

IQ MODULATORS

Model Number	LO Power Level (dBm)	LO Frequency (MHz)	IQ Frequency (MHz)	Conversion Loss, Typ max (dB)	Sideband Suppression Typ/Min (dBc)	Carrier Suppression Min (dBc)	Package
NARROW BAND SURFACE MOUNT IQ MODULATORS							
MIQ/3CC-53A1	+10	30	DC-3	6.0/8.0	-35/-28	-35/-28	53L
MIQ/3CC-53A2	+10	45	DC-6	6.0/8.0	-35/-28	-35/-28	53L
MIQ/3CC-53A3	+10	60	DC-10	6.0/8.0	-35/-28	-35/-28	53L
MIQ/3CC-53A4	+10	90	DC-10	6.0/8.0	-35/-28	-35/-28	53L
MIQ/3DD-53A1	+10	140	DC-10	6.0/8.0	-35/-28	-35/-28	53L
MIQ/3DD-53A2	+10	200	DC-10	6.0/8.0	-35/-28	-35/-28	53L
MIQ/3DD-53A3	+10	340	DC-10	6.0/8.0	-35/-28	-35/-28	53L
MIQ/3DD-53A4	+10	460	DC-10	6.0/8.0	-35/-28	-35/-28	53L
MIQ/3EE-53A1	+10	580	DC-10	6.0/8.0	-35/-28	-35/-28	53L
MIQ/3EE-53A2	+10	720	DC-10	6.0/8.0	-35/-28	-35/-28	53L
MIQ/3EE-53A3	+10	850	DC-10	6.0/8.0	-35/-28	-35/-28	53L
MIQ/3EF-53A1	+10	1000	DC-10	6.0/8.0	-35/-28	-35/-28	53L
SUB-OCTAVE BAND SURFACE MOUNT IQ MODULATORS							
MIQ/3CC-53B1	+10	30-60	DC-10	6.5/8.5	-35/-28	-35/-28	09
MIQ/3CC-53B2	+10	60-90	DC-10	6.5/8.5	-35/-28	-35/-28	09
MIQ/3CD-53B1	+10	90-120	DC-10	6.5/8.5	-35/-28	-35/-28	09
MIQ/3DD-53B1	+10	120-160	DC-20	6.5/8.5	-35/-28	-35/-28	09
MIQ/3DD-53B2	+10	160-220	DC-20	6.5/8.5	-35/-28	-35/-28	09
MIQ/3DD-53B3	+10	220-280	DC-20	6.5/8.5	-35/-28	-35/-28	09
MIQ/3DD-53B4	+10	280-360	DC-20	6.5/8.5	-35/-28	-35/-28	09
MIQ/3DD-53B5	+10	360-440	DC-20	6.5/8.5	-35/-28	-35/-28	09
MIQ/3DE-53B1	+10	440-520	DC-20	6.5/8.5	-35/-28	-35/-28	53L
MIQ/3EE-53B1	+10	520-600	DC-20	6.5/8.5	-35/-28	-35/-28	53L
MIQ/3EE-53B2	+10	800-870	DC-20	6.5/8.5	-30/-25	-30/-25	53L
MIQ/3EE-53B3	+10	900-1000	DC-20	6.5/8.5	-30/-25	-30/-25	53L
CUSTOM MODELS							
MIQ/1D-53N3	+10	380-400	DC-2	6.8/8.0	-28/-18	-30/-22	53L
MIQ/1D-53N4	+10	410-430	DC-2	6.8/8.0	-28/-18	-30/-22	53L
MIQ/1D-53N5	+10	450-470	DC-2	6.8/8.0	-28/-18	-30/-22	53L
MIQ/1D-53N6	+10	470-490	DC-2	6.8/8.0	-28/-18	-30/-22	53L
MIQ/1EE-53L5	+10	925-960	DC-0.5	8.5/10	-30/-25	-30/-25	53Q
MIQ/3EF-30CR	+10	950-1450	DC-10	8.5/10	-35/-25	-32/-25	30
MIQ/1FF-53A4	+10	1930-1960	DC-2	8.5/10	-30/-25	-30/-23	53Q
MIQ/1F-30/1300B	+10	1250-1350	DC-3	8.5/10	-30/-25	-30/-25	30
MIQ/6FF-09R3	+10	1710-1850	DC-2	10.0/12.0	30/-25	-35/-30	09
MIQ/3FF-09N2	+10	1800-1900	DC-2	10.0/12.0	-30/-25	-30/-23	09
MIQ/3FF-53N6	+10	1800-1900	DC-2	10.0/12.0	-30/-25	-30/-23	53
MIQ/1FF-09A8	+10	1848-1868	0.1-10	8.5/10	-30/-20	-30/-20	09
MIQ/1FF-09A9	+10	1928-1948	0.1-10	8.5/10	-30/-20	-30/-20	09
MIQ/1GG-09A8	+10	2025-2100	0.1-10	8.5/10	-30/-20	-30/-20	09
Notes: For additional specifications and details of each model please consult factory. Custom models are representative of general capability. Please submit custom requirement for quotation. Sideband Suppression is specified with IQ inputs in perfect quadrature and amp balance. Suppression is referenced to output signal. Most models are also available in package style 09, 15, 16, 18, 27, 40, 46, and 53Q as standards. Standard Operating Temperature : -30 to +70C; Storage Temperature : -40C to +85C							

IQ DEMODULATORS

Model Number	LO Power Level (dBm)	LO Frequency (MHz)	RF Frequency (MHz)	IQ Frequency (MHz)	Conversion Loss, Typ/Max (dB)	Amplitude bal. Typ/Max Degrees	Phase Balance Typ/Max Degress	Package
NARROW BAND SURFACE MOUNT IQ DEMODULATORS								
DIQ/3CC-53A1	+10	30	27-33	DC-3	8.0/10.0	0.2/0.3	1.0/2.0	53L
DIQ/3CC-53A2	+10	45	42-48	DC-6	8.0/10.0	0.2/0.3	1.0/2.0	53L
DIQ/3CC-53A3	+10	60	55-65	DC-10	8.0/10.0	0.2/0.3	1.0/2.0	53L
DIQ/3CC-53A4	+10	90	85-95	DC-10	8.0/10.0	0.2/0.3	1.0/2.0	53L
DIQ/3DD-53A1	+10	140	135-145	DC-10	8.0/10.0	0.2/0.3	2.0/3.0	53L
DIQ/3DD-53A2	+10	200	195-205	DC-10	8.0/10.0	0.2/0.3	2.0/3.0	53L
DIQ/3DD-53A3	+10	340	335-345	DC-10	8.5/10.5	0.3/0.4	2.0/3.0	53L
DIQ/3DD-53A4	+10	460	455-465	DC-10	8.5/11.5	0.3/0.4	2.0/3.0	53L
DIQ/3EE-53A1	+10	580	575-585	DC-10	8.5/11.5	0.3/0.4	2.0/3.0	53L
DIQ/3EE-53A2	+10	720	715-725	DC-10	8.5/11.5	0.3/0.4	2.0/4.0	53L
DIQ/3EE-53A3	+10	850	845-855	DC-10	8.5/11.5	0.3/0.5	2.0/4.0	53L
DIQ/3EF-53A1	+10	1000	995-1005	DC-10	8.5/11.5	0.3/0.5	2.0/4.0	53L
SUB-OCTAVE SURFACE MOUNT IQ DEMODULATORS								
DIQ/3CC-53B1	+10	30-60	30-60	DC-10	8.5/10.5	0.2/0.3	1.0/2.0	53L
DIQ/3CC-53B2	+10	60-90	60-90	DC-10	8.5/10.5	0.2/0.3	1.0/2.0	53L
DIQ/3CD-53B1	+10	90-120	90-120	DC-10	8.5/10.5	0.2/0.3	1.0/2.0	53L
DIQ/3DD-53B1	+10	120-160	120-160	DC-20	8.5/10.5	0.2/0.3	1.0/2.0	53L
DIQ/3DD-53B2	+10	160-220	160-220	DC-20	8.5/10.5	0.2/0.3	2.0/3.0	53L
DIQ/3DD-53B3	+10	220-280	220-280	DC-20	8.5/10.5	0.2/0.3	2.0/3.0	53L
DIQ/3DD-53B4	+10	280-360	280-360	DC-20	8.5/11.0	0.3/0.4	2.0/4.0	53L
DIQ/3DD-53B5	+10	360-440	360-440	DC-20	8.5/11.0	0.3/0.4	2.0/4.0	53L
DIQ/3DE-53B1	+10	440-520	440-520	DC-20	8.5/11.0	0.3/0.4	2.0/4.0	53L
DIQ/3EE-53B1	+10	520-600	520-600	DC-20	8.5/11.5	0.3/0.4	2.0/5.0	53L
DIQ/3EE-53B2	+10	800-870	800-870	DC-20	8.5/11.5	0.3/0.5	2.0/5.0	53L
DIQ/3EE-53B3	+10	900-1000	900-1000	DC-20	8.5/11.5	0.3/0.5	2.0/5.0	53L
CUSTOM MODELS								
DIQ/1DD-15E3	+10	160-160	140-180	DC-20	9.5/12.0	0.2/0.4	1.0/2.0	15
DIQ/1D-09C5	+10	174-174	154-194	DC-20	9.5/12.0	0.2/0.4	1.0/2.0	09
DIQ/1D-09/200	+10	190-210	190-210	DC-20	8.0/10.0	0.25/0.50	2.0/4.0	09
DIQ/3DD-46R4	+10	236-336	236-336	DC-50	9.0/10.0	0.15/0.3	2.0/2.5	46
DIQ/2DD-46R5	+10	307-542	299-550	DC-8	8.5/9.5	0.11/0.22	2.0/2.5	46
DIQ/1D-09W	+10	380-400	380-400	DC-20	8.0/9.5	0.15/0.3	1.0/3.0	09
DIQ/3EE-46R	+10	646-714	646-714	DC-30	9.0/9.8	0.18/0.25	2.0/2.5	46
DIQ/1EF-53V9	+10	950-1525	950-1525	DC-10	10.0/12.0	0.4/0.6	4.0/7.0	53Q
DIQ/1E-16R9	+10	970-970	880-1060	DC-90	10.5/11.5	0.25/0.50	2.0/4.0	16
DIQ/1F-16R6	+10	1495-1505	1495-1505	DC-20	10.0/12.0	0.3/0.5	2.0/5.0	16
DIQ/1F-16R7	+10	1495-1505	1495-1505	DC-20	10.0/12.0	0.3/0.5	2.0/5.0	16
DIQ/4GG-40A	+11.5	2000-2600	2000-2600	DC-200	11.0/14.0	0.5/1.0	5.0/7.0	40
DIQ/1EE-53L4	+14	869-894	869-894	DC-5	8.5/11.0	0.2/0.35	2.0/4.0	53L
DIQ/7GG-40R2	+20	2200-2800	2200-2800	DC-50	10.0/11.5	0.25/0.40	2.0/4.0	40
DIQ/7GG-09C	+23	2400-2480	2400-2480	DC-10	11.0/13.0	0.5/1.0	7.0/15.0	09

Notes:

For additional specifications and details of each model please consult factory.

Many other frequencies, packages, LO power, and bandwidth choices are available. Please consult factory for details.

Standard Operating Temperature : -30 to +70°C; Storage Temperature : -40°C to +85°C

Most models are also available in package style 09, 15, 16, 18, 27, 40, 46, and 53Q as standards.

SINGLE SIDEBAND MODULATORS

Model Number	Carrier Input Level (dBm)	Carrier Frequency	IF Start Frequency (MHz)	IF Stop Frequency (MHz)	Conversion Loss, Typ/Max (dB)	Sideband Suppression Min (dBc)	Carrier Suppression Min (dBc)	Package
STANDARD MODELS								
SSM/3CC-57A2	+10	45	1	10	8.5/10.0	-25	-40	57
SSM/3CC-57A3	+10	55	1	10	8.5/10.0	-25	-40	57
SSM/3CC-57A4	+10	70	1	10	8.5/10.0	-25	-40	57
SSM/3CC-57A5	+10	90	1	10	8.5/10.0	-25	-40	57
SSM/3DD-57A2	+10	120	1	10	8.5/10.0	-25	-40	57
SSM/3DD-57A3	+10	140	1	10	8.5/10.0	-25	-40	57
SSM/3DD-57A4	+10	200	1	10	8.5/10.0	-25	-40	57
SSM/3DD-57A5	+10	400	1	10	8.5/10.0	-25	-40	57
SSM/3EE-57A2	+10	500	1	10	8.5/10.0	-25	-40	57
SSM/3EE-57A3	+10	750	1	10	8.5/10.0	-25	-30	57
SSM/3EE-57A4	+10	835	1	10	8.5/10.0	-25	-30	57
SSM/6CC-57A2	+17	45	1	10	8.5/10.0	-25	-40	57
SSM/6CC-57A3	+17	55	1	10	8.5/10.0	-25	-40	57
SSM/6CC-57A4	+17	70	1	10	8.5/10.0	-25	-40	57
SSM/6CC-57A5	+17	90	1	10	8.5/10.0	-25	-40	57
SSM/6DD-57A2	+17	120	1	10	8.5/10.0	-25	-40	57
SSM/6DD-57A3	+17	140	1	10	8.5/10.0	-25	-40	57
SSM/6DD-57A4	+17	200	1	10	8.5/10.0	-25	-40	57
SSM/6DD-57A5	+17	400	1	10	8.5/10.0	-25	-30	57
SSM/6EE-57A2	+17	500	1	10	8.5/10.0	-25	-30	57
SSM/6EE-57A3	+17	750	1	10	8.5/10.0	-25	-30	57
SSM/6EE-57A4	+17	835	1	10	8.5/10.0	-25	-30	57
CUSTOM MODELS								
SSM/6CC-57H4	+17	81	13	34	8.5/10.0	-32	-30	57
SSM/3DD-16G6	+10	134	3.2	16.5	8.5/10.0	-29	-32	16
SSM/7DD-58LM	+26	150	2	17	6.0/9.0	-25	-30	57
SSM/3DD-16F4	+10	210	7	32	8.5/10.0	-32	-32	16
SSM/6DD-16D4	+17	385	1	24	8.5/10.0	-27	-40	16
SSM/6DD-58E5	+17	385	1	24	8.5/10.0	-27	-32	58
SSM/6DD-58R6	+17	484	3.2	30	8.5/10.0	-26	-32	58
SSM/6DD-57H4	+17	494	24	215	9.0/10.0	-25	-30	57
SSM-6DE-57H4	+17	685	22	216	9.0/10.5	-25	-30	57
SSM/6EE-58H4	+17	800	13	215	9.5/11.0	-25	-30	57
Notes: For additional specifications and details of each model, please consult factory. Many other frequency, bandwidth, and package choices are available. Please consult factory for details. Standard models with "A" suffix are high side suppression. For low side suppression, substitute "B" for "A" in the model number. Suppression is referenced to output signal. Custom models are representative of general capability. Please submit custom requirement for quotation. Most models are also available in package style 16, 30, 57L and 58L. Standard Operating Temperature : -30 to +70C; Storage Temperature : -40C to +85C								

IMAGE REJECT MIXERS

Model Number	LO Power (dBm)	RF Frequency (MHz)	LO Frequency (MHz)	IF Frequency (MHz)	Conversion Loss, Typ/Min (dB)	Image Rejection Min (dB)	L/R iso, Typ/Min (dB)	L/I iso, Typ/Min (dB)	Package
IRM/6DD-57S7	+16	286-287.6	285	1.0-2.6	8.5/10.0	20	45	50	57
IRM/7DD-16L	+20	348.5-351.5	340	8.5-11.5	8.5/10.0	25	40	45	16
IRM/6EE-58	+17	820-1015	800	13-215	8.5/10	30	35	35	58
IRM/7DD-58	+26	133-148	150	2-17	6.0/9.0	20	40	40	58
IRM/6DE-57	+17	707-901	685	22-216	8.5/10	20	40	40	57

Notes:

For additional specifications and details of each model please consult factory.

Many other frequency and bandwidth choices are available. Please consult factory for details.

Most models in package style 16, 30, 57L, and 58L as standards.

Standard Operating Temperature : -30 to +70C; Storage Temperature : -40C to +85C