

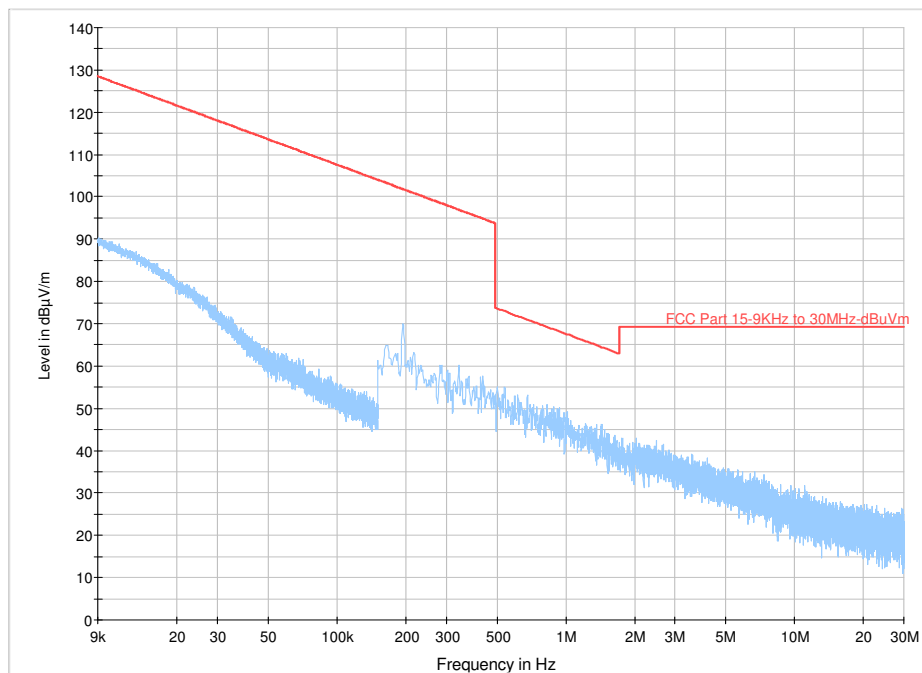
3.6 SPURIOUS RADIATED EMISSIONS

EUT Nomenclature	Wireless AV Base	Test Report No.	EMC0209-1
Model No.	WAV-RL	Serial No.	AV-RF202
Test Start Date	03, 15 & 19 - May-2017	Temperature (°C)	23 ± 2
Test End Date	03, 15 & 19 - May-2017	Humidity RH (%)	55 ± 3
Tested By	Magesh .S	Pressure (mbar)	NR
Input Voltage / Freq	3.3Vdc		
Operating Mode	Refer Page 5 Operating Modes Table		
Test configuration	Refer Page 5 Test Configuration Table		
Deviation from Std	NA		
Comment	Nil		
TEST FREQUENCY RANGE			
Start Frequency	9KHz	Stop Frequency	10GHz
MAXIMUM OPERATING FREQUENCY			
902MHz to 928MHz			
TEST PARAMETERS			
Antenna Height	1m to 4m	Turntable Rotation	0° to 360°
Applicable standard	FCC Part 15.209	Test Method	KDB 558074
Equipment Class	NA	Measurement Distance	3m

TEST EQUIPMENT

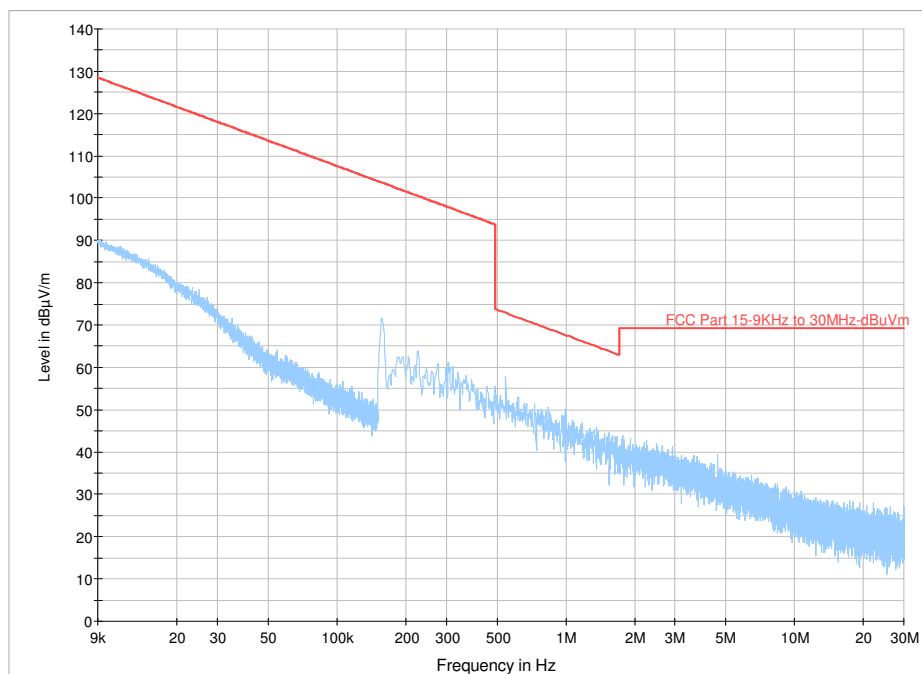
Y/N	Equipment	Make	Model	Sl. No.	Cal Due Date
Y	EMI Test Receiver	R&S	ESU26	100525	06-July-2017
Y	3m Semi Anechoic Chamber	ETS Lindgren	DKE 6X7 DBL.DR	1625	26-July-2018
Y	Active Loop Antenna	ETS Lindgren	6507	000103694	02-Jun-2017*
Y	Bilog Antenna	ETS Lindgren	HLP3003C	130525	14-Nov-2017
Y	Double Ridge Guide Horn Antenna	ETS Lindgren	3117	00119022	08-Jun-2017*
Y	RF cable (9KHz to 1GHz)	ENS Microwave	MNS-MNS	11202012	22-Feb-2018
Y	RF cable (9KHz to 1GHz)	AH System	SAC-18G-06	RE-03	22-Feb-2018
Y	RF cable (1GHz to 18GHz)	Huber + Suhner	Sucoflex 104	MY13472/4	24-Feb-2018
Y	Signal Conditioning unit	R&S	SCU-18	10178	02-May-2018
Y	EMC32 Software	R&S	8.30.0	820-OT101248	NA
Note: Switch ON /OFF the Internal Preamplifier based on carrier level and or noise floor without overloading the receiver					
* Tests were completed before the due date.					

TEST GRAPHS – 9KHz to 30MHz



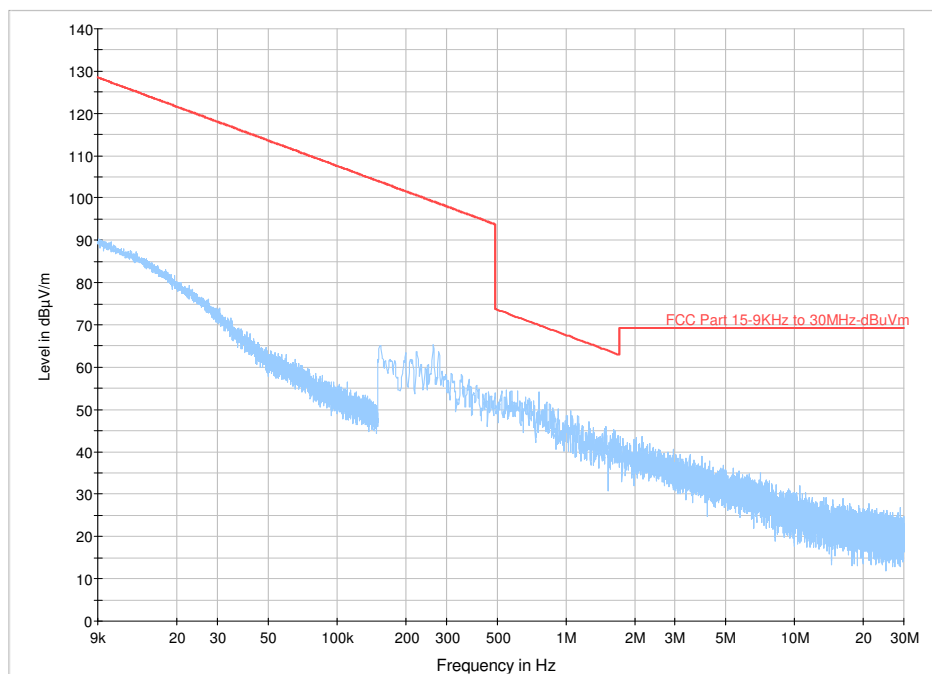
Antenna-1, Channel 1 (902.875 MHz)

Note : Peak Graph - Parallel

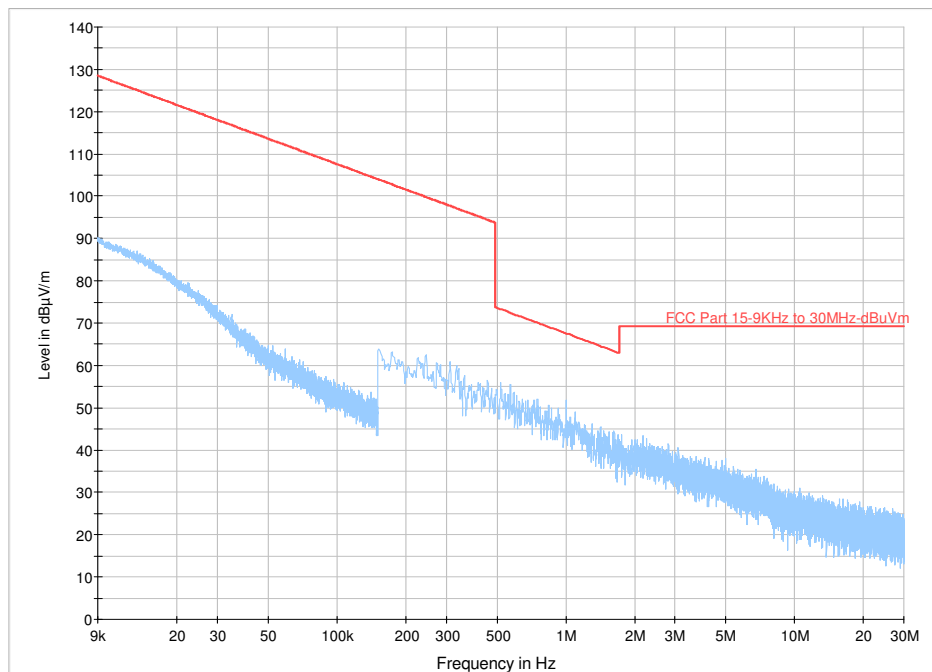


Antenna-1, Channel 1 (902.875 MHz)

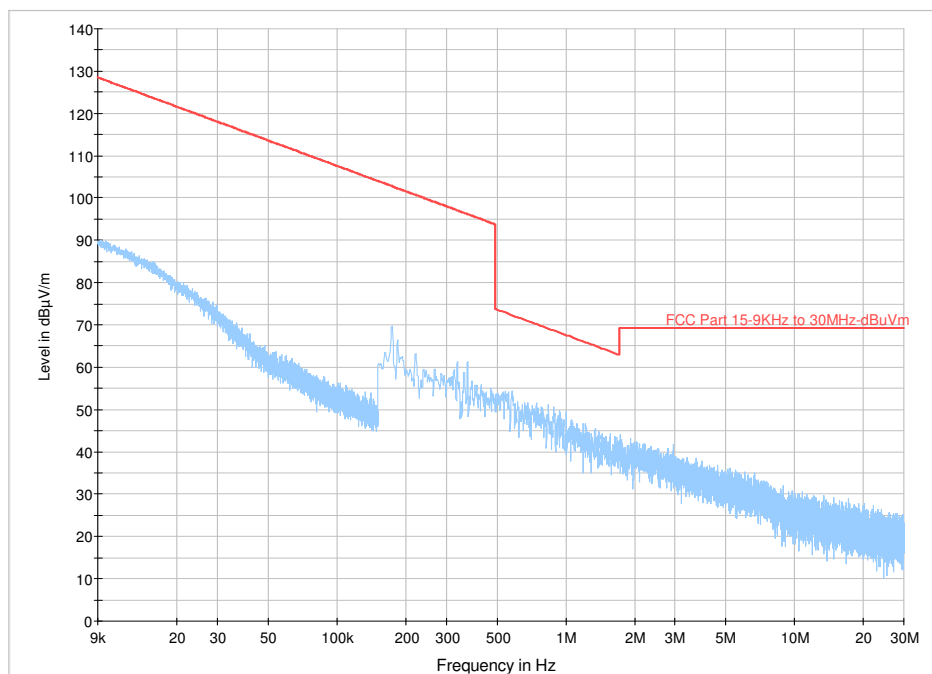
Note : Peak Graph - Perpendicular

**Antenna-1, Channel 2 (908.425 MHz)**

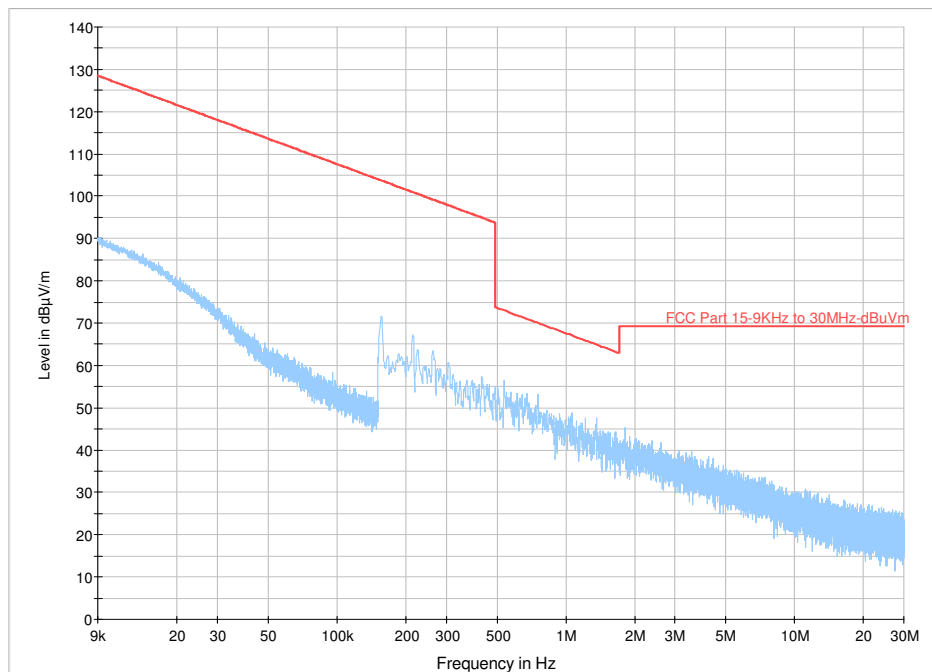
Note : Peak Graph - Parallel

**Antenna-1, Channel 2 (908.425 MHz)**

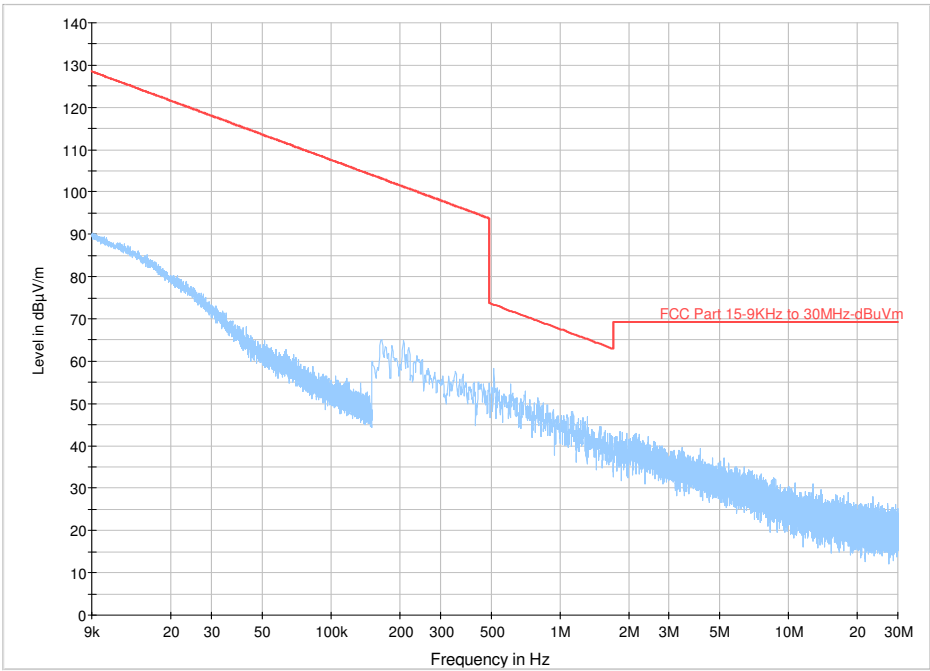
Note : Peak Graph - Perpendicular

**Antenna-1, Channel 3 (914.325 MHz)**

Note : Peak Graph - Parallel

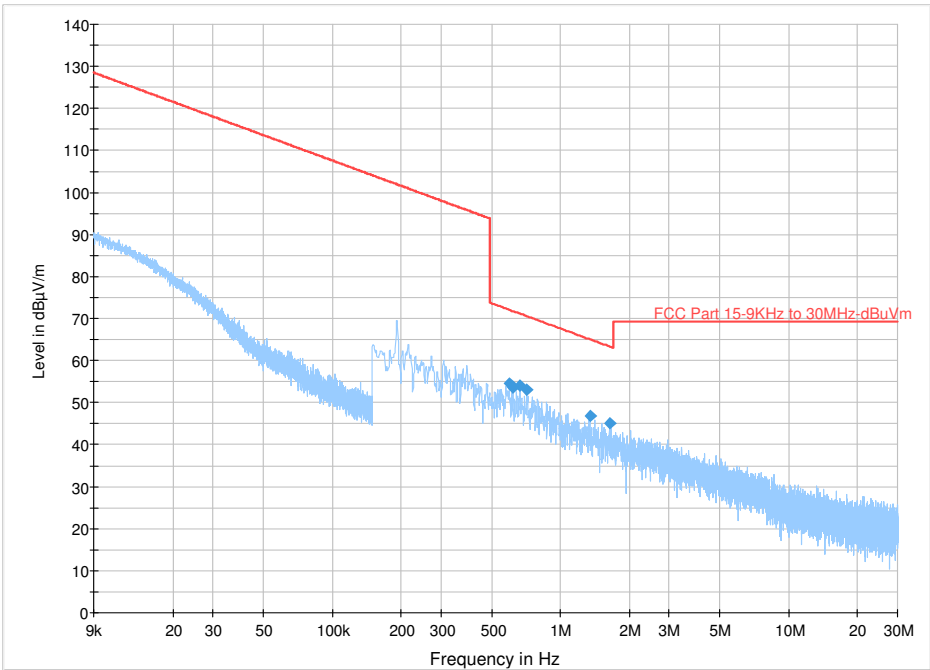
**Antenna-1, Channel 3 (914.325 MHz)**

Note : Peak Graph - Perpendicular



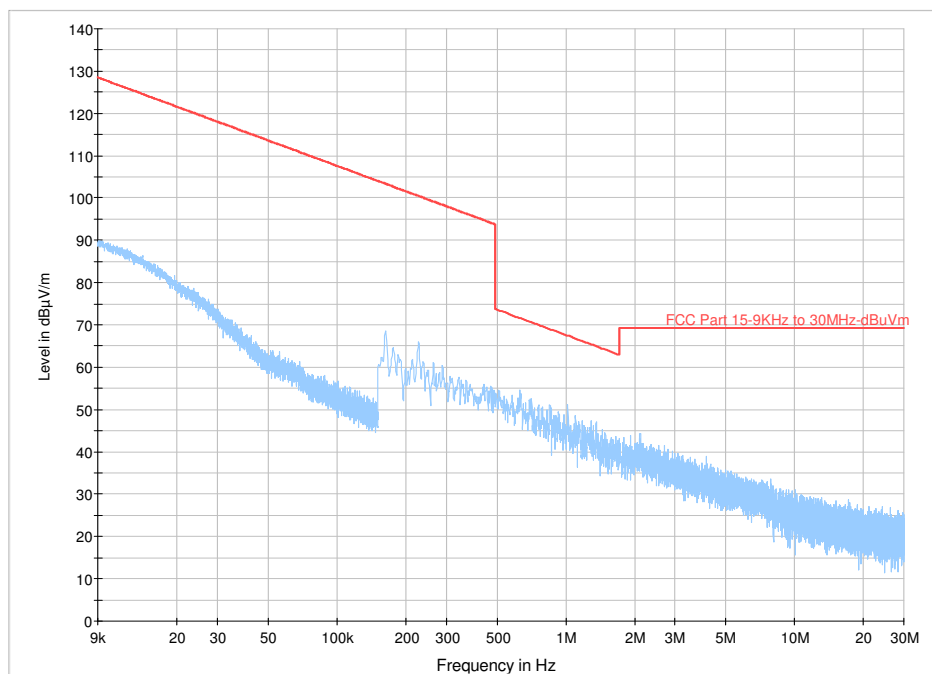
Antenna-1, Channel 4 (915.325 MHz)

Note : Peak Graph - Parallel

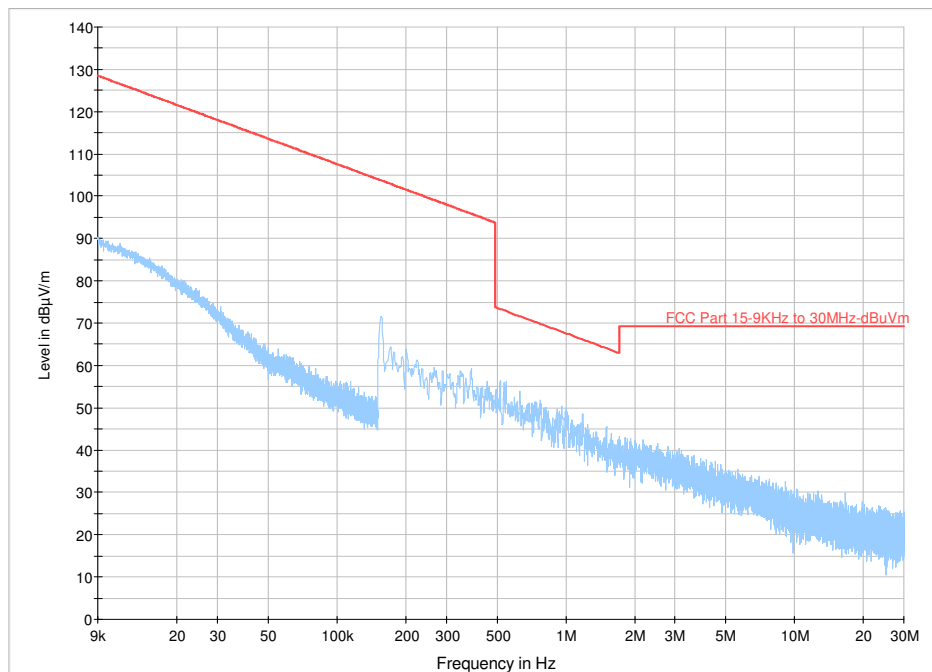


Antenna-1, Channel 4 (915.325 MHz)

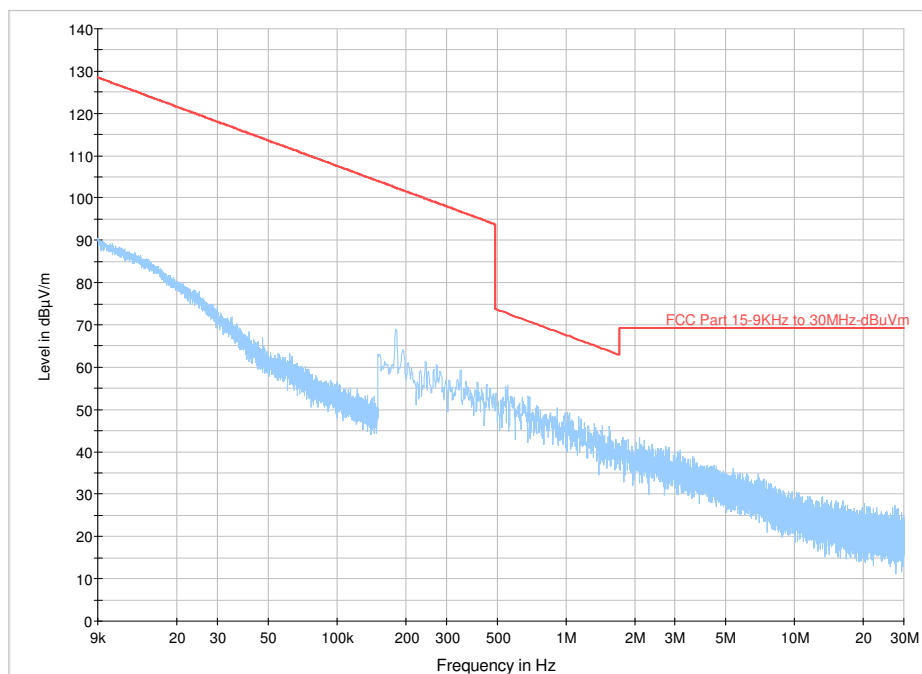
Note : Peak Graph - Perpendicular

**Antenna-1, Channel 5 (921.575 MHz)**

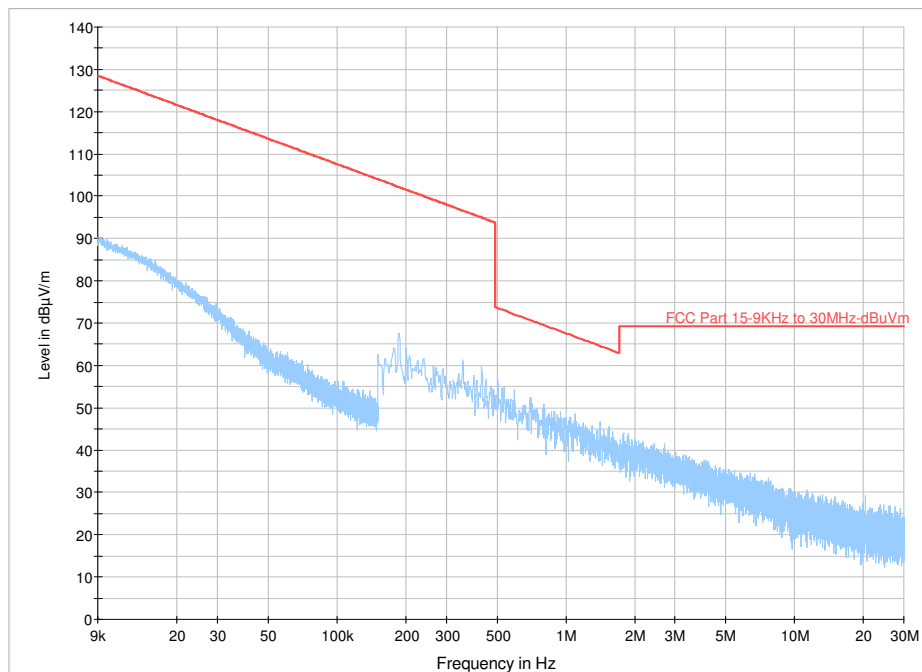
Note : Peak Graph - Parallel

**Antenna-1, Channel 5 (921.575 MHz)**

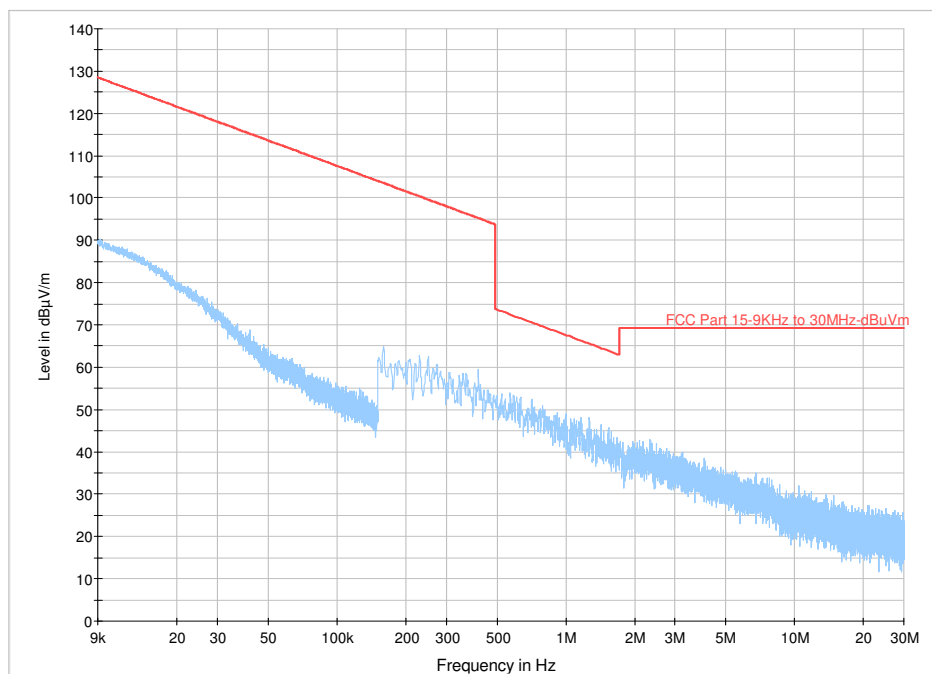
Note : Peak Graph - Perpendicular

**Antenna-1, Channel 6 (927.125MHz)**

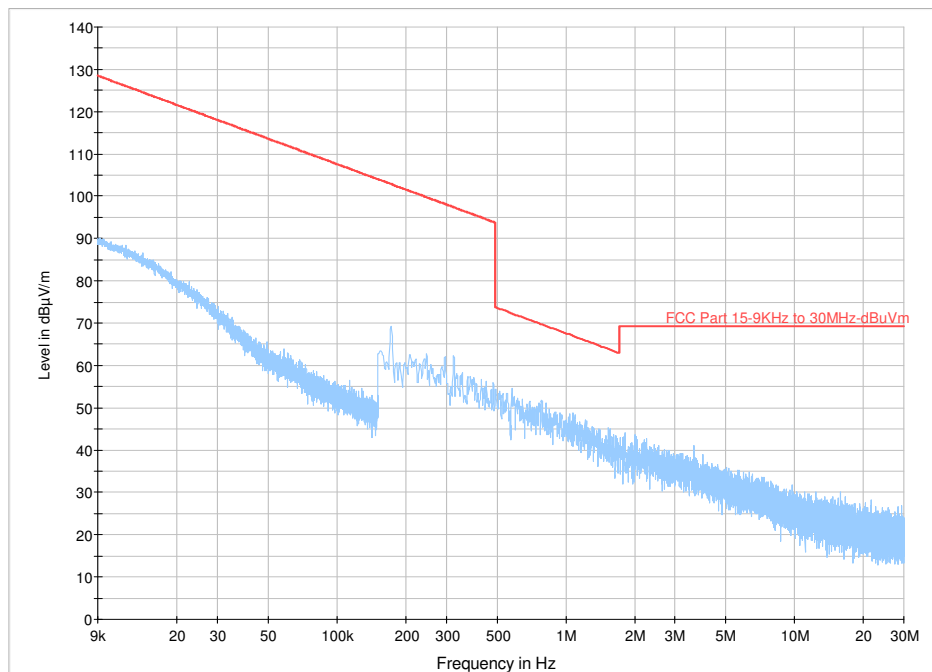
Note : Peak Graph - Parallel

**Antenna-1, Channel 6 (927.125MHz)**

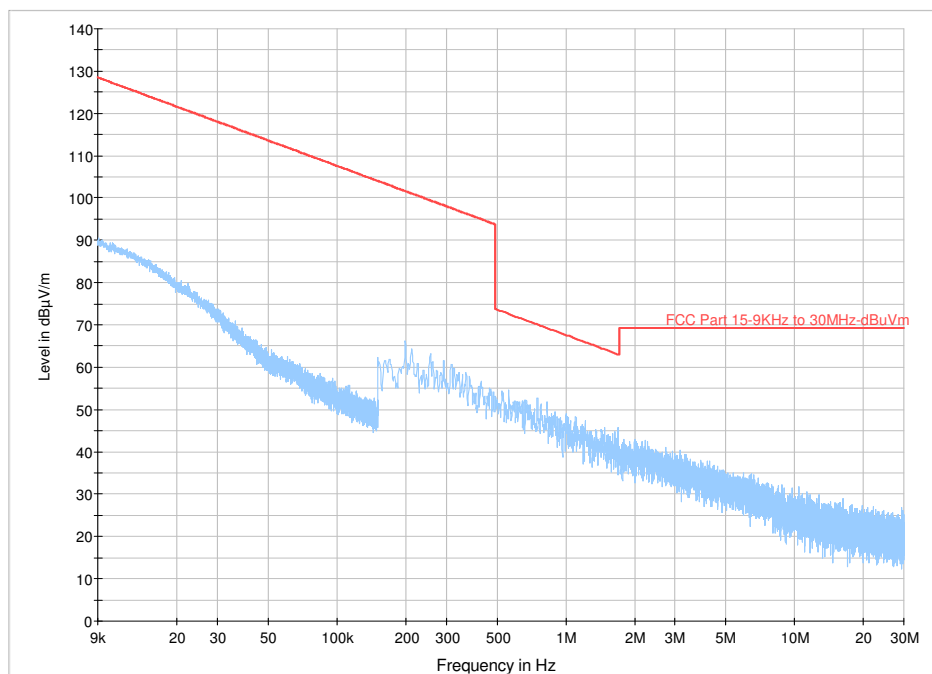
Note : Peak Graph - Perpendicular

**Antenna-2, Channel 1 (902.875 MHz)**

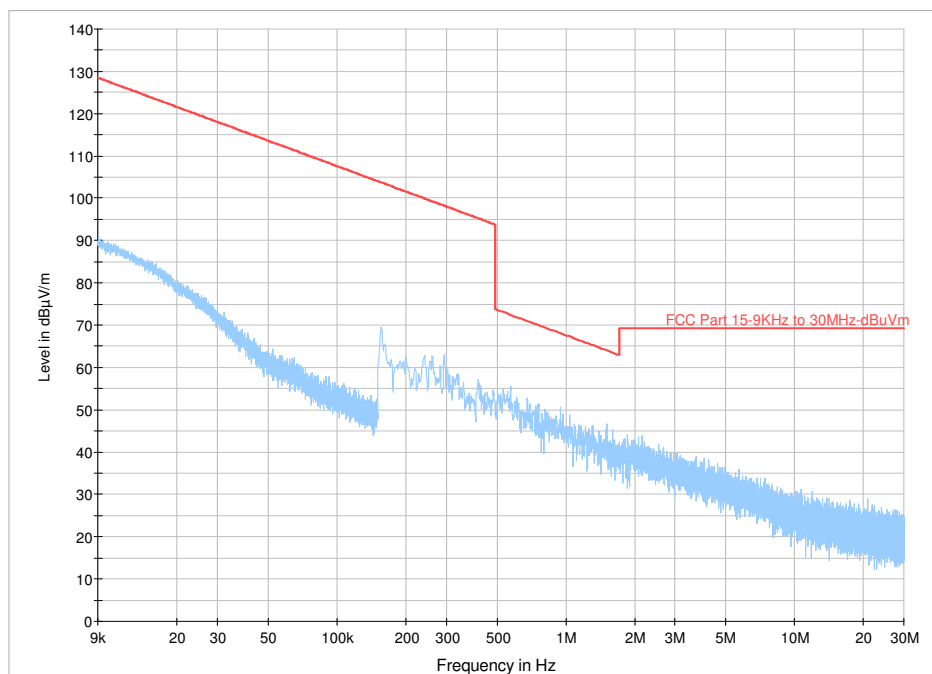
Note : Peak Graph - Parallel

**Antenna-2, Channel 1 (902.875 MHz)**

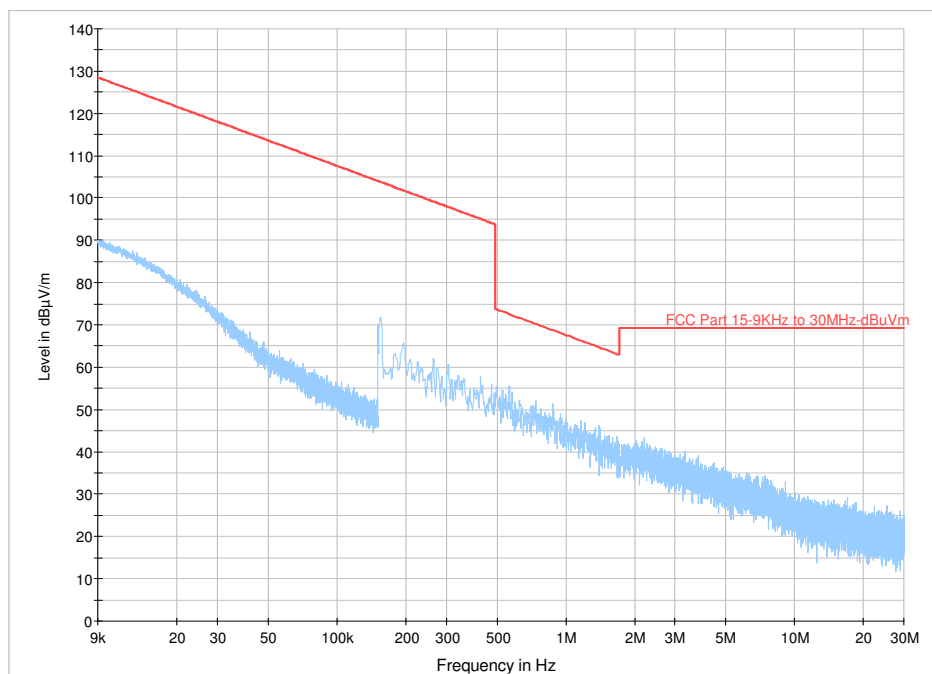
Note : Peak Graph - Perpendicular

**Antenna-2, Channel 2 (908.425 MHz)**

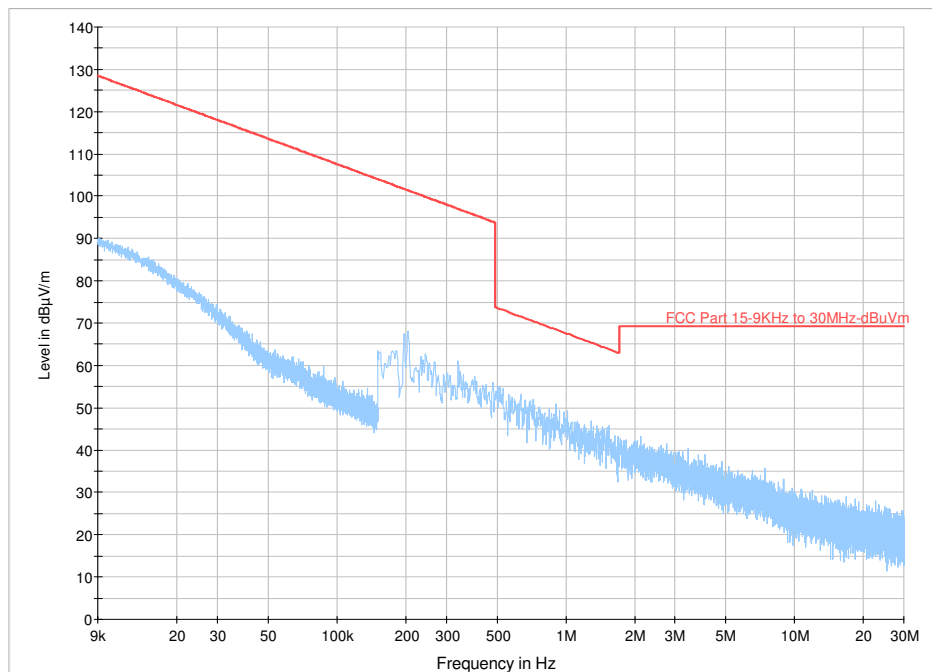
Note : Peak Graph - Parallel

**Antenna-2, Channel 2 (908.425 MHz)**

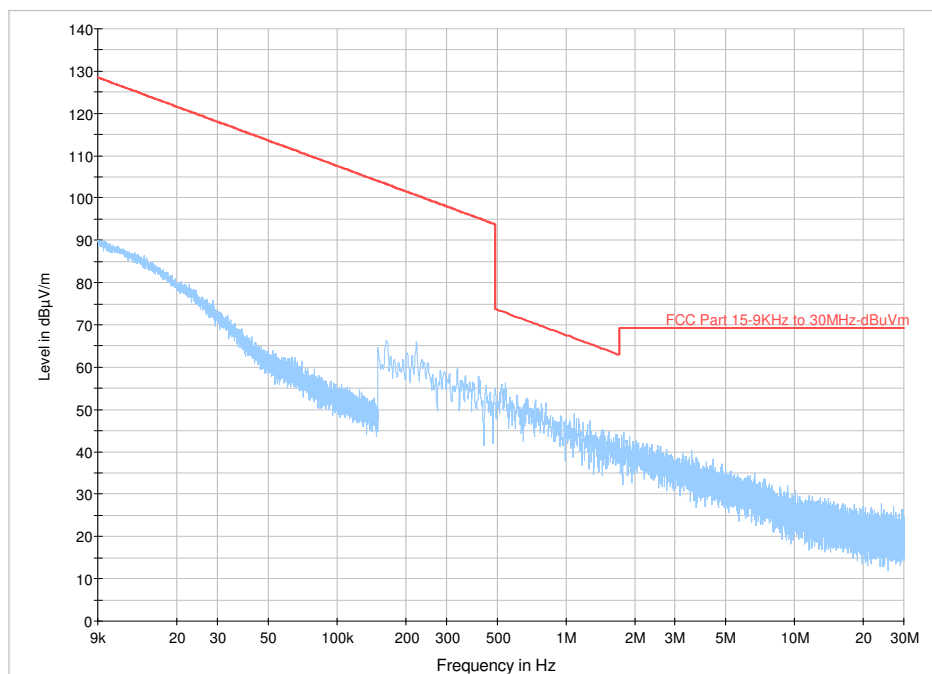
Note : Peak Graph - Perpendicular

**Antenna-2, Channel 3 (914.325 MHz)**

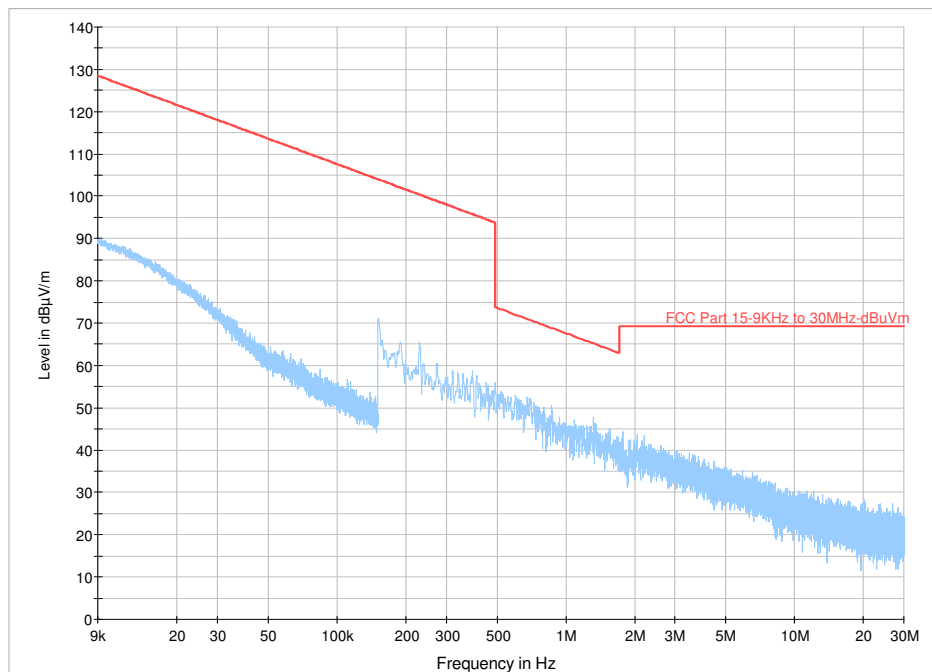
Note : Peak Graph - Parallel

**Antenna-2, Channel 3 (914.325 MHz)**

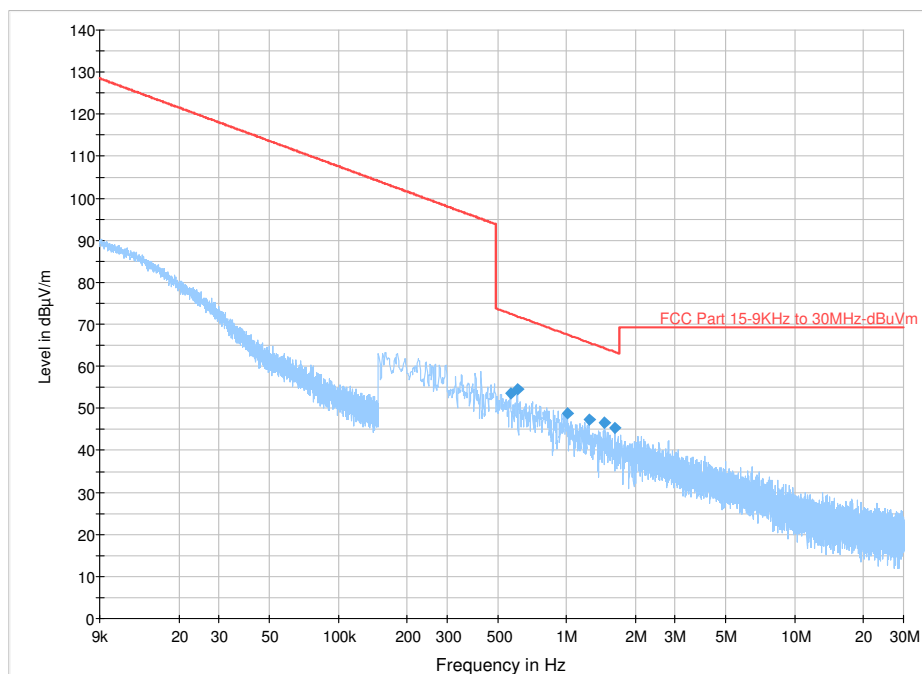
Note : Peak Graph - Perpendicular

**Antenna-2, Channel 4 (915.325 MHz)**

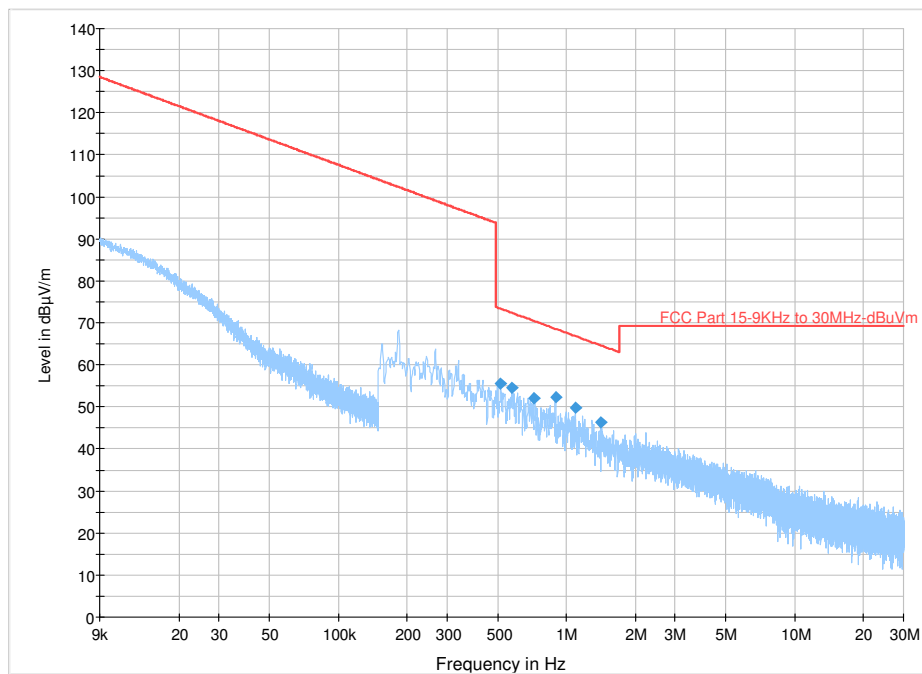
Note : Peak Graph - Parallel

**Antenna-2, Channel 4 (915.325 MHz)**

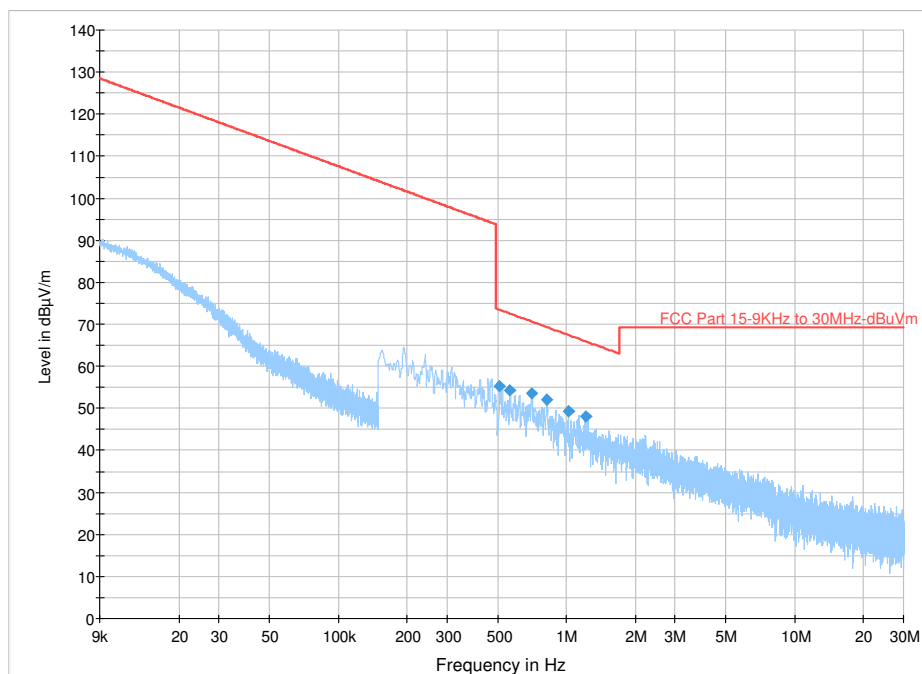
Note : Peak Graph - Perpendicular

**Antenna-2, Channel 5 (921.575 MHz)**

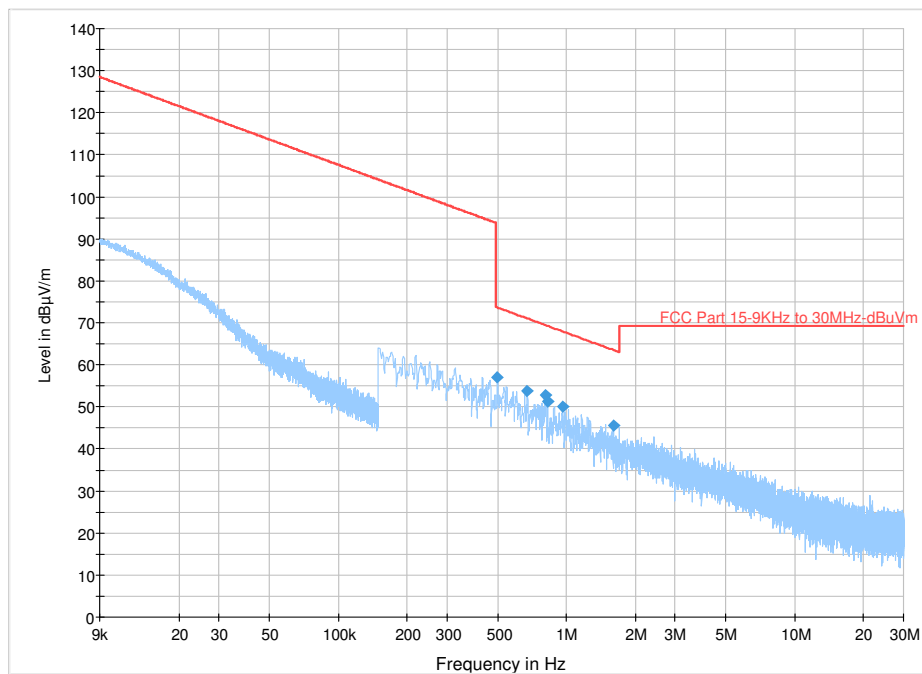
Note : Peak Graph - Parallel

**Antenna-2, Channel 5 (921.575 MHz)**

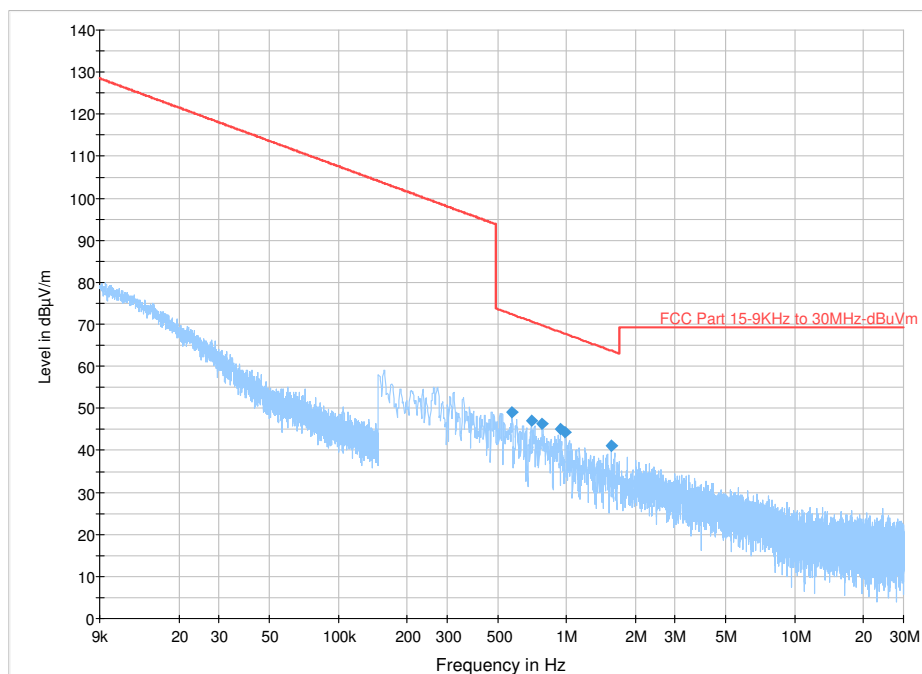
Note : Peak Graph - Perpendicular

**Antenna-2, Channel 6 (927.125MHz)**

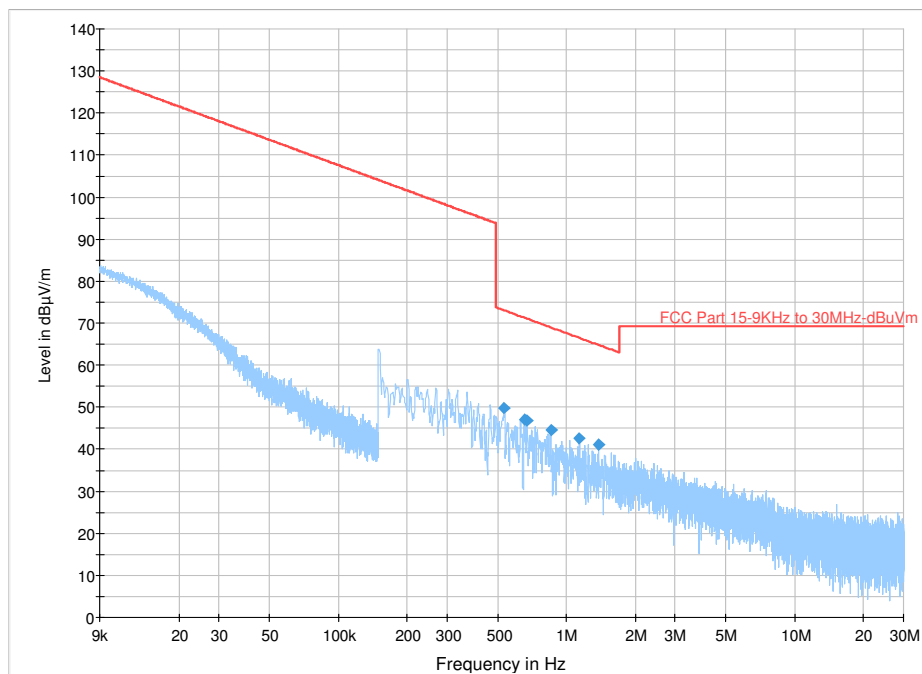
Note : Peak Graph - Parallel

**Antenna-2, Channel 6 (927.125MHz)**

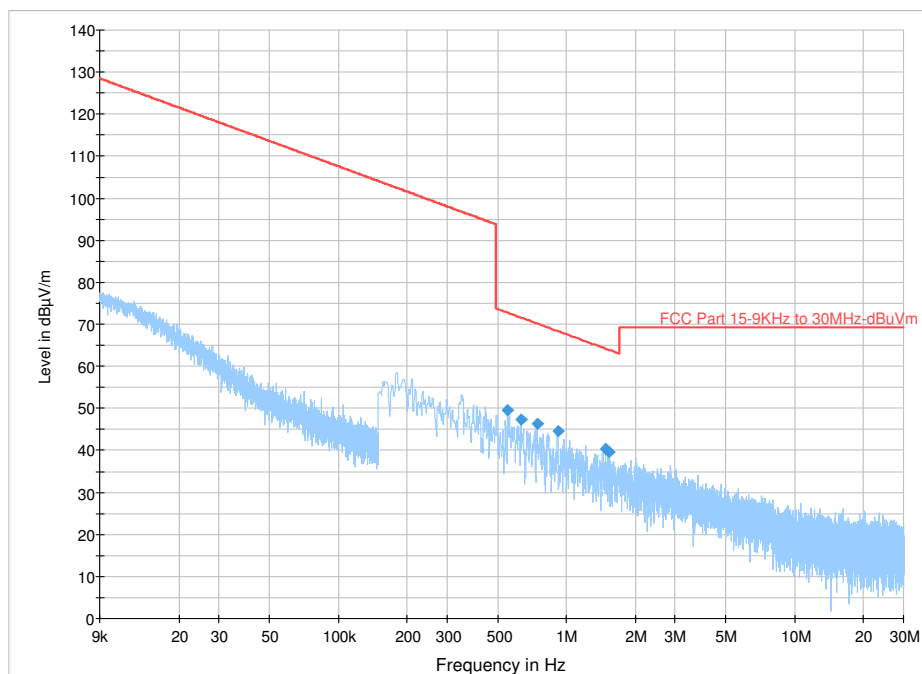
Note : Peak Graph - Perpendicular

**Antenna-3, Channel 1 (902.875 MHz)**

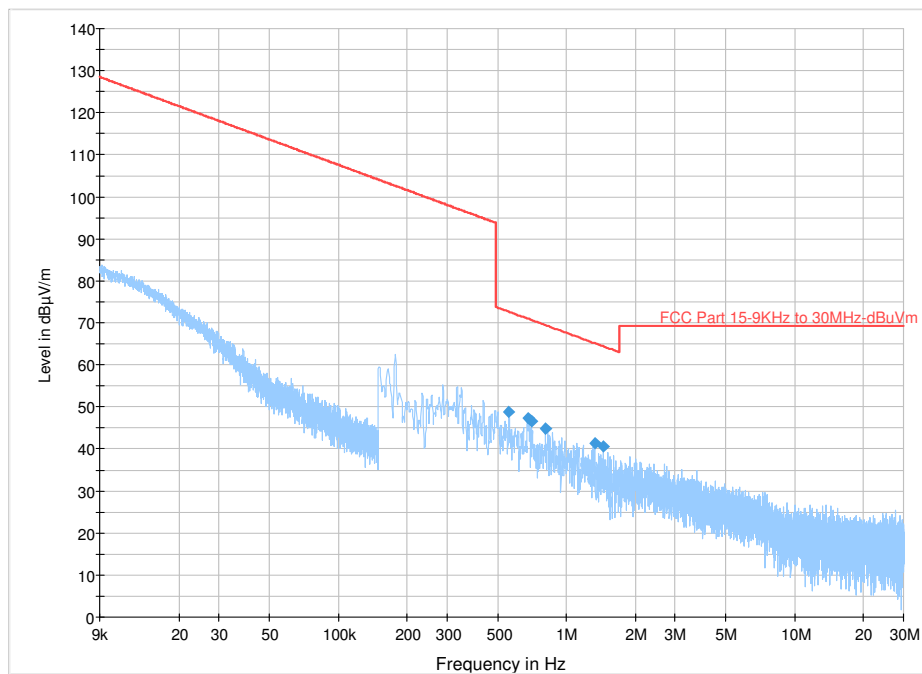
Note : Peak Graph - Parallel

**Antenna-3, Channel 1 (902.875 MHz)**

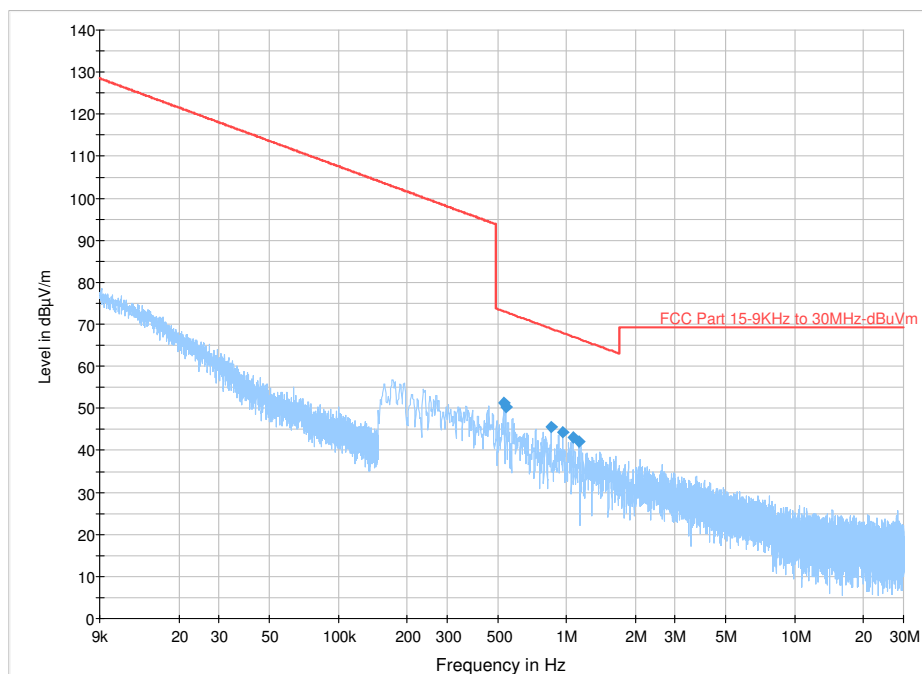
Note : Peak Graph - Perpendicular

**Antenna-3, Channel 2 (908.425 MHz)**

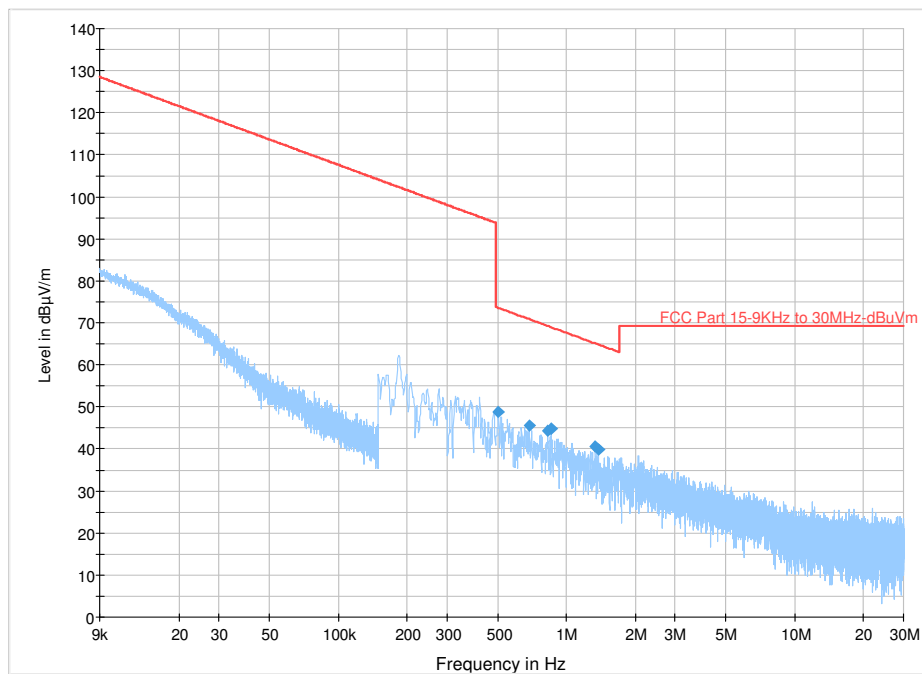
Note : Peak Graph - Parallel

**Antenna-3, Channel 2 (908.425 MHz)**

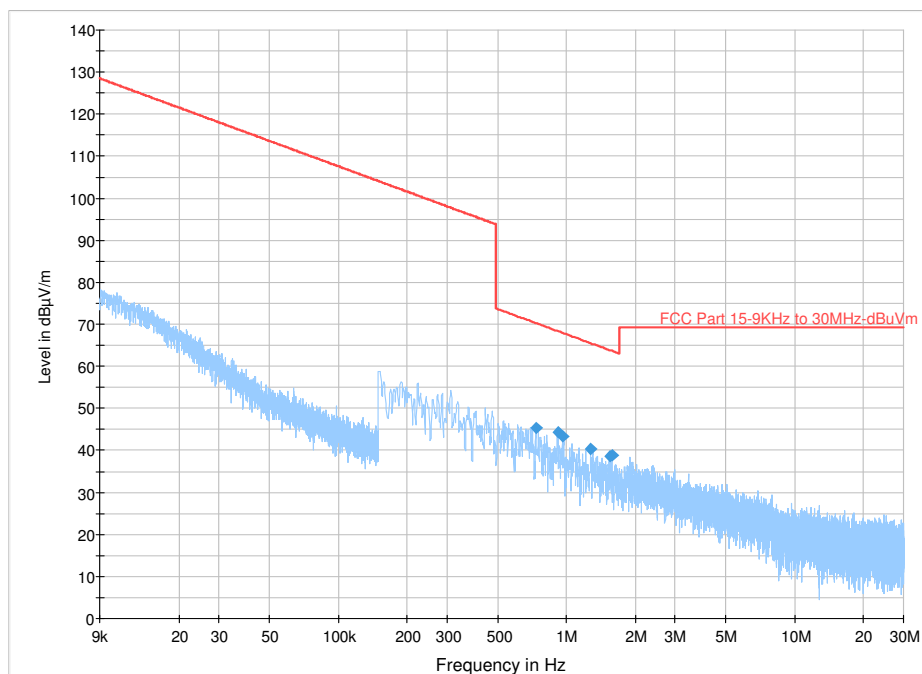
Note : Peak Graph - Perpendicular

**Antenna-3, Channel 3 (914.325 MHz)**

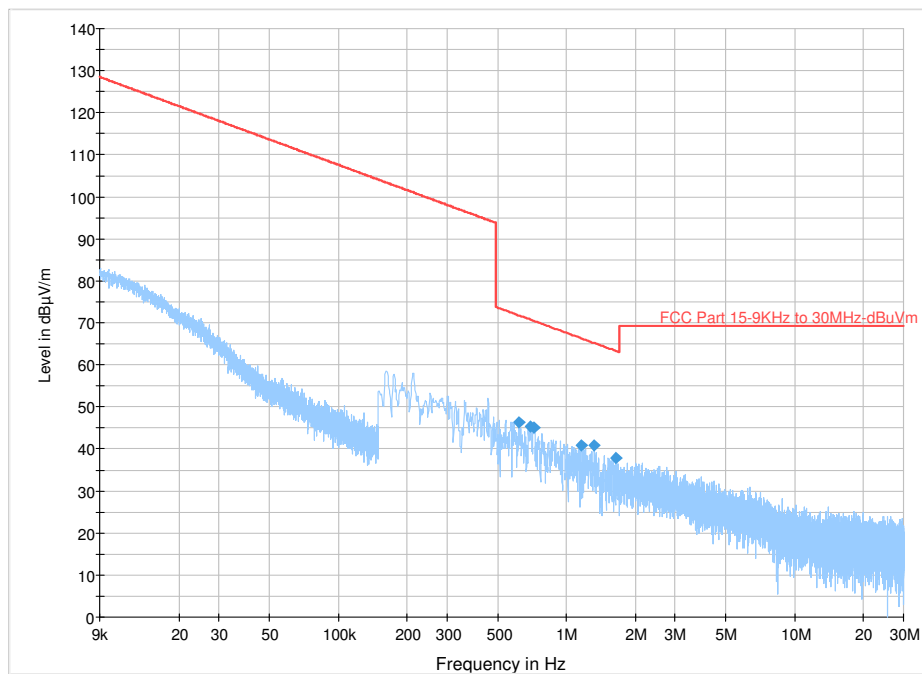
Note : Peak Graph - Parallel

**Antenna-3, Channel 3 (914.325 MHz)**

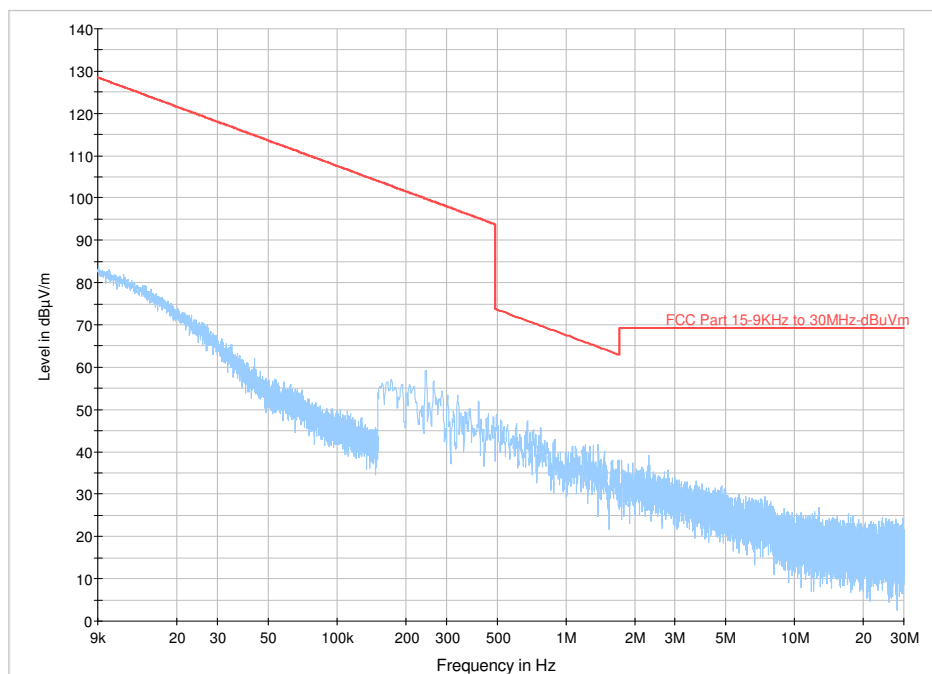
Note : Peak Graph - Perpendicular

**Antenna-3, Channel 4 (915.325 MHz)**

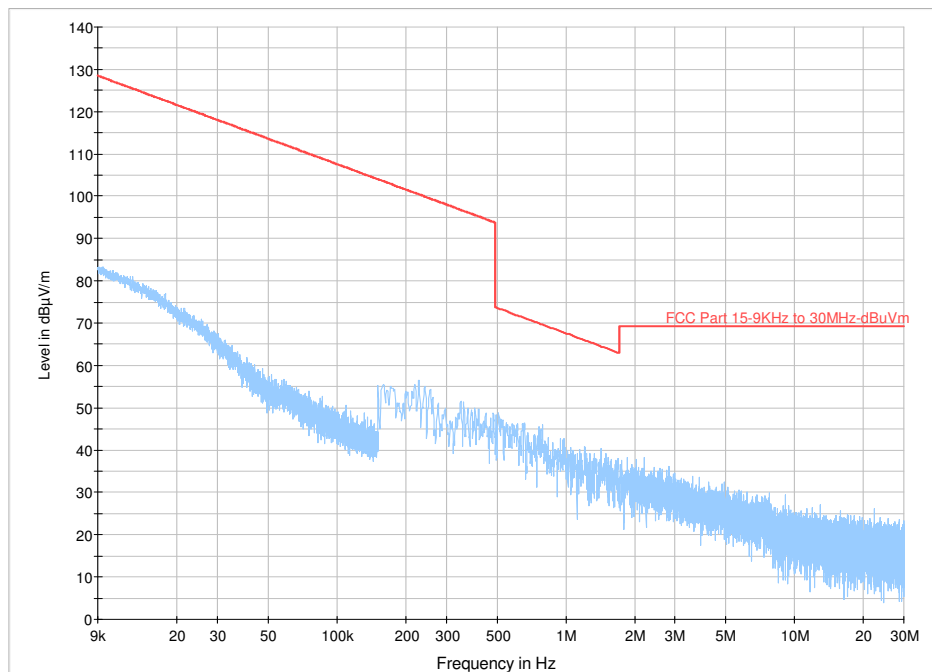
Note : Peak Graph - Parallel

**Antenna-3, Channel 4 (915.325 MHz)**

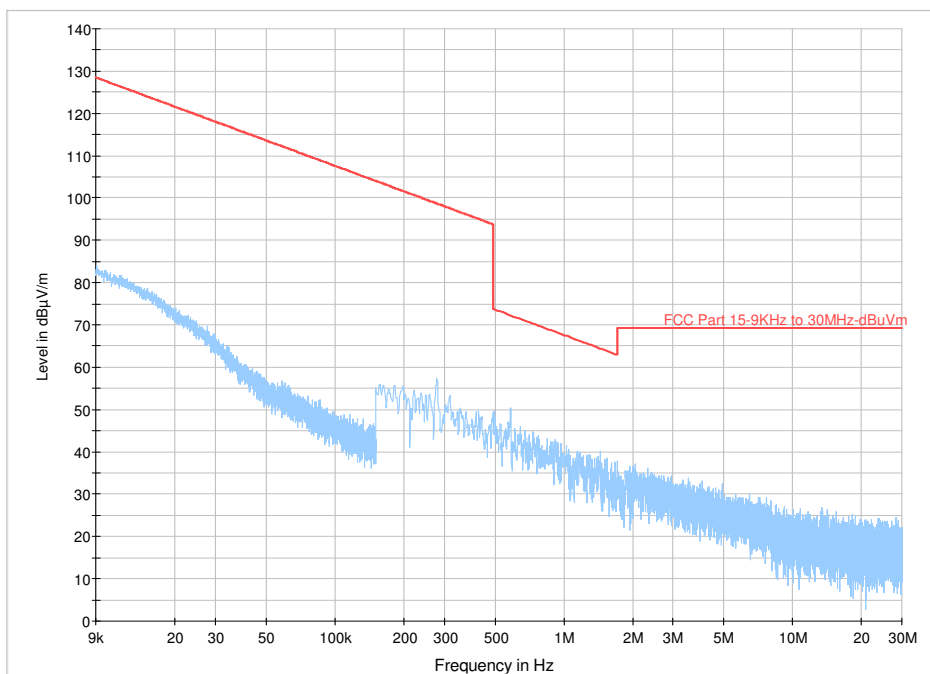
Note : Peak Graph - Perpendicular

**Antenna-3, Channel 5 (921.575 MHz)**

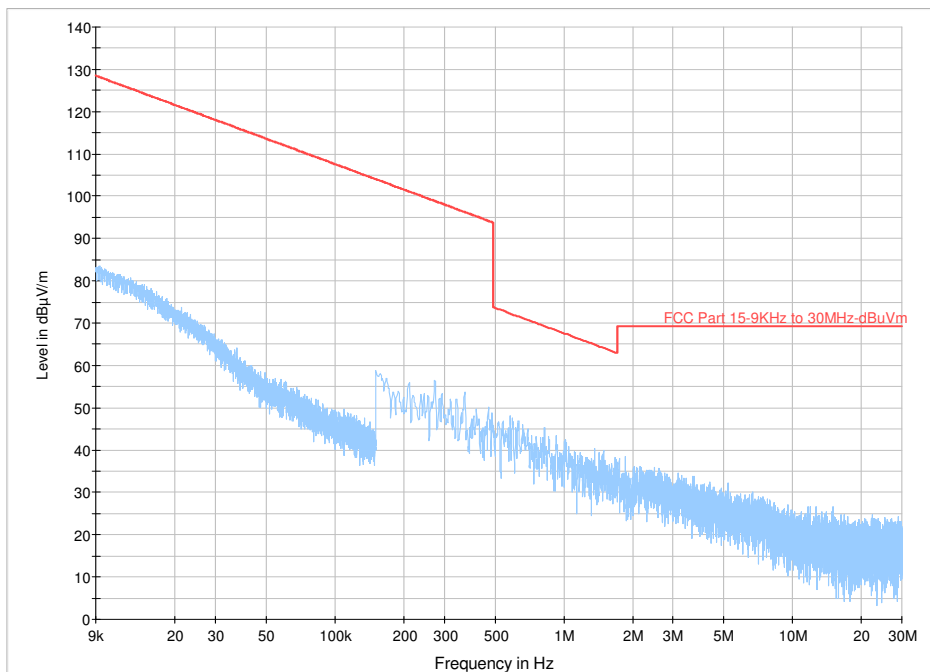
Note : Peak Graph - Parallel

**Antenna-3, Channel 5 (921.575 MHz)**

Note : Peak Graph - Perpendicular

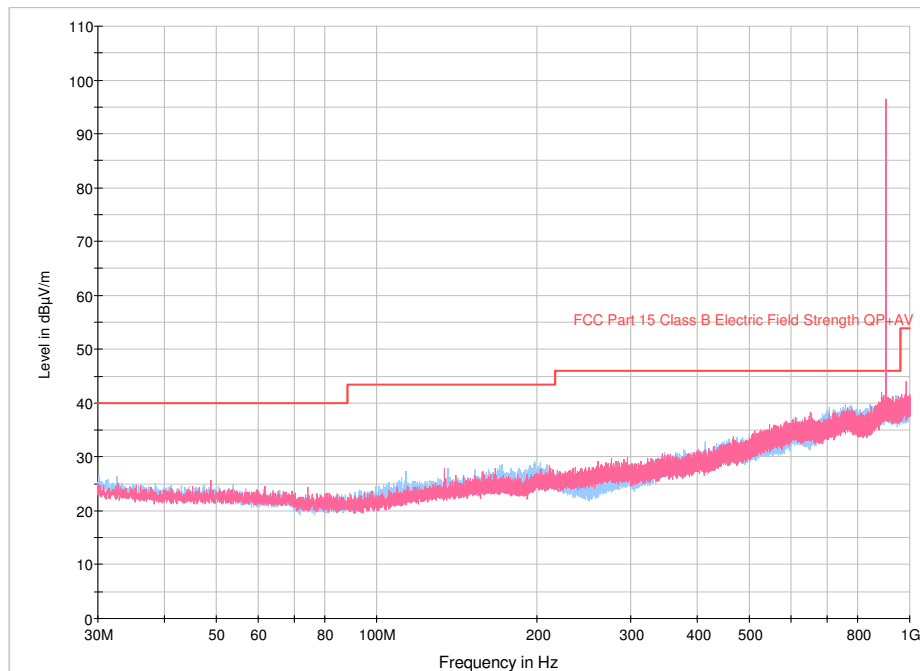
**Antenna-3, Channel 6 (927.125MHz)**

Note : Peak Graph - Parallel

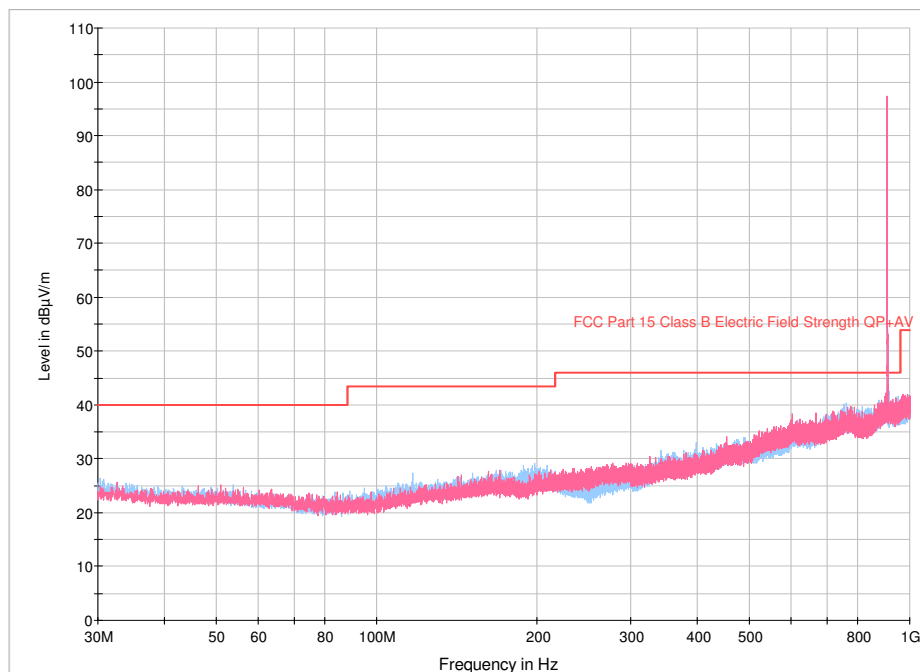
**Antenna-3, Channel 6 (927.125MHz)**

Note : Peak Graph - Perpendicular

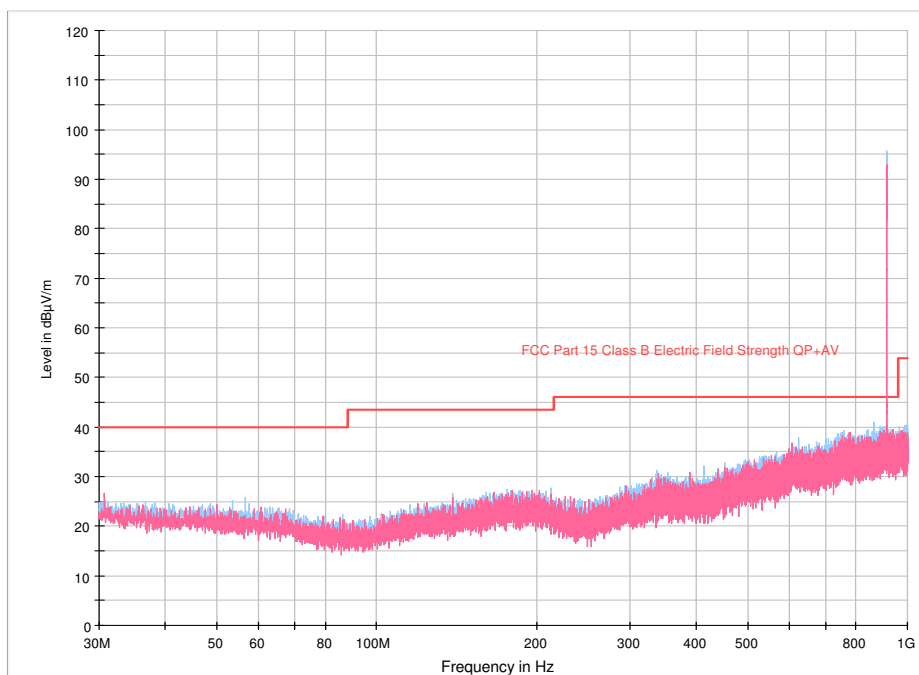
TEST RESULT – 9 KHz to 30 MHz									
Channel	Channel Frequency	Measured Spurious	Quasi Peak	Height	Ant Pol	Azimuth	Margin	Limit @ 3m Distance	Results
#	MHz	MHz	dBµV/m	cm	Parallel / Perpendicular	deg	dB	dBµV/m	
No Emissions Found									
Note : Measured Field Strength (dBuV/m) = Receiver Readings (dBuV) + Antenna Factor (dB/m) + Cable loss (dB)									

TEST GRAPHS – 30 MHz to 1 GHz**Antenna-1, Channel 1 (902.875 MHz)**

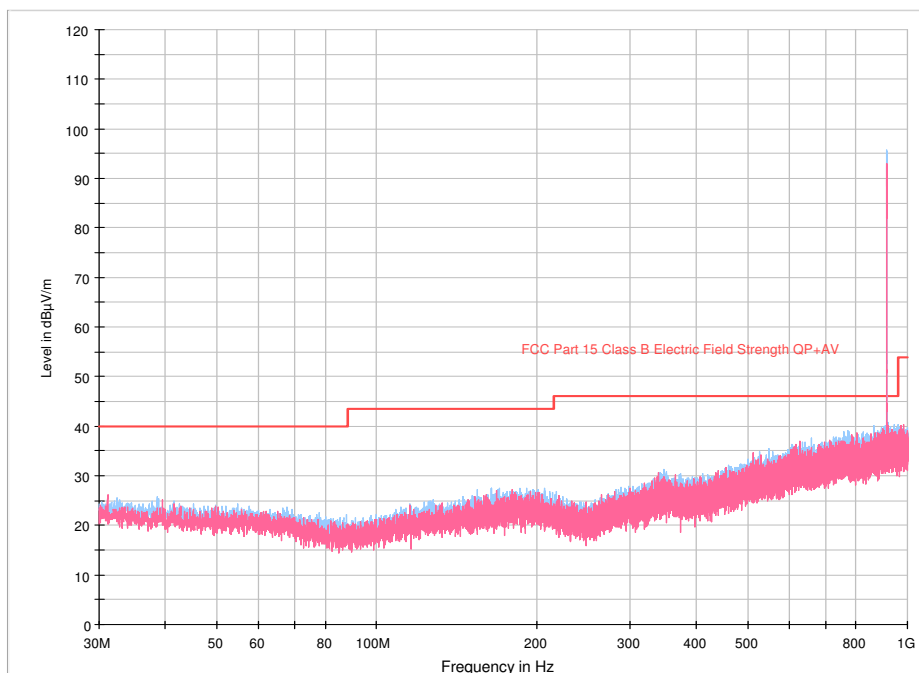
Note : Peak Graph - Vertical (Red), Peak Graph Horizontal (Blue), Tested with 6dB Attenuator

**Antenna-1, Channel 2 (908.425 MHz)**

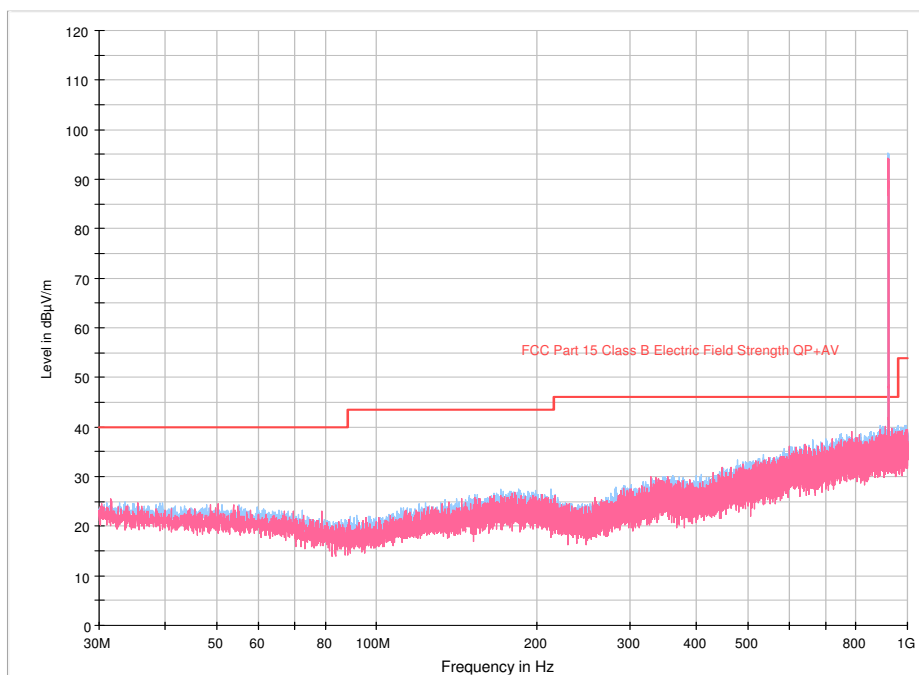
Note : Peak Graph - Vertical (Red), Peak Graph Horizontal (Blue), Tested with 6dB Attenuator

**Antenna-1, Channel 3 (914.325 MHz)**

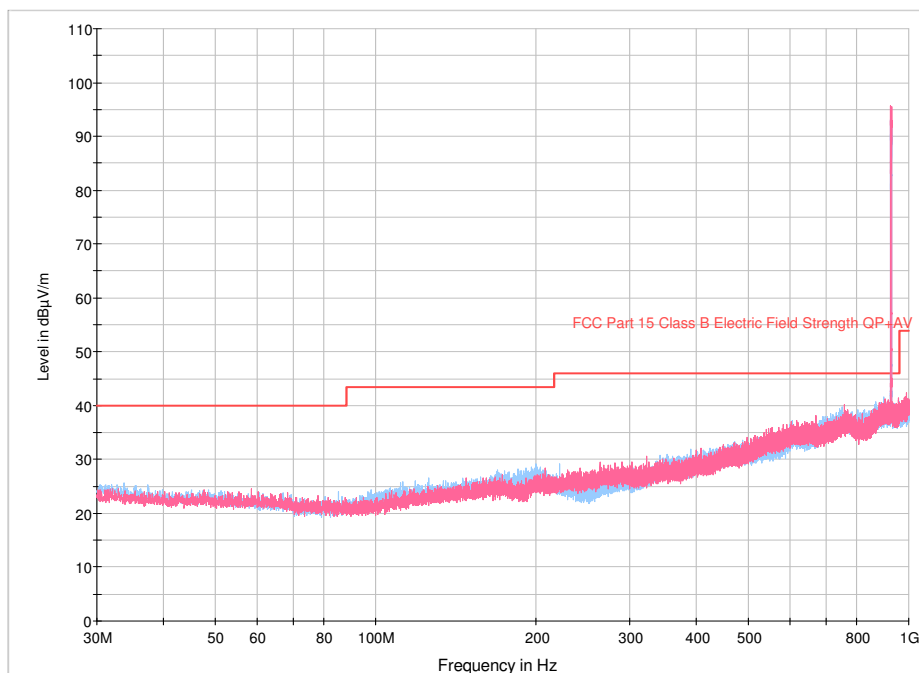
Note : Peak Graph - Vertical (Red), Peak Graph Horizontal (Blue), Tested with 6dB Attenuator

**Antenna-1, Channel 4 (915.325 MHz)**

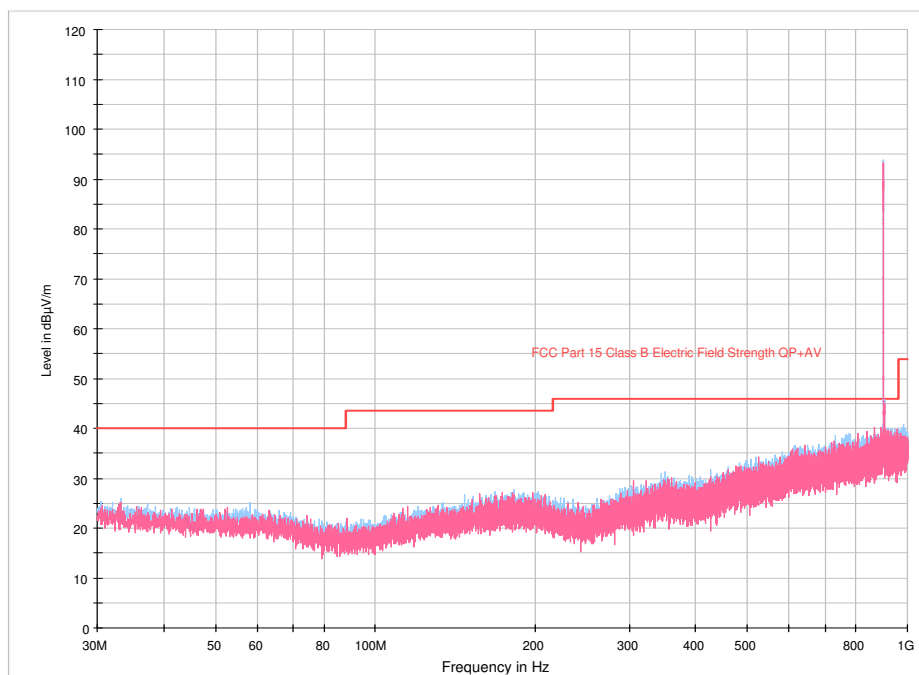
Note : Peak Graph - Vertical (Red), Peak Graph Horizontal (Blue), Tested with 6dB Attenuator

**Antenna-1, Channel 5 (921.575 MHz)**

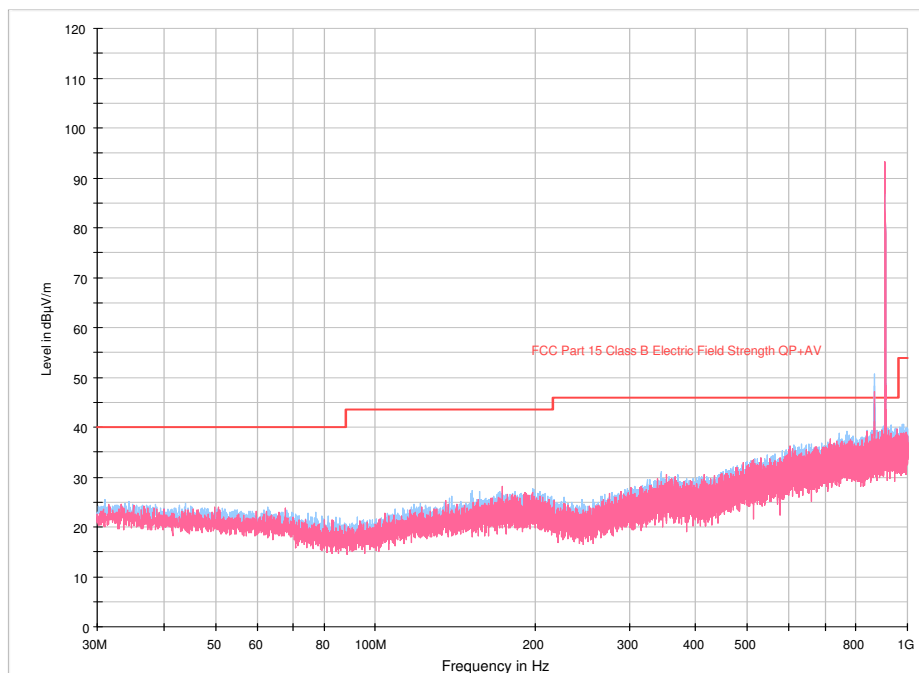
Note : Peak Graph - Vertical (Red), Peak Graph Horizontal (Blue), Tested with 6dB Attenuator

**Antenna-1, Channel 6 (927.125MHz)**

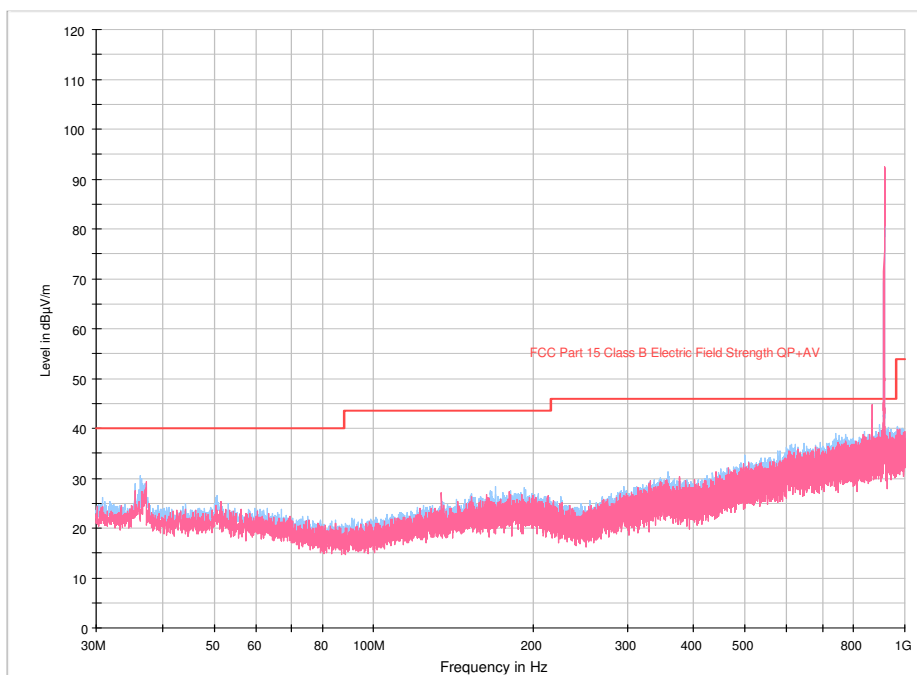
Note : Peak Graph - Vertical (Red), Peak Graph Horizontal (Blue), Tested with 6dB Attenuator

**Antenna-2, Channel 1 (902.875 MHz)**

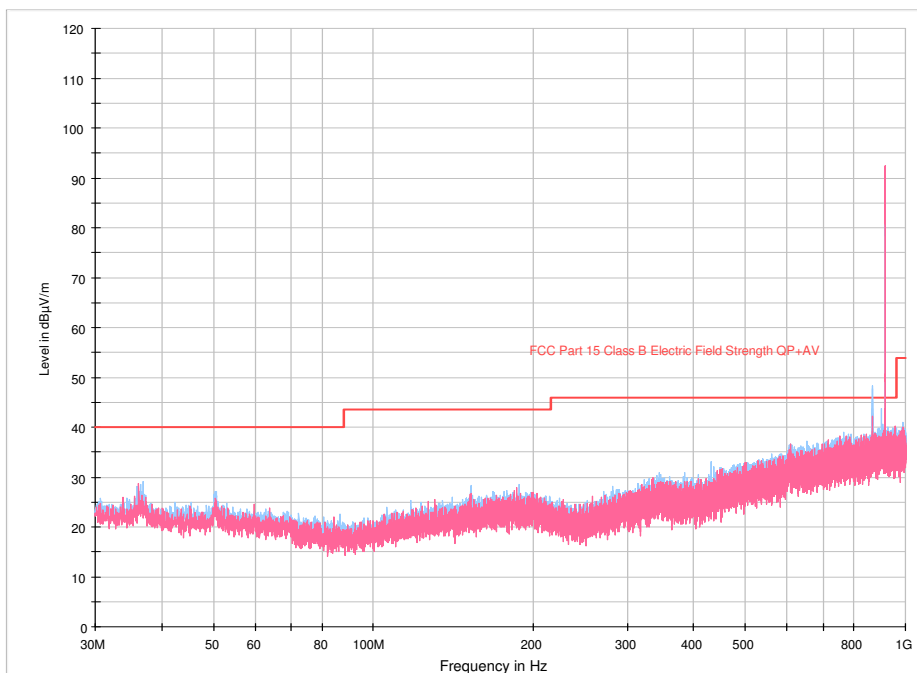
Note : Peak Graph - Vertical (Red), Peak Graph Horizontal (Blue), Tested with 6dB Attenuator

**Antenna-2, Channel 2 (908.425 MHz)**

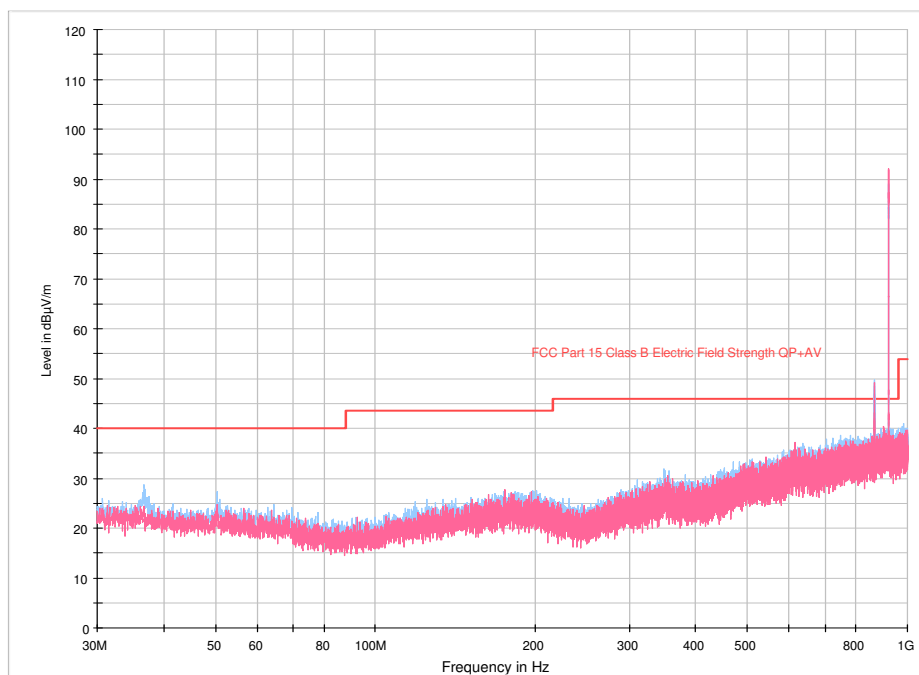
Note : Peak Graph - Vertical (Red), Peak Graph Horizontal (Blue), Tested with 6dB Attenuator

**Antenna-2, Channel 3 (914.325 MHz)**

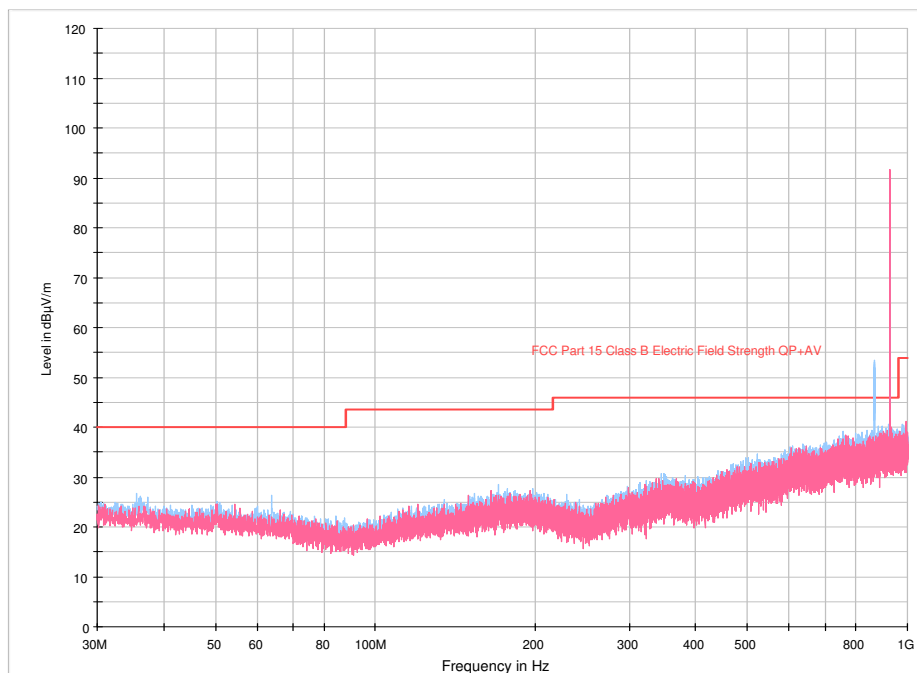
Note : Peak Graph - Vertical (Red), Peak Graph Horizontal (Blue), Tested with 6dB Attenuator

**Antenna-2, Channel 4 (915.325 MHz)**

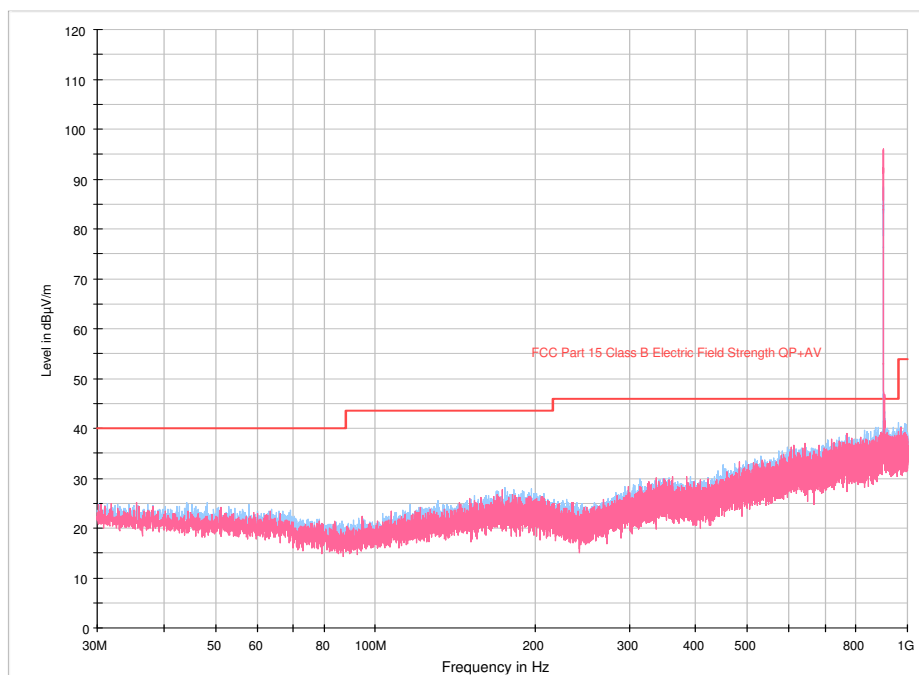
Note : Peak Graph - Vertical (Red), Peak Graph Horizontal (Blue), Tested with 6dB Attenuator

**Antenna-2, Channel 5 (921.575 MHz)**

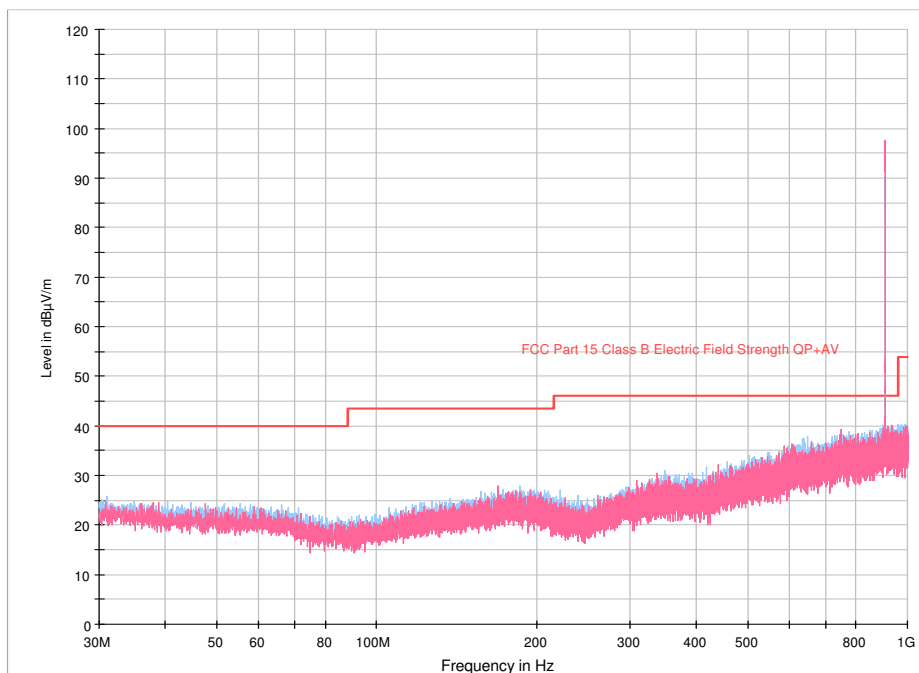
Note : Peak Graph - Vertical (Red), Peak Graph Horizontal (Blue), Tested with 6dB Attenuator

**Antenna-2, Channel 6 (927.125MHz)**

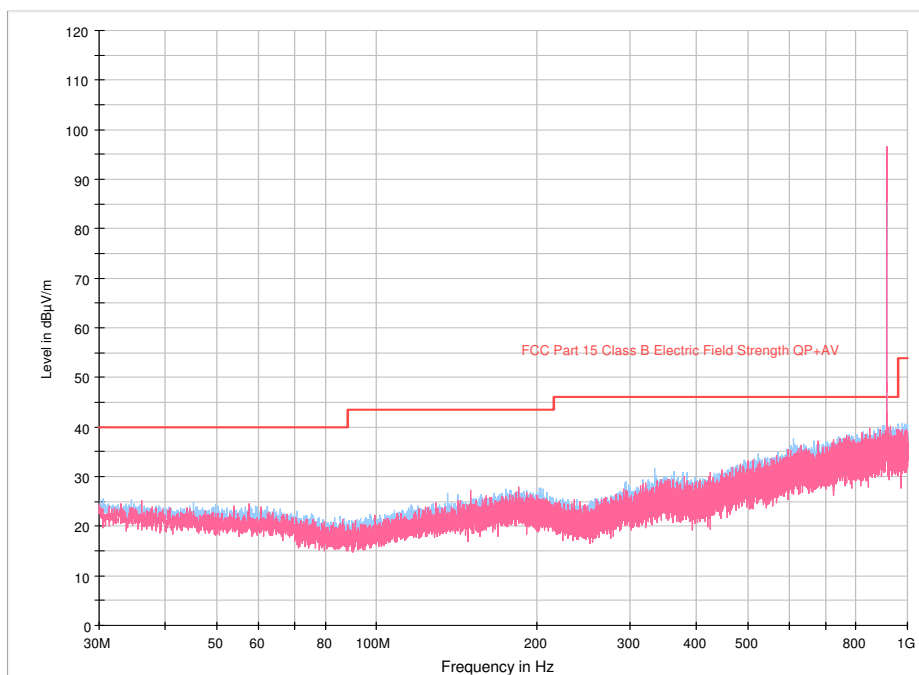
Note : Peak Graph - Vertical (Red), Peak Graph Horizontal (Blue), Tested with 6dB Attenuator

**Antenna-3, Channel 1 (902.875 MHz)**

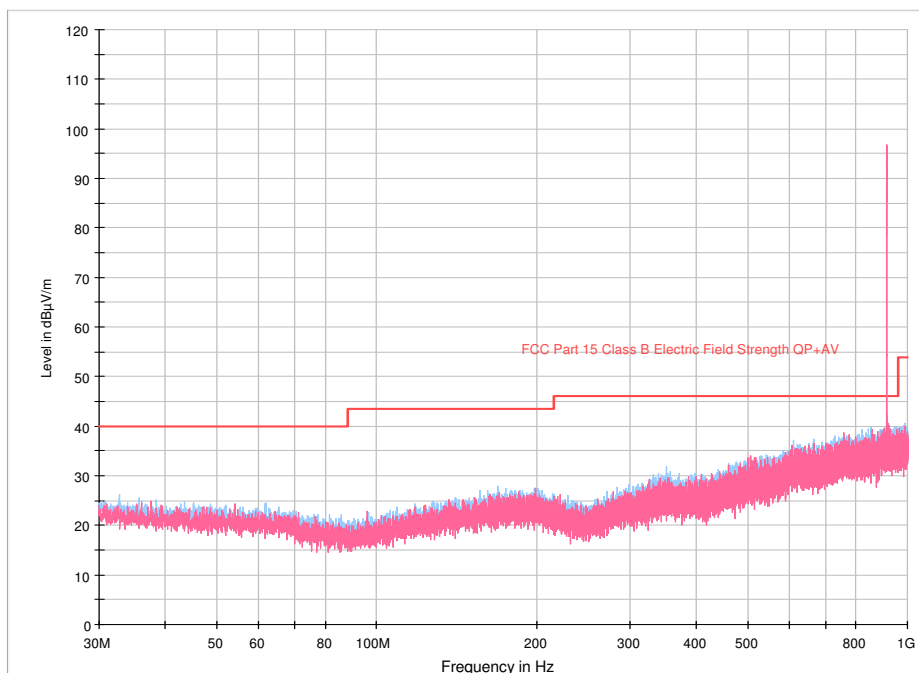
Note : Peak Graph - Vertical (Red), Peak Graph Horizontal (Blue), Tested with 6dB Attenuator

**Antenna-3, Channel 2 (908.425 MHz)**

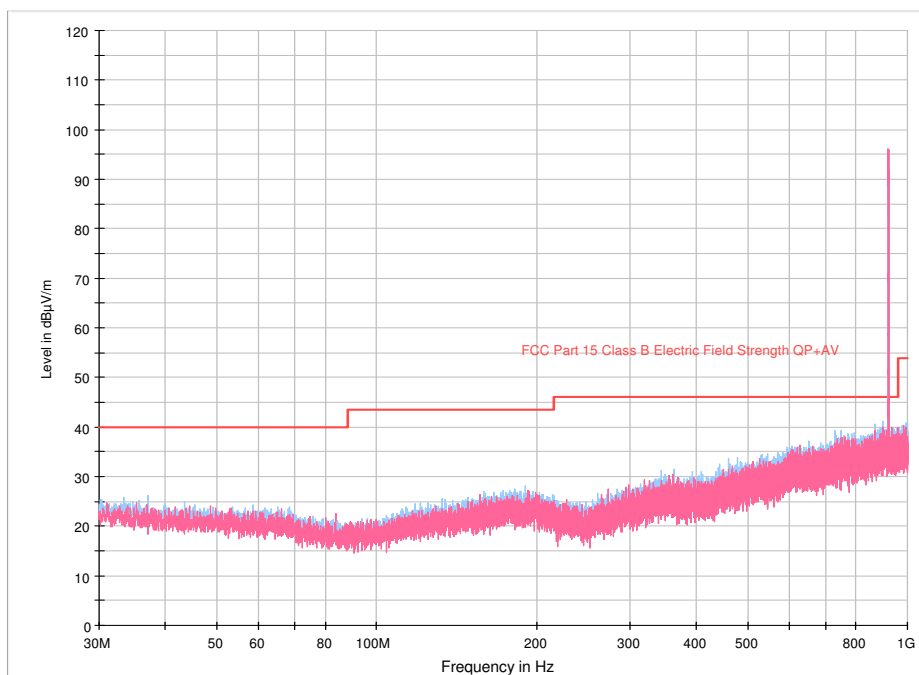
Note : Peak Graph - Vertical (Red), Peak Graph Horizontal (Blue), Tested with 6dB Attenuator

**Antenna-3, Channel 3 (914.325 MHz)**

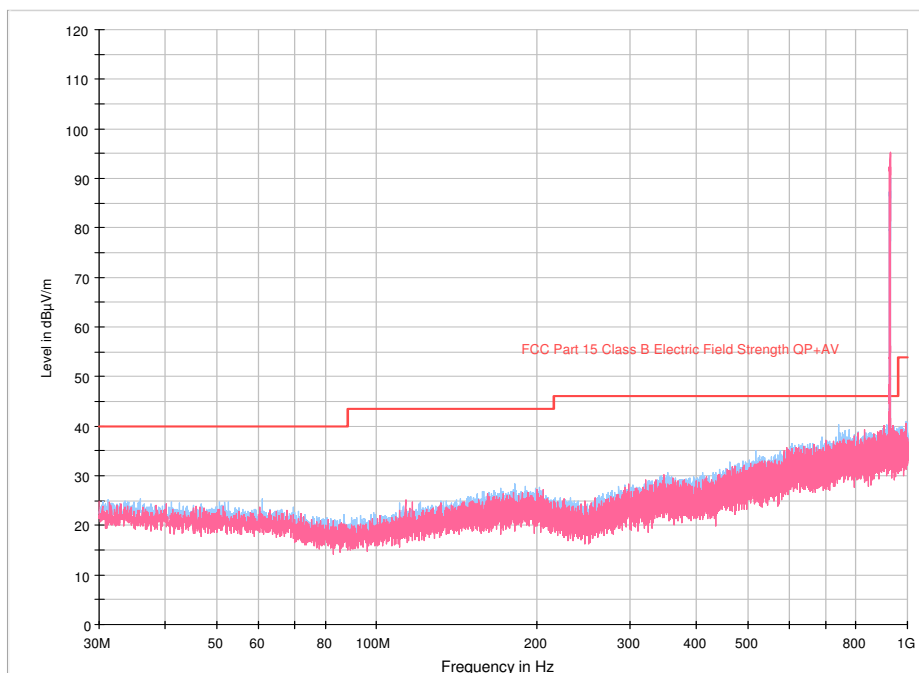
Note : Peak Graph - Vertical (Red), Peak Graph Horizontal (Blue), Tested with 6dB Attenuator

**Antenna-3, Channel 4 (915.325 MHz)**

Note : Peak Graph - Vertical (Red), Peak Graph Horizontal (Blue), Tested with 6dB Attenuator

**Antenna-3, Channel 5 (921.575 MHz)**

Note : Peak Graph - Vertical (Red), Peak Graph Horizontal (Blue), Tested with 6dB Attenuator

**Antenna-3, Channel 6 (927.125MHz)**

Note : Peak Graph - Vertical (Red), Peak Graph Horizontal (Blue), Tested with 6dB Attenuator

TEST RESULT – 30 MHz to 1 GHz

Chann el	Measured Spurious Frequency	Quasi Peak	Height	Ant Pol	Azimuth	Margin	Limit @ 3m Distance	Results
#	MHz	dBµV/m	cm	H / V	deg	dB	dBµV/m	
Antenna-1								
CH-1	884.51	40.36	300	V	231	5.64	46.00	PASS
CH-1	889.42	40.45	100	V	192	5.55	46.00	PASS
CH-1	902.74	101.96	100	V	119	-	-	Intentional Frequency
CH-2	877.88	40.02	200	H	28	5.98	46.00	PASS
CH-2	887.12	40.49	100	V	289	5.51	46.00	PASS
CH-2	908.59	102.59	100	V	109	-	-	Intentional Frequency
CH-3	866.30	39.37	100	H	1	6.63	46.00	PASS
CH-3	914.51	99.64	100	H	192	-	-	Intentional Frequency
CH-4	915.19	101.27	100	H	196	-	-	Intentional Frequency
CH-4	946.33	40.18	100	H	146	5.82	46.00	PASS
CH-5	921.75	99.89	100	H	198	-	-	Intentional Frequency
CH-5	959.29	40.30	100	H	290	5.70	46.00	PASS
CH-6	750.23	39.37	200	H	186	6.63	46.00	PASS
CH-6	758.18	38.71	100	V	13	7.29	46.00	PASS
CH-6	869.47	39.48	200	H	102	6.52	46.00	PASS
CH-6	886.90	40.16	100	H	82	5.84	46.00	PASS
CH-6	927.28	101.48	100	V	91	-	-	Intentional Frequency
Antenna-2								
CH-1	869.86	39.35	300	V	21	6.65	46.00	PASS
CH-1	902.74	98.92	100	H	21	-	-	Intentional Frequency
CH-2	867.30	39.30	100	H	267	6.70	46.00	PASS
CH-2	908.59	93.68	100	V	267	-	-	Intentional Frequency
CH-3	867.08	39.34	100	V	0	6.67	46.00	PASS
CH-3	914.19	98.33	100	V	0	-	-	Intentional Frequency
CH-4	867.50	39.36	100	H	46	6.64	46.00	PASS
CH-4	915.19	95.82	100	V	46	-	-	Intentional Frequency
CH-5	865.91	39.32	100	H	145	6.68	46.00	PASS
CH-5	921.75	84.49	100	V	145	-	-	Intentional Frequency
CH-6	866.14	39.33	100	H	319	6.67	46.00	PASS
CH-6	926.99	97.90	100	V	319	-	-	Intentional Frequency
Antenna-3								
CH-1	881.05	39.71	100	H	276	6.29	46.00	PASS
CH-1	903.03	102.37	100	V	276	-	-	Intentional Frequency
CH-2	908.59	102.25	100	V	0	-	-	Intentional Frequency
CH-2	935.43	40.18	100	V	0	5.82	46.00	PASS
CH-3	906.10	40.42	300	H	0	5.58	46.00	PASS
CH-3	914.19	102.47	100	V	0	-	-	Intentional Frequency
CH-4	915.19	103.37	100	V	222	-	-	Intentional Frequency

CH-4	949.43	40.10	100	H	222	5.90	46.00	PASS
CH-5	896.40	40.34	100	H	80	5.67	46.00	PASS
CH-5	921.75	95.52	100	V	80	-	-	Intentional Frequency
CH-6	740.75	38.23	100	H	262	7.77	46.00	PASS
CH-6	927.28	102.26	100	V	262	-	-	Intentional Frequency
NOTE: Measured Field Strength (dBuV/m) (9 KHz to 1GHz) = Receiver Readings (dBuV) + Antenna Factor (dB/m) + Cable loss (dB) + 6dB Attenuator								