

# High Level Mixers Selection Guide (+10 to +20 dBm Lo Level)

Product Number	Model Number	Frequency Range (MHz)			Package Style	Typical Midband Electrical Performance			Isolations (dB)			Special Notes
		L	R	IF		Conversion Loss SSB/DF (dB)	RF Level (1dB) Compression (dBm)	3rd Order Intercept Point (dBm)	L-R	L-X	R-X	
▲ 57	CM-1H4	.5-500	.5-500	DC-500	Metal PC Mount	5.5	+ 7	+20	40	40	20	Low cost, shielded, medium high level
▲ 58	CM-1H8	.5-500	.5-500	DC-500	Metal PC Mount	5.5	+13	+25	40	35	25	Low cost, shielded, high level
59	CM-2H4	10-1000	10-1000	DC-1000	Metal PC Mount	6	+ 7	+20	40	30	25	Low cost, shielded, medium high level
60	CM-2H8	10-1000	10-1000	DC-1000	Metal PC Mount	6	+13	+25	40	35	20	Low cost, shielded, high level
61	CM-3H4	1-1000	1-1000	DC-1000	Subminiature Metal PC Mount	6	+ 7	+20	40	35	30	Low cost, shielded, general purpose
62	CM-3H8	1-1000	1-1000	DC-1000	Subminiature Metal PC Mount	6	+13	+25	40	35	30	Low cost, shielded, general purpose
63	CM-4H4	1-500	1-500	DC-500	Subminiature Metal PC Mount	6	+ 7	+20	40	35	30	Low cost, shielded, general purpose
64	CM-4H8	1-500	1-500	DC-500	Subminiature Metal PC Mount	6	+13	+25	40	35	30	Low cost, shielded, general purpose
65	CM-5H4	1-500	1-500	DC-500	Surface Mount	6	+ 7	+20	40	35	30	Low cost, surface mount substrate
66	CM-5H8	1-500	1-500	DC-500	Surface Mount	6	+13	+25	40	35	30	Low cost, surface mount substrate
67	DBM-176	5-1500	5-1500	DC-1500	TO-8	6	+13	+25	35	35	30	Miniature, shielded, high level
68	DBM-178	5-1500	5-1500	DC-1500	Metal Flatpack	7	+13	+25	40	30	25	Miniature, shielded, high level, PC or Microstrip Mount
69	DBM-183	10-4000	10-4000	5-4000	Metal Flatpack	7	+ 6	+20	35	35	30	Miniature, shielded, medium high level PC or Microstrip Mount, high flat intercept point over the full band
70	DBM-184	2-3000	2-2500	5-1500	Metal Flatpack	6	+ 6	+20	40	35	35	Miniature, shielded, medium high level, very good VWSR, flat intercept point over the full band
71	DBM-186	10-4000	10-4000	5-4000	TO-8	7	+ 6	+17	35	20	20	Miniature, shielded, medium high level flat intercept point across the full band
72	DBM-188	.5-450	.5-450	DC-800	Metal PC Mount	5.5	+15	+30	35	35	30	Shielded, PC, very high level
73	DBM-600	250-5000	250-5000	5-3000	Metal Flatpack	6.5	+ 6	+20	25	35	30	Miniature, shielded, medium high level PC or Microstrip Mount, high flat intercept point over the full band
74	DBM-601	500-8000	500-8000	5-5000	SMA Connector	6.5	+ 6	+16	20	30	30	Shielded, connector type, medium high level, flat intercept point over the full band
75	DBM-700	1-3500	1-3500	5-2500	Metal Flatpack	7	+ 7	+17	42	33	30	Shielded package, mismatch insensitive mixer, high performance
76	DBM-700H	1-3500	1-3500	5-2500	Metal Flatpack	7	+16	+20	35	40	30	High level mismatch insensitive mixer
77	DBM-701	1-3500	1-3500	5-2500	TO-8	7	+ 7	+17	35	30	30	Mismatch insensitive mixer, high performance
78	DBM-701S	1-3500	1-3500	5-2500	SMA Connector	7	+ 7	+17	35	30	30	SMA connectorized, shielded package, mismatch insensitive
79	DBM-1100H	2800-5600	2800-5600	DC-1500	SMA Connector	4.5	+ 7	+16	35	28	28	SMA connectorized, high level, low loss
80	DBM-1120H	1000-2000	1000-2000	DC-800	SMA Connector	4.7	+ 7	+16	45	30	25	SMA connectorized, high level, low loss
81	DBM-1150H	1600-3200	1600-3200	DC-1000	SMA Connector	4.7	+ 7	+16	50	22	18	SMA connectorized, high level, low loss
82	DBM-1160H	2400-4800	2400-4800	DC-1200	SMA Connector	4.7	+ 7	+16	40	22	30	SMA connectorized, high level, low loss
83	DBM-1180H	3500-7000	3500-7000	DC-1500	SMA Connector	4.5	+ 7	+16	35	25	25	SMA connectorized, high level, low loss
84	DBM-1200	500-13000	500-13000	5-5000	SMA Connector	8	+ 6	+15	25	25	30	Shielded, connector type, medium high level, flat intercept point over the full band
85	DBM-1800	200-18000	200-18000	5-6000	SMA Connector	9	+ 6	+16	25	30	25	Super wideband, shielded, connector type, medium high level, flat intercept point over the full band

## Wideband Frequency Doublers Selection Guide

Product Number	Model Number	Package Style	Frequency Range (MHz)		Typical Midband Electrical Performance		
			Input	Output	2f Conversion Loss	VSWR In/Out	f, 3f Suppression
86	WD-101	SMA Connectorized	1-500	2-1000	12 dB	1.6:1	30 dB
87	WD-102	SMA Connectorized	10-4000	20-8000	14 dB	1.6:1	40 dB

## High Level Phase Detector Selection Guide

Product Number	Model Number	Package Style	Frequency (MHz)	Video Bandwidth	Typical $\phi$ Sensitivity @ RF Inputs With +10 dBm Inputs	Typical Operation @ RF Inputs @ +10 dBm	
						$\phi$	Output
88	PD-100	Metal PC Mount	RF <sub>1</sub> DC-500, RF <sub>2</sub> 5-500	DC-1.5 MHz	10 MV/°	0°	-1 VDC
						90°	0 VDC
						180°	+1 VDC
89	PD-101	BNC Connector & Terminal	RF <sub>1</sub> DC-500, RF <sub>2</sub> 5-500	DC-1.5 MHz	10 MV/°	0°	-1 VDC
						90°	0 VDC
						180°	+1 VDC
▲ 90	PD-102	TO-8 (5 Pin)	RF <sub>1</sub> DC-500, RF <sub>2</sub> 5-500	DC-1.5 MHz	10 MV/°	0°	-1 VDC
						90°	0 VDC
						180°	+1 VDC