

PRODUCT: CAP1000HF+6 exp E-2-2 TESTED BY: RSM DATE: 1-19-15

TEST: RF CW Harmonics, Two Tone Imd's

Vdc= 50.0 Idq= 1.5 Freq= Hf+6Meters

CW Test						Two Tone Test				
Freq MHz	Pout Watts	Id Amps	F2 -dBc	F3 -dBc	Eff %	Pout Wavg	Id Aavg	Imd3 -dBc	Imd5 -dBc	Eff %
1.8	1000	30.39	41.5	16.1	65.8	500	19.91	37.7	34.5	50.2
1.8	900	29.29	43.8	17.7	61.5	450	18.92	45.9	41.3	47.6
1.8	800	27.74	41.2	18.5	57.7	400	17.83	39.8	48.3	44.9
3.5	1000	29.94	47.8	14.8	66.8	500	19.37	55.4	44.8	51.6
3.5	900	28.62	47.2	15.6	62.9	450	18.36	45.3	51.3	49.0
3.5	800	26.93	46.8	16.1	59.4	400	17.30	43.4	55.7	46.2
7	1000	29.60	51.5	14.1	67.6	500	19.10	45.0	44.3	52.4
7	900	28.10	50.4	14.4	64.1	450	18.13	41.0	48.3	49.6
7	800	26.50	49.4	14.6	60.4	400	17.10	39.9	40.3	46.8
10	1000	30.63	50.7	14.5	65.3	500	19.82	44.0	42.2	50.5
10	900	29.10	49.6	15.0	61.9	450	18.90	40.2	47.0	47.6
10	800	27.60	48.8	15.2	58.0	400	17.85	39.0	50.0	44.8
14	1000	32.15	51.5	14.4	62.2	500	21.10	45.0	38.7	47.4
14	900	30.66	50.3	14.7	58.7	450	20.00	44.3	42.8	45.0
14	800	29.00	48.6	15.0	55.2	400	19.00	40.0	47.0	42.1
18	1000	34.00	50.8	13.5	58.8	500	22.76	34.2	36.8	43.9
18	900	32.60	51.2	14.5	55.2	450	21.70	37.2	38.2	41.5
18	800	31.03	51.7	16.0	51.6	400	20.47	43.4	39.4	39.1
21	1000	35.00	50.8	12.4	57.1	500	23.80	34.8	36.7	42.0
21	900	33.72	51.0	13.3	53.4	450	22.65	42.0	38.8	39.7
21	800	32.47	51.7	14.4	49.3	400	21.46	48.0	41.2	37.3
25	1000	31.82	50.3	10.4	62.9	500	23.40	29.2	33.9	42.7
25	900	31.60	50.6	11.5	57.0	450	22.60	33.3	35.5	39.8
25	800	31.25	52.2	12.6	51.2	400	21.67	56.0	52.8	36.9
28	1000	31.35	49.4	12.8	63.8	500	21.80	29.2	33.8	45.9
28	900	29.44	50.2	13.0	61.1	450	20.94	33.6	34.9	43.0
28	800	28.33	47.4	13.6	56.5	400	20.20	39.4	36.2	39.6
51	1000	31.40	44.6	25.6	63.7	500	17.97	33.6	32.9	55.6
51	900	27.96	48.0	28.8	64.4	450	16.70	39.9	33.7	53.9
51	800	25.00	57.7	33.8	64.0	400	15.52	47.7	35.2	51.5

Note: All Imd's referanced to one of the two tones (Mil Standard Method).

Refer to Motorola EB38 Measuring the Intermodulation Distortion of Linear Amplifiers. By Helge Granberg.

Watts avg x 2 = Watts PEP, i.e. 500W avg = 1000W PEP.