

## Hybrid Mixers

Part Number	Min Freq RF/LO (MHz)	Max Freq RF/LO (MHz)	Min Freq IF (MHz)	Max Freq IF (MHz)	LO Drive (dB)	Conversion Loss/Gain (dB)	Package
MDS-222-PIN ♦	0.2	200	0.2	200	7	7.5	SF-1
MAC-50-PIN ♦	0.2	200	0	200	7	6	TO-5-2
M6D-50 ♦	0.05	200	0	200	7	7	Relay Can
SM6D	0.05	200	0	200	7	7	SMT
MAC-51-PIN ♦	5	500	0	500	7	7	TO-5-2
MD-108-PIN ♦	5	500	0	500	7	9	RH-3
MDS-223-PIN ♦	10	500	10	500	7	7	SF-1
MD-161-PIN ♦	1	500	0	500	13	8	FP-2
SM6V	0.4	500	0	500	7	6.5	SMT
M9BC ♦	0.5	500	0	500	17	7	Relay Can
M1H ♦	180	620	0	200	7	7	SMA Relay can
M6EH ♦	5	750	0	500	20	7.5	Relay Can
SM6EH	5	750	0	500	20	7.5	SMT
SM2E	10	1000	0	600	20	8	SMT
M2EC ♦	10	1000	0	600	20	8	SMA
M2E	10	1000	0	600	20	8	TO-8
MD-148-PIN ♦	10	1500	10	1500	10	6	FP-2
MDS-158-PIN ♦	5	1500	—	—	7	9	SF-1
MD-160-PIN ♦	1	1500	1	1000	13	9	RH-3
MDS-148-PIN	10	1500	10	1500	10	6	SF-1
MD-158-PIN ♦	5	1500	—	1000	7	7	FP-2
MD-149-PIN ♦	10	1500	10	1500	7	7.5	FP-2
MDS-149-PIN ♦	10	1500	10	1500	7	6	SF-1
CSM1-17	10	1500	1	500	17	7.5	SMT
M9HC ♦	10	1500	0	600	20	8	SMA
M4A ♦	10	1500	0	1000	7	7.5	Flatpack
SM4A	10	1500	0	1000	7	7.5	SMT
M2AC ♦	10	1500	0	800	7	7.5	SMA
CSM1-13	10	1500	1	500	13	7.5	SMT
SM4B ♦	10	1500	0	1000	13	7.5	SMT
M2BC ♦	10	1600	0	800	13	7.5	SMA
M2B ♦	10	1600	0	800	13	7.5	TO-8
CSM1-10	10	2000	1	500	10	7.5	SMT
M2TC ♦	10	2400	1	1000	13	8	SMA
SM4G ♦	800	2400	0	1500	7	7.5	SMT
CSM2-10	10	2800	10	2000	10	8.5	SMT
CSM2-17	10	2800	10	2000	17	8.5	SMT
CSM2-13	10	2800	10	2000	13	8.5	SMT
MD-123-PIN ♦	10	3000	10	3000	7	8	FP-2
SM4T17	1	3400	1	2000	17	8	SMT
SM4TH	1	3400	1	2000	23	8	SMT
M8T ♦	1	3400	1	2000	10	7	TO-8
M8TC ♦	1	3400	1	2000	10	7	SMA
M8TH ♦	1	3400	1	2000	23	7.5	TO-8
CSM4T17	1	3400	1	2000	17	8	SMT
CSM4TH	1	3400	1	2000	23	8	SMT
SM4T	1	3400	1	2000	10	8	SMT

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M8THC ♦	1	3400	1	2000	23	7.5	SMA
CSM4T	1	3400	1	2000	10	8	SMT
M4TH ♦	1	3400	1	2000	23	8	Flatpack
MDC-169-SMA ♦	1	3500	1	3500	10	10	C-7
MDS-169-PIN ♦	1	3500	5	1500	10	8	SF-1
MD-189-PIN ♦	1	3500	1	3500	23	8	FP-2
MDS-189-PIN ♦	1	3500	1	3500	23	8	SF-1
MD-169-PIN ♦	1	3500	1	3500	10	10	FP-2
M2GC ♦	800	3500	0	1500	7	8	SMA
M2G	800	3500	0	1500	7	8	TO-8
MDC-179-SMA ♦	1	4000	5	1500	7	10.5	C-7
MD-179-PIN ♦	1	4000	5	1500	7	10.5	FP-2
M8H-3 ♦	3700	4200	0	2000	7	5	TO-8
MC2110 ♦	3400	4700	0	1000	10	6.2	Open Carrier
CSM5TH	50	4800	50	3000	23	7	SMT
CSM5T17	50	4800	50	3000	17	7.8	SMT
CSM5T	50	4800	50	3000	10	7.2	SMT
SM5T17	50	5000	50	3000	17	7.5	SMT
SM5TH	50	5000	50	3000	23	7.7	SMT
SM5T	50	5000	50	3000	10	7.5	SMT
MZ6310C ♦	250	5500	0	1500	10	7	SMA
M63C ♦	2500	5500	0	1500	9	5.5	SMA
M8HC-7 ♦	2400	6000	0	2000	7	6	SMA
M8H-7 ♦	2400	6000	0	2000	7	6	TO-8
MDC-162-SMA ♦	1000	7000	10	2000	13	6	C-2
MY63 ♦	2500	7000	0	15000	9	5.8	Versapac
MY63C ♦	2500	7000	0	15000	9	5.8	SMA
MC2410 ♦	4500	7000	0	2000	10	5.5	Open Carrier
MC2413 ♦	4500	7000	0	2000	13	5.5	Open Carrier
M63H ♦	2500	7500	0	1500	20	6	Minpac
MY63H ♦	2500	7500	0	1500	20	6	Versapac
MY63HC ♦	2500	7500	0	1500	20	6	SMA
M63HC ♦	2500	7500	0	1500	20	6	SMA
MC2310 ♦	2200	8000	0	2000	10	7	Open Carrier
MC2320 ♦	2200	8000	0	2000	13	7	Open Carrier
MC2307 ♦	2200	8000	0	2000	7	7	Open Carrier
MY76H ♦	4500	8500	0	2000	20	7	Versapac
MY76HC ♦	4500	8500	0	2000	20	7	SMA
M76H ♦	4500	8500	0	2000	20	7	Minpac
MY76C ♦	4500	9500	0	2000	10	6	SMA
M76 ♦	4500	9500	0	2000	10	6	Minpac
M76C ♦	4500	9500	0	2000	10	6	SMA
MY76 ♦	4500	9500	0	2000	10	6	Versapac
MC4113 ♦	2000	10000	0	2000	13	7.5	Open Carrier
MC4120 ♦	2000	10000	0	2000	20	7.5	Open Carrier
MC4107 ♦	2000	10000	0	2000	7	7.5	Open Carrier
MY84 ♦	1800	10000	0	1000	9	6.5	Versapac

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MY84C ♦	1800	10000	0	1000	9	6.5	SMA
MY77 ♦	8000	12500	0	2500	10	5.5	Versapac
M77C ♦	8000	12500	0	2500	10	5.5	SMA
MY77C ♦	8000	12500	0	2500	10	5.5	SMA
M14A ♦	6000	14000	0	2000	7	6.5	SMA
MC2710 ♦	10000	15000	0	2000	10	6	Open Carrier
MC2707 ♦	10000	15000	0	2000	7	7	Open Carrier
M67C ♦	9000	15000	0	2500	10	6.5	SMA
MC2720 ♦	10000	15000	0	2000	20	6	Open Carrier
MC3013 ♦	20000	16000	1000	8000	13	8	Open Carrier
MY85C ♦	2000	18000	0	1000	7	8	SMA
MZ7407C ♦	6000	18000	0	3000	7	6.5	SMA
M88H ♦	2000	18000	2000	8000	21	8	Minpac
MZ8810C ♦	2000	18000	1000	8000	10	7.5	SMA
M85 ♦	2000	18000	0	1000	7	8	Minpac
MZ8813 ♦	2000	18000	1000	8000	13	7	Versapac
MY83H ♦	2	18000	30	5000	20	8.5	Versapac
MZ7407 ♦	6000	18000	0	3000	7	6.5	Versapac
M83	1000	18000	30	5000	13	7.5	Minpac
M74 ♦	7000	18000	0	3000	10	6.5	Minpac
MY88HC ♦	1000	18000	1000	8000	21	8	SMA
M93C ♦	2000	18000	30	4000	10	8	SMA
MZ7410 ♦	6000	18000	0	3000	10	6.5	Versapac
MY88C ♦	2000	18000	1000	8000	13	8	SMA
M83C ♦	1000	18000	30	5000	13	7.5	SMA
M89C ♦	1000	18000	1000	8000	10	8	SMA
M79HC ♦	5000	18000	0	3000	20	7.5	SMA
M79H ♦	5000	18000	0	3000	20	7.5	Minpac
MY93C ♦	2000	18000	30	4000	10	8	SMA
MY93 ♦	2000	18000	30	4000	10	8	Versapac
MY89 ♦	2000	18000	2000	8000	10	8	Versapac
M85C ♦	2000	18000	0	1000	7	8	SMA
M88HC ♦	2000	18000	2000	8000	21	8	SMA
MY88	2000	18000	1000	8000	13	8	Versapac
MY89C ♦	2000	18000	2000	8000	10	8	SMA
MZ9310 ♦	2000	18000	30	5000	10	7.5	Versapac
MZ7420C ♦	6000	18000	0	3000	20	7.5	SMA
M79C ♦	5000	18000	0	3000	10	7	SMA
MZ7410C ♦	6000	18000	0	3000	10	6.5	SMA
M88C ♦	2000	18000	1000	8000	13	8	SMA
MY83HC ♦	2	18000	30	5000	20	8.5	SMA
M86C ♦	3500	18000	0	3000	7	7	SMA
MY82 ♦	2000	18000	30	5000	13	7.5	Versapac
M80C ♦	4000	18000	0	3000	7	6.5	SMA
MZ9310 ♦	2000	18000	30	5000	10	7.5	SMA
MY82C ♦	2000	18000	30	5000	13	7.5	SMA

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M74C ♦	7000	18000	0	3000	10	6.5	SMA
MY85 ♦	2000	18000	0	1000	7	8	Versapac
M50A ♦	2000	18000	2000	18000	10	8	Minpac
MZ7420 ♦	6000	18000	0	3000	20	7.5	Versapac
MZ9313 ♦	2000	18000	30	5000	13	7	Versapac
MZ9313C ♦	2000	18000	30	5000	13	7	SMA
M87C ♦	500	19000	30	5000	13	9	SMA
MY87 ♦	500	19000	30	5000	13	10.5	Versapac
MY87C ♦	500	19000	30	5000	13	10.5	SMA
MC4507 ♦	4000	20000	0	4000	7	7.5	Open Carrier
MC4513 ♦	4000	20000	0	4000	13	7.5	Open Carrier
MC4510 ♦	4000	20000	0	4000	10	7.5	Open Carrier
MY52 ♦	2000	24000	100	5000	10	8	Versapac
MY51 ♦	2000	24000	1000	15000	10	8	Versapac
MY51C ♦	2000	24000	1000	15000	10	8	SMA
MY52C ♦	2000	24000	100	5000	10	8	SMA
M52C ♦	2000	24000	100	5000	10	8	SMA
M51C ♦	2000	24000	1000	15000	10	8	SMA
MY50AC ♦	2000	26000	1000	12000	10	8	SMA
MY50 ♦	2000	26000	1000	15000	10	8	Versapac
MZ5010C ♦	2000	26000	1	15000	10	8.5	SMA
MY50A ♦	2000	26000	1000	12000	10	8	Versapac
M53C ♦	2000	26000	100	6000	10	8	SMA
M50C ♦	2000	26000	1000	15000	10	8	SMA
MZ5010 ♦	2000	26000	1	15000	10	8.5	Versapac
MY50C ♦	2000	26000	1000	15000	10	8	SMA

## Receivers/Down Converters

Part Number	Min Freq (MHz)	Max Freq (MHz)	Conversion Gain (dB)	Noise Figure (dBm)	Image Rejection (dBm)	LO Input Power (dBm)	Package
XR1011-BD	4500	10500	14	1.6	20	5	Die
XR1004-BD	35000	45000	9	3.5	18	2	Die
XR1011-QH	45000	10500	13	1.8	20	5	4 mm QFN-24
XR1015-QH	10000	16000	12	2.5	20	5	4 mm QFN-24
XR1019-QH	27500	33400	13	2.5	20	4	4 mm QFN-24
XR1020	32000	36000	14	3	20	4	4 mm QFN-24
XR1008-QB	37000	40000	9	3.5	18	2	7 mm SMT
MADC-011010	37400	40000	13	3.8	25	4	4 mm QFN-24
MADC-010736	40500	43500	12	3.5	20	2	6 mm SMD-13

## Transceivers

Part Number	Description	Op Freq (GHz)	Output Power (mW)	Op Current (mA)	IF Bandwidth	Package
MACS-007801-0M1R10	Mono Transceiver	24.125 +/-25 MHz	8	175	10 Hz to 1 kHz	Die Cast Waveguide
MACS-007802-0M1R10	Stereo Transceiver	24.125 +/-25 MHz	8	175	10 Hz to 1 kHz	Die Cast Waveguide
MACS-007801-0M1RMO	Mono Transceiver	24.125 +/-25 MHz	5	90	10 Hz to 1 kHz	Die Cast Waveguide
MACS-007802-0M1RSO	Stereo Transceiver	24.125 +/-25 MHz	5	90	10 Hz to 1 kHz	Die Cast Waveguide
MACS-007800-0M1R00	Local Oscillator	24.150 +/-25 MHz	5	90	—	Die Cast Waveguide

## Up Converters

Part Number	Description	Min Freq (MHz)	Max Freq (MHz)	Gain (dBm)	OIP3 (dBm)	Package
XUI009-BD	GaAs MMIC Transmitter	18000	36000	35	25	Die
XUI006-BD	Transmitter	37000	40000	2	17	Die
XUI004-BD	Transmitter	32000	45000	5	14	Die
MAUC-010506	Up Converter	17680	23620	14	35	4 mm PQFN-24
MAUC-011003	Up Converter	27500	33400	12	32	4 mm PQFN-24
XUI019-QH	Up Converter	37000	40000	7	27	4 mm PQFN-24
XUI006-QB	GaAs Transmitter	37000	40000	2	17	7 mm LGA-28
MAUC-101515	Up Converter	40500	43000	11	30	6 mm LGA-13

## Mixers

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XM1001-BD	12000	40000	0	4000	8	—	Die
XM1003-BD	32000	42000	0	4000	12	—	Die
XM1002-BD	34000	46000	0	4000	9	—	Die
MAMX-007607-ELCM1H	0.5	500	0.5	500	7.2	17	SM-87
MAMX-009722-25MHLP	30	512	—	—	7.5	23	SM-89
MAMX-008786-ES0120	880	915	150	170	5.5	17	SM-87
MAMX-008782-ES0118	925	960	820	915	7	7	SM-87
MAMX-008611	800	1000	170	—	9.3	-5	SOT-26
MAMX-008174-CXD860	1	1000	1	1000	7.5	7	SM-134
MAMXSS0012	800	1000	0	200	8	5	SOT-25
MAMXSS0011	800	1000	0	100	7.5	13	SOIC-8
MAMXES0115	5	1000	0	1000	7	7	SM-89
MA4EXP950H1-1277T	850	1050	0	200	8.3	15	3 mm MLP
MAMX-090950-1277LT	850	1050	0	400	8.2	7	3 mm MLP
MAMX-000950-1225MT	700	1200	0	400	8.2	10	3 mm MLP
MA4EX950L1-1225T	700	1200	0	400	8	5	SOT-25
MA4EX950H1-1225T	700	1200	0	400	6.6	15	SOT-25
MAMX-000900-1061LT	700	1400	0	400	6.7	7	SOIC-8
MAMX-007247-MRS5MH	5	1500	5	1500	7.5	13	SM-1
MAMXSS0010	1700	2000	0	200	8.5	13	SOIC-8
MAMX-007253-ES0067	10	2000	10	800	8	10	SM-2
MAMXSS0013	1400	2100	0	500	8	5	SOT-25
MAMX-009239-001500	10	2500	10	2500	9	17	SM-87
MAMX-007238-CM25MH	2	2500	2	2500	7.3	13	SM-87
MA4EX240L1-1225T	1700	2500	0	400	7	5	SOT-25
MAMXES0117	80	2500	0	1000	7.34	17	SM-2
MA4EXP240L-1277T	2300	2800	0	200	8.3	5	3 mm MLP
MA4EX600L1-1225T	4200	6000	0	2000	5.8	15	SOT-25
MA4EX580L1-1225T	4700	6000	0	1050	7.6	5	SOT-25
MAMX-000600-1225MT	4200	6000	0	2000	6.5	10	SOT-25
MAMX-011009	14000	32000	0	7000	-10	—	1.5 x 1.2 mm TDFN-6
MAMX-011054	18000	46000	0	20000	6.5	—	3 mm AQFN-12
MAMX-011036	8000	43000	0	10000	8.5	—	3 mm AQFN-12

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