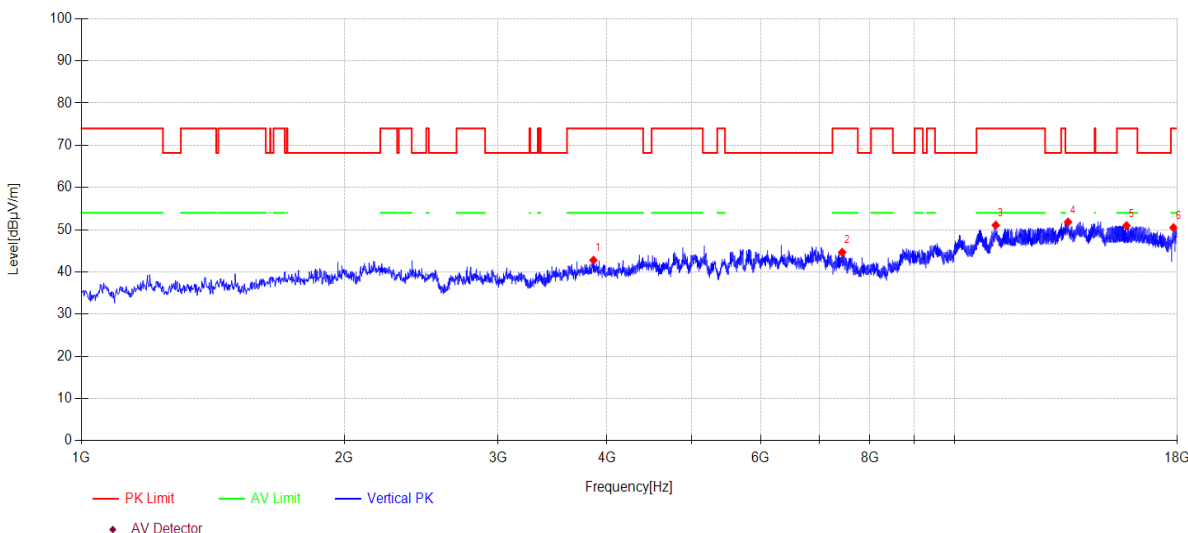
Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-01-29 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11AX20MIMO 5720MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\20
Memo: Sample Number:S23111313-02 Power Setting:NA

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	3859.40	46.19	30.96	5.98	-40.36	42.77	74.00	31.23	PK	Vertical
2	7436.20	40.92	36.63	8.89	-41.79	44.65	74.00	29.35	PK	Vertical
3	11150.70	41.35	39.25	9.64	-39.16	51.08	74.00	22.92	PK	Vertical
4	13491.60	40.76	40.28	10.57	-39.80	51.81	68.20	16.39	PK	Vertical
5	15740.70	36.97	38.42	14.76	-39.20	50.95	74.00	23.05	PK	Vertical
6	17818.10	38.81	41.00	12.67	-41.99	50.49	74.00	23.51	PK	Vertical

Note:

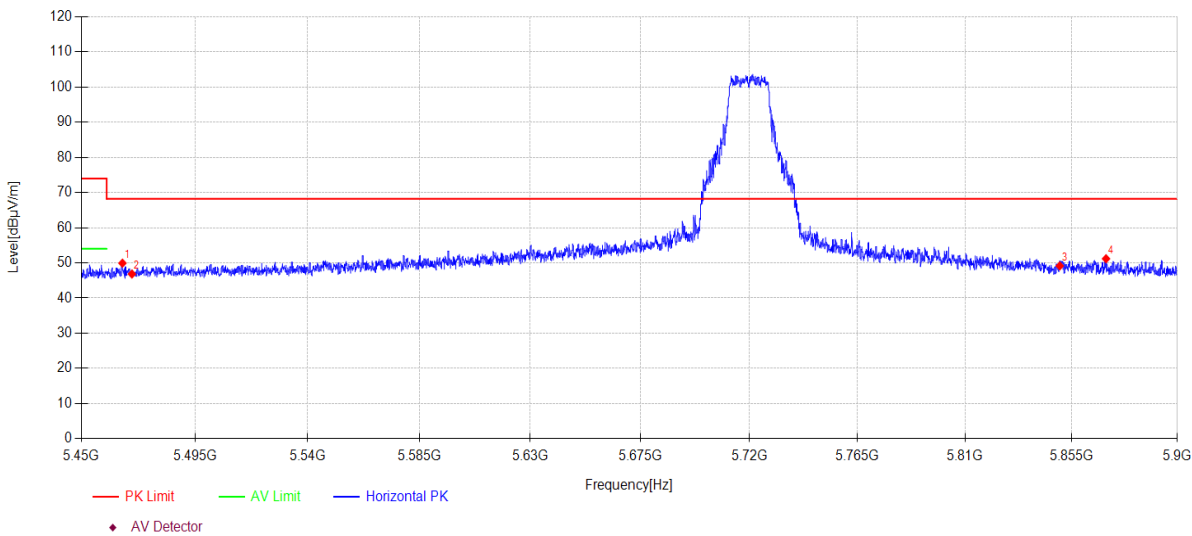
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-02-01 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11A ANT1 5720MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\223

Memo: Sample Number:S23111313-02 Power Setting:15

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	5466.25	11.19	33.00	5.74	0.00	49.93	68.20	18.27	PK	Horizontal
2	5470.00	8.09	33.00	5.75	0.00	46.84	68.20	21.36	PK	Horizontal
3	5850.00	9.20	34.00	5.94	0.00	49.14	68.20	19.06	PK	Horizontal
4	5869.63	11.20	34.04	5.94	0.00	51.18	68.20	17.02	PK	Horizontal

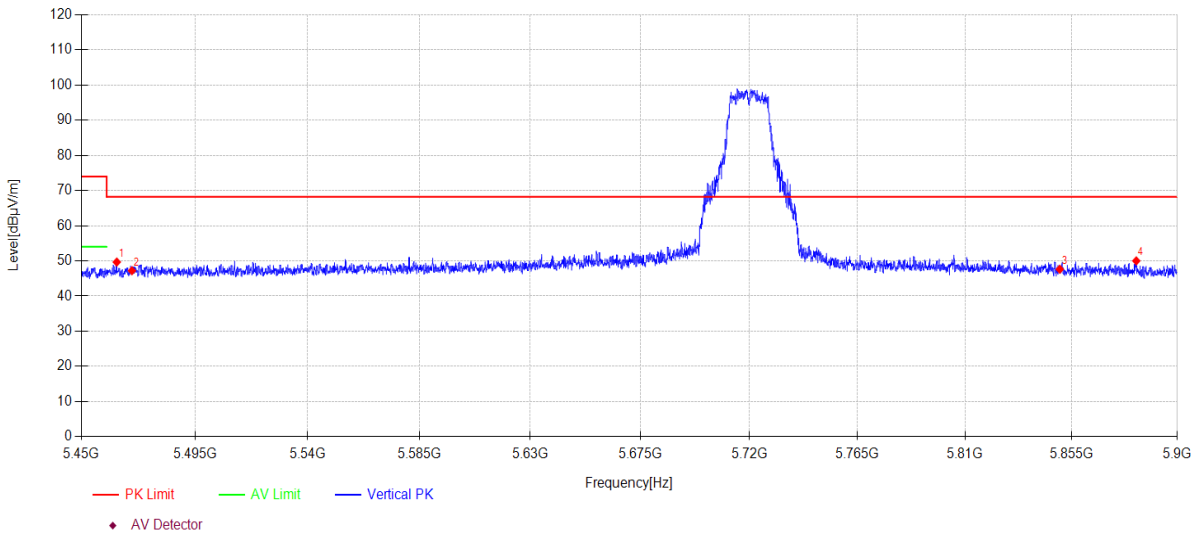
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-02-01 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11A ANT1 5720MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\224
Memo: Sample Number:S23111313-02 Power Setting:15

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	5464.00	10.93	33.00	5.74	0.00	49.67	68.20	18.53	PK	Vertical
2	5470.00	8.46	33.00	5.75	0.00	47.21	68.20	20.99	PK	Vertical
3	5850.00	7.69	34.00	5.94	0.00	47.63	68.20	20.57	PK	Vertical
4	5882.50	10.00	34.06	5.95	0.00	50.01	68.20	18.19	PK	Vertical

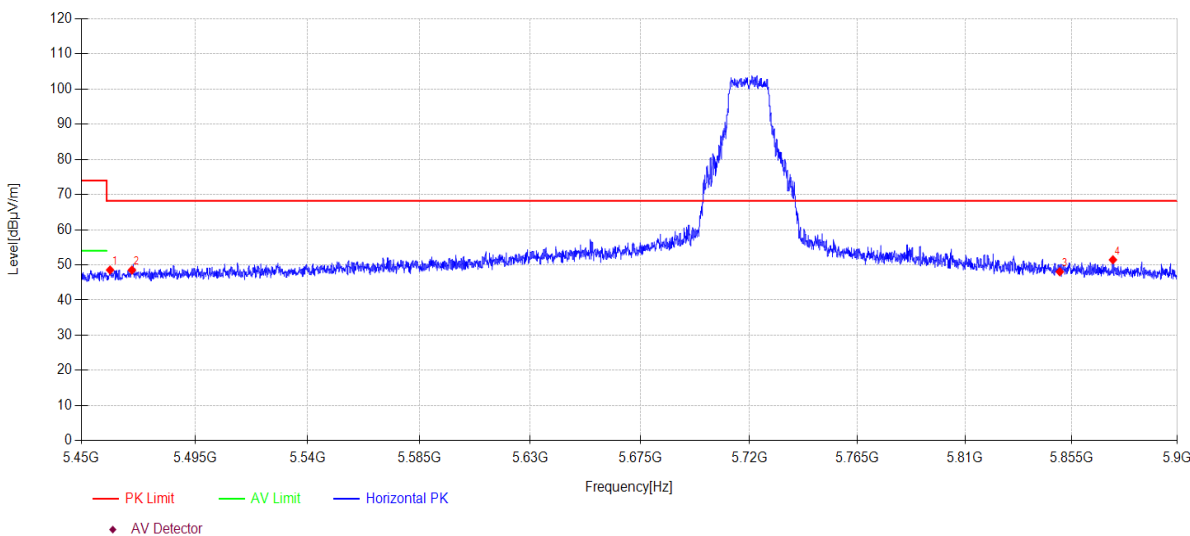
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-02-01 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11A ANT2 5720MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\225
Memo: Sample Number:S23111313-02 Power Setting:15

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	5461.34	9.82	33.00	5.74	0.00	48.56	68.20	19.64	PK	Horizontal
2	5470.00	9.78	33.00	5.75	0.00	48.53	68.20	19.67	PK	Horizontal
3	5850.00	8.11	34.00	5.94	0.00	48.05	68.20	20.15	PK	Horizontal
4	5872.55	11.45	34.05	5.95	0.00	51.45	68.20	16.75	PK	Horizontal

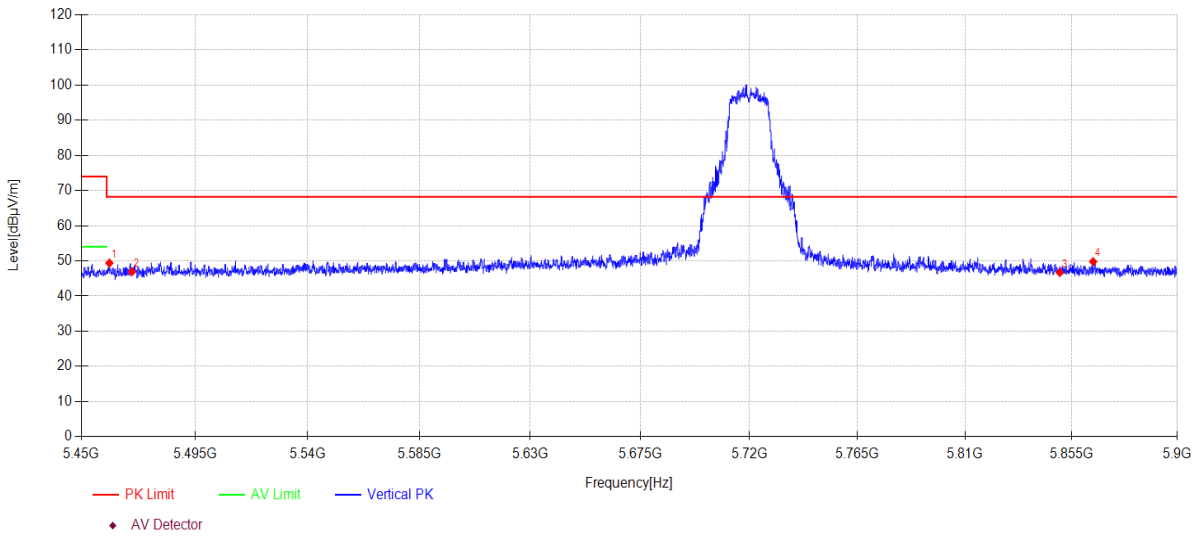
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-02-01 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11A ANT2 5720MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\226
Memo: Sample Number:S23111313-02 Power Setting:15

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	5461.07	10.65	33.00	5.74	0.00	49.39	68.20	18.81	PK	Vertical
2	5470.00	8.18	33.00	5.75	0.00	46.93	68.20	21.27	PK	Vertical
3	5850.00	6.77	34.00	5.94	0.00	46.71	68.20	21.49	PK	Vertical
4	5864.14	9.82	34.03	5.94	0.00	49.79	68.20	18.41	PK	Vertical

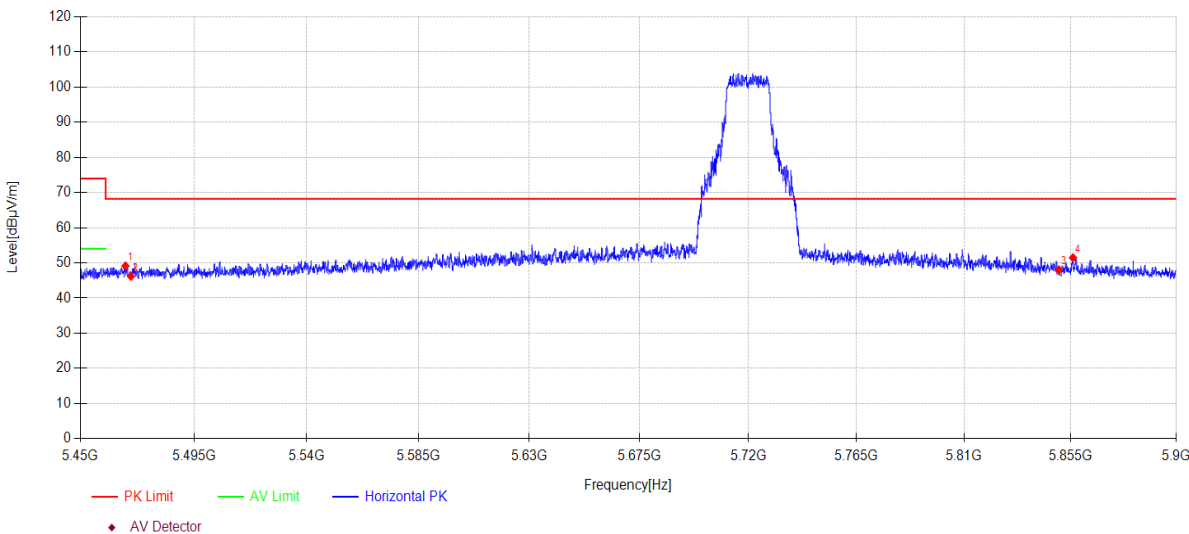
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2024-02-01 **Tested By:** Bairong
EUT: Wireless Speaker **Model Number:** CHARGE 5 Wi-Fi
Test Mode: 11N20MIMO 5720MHz TX **Power Supply:** AC 120V/60Hz
Condition: Temp:21.5°C;Humi:39.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2024 report data\Q23111313-2E CHARGE 5 Wi-Fi\FCC ABOVE 1G 5GWIFI\227
Memo: Sample Number:S23111313-02 Power Setting:14

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	5467.82	10.38	33.00	5.74	0.00	49.12	68.20	19.08	PK	Horizontal
2	5470.00	7.45	33.00	5.75	0.00	46.20	68.20	22.00	PK	Horizontal
3	5850.00	8.07	34.00	5.94	0.00	48.01	68.20	20.19	PK	Horizontal
4	5856.04	11.52	34.01	5.94	0.00	51.47	68.20	16.73	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.