

Table 1 Signal Sources

Model Number	Microwave Output		Microwave Multiplier Ratio	Crystal-Oscillator Frequency	Total Multiplier Ratio	Input Current Maximum (mA)	
	Frequency (GHz)	Power, Min./Max (mW)				Model X XA	Model XE XB
MS-38	3.6 - 3.9	10/63	3	100.0 - 108.4	36	300	500
MS-42BB	3.63 - 4.13	10/63	3	100.8 - 109.2	36/39	300	500
MS-420	3.6 - 3.9	50/300	3	100.0 - 108.4	36	450	650
MS-44	3.85 - 4.2	10/63	3	98.7 - 107.7	39	300	500
MS-46	4.1 - 4.45	10/63	3	97.5 - 105.95	42	300	500
MS-48	4.33 - 4.93	10/63	4	98.4 - 112.1	44	300	500
MS-480A	4.33 - 4.63	50/300	4	98.4 - 105.3	44	450	650
MS-480B	4.6 - 4.93	50/300	4	104.5 - 112.1	44	450	650
MS-50	4.8 - 5.32	10/63	4	100.0 - 110.83	48	300	500
MS-52	5.4 - 5.9	10/63	4	103.8 - 113.5	52	300	500
MS-54	5.855 - 6.455	10/63	5	97.5 - 107.6	60	300	500
MS-540	5.855 - 6.360	50/300	5	97.5 - 106.0	60	450	650
MS-540A	5.855 - 6.105	50/300	5	97.5 - 101.7	60	450	650
MS-540B	6.065 - 6.355	50/300	5	101.0 - 105.9	60	450	650
MS-56	6.425 - 6.925	10/63	5	98.8 - 106.6	65	300	500
	6.355 - 6.805	10/63	5	97.4 - 104.7	65	300	500
MS-58	6.8 - 7.2	10/63	5	104.6 - 110.8	65	300	500
MS-580	6.805 - 7.055	25/-	5	104.7 - 108.5	65	400	600
MS-60	7.0 - 7.52	5/45	5	100.0 - 107.5	70	300	500
MS-62	7.5 - 8.0	5/45	5	100.0 - 106.7	75	300	500
MS-620	7.680 - 8.005	25/-	5	102.4 - 106.7	75	400	600
MS-64	7.98 - 8.5	5/45	5	99.7 - 106.3	80	400	600
MS-640	8.005 - 8.330	25/-	5	100.0 - 102.8	80	400	600
MS-66	8.5 - 9.05	10/63	5	100.0 - 106.5	85	400	600
MS-68	9.0 - 9.6	10/63	6	100.0 - 106.7	90	400	600
MS-70	9.6 - 10.2	10/63	6	100.0 - 106.25	96	400	600
MS-72	10.2 - 10.7	10/63	6	100.0 - 104.88	102	400	600
MS-74	10.63 - 11.23	10/63	6	98.4 - 104.0	108	400	600
	10.63 - 11.13	10/63	6	98.4 - 103.1	108	400	600
MS-76	11.20 - 11.77	10/63	6	103.7 - 109.0	108	400	600
	11.13 - 11.63	10/63	6	103.0 - 107.6	108	400	600
MS-78	11.63 - 12.23	5/45	6	102.0 - 107.3	114	400	600
MS-80	12.13 - 12.70	5/45	6	101.0 - 105.3	120	400	600
MS-82	12.63 - 13.23	5/45	6	100.2 - 105.0	126	400	600
MS-84	13.13 - 13.70	5/45	6	99.4 - 103.8	132	400	600
MS-86	13.63 - 14.23	5/45	7	102.4 - 107.0	133	400	600
MS-88	14.13 - 14.73	5/45	7	100.9 - 105.2	140	400	600

Models XC and XO indicate units with proportional ovens to maintain the crystal at a constant temperature.
 Models X, XA, XB and XE have no ovens and their current consumption is lower.

Table 2 Fundamental Oscillators

Model Number	Microwave Output		Total Multiplier Ratio	Crystal-Oscillator Frequency (MHz)		Input Current Maximum (mA)		
	Frequency (MHz)	Power, Min./Max. (mW)		Range	Output	Model X XA	Model XE XB	Model XC XO
MO-102	980 - 1100	250	X10	98.0 - 110	—	300	500	
MO-104	1080 - 1220	250	X11	98.2 - 110.9	—	300	500	
MO-106	1200 - 1340	250	X12	100.0 - 111.7	—	300	500	
MO-108	1300 - 1520	200	X13 X14	100.0 - 109.3 101.4 - 108.6	1300 - 1420 1420 - 1520	300 300	500 500	
MO-110	1500 - 1720	200	X15 X16	100.0 - 106.7 100.0 - 107.5	1500 - 1600 1600 - 1720	350 350	550 550	
MO-112	1720 - 2020	200	X17 X19	101.1 - 111.8 100.0 - 106.3	1720 - 1900 1900 - 2020	350 350	550 550	
MO-114	2000 - 2320	150	X20 X21	100.0 - 107.5 102.3 - 110.5	2000 - 2150 2150 - 2320	350 350	550 550	
MO-116	2320 - 2720	20	X23 X25	100.8 - 108.7 100.0 - 108.8	2320 - 2500 2500 - 2720	350 300	550 500	
MO-118	2700 - 3220	20	X27 X29	100.0 - 109.6 102.0 - 111.0	2700 - 2960 2960 - 3220	300 300	500 500	
MO-120	3200 - 3700	10	X32 X34	100.0 - 109.3 102.9 - 108.8	3200 - 3500 3500 - 3700	300 300	500 500	

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