



Explanation of Harmonics Margin

The following results are the power and harmonic measurements of the 9520 900 MHz DSS/FH set using peak and average detector.

NOTE: The power measurements were taken using a RBW of 100 KHz, so they are different from the peak measurements taken for EIRP purposes.

Taking into consideration the duty cycle factor (attached information), we have to subtract from 'Field Intensity' column, 26dB according to Duty Cycle Factor. Please take in consideration this factor that is not reflected in the actual table.

As an example:

Harmonic #6 of channel 1 frequency 902.597 is 54.4 dB μ V peak. If we subtract 26dB, the result would be 28.4 dB μ V.

With this we can show the telephone is complying with 15.35(b).

This issue addresses item #2 of your correspondence #8572.

Base Harmonics												
Channel Freq		EUT Azimuth (Degrees)	Antenna Height(cm)	Antenna Polarity (worst case)	Meter Reading (dBUV)		Cable Loss (dB)	Antenna Factor (dB/m)	Field Intensity (dBUV/m)		Signal Type	Spec Limit (dBUV/m) 3 meters
					Average	Peak			Average	Peak		
902.597									114.0	115.1	Intentional	
Har #	Freq.(MHz)											
2	1805.194	186	167	v	48	55	N/A	26.9	74.9	81.9	eut spur	94.0
3	2707.791	45	186	v	22	28	N/A	29.1	51.1	57.1	eut spur	54.0
4	3610.388	332	184	v/h	20	26	N/A	31.2	51.2	57.2	eut spur	54.0
5	4512.985	324	148	v	9	20	N/A	31.7	40.7	51.7	eut spur	54.0
6	5415.582	249	139	v/h	9	20	N/A	34.4	43.4	54.4	eut spur	54.0
7	6318.179	0 -360	100-400	h/v	9		N/A	34.6	43.6		Ambient	94.0
8	7220.776	0 -360	100-400	h/v	9		N/A	35.7	44.7		Ambient	94.0
9	8123.373	0 -360	100-400	h/v	10		N/A	36.8	46.8		Ambient	54.0
10	9025.97	0 -360	100-400	h/v	9		N/A	38.3	47.3		Ambient	54.0
916.386									114.7	115.8	Intentional	
2	1832.772	222	205	v	41	42	N/A	27.1	68.1	69.1	eut spur	94.7
3	2749.158	219	230	v	14	23	N/A	29.1	43.1	52.1	eut spur	54.0
4	3665.544	331	150	v	12	22	N/A	31.3	43.3	53.3	eut spur	54.0
5	4581.930	339	167	v	10	21	N/A	32.0	42.0	53.0	eut spur	54.0
6	5498.316	346	137	v	8	20	N/A	34.4	42.4	54.4	eut spur	94.7
7	6414.702	0 -360	100-400	h/v	7		N/A	34.4	41.4		Ambient	94.7
8	7331.088	0 -360	100-400	h/v	9		N/A	35.8	44.8		Ambient	54.0
9	8247.474	0 -360	100-400	h/v	11		N/A	36.6	47.6		Ambient	54.0
10	9163.860	0 -360	100-400	h/v	12		N/A	37.9	49.9		Ambient	54.0
927.457									114.2	115.1	Intentional	
2	1854.914	278	201	v	43	49	N/A	27.2	70.2	76.2	eut spur	94.2
3	2782.371	323	172	v	16	23	N/A	29.2	45.2	52.2	eut spur	54.0
4	3709.828	304	160	v	10	21	N/A	31.5	41.5	52.5	eut spur	54.0
5	4637.285	314	176	h	9	20	N/A	32.3	41.3	52.3	eut spur	54.0
6	5564.742	359	138	h/v	7	20	N/A	34.5	41.5	54.5	eut spur	94.2
7	6492.199	0 -360	100-400	h/v	6		N/A	34.3	40.3		Ambient	94.2
8	7419.656	0 -360	100-400	h/v	8		N/A	35.9	43.9		Ambient	54.0
9	8347.113	0 -360	100-400	h/v	9		N/A	36.4	45.4		Ambient	54.0
10	9274.570	0 -360	100-401	h/v	11		N/A	37.6	48.6		Ambient	94.2

July 17, 22 1999

Handset Harmonics												
Channel Freq		EUT Azimuth (Degrees)	Antenna Height(cm)	Antenna Polarity (worst case)	Meter Reading (dBuV)		Cable Loss (dB)	Antenna Factor (dB/m)	Field Intensity (dBuV/m)		Signal Type	Spec Limit (dBuV/m) 3 meters
					Average	Peak			Average	Peak		
902.597												
Har #	Freq.(MHz)								116.4	117.6	Intentional	
2	1805.194	232	170	v	51	58	N/A	26.9	77.9	84.9	eut spur	96.4
3	2707.791	180	170	h	15	22	N/A	29.1	44.1	51.1	eut spur	54.0
4	3610.388	208	166	h	11	20	N/A	31.2	42.2	51.2	eut spur	54.0
5	4512.985	180	146	h	16	23	N/A	31.7	47.7	54.7	eut spur	54.0
6	5415.582	0 -360	100-400	h/v	8	21	N/A	34.4	42.4	55.4	eut spur	54.0
7	6318.179	0 -360	100-400	h/v	9		N/A	34.6	43.6		Ambient	96.4
8	7220.776	0 -360	100-400	h/v	9		N/A	35.7	44.7		Ambient	96.4
9	8123.373	0 -360	100-400	h/v	10		N/A	36.8	46.8		Ambient	54.0
10	9025.97	0 -360	100-400	h/v	9		N/A	38.3	47.3		Ambient	54.0
916.386									117.6	118.7	Intentional	
2	1832.772	200	145	v	49	55	N/A	27.1	76.1	82.1	eut spur	97.6
3	2749.158	243	193	h	16	23	N/A	29.1	45.1	52.1	eut spur	54.0
4	3665.544	180	110	h	9	20	N/A	31.3	40.3	51.3	eut spur	54.0
5	4581.930	232	170	h	17	25	N/A	32.0	49.0	57.0	eut spur	54.0
6	5498.316	0 -360	100-400	h/v	7		N/A	34.4	41.4		Ambient	97.6
7	6414.702	0 -360	100-400	h/v	7		N/A	34.4	41.4		Ambient	97.6
8	7331.088	0 -360	100-400	h/v	9		N/A	35.8	44.8		Ambient	54.0
9	8247.474	0 -360	100-400	h/v	11		N/A	36.6	47.6		Ambient	54.0
10	9163.860	0 -360	100-400	h/v	12		N/A	37.9	49.9		Ambient	54.0
927.457									116.3	117.5	Intentional	
2	1854.914	213	154	v	44	52	N/A	27.2	71.2	79.2	eut spur	96.3
3	2782.371	205	175	h	16	23	N/A	29.2	45.2	52.2	eut spur	54.0
4	3709.828	220	160	v	11	20	N/A	31.5	42.5	51.5	eut spur	54.0
5	4637.285	320	108	h	12	21	N/A	32.3	44.3	53.3	eut spur	54.0
6	5564.742	0 -360	100-400	h/v	6		N/A	34.5	40.5		Ambient	96.3
7	6492.199	0 -360	100-400	h/v	6		N/A	34.3	40.3		Ambient	96.3
8	7419.656	0 -360	100-400	h/v	8		N/A	35.9	43.9		Ambient	54.0
9	8347.113	0 -360	100-400	h/v	9		N/A	36.4	45.4		Ambient	54.0
10	9274.570	0 -360	100-400	h/v	11		N/A	37.6	48.6		Ambient	96.3

July 17, 22 1999