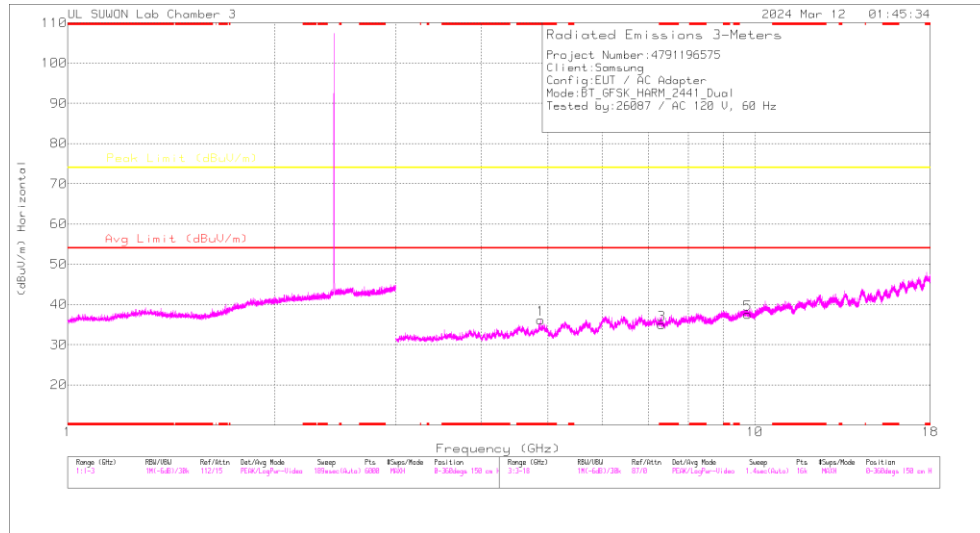
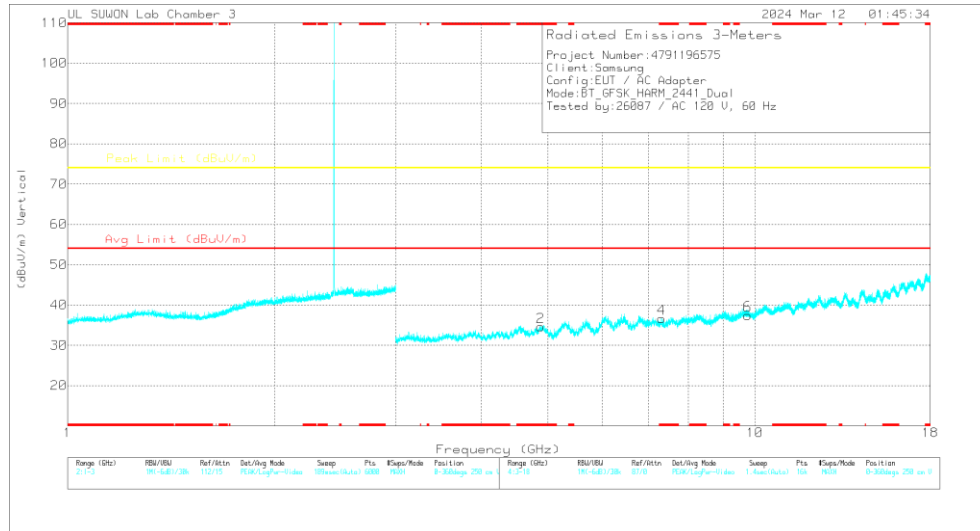


## HARMONICS AND SPURIOUS EMISSIONS(WORST CASE – DUAL MODE)

### 39 CHANNEL RESULTS



### HORIZONTAL



### VERTICAL

Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

### Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna_957 Factor(dB/m)	3GHz_HP_Pat h Loss(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.88222	39.4	PKFH	34.2	-30	43.6	-	-	74	-30.4	170	161	H
* 4.88212	29.48	VA1T	34.2	-30	33.68	54	-20.32	-	-	170	161	H
* 4.88179	39.11	PKFH	34.2	-30	43.31	-	-	74	-30.69	211	146	V
* 4.88194	28.19	VA1T	34.2	-30	32.39	54	-21.61	-	-	211	146	V
* 7.323	34.36	PKFH	35.8	-25.5	44.66	-	-	74	-29.34	102	151	H
* 7.32303	21.91	VA1T	35.8	-25.5	32.21	54	-21.79	-	-	102	151	H
* 7.32262	35.26	PKFH	35.8	-25.5	45.56	-	-	74	-28.44	339	154	V
* 7.32287	23.05	VA1T	35.8	-25.5	33.35	54	-20.65	-	-	339	154	V
9.76686	30.49	PKFH	36.9	-21.5	45.89	-	-	74	-28.11	0	100	H
9.76119	30.71	PKFH	36.9	-21.5	46.11	-	-	74	-27.89	0	100	V

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak  
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

**HARMONICS AND SPURIOUS EMISSIONS TEST DATA**

Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB/m]	Loss [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity		
2402	ANT1	* 4.80377	38.78	PKFH	34.30	-30.10	42.98	-	-	74.00	-31.02	313	124	H		
		* 4.804	28.21	VA1T	34.30	-30.10	32.41	54.00	-21.59	-	-	313	124	H		
		* 4.80399	38.08	PKFH	34.30	-30.10	42.28	-	-	74.00	-31.72	63	101	V		
		* 4.80408	26.58	VA1T	34.30	-30.10	30.78	54.00	-23.22	-	-	63	101	V		
		7.207	34.52	PKFH	35.80	-25.90	44.42	-	-	74.00	-29.58	0	100	H		
		7.206	34.07	PKFH	35.80	-25.90	43.97	-	-	74.00	-30.03	76	112	V		
		9.606	31.92	PKFH	36.70	-21.80	46.82	-	-	74.00	-27.18	0	100	H		
		9.610	31.03	PKFH	36.70	-21.70	46.03	-	-	74.00	-27.97	0	100	V		
2440	ANT1	* 4.88201	38.65	PKFH	34.20	-30.00	42.85	-	-	74.00	-31.15	183	125	H		
		* 4.88209	27.72	VA1T	34.20	-30.00	31.92	54.00	-22.08	-	-	183	125	H		
		* 4.88155	39.02	PKFH	34.20	-29.90	43.32	-	-	74.00	-30.68	60	103	V		
		* 4.8821	27.83	VA1T	34.20	-30.00	32.03	54.00	-21.97	-	-	60	103	V		
		* 7.3234	33.99	PKFH	35.80	-25.50	44.29	-	-	74.00	-29.71	9	113	H		
		* 7.32356	21.03	VA1T	35.80	-25.50	31.33	54.00	-22.67	-	-	9	113	H		
		* 7.3229	33.57	PKFH	35.80	-25.50	43.87	-	-	74.00	-30.13	64	111	V		
		* 7.32333	21.32	VA1T	35.80	-25.50	31.62	54.00	-22.38	-	-	64	111	V		
		9.763	30.60	PKFH	36.90	-21.50	46.00	-	-	74.00	-28.00	0	100	H		
		9.762	30.61	PKFH	36.90	-21.50	46.01	-	-	74.00	-27.99	0	100	V		
2480	ANT1	* 4.96008	39.46	PKFH	34.30	-30.00	43.76	-	-	74.00	-30.24	308	122	H		
		* 4.96015	27.78	VA1T	34.30	-30.00	32.08	54.00	-21.92	-	-	308	122	H		
		* 4.95995	38.87	PKFH	34.30	-30.00	43.17	-	-	74.00	-30.83	235	120	V		
		* 4.95994	28.24	VA1T	34.30	-30.00	32.54	54.00	-21.46	-	-	235	120	V		
		* 7.44109	33.27	PKFH	35.70	-25.20	43.77	-	-	74.00	-30.23	0	100	H		
		* 7.44196	33.59	PKFH	35.70	-25.20	44.09	-	-	74.00	-29.91	0	100	V		
		9.919	29.58	PKFH	37.10	-21.30	45.38	-	-	74.00	-28.62	0	100	H		
		9.921	29.07	PKFH	37.10	-21.40	44.77	-	-	74.00	-29.23	0	100	V		
2402	ANT2	* 4.80375	38.84	PKFH	34.30	-30.10	43.04	-	-	74.00	-30.96	61	100	H		
		* 4.80379	26.55	VA1T	34.30	-30.10	30.75	54.00	-23.25	-	-	61	100	H		
		* 4.80314	38.16	PKFH	34.30	-30.10	42.36	-	-	74.00	-31.64	183	369	V		
		* 4.80381	26.05	VA1T	34.30	-30.10	30.25	54.00	-23.75	-	-	183	369	V		
		7.209	33.36	PKFH	35.80	-25.90	43.26	-	-	74.00	-30.74	0	100	H		
		7.212	33.69	PKFH	35.80	-25.90	43.59	-	-	74.00	-30.41	0	100	V		
		9.604	31.33	PKFH	36.70	-21.70	46.33	-	-	74.00	-27.67	0	100	H		
		9.607	31.58	PKFH	36.70	-21.80	46.48	-	-	74.00	-27.52	0	100	V		
		2441	ANT2	* 4.88166	37.91	PKFH	34.20	-29.90	42.21	-	-	74.00	-31.79	118	119	H
				* 4.88189	26.64	VA1T	34.20	-30.00	30.84	54.00	-23.16	-	-	118	119	H
* 4.8822	38.79			PKFH	34.20	-30.00	42.99	-	-	74.00	-31.01	151	129	V		
* 4.88194	26.09			VA1T	34.20	-30.00	30.29	54.00	-23.71	-	-	151	129	V		
* 7.32272	32.87			PKFH	35.80	-25.50	43.17	-	-	74.00	-30.83	0	100	H		
* 7.32518	32.96			PKFH	35.80	-25.50	43.26	-	-	74.00	-30.74	0	100	V		
9.768	31.84			PKFH	36.90	-21.50	47.24	-	-	74.00	-26.76	0	100	H		
9.764	30.64			PKFH	36.90	-21.50	46.04	-	-	74.00	-27.96	0	100	V		
2480	ANT2	* 4.96458	37.41	PKFH	34.30	-30.10	41.61	-	-	74.00	-32.39	115	173	H		
		* 4.95983	25.89	VA1T	34.30	-30.00	30.19	54.00	-23.81	-	-	115	173	H		
		* 4.96216	38.98	PKFH	34.30	-30.10	43.18	-	-	74.00	-30.82	153	132	V		
		* 4.95954	25.26	VA1T	34.30	-30.00	29.56	54.00	-24.44	-	-	153	132	V		
		* 7.44292	33.82	PKFH	35.70	-25.20	44.32	-	-	74.00	-29.68	0	100	H		
		* 7.43231	33.95	PKFH	35.70	-25.20	44.45	-	-	74.00	-29.55	0	100	V		
		9.921	29.50	PKFH	37.10	-21.40	45.20	-	-	74.00	-28.80	0	100	H		
		9.920	29.94	PKFH	37.10	-21.40	45.64	-	-	74.00	-28.36	0	100	V		

Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB/m]	Loss [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
2402	DUAL	* 4.80417	38.89	PKFH	34.30	-30.10	43.09	-	-	74.00	-30.91	173	113	H
		* 4.80398	27.64	VA1T	34.30	-30.10	31.84	54.00	-22.16	-	-	173	113	H
		* 4.80387	38.36	PKFH	34.30	-30.10	42.56	-	-	74.00	-31.44	219	202	V
		* 4.80377	28.10	VA1T	34.30	-30.10	32.30	54.00	-21.70	-	-	219	202	V
		7.206	36.47	PKFH	35.80	-25.90	46.37	-	-	74.00	-27.63	155	146	H
		7.206	36.27	PKFH	35.80	-25.90	46.17	-	-	74.00	-27.83	348	172	V
		9.610	31.26	PKFH	36.70	-21.70	46.26	-	-	74.00	-27.74	0	100	H
		9.610	31.19	PKFH	36.70	-21.70	46.19	-	-	74.00	-27.81	0	100	V
2441	DUAL	* 4.88222	39.40	PKFH	34.20	-30.00	43.60	-	-	74.00	-30.40	170	161	H
		* 4.88212	29.48	VA1T	34.20	-30.00	33.68	54.00	-20.32	-	-	170	161	H
		* 4.88179	39.11	PKFH	34.20	-30.00	43.31	-	-	74.00	-30.69	211	146	V
		* 4.88194	28.19	VA1T	34.20	-30.00	32.39	54.00	-21.61	-	-	211	146	V
		* 7.323	34.36	PKFH	35.80	-25.50	44.66	-	-	74.00	-29.34	102	151	H
		* 7.32303	21.91	VA1T	35.80	-25.50	32.21	54.00	-21.79	-	-	102	151	H
		* 7.32262	35.26	PKFH	35.80	-25.50	45.56	-	-	74.00	-28.44	339	154	V
		* 7.32287	23.05	VA1T	35.80	-25.50	33.35	54.00	-20.65	-	-	339	154	V
		9.767	30.49	PKFH	36.90	-21.50	45.89	-	-	74.00	-28.11	0	100	H
		9.761	30.71	PKFH	36.90	-21.50	46.11	-	-	74.00	-27.89	0	100	V
2480	DUAL	* 4.95998	38.56	PKFH	34.30	-30.00	42.86	-	-	74.00	-31.14	175	162	H
		* 4.96019	27.24	VA1T	34.30	-30.00	31.54	54.00	-22.46	-	-	175	162	H
		* 4.96236	39.66	PKFH	34.30	-30.10	43.86	-	-	74.00	-30.14	173	288	V
		* 4.95997	25.47	VA1T	34.30	-30.00	29.77	54.00	-24.23	-	-	173	288	V
		* 7.4401	34.05	PKFH	35.70	-25.20	44.55	-	-	74.00	-29.45	109	164	H
		* 7.44005	22.53	VA1T	35.70	-25.20	33.03	54.00	-20.97	-	-	109	164	H
		* 7.4401	33.82	PKFH	35.70	-25.20	44.32	-	-	74.00	-29.68	334	102	V
		* 7.4399	22.16	VA1T	35.70	-25.20	32.66	54.00	-21.34	-	-	334	102	V
		9.919	30.03	PKFH	37.10	-21.30	45.83	-	-	74.00	-28.17	0	100	H
		9.920	30.23	PKFH	37.10	-21.40	45.93	-	-	74.00	-28.07	0	100	V

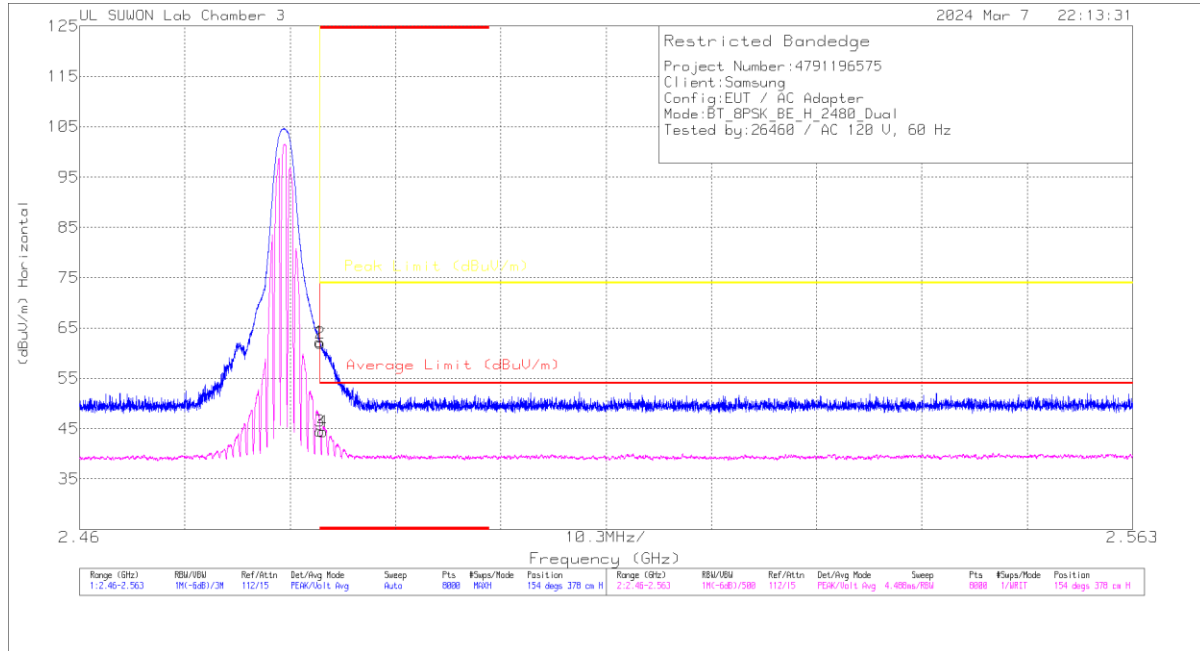
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

## 10.1.2. BLUETOOTH ENHANCED DATA RATE 8PSK MODULATION

### ANT1 BANDEDGE (WORST CASE: 78 CHANNEL, DUAL)

#### HORIZONTAL RESULT



#### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna_957_Factor(dB/m)	10dB_Path Loss(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	54.63	Pk	32.4	-24.8	62.23	-	-	74	-11.77	154	378	H
2	* 2.48354	54.41	Pk	32.4	-24.8	62.01	-	-	74	-11.99	154	378	H
3	* 2.4835	36.94	VA1T	32.4	-24.8	44.54	54	-9.46	-	-	154	378	H
4	* 2.48382	36.77	VA1T	32.4	-24.8	44.37	54	-9.63	-	-	154	378	H

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 Pk - Peak detector  
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

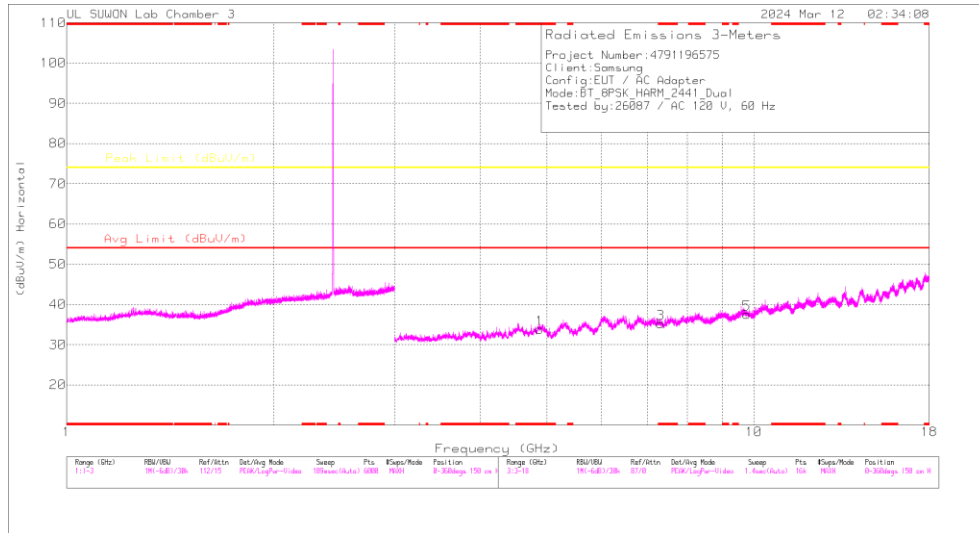
**BANEDGE TEST DATA**

Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB/m]	Loss [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity	
2402	ANT1	* 2.39	42.46	Pk	32.10	-24.80	49.76	-	-	74.00	-24.24	243	333	H	
		* 2.38255	44.70	Pk	32.10	-24.90	51.90	-	-	74.00	-22.10	243	333	H	
		* 2.39	29.74	VA1T	32.10	-24.80	37.04	54.00	-16.96	-	-	-	243	333	H
		* 2.38032	30.45	VA1T	32.10	-24.90	37.65	54.00	-16.35	-	-	-	243	333	H
		* 2.39	41.20	Pk	32.10	-24.80	48.50	-	-	74.00	-25.50	157	347	V	
		* 2.34161	44.50	Pk	32.00	-24.90	51.60	-	-	74.00	-22.40	157	347	V	
		* 2.39	29.52	VA1T	32.10	-24.80	36.82	54.00	-17.18	-	-	-	157	347	V
		* 2.37868	30.45	VA1T	32.10	-24.90	37.65	54.00	-16.35	-	-	-	157	347	V
2480	ANT1	* 2.4835	53.02	Pk	32.40	-24.80	60.62	-	-	74.00	-13.38	241	354	H	
		* 2.48351	53.29	Pk	32.40	-24.80	60.89	-	-	74.00	-13.11	241	354	H	
		* 2.4835	34.79	VA1T	32.40	-24.80	42.39	54.00	-11.61	-	-	241	354	H	
		* 2.48351	34.93	VA1T	32.40	-24.80	42.53	54.00	-11.47	-	-	241	354	H	
		* 2.4835	48.73	Pk	32.40	-24.80	56.33	-	-	74.00	-17.67	199	318	V	
		* 2.48362	49.36	Pk	32.40	-24.80	56.96	-	-	74.00	-17.04	199	318	V	
		* 2.4835	30.83	VA1T	32.40	-24.80	38.43	54.00	-15.57	-	-	199	318	V	
		* 2.48368	32.73	VA1T	32.40	-24.80	40.33	54.00	-13.67	-	-	199	318	V	
2402	ANT2	* 2.39	41.67	Pk	32.10	-24.80	48.97	-	-	74.00	-25.03	138	360	H	
		* 2.33077	45.44	Pk	31.90	-24.80	52.54	-	-	74.00	-21.46	138	360	H	
		* 2.39	29.74	VA1T	32.10	-24.80	37.04	54.00	-16.96	-	-	138	360	H	
		* 2.32096	30.53	VA1T	31.90	-24.80	37.63	54.00	-16.37	-	-	138	360	H	
		* 2.39	41.67	Pk	32.10	-24.80	48.97	-	-	74.00	-25.03	242	308	V	
		* 2.35195	45.34	Pk	32.00	-24.80	52.54	-	-	74.00	-21.46	242	308	V	
		* 2.39	30.00	VA1T	32.10	-24.80	37.30	54.00	-16.70	-	-	242	308	V	
		* 2.33518	30.67	VA1T	31.90	-24.80	37.77	54.00	-16.23	-	-	242	308	V	
2480	ANT2	* 2.4835	43.70	Pk	32.40	-24.80	51.30	-	-	74.00	-22.70	140	374	H	
		* 2.48362	46.93	Pk	32.40	-24.80	54.53	-	-	74.00	-19.47	140	374	H	
		* 2.4835	31.09	VA1T	32.40	-24.80	38.69	54.00	-15.31	-	-	140	374	H	
		* 2.48356	31.48	VA1T	32.40	-24.80	39.08	54.00	-14.92	-	-	140	374	H	
		* 2.4835	46.68	Pk	32.40	-24.80	54.28	-	-	74.00	-19.72	239	287	V	
		* 2.48351	51.37	Pk	32.40	-24.80	58.97	-	-	74.00	-15.03	239	287	V	
		* 2.4835	31.85	VA1T	32.40	-24.80	39.45	54.00	-14.55	-	-	239	287	V	
		* 2.48371	32.03	VA1T	32.40	-24.80	39.63	54.00	-14.37	-	-	239	287	V	
2402	DUAL	* 2.39	42.49	Pk	32.10	-24.80	49.79	-	-	74.00	-24.21	218	132	H	
		* 2.37814	44.43	Pk	32.10	-24.80	51.73	-	-	74.00	-22.27	218	132	H	
		* 2.39	30.10	VA1T	32.10	-24.80	37.40	54.00	-16.60	-	-	218	132	H	
		* 2.37532	30.49	VA1T	32.10	-24.90	37.69	54.00	-16.31	-	-	218	132	H	
		* 2.39	42.07	Pk	32.10	-24.80	49.37	-	-	74.00	-24.63	281	278	V	
		* 2.38183	44.38	Pk	32.10	-24.90	51.58	-	-	74.00	-22.42	281	278	V	
		* 2.39	29.84	VA1T	32.10	-24.80	37.14	54.00	-16.86	-	-	281	278	V	
		* 2.37775	30.28	VA1T	32.10	-24.80	37.58	54.00	-16.42	-	-	281	278	V	
2480	DUAL	* 2.4835	54.63	Pk	32.40	-24.80	62.23	-	-	74.00	-11.77	154	378	H	
		* 2.48354	54.41	Pk	32.40	-24.80	62.01	-	-	74.00	-11.99	154	378	H	
		* 2.4835	36.94	VA1T	32.40	-24.80	44.54	54.00	-9.46	-	-	154	378	H	
		* 2.48382	36.77	VA1T	32.40	-24.80	44.37	54.00	-9.63	-	-	154	378	H	
		* 2.4835	48.54	Pk	32.40	-24.80	56.14	-	-	74.00	-17.86	263	231	V	
		* 2.48363	49.60	Pk	32.40	-24.80	57.20	-	-	74.00	-16.80	263	231	V	
		* 2.4835	32.60	VA1T	32.40	-24.80	40.20	54.00	-13.80	-	-	263	231	V	
		* 2.48353	32.76	VA1T	32.40	-24.80	40.36	54.00	-13.64	-	-	263	231	V	

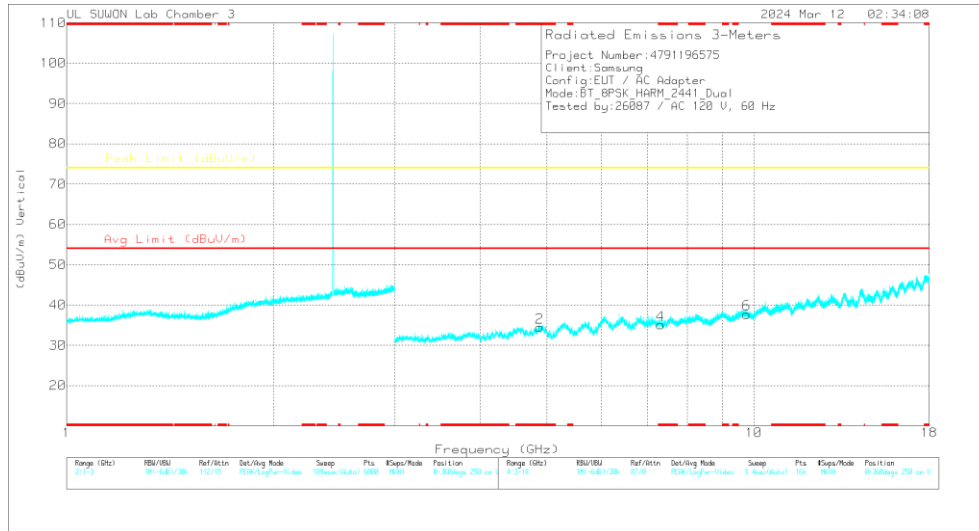
Note1. Pk - Peak detector, VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration  
 Note2. \* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

## HARMONICS AND SPURIOUS EMISSIONS(WORST CASE – DUAL MODE)

### 39 CHANNEL RESULTS



### HORIZONTAL



### VERTICAL

Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

### Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna_957 Factor(dB/m)	3GHz_HP_Pat h Loss(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.88069	38.05	PKFH	34.2	-29.9	42.35	-	-	74	-31.65	167	170	H
* 4.88205	26.67	VA1T	34.2	-30	30.87	54	-23.13	-	-	167	170	H
* 4.87998	38.39	PKFH	34.2	-29.9	42.69	-	-	74	-31.31	211	103	V
* 4.88215	26.17	VA1T	34.2	-30	30.37	54	-23.63	-	-	211	103	V
* 7.32383	32.94	PKFH	35.8	-25.5	43.24	-	-	74	-30.76	102	151	H
* 7.32293	20.9	VA1T	35.8	-25.5	31.2	54	-22.8	-	-	102	151	H
* 7.32302	33.18	PKFH	35.8	-25.5	43.48	-	-	74	-30.52	335	168	V
* 7.32292	21.41	VA1T	35.8	-25.5	31.71	54	-22.29	-	-	335	168	V
9.76785	30.66	PKFH	36.9	-21.5	46.06	-	-	74	-27.94	0	100	H
9.76561	31.52	PKFH	36.9	-21.5	46.92	-	-	74	-27.08	0	100	V

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak  
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

**HARMONICS AND SPURIOUS EMISSIONS TEST DATA**

Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB/m]	Loss [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity		
2402	ANT1	* 4.8024	37.85	PKFH	34.30	-30.10	42.05	-	-	74.00	-31.95	313	122	H		
		* 4.80388	26.04	VA1T	34.30	-30.10	30.24	54.00	-23.76	-	-	313	122	H		
		* 4.80477	37.69	PKFH	34.30	-30.10	41.89	-	-	74.00	-32.11	158	102	V		
		* 4.80378	25.87	VA1T	34.30	-30.10	30.07	54.00	-23.93	-	-	158	102	V		
		7.207	33.59	PKFH	35.80	-25.90	43.49	-	-	74.00	-30.51	0	100	H		
		7.206	33.29	PKFH	35.80	-25.90	43.19	-	-	74.00	-30.81	0	100	V		
		9.608	31.72	PKFH	36.70	-21.70	46.72	-	-	74.00	-27.28	0	100	H		
		9.606	30.45	PKFH	36.70	-21.80	45.35	-	-	74.00	-28.65	0	100	V		
2441	ANT1	* 4.88193	38.22	PKFH	34.20	-30.00	42.42	-	-	74.00	-31.58	312	104	H		
		* 4.88219	25.98	VA1T	34.20	-30.00	30.18	54.00	-23.82	-	-	312	104	H		
		* 4.88436	38.24	PKFH	34.20	-29.90	42.54	-	-	74.00	-31.46	60	101	V		
		* 4.8817	25.92	VA1T	34.20	-29.90	30.22	54.00	-23.78	-	-	60	101	V		
		* 7.32501	33.64	PKFH	35.80	-25.50	43.94	-	-	74.00	-30.06	7	111	H		
		* 7.32283	20.67	VA1T	35.80	-25.50	30.97	54.00	-23.03	-	-	7	111	H		
		* 7.3254	33.29	PKFH	35.80	-25.50	43.59	-	-	74.00	-30.41	66	106	V		
		* 7.32304	20.71	VA1T	35.80	-25.50	31.01	54.00	-22.99	-	-	66	106	V		
		9.764	30.38	PKFH	36.90	-21.50	45.78	-	-	74.00	-28.22	0	100	H		
		9.768	30.87	PKFH	36.90	-21.50	46.27	-	-	74.00	-27.73	0	100	V		
2480	ANT1	* 4.96038	38.28	PKFH	34.30	-30.00	42.58	-	-	74.00	-31.42	307	120	H		
		* 4.96012	25.86	VA1T	34.30	-30.00	30.16	54.00	-23.84	-	-	307	120	H		
		* 4.96155	38.35	PKFH	34.30	-30.10	42.55	-	-	74.00	-31.45	159	100	V		
		* 4.96039	25.83	VA1T	34.30	-30.00	30.13	54.00	-23.87	-	-	159	100	V		
		* 7.43885	32.97	PKFH	35.70	-25.20	43.47	-	-	74.00	-30.53	0	100	H		
		* 7.43998	32.92	PKFH	35.70	-25.20	43.42	-	-	74.00	-30.58	0	100	V		
		9.921	29.30	PKFH	37.10	-21.40	45.00	-	-	74.00	-29.00	0	100	H		
		9.921	29.36	PKFH	37.10	-21.40	45.06	-	-	74.00	-28.94	0	100	V		
2402	ANT2	* 4.80733	37.85	PKFH	34.30	-30.00	42.15	-	-	74.00	-31.85	62	100	H		
		* 4.80378	25.49	VA1T	34.30	-30.10	29.69	54.00	-24.31	-	-	62	100	H		
		* 4.80232	38.11	PKFH	34.30	-30.10	42.31	-	-	74.00	-31.69	168	328	V		
		* 4.80393	25.49	VA1T	34.30	-30.10	29.69	54.00	-24.31	-	-	168	328	V		
		7.204	34.29	PKFH	35.80	-25.90	44.19	-	-	74.00	-29.81	0	100	H		
		7.206	34.80	PKFH	35.80	-25.90	44.70	-	-	74.00	-29.30	0	100	V		
		9.612	31.19	PKFH	36.70	-21.80	46.09	-	-	74.00	-27.91	0	100	H		
		9.614	31.20	PKFH	36.70	-21.70	46.20	-	-	74.00	-27.80	0	100	V		
		2441	ANT2	* 4.88084	38.38	PKFH	34.20	-29.90	42.68	-	-	74.00	-31.32	0	100	H
				* 4.88239	25.43	VA1T	34.20	-30.00	29.63	54.00	-24.37	-	-	0	100	H
* 4.88263	38.16			PKFH	34.20	-30.00	42.36	-	-	74.00	-31.64	153	122	V		
* 4.88485	25.34			VA1T	34.20	-29.90	29.64	54.00	-24.36	-	-	153	122	V		
* 7.32498	33.41			PKFH	35.80	-25.50	43.71	-	-	74.00	-30.29	0	100	H		
* 7.32021	33.28			PKFH	35.80	-25.50	43.58	-	-	74.00	-30.42	0	100	V		
9.760	30.56			PKFH	36.90	-21.50	45.96	-	-	74.00	-28.04	0	100	H		
9.765	30.93			PKFH	36.90	-21.50	46.33	-	-	74.00	-27.67	0	100	V		
2480	ANT2	* 4.95709	38.67	PKFH	34.30	-30.10	42.87	-	-	74.00	-31.13	114	183	H		
		* 4.95981	25.37	VA1T	34.30	-30.00	29.67	54.00	-24.33	-	-	114	183	H		
		* 4.95734	37.40	PKFH	34.30	-30.10	41.60	-	-	74.00	-32.40	153	148	V		
		* 4.95935	25.15	VA1T	34.30	-30.00	29.45	54.00	-24.55	-	-	153	148	V		
		* 7.43993	33.32	PKFH	35.70	-25.20	43.82	-	-	74.00	-30.18	0	100	H		
		* 7.44359	33.07	PKFH	35.70	-25.20	43.57	-	-	74.00	-30.43	0	100	V		
		9.918	30.18	PKFH	37.10	-21.30	45.98	-	-	74.00	-28.02	0	100	H		
		9.923	29.67	PKFH	37.10	-21.30	45.47	-	-	74.00	-28.53	0	100	V		

Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB/m]	Loss [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
2402	MIMO	* 4.80379	39.55	PKFH	34.30	-30.10	43.75	-	-	74.00	-30.25	173	141	H
		* 4.80403	25.93	VA1T	34.30	-30.10	30.13	54.00	-23.87	-	-	173	141	H
		* 4.80397	37.63	PKFH	34.30	-30.10	41.83	-	-	74.00	-32.17	205	191	V
		* 4.80435	26.41	VA1T	34.30	-30.10	30.61	54.00	-23.39	-	-	205	191	V
		7.206	36.02	PKFH	35.80	-25.90	45.92	-	-	74.00	-28.08	153	149	H
		7.205	35.22	PKFH	35.80	-25.90	45.12	-	-	74.00	-28.88	6	164	V
		9.607	31.07	PKFH	36.70	-21.70	46.07	-	-	74.00	-27.93	0	100	H
		9.613	31.33	PKFH	36.70	-21.70	46.33	-	-	74.00	-27.67	0	100	V
2441	MIMO	* 4.88069	38.05	PKFH	34.20	-29.90	42.35	-	-	74.00	-31.65	167	170	H
		* 4.88205	26.67	VA1T	34.20	-30.00	30.87	54.00	-23.13	-	-	167	170	H
		* 4.87998	38.39	PKFH	34.20	-29.90	42.69	-	-	74.00	-31.31	211	103	V
		* 4.88215	26.17	VA1T	34.20	-30.00	30.37	54.00	-23.63	-	-	211	103	V
		* 7.32383	32.94	PKFH	35.80	-25.50	43.24	-	-	74.00	-30.76	102	151	H
		* 7.32293	20.90	VA1T	35.80	-25.50	31.20	54.00	-22.80	-	-	102	151	H
		* 7.32302	33.18	PKFH	35.80	-25.50	43.48	-	-	74.00	-30.52	335	168	V
		* 7.32292	21.41	VA1T	35.80	-25.50	31.71	54.00	-22.29	-	-	335	168	V
		9.768	30.66	PKFH	36.90	-21.50	46.06	-	-	74.00	-27.94	0	100	H
		9.766	31.52	PKFH	36.90	-21.50	46.92	-	-	74.00	-27.08	0	100	V
2480	MIMO	* 4.95812	36.92	PKFH	34.30	-30.10	41.12	-	-	74.00	-32.88	0	100	H
		* 4.95925	37.72	PKFH	34.30	-30.00	42.02	-	-	74.00	-31.98	0	100	V
		* 7.44105	33.05	PKFH	35.70	-25.20	43.55	-	-	74.00	-30.45	153	136	H
		* 7.43952	20.78	VA1T	35.70	-25.20	31.28	54.00	-22.72	-	-	153	136	H
		* 7.43918	33.96	PKFH	35.70	-25.20	44.46	-	-	74.00	-29.54	152	111	V
		* 7.44056	21.09	VA1T	35.70	-25.20	31.59	54.00	-22.41	-	-	152	111	V
		9.920	30.17	PKFH	37.10	-21.40	45.87	-	-	74.00	-28.13	0	100	H
		9.922	29.75	PKFH	37.10	-21.30	45.55	-	-	74.00	-28.45	0	100	V

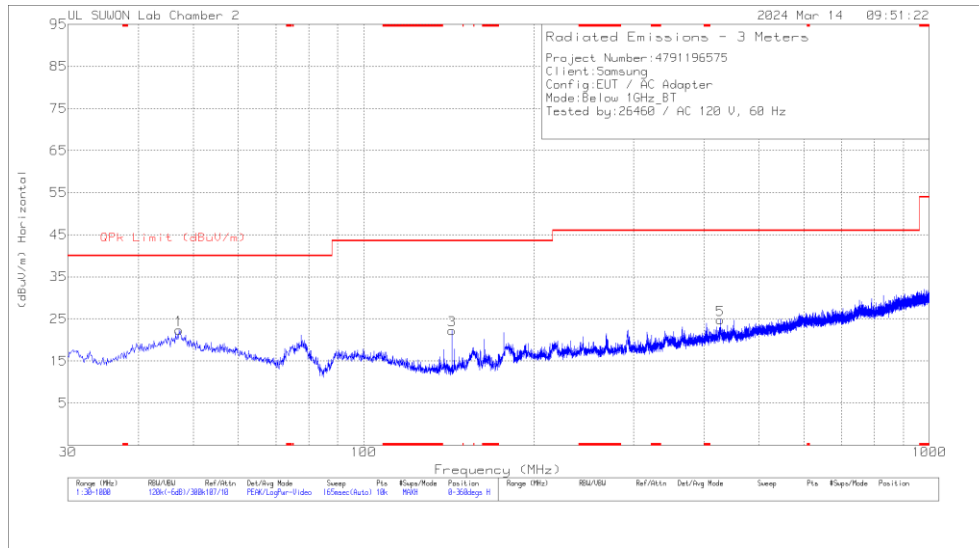
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak

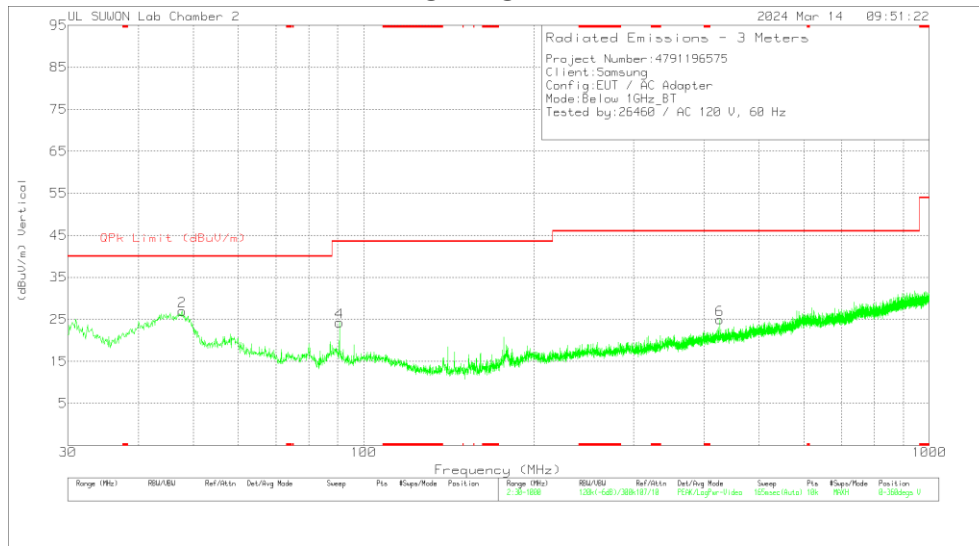
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration



## 10.2. WORST CASE BELOW 1 GHz SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)



**HORIZONTAL**



**VERTICAL**

### Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Antenna_749_Fact or(dB/m)	Below_1G_Path Loss(dB)	Corrected Reading (dBuV/m)	QPK Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	47.169	34.08	Pk	20	-31.7	22.38	40	-17.62	0-360	200	H
3	143.296	39.29	Pk	13.9	-30.9	22.29	43.52	-21.23	0-360	200	H
5	427.506	32.8	Pk	21.7	-29.7	24.8	46.02	-21.22	0-360	100	H
2	47.751	38.46	Pk	20.1	-31.6	26.96	40	-13.04	0-360	100	V
4	90.625	39.57	Pk	16	-31.3	24.27	43.52	-19.25	0-360	100	V
6	426.439	32.92	Pk	21.7	-29.7	24.92	46.02	-21.1	0-360	100	V

Pk - Peak detector

## 11. AC POWER LINE CONDUCTED EMISSIONS

### LIMITS

FCC §15.207 (a)

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

\*Decreases with the logarithm of the frequency.

### TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10:2013.

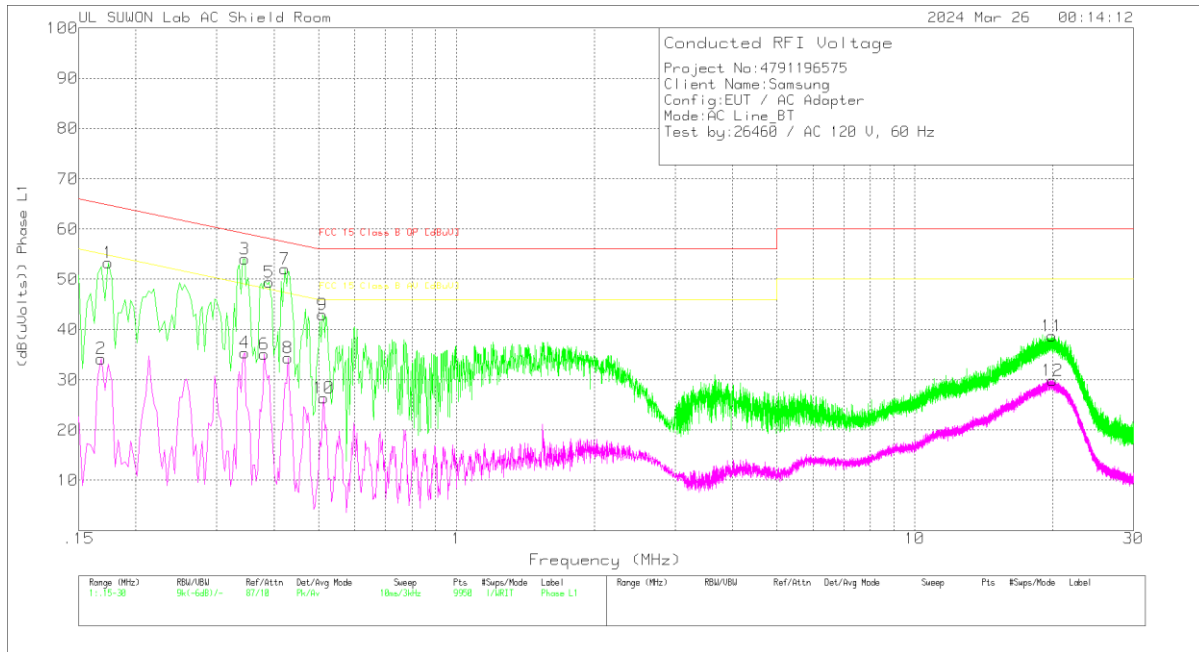
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

### RESULTS

### 11.1. AC Power Line

#### LINE 1 RESULTS



#### Trace Markers

Range 1: Phase L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101836_Wit h EX_L1 [dB]	Cable Loss [dB]	Corrected Reading (dBuVolts)	FCC 15 Class B QP [dBuV]	Margin (dB)	FCC 15 Class B AV [dBuV]	Margin (dB)
1	.174	43.21	Pk	10	.1	53.31	64.77	-11.46	-	-
2	.168	24.07	Av	10	.1	34.17	-	-	55.06	-20.89
3	.345	44.19	Pk	9.8	.1	54.09	59.08	-4.99	-	-
4	.345	25.51	Av	9.8	.1	35.41	-	-	49.08	-13.67
5	.39	39.56	Pk	9.8	.1	49.46	58.06	-8.6	-	-
6	.381	25.22	Av	9.8	.1	35.12	-	-	48.26	-13.14
7	.423	42.2	Pk	9.8	.1	52.1	57.39	-5.29	-	-
8	.429	24.46	Av	9.8	.1	34.36	-	-	47.27	-12.91
9	.51	32.96	Pk	9.9	.1	42.96	56	-13.04	-	-
10	.513	16.41	Av	9.9	.1	26.41	-	-	46	-19.59
11	19.893	28.24	Pk	10.2	.3	38.74	60	-21.26	-	-
12	19.995	19.35	Av	10.2	.3	29.85	-	-	50	-20.15

Pk - Peak detector

Av - Average detection

#### Quasi-Peak Emissions

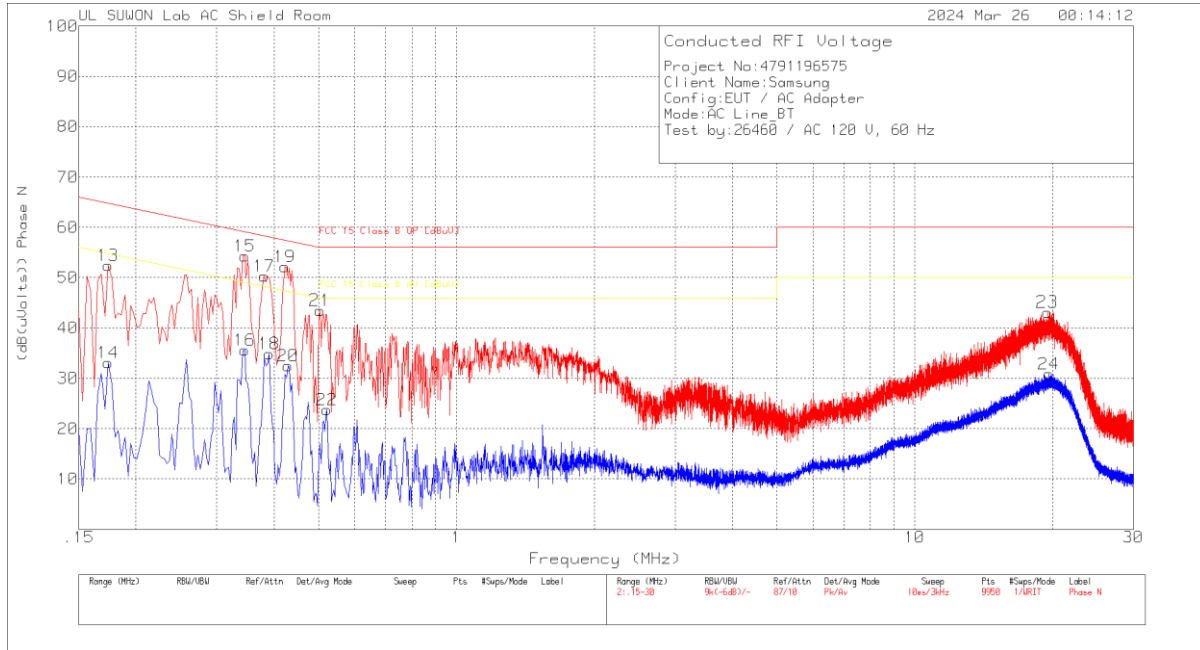
Range 1: Phase L1 .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	101836_Wit h EX_L1 [dB]	Cable Loss [dB]	Corrected Reading (dBuVolts)	FCC 15 Class B QP [dBuV]	Margin (dB)	FCC 15 Class B AV [dBuV]	Margin (dB)
.34515	41.9	Qp	9.8	.1	51.8	59.08	-7.28	-	-
.38925	37.63	Qp	9.8	.1	47.53	58.08	-10.55	-	-
.42375	39.84	Qp	9.8	.1	49.74	57.37	-7.63	-	-

Qp - Quasi-Peak detector

Av - Average detection

### LINE 2 RESULTS



#### Trace Markers

Range 2: Phase N .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101836_Wit h EX_N [dB]	Cable Loss [dB]	Corrected Reading (dBuVolts)	FCC 15 Class B QP [dBuV]	Margin (dB)	FCC 15 Class B AV [dBuV]	Margin (dB)
13	.174	42.3	Pk	10	.1	52.4	64.77	-12.37	-	-
14	.174	23.03	Av	10	.1	33.13	-	-	54.77	-21.64
15	.345	44.42	Pk	9.8	.1	54.32	59.08	-4.76	-	-
16	.345	25.71	Av	9.8	.1	35.61	-	-	49.08	-13.47
17	.381	40.4	Pk	9.8	.1	50.3	58.26	-7.96	-	-
18	.39	25.01	Av	9.8	.1	34.91	-	-	48.06	-13.15
19	.423	42.26	Pk	9.8	.1	52.16	57.39	-5.23	-	-
20	.429	22.6	Av	9.8	.1	32.5	-	-	47.27	-14.77
21	.504	33.51	Pk	9.9	.1	43.51	56	-12.49	-	-
22	.522	13.76	Av	9.9	.1	23.76	-	-	46	-22.24
23	19.458	32.64	Pk	10.2	.3	43.14	60	-16.86	-	-
24	19.62	20.41	Av	10.2	.3	30.91	-	-	50	-19.09

Pk - Peak detector

Av - Average detection

#### Quasi-Peak Emissions

Range 2: Phase N .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	101836_Wit h EX_N [dB]	Cable Loss [dB]	Corrected Reading (dBuVolts)	FCC 15 Class B QP [dBuV]	Margin (dB)	FCC 15 Class B AV [dBuV]	Margin (dB)
.34515	42.88	Qp	9.8	.1	52.78	59.08	-6.3	-	-
.38175	37.84	Qp	9.8	.1	47.74	58.24	-10.5	-	-
.42375	40.08	Qp	9.8	.1	49.98	57.37	-7.39	-	-

Qp - Quasi-Peak detector

## END OF TEST REPORT