

MODULATORS/DEMODULATORS

9 MHz to 1880 MHz 50 Ω (Hermetic)



MODEL PREFIX	FREQUENCY MHz	INSERTION LOSS (dB)		AMPLITUDE UNBALANCE (dB)		PHASE UNBALANCE (Deg.) ± WITH REFERENCE TO 90°		1 dB COMPR. (dBm)	VSWR (:1) Typ.	
		Typ.	Max.	Typ.	Max.	Typ.	Max.		In	Out

QPSK MODULATORS Wideband 360° in 90° steps 800 MHz to 1050 MHz

QMC-1050	800-1050	5.5	7.5	0.5	1.0	3	7	4	2.0	2.0
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MODEL PREFIX	FREQUENCY (MHz)			CONVERSION LOSS, (dB)			CARRIER REJECTION (-dBc)		SIDE BAND REJECTION (-dBc)		HARMONIC SUPPRESSION (-dBc)	
	RF (signal)/ LO (carrier) f _L f _U	I&Q Min.	Max.	$\bar{X}$	σ	Max.	Typ.	Min.	Typ.	Min.	3X1/Q Typ. Min.	5X1/Q Typ. Min.

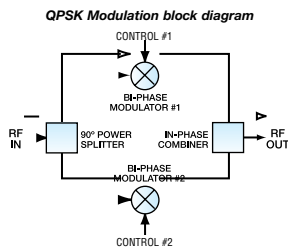
I&Q MODULATORS High rejection of carrier and sideband 9 MHz to 1880 MHz

MIQA-10M	9	11	DC	2	5.8	0.20	7.0	41	30	40	30	58	48	68	58
MIQA-21M	20	23	DC	3	6.2	0.14	7.0	50	40	40	30	48	40	65	55
MIQC-88M	52	88	DC	5	5.7	0.10	7.5	41	35	34	30	52	40	66	50
MIQA-70M	66	73	DC	5	6.2	0.10	7.0	38	30	48	30	48	45	58	55
MIQA-70ML	66	73	DC	5	5.7	0.10	6.5	38	30	38	30	48	43	58	55
MIQY-70M	67	73	DC	5	5.8	0.20	7.0	40	35	36	30	47	40	60	50
MIQA-91M	86	95	DC	5	5.5	0.10	6.5	38	30	38	30	48	45	58	55
MIQA-100M	95	105	DC	5	5.5	0.10	6.5	38	30	38	30	48	45	58	55
MIQC-176M	104	176	DC	5	5.5	0.10	7.0	38	30	36	30	47	35	70	50
MIQY-140M	137	143	DC	5	5.8	0.20	7.0	34	30	36	30	45	35	60	50
MIQA-195M	185	205	DC	5	5.6	0.10	6.5	38	30	38	30	48	45	58	55
MIQC-895M	868	895	DC	5	8.0	0.10	10.5	40	30	40	30	52	35	58	50
MIQC-1880M	1805	1880	DC	5	9.0	0.30	10.5	35	25	35	25	40	33	65	50

MODEL PREFIX	FREQUENCY (MHz)			CONVERSION LOSS, (dB)			AMPLITUDE UNBALANCE (dB)		PHASE UNBALANCE (Deg.) WITH REFERENCE TO 90°		HARMONIC SUPPRESSION (-dBc)	
	RF (signal)/ LO (carrier) f _L f _U	I&Q Min.	Max.	$\bar{X}$	σ	Max.	Typ.	Max.	Typ.	Max.	3X1/Q Typ. Min.	5X1/Q Typ. Min.

I&Q DEMODULATORS 9 MHz to 143 MHz

MIQA-10D	9	11	DC	2	6.0	0.10	7.0	0.15	0.3	1.0	3.0	50	35	65	55
MIQA-21D	20	23	DC	3	6.1	0.15	7.0	0.15	0.6	0.7	3.0	64	35	67	50
MIQA-70D	66	73	DC	3	6.2	0.10	7.0	0.15	0.5	0.7	3.0	56	45	58	55
MIQC-60WD	20	60	DC	5	5.3	0.10	7.0	0.15	0.6	1.0	5.0	55	45	67	55
MIQY-70D	67	73	DC	5	5.5	0.25	7.0	0.10	0.6	0.5	3.0	52	40	66	50
MIQY-140D	137	143	DC	5	5.5	0.25	7.0	0.10	0.6	0.5	3.0	47	35	70	50



QPSK: Phase Shift vs. Control Current

CONT-1 (mA)	CONT-2 (mA)	PHASE SHIFT (Deg.)
+20	+20	0 (REF)
+20	-20	90
-20	-20	180
-20	+20	270

