

Double Balanced Mixers J SERIES 10 MHz to 26.0 GHz

FEATURES

- > Multi-Octave Bandwidth
- > Broad Frequency: Input and Output
- > Wide DC to IF Frequency Response
- > Low Conversion Loss
- > High Port-to-Port Isolations

Maximum Input Power: +24 dBm
 Operating Temperature Range: -55°C to +125°C
 Storage Temperature Range: -65°C to +150°C
 Specification @ +25°C

Model No.	RF Frequency GHz	LO Frequency GHz	IF Frequency GHz	LO Power dBm Nom.	Conversion Loss dB Typ./Max.	L-R Isolation dB Typ./Min.	L-I Isolation dB Typ./Min.	Input 1-dB Comp. Pt. dBm Typ.	Input TOIP dBm Typ.
J0020L	.01 - 1.5	.01 - 1.5	DC - 0.6	+7	7.0/8.5	40/30	33/26	+1	+11
J0020M	.01 - 1.5	.01 - 1.5	DC - 0.6	+10	7.0/8.5	40/30	33/26	+4	+14
J0020N	.01 - 1.5	.01 - 1.5	DC - 0.6	+13	7.0/8.5	40/30	33/26	+7	+17
J0020H	.01 - 1.5	.01 - 1.5	DC - 0.6	+16	7.0/8.5	40/30	33/26	+10	+19
J1020L	1.0 - 2.0	1.0 - 2.0	DC - 1.0	+7	6.5/7.5	33/28	28/20	+1	+11
J1020M	1.0 - 2.0	1.0 - 2.0	DC - 1.0	+10	6.5/7.5	33/28	28/20	+4	+14
J1020N	1.0 - 2.0	1.0 - 2.0	DC - 1.0	+13	6.5/7.5	33/28	28/20	+7	+17
J1020H	1.0 - 2.0	1.0 - 2.0	DC - 1.0	+16	6.5/7.5	33/28	28/20	+10	+19
J2080L	2.0 - 8.0	2.0 - 8.0	DC - 2.0	+7	5.5/7.0	35/25	25/18	+1	+11
J2080M	2.0 - 8.0	2.0 - 8.0	DC - 2.0	+10	5.5/7.0	35/25	25/18	+4	+14
J2080N	2.0 - 8.0	2.0 - 8.0	DC - 2.0	+13	5.5/7.0	35/25	25/18	+7	+17
J2080H	2.0 - 8.0	2.0 - 8.0	DC - 2.0	+16	5.5/7.0	35/25	25/18	+10	+19
J2012L	2.0 - 12.0	2.0 - 12.0	DC - 2.0	+7	5.5/7.5	35/25	25/18	+1	+11
J2012M	2.0 - 12.0	2.0 - 12.0	DC - 2.0	+10	5.5/7.5	35/25	25/18	+4	+14
J2012N	2.0 - 12.0	2.0 - 12.0	DC - 2.0	+13	5.5/7.5	35/25	25/18	+7	+17
J2012H	2.0 - 12.0	2.0 - 12.0	DC - 2.0	+16	5.5/7.5	35/25	25/18	+10	+19
J2118L	2.0 - 18.0	1.8 - 18.2	DC - 0.2	+7	6.0/8.0	28/20	25/18	+1	+10
J2118M	2.0 - 18.0	1.8 - 18.2	DC - 0.2	+10	6.0/8.0	28/20	25/18	+4	+14
J2018L	2.0 - 18.0	2.0 - 18.0	DC - 0.7	+7	6.5/8.5	28/20	25/18	+1	+10
J2018M	2.0 - 18.0	2.0 - 18.0	DC - 0.7	+10	6.5/8.5	28/20	25/18	+4	+14

1. To indicate package style, add prefix to the end of the model number. (Example: Model No. J2018LB - Package "B").

2. Connectors and Spacers are standard to the part.

3. Custom operating frequency bands & power levels are available upon request.

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- > Wide DC to IF Frequency Response
- > Low Conversion Loss
- > High Port-to-Port Isolations

Maximum Input Power: +24 dBm
 Operating Temperature Range: -55°C to +125°C
 Storage Temperature Range: -65°C to +150°C
 Specification @ +25°C

Model No.	RF Frequency GHz	LO Frequency GHz	IF Frequency GHz	LO Power dBm Nom.	Conversion Loss dB Typ./Max.	L-R Isolation dB Typ./Min.	L-I Isolation dB Typ./Min.	Input 1-dB Comp. Pt. dBm Typ.	Input TOIP dBm Typ.
J4080L	4.0 - 8.0	4.0 - 8.0	DC - 3.0	+7	5.0/7.0	40/30	30/22	+1	+11
J4080M	4.0 - 8.0	4.0 - 8.0	DC - 3.0	+10	5.0/7.0	40/30	30/22	+4	+14
J4080N	4.0 - 8.0	4.0 - 8.0	DC - 3.0	+13	5.0/7.0	40/30	30/22	+7	+17
J4080H	4.0 - 8.0	4.0 - 8.0	DC - 3.0	+16	5.0/7.0	40/30	30/22	+10	+19
J4015L	4.0 - 15.0	4.0 - 15.0	DC - 3.0	+7	5.5/7.0	35/25	30/20	+1	+11
J4015M	4.0 - 15.0	4.0 - 15.0	DC - 3.0	+10	5.5/7.0	35/25	30/20	+4	+14
J4015N	4.0 - 15.0	4.0 - 15.0	DC - 3.0	+13	5.5/7.0	35/25	30/20	+7	+17
J4015H	4.0 - 15.0	4.0 - 15.0	DC - 3.0	+16	5.5/7.0	35/25	30/20	+10	+19
J4018L	4.0 - 18.0	4.0 - 18.0	DC - 4.0	+7	5.5/7.5	35/22	35/22	+1	+11
J4018M	4.0 - 18.0	4.0 - 18.0	DC - 4.0	+10	5.5/7.5	35/22	35/22	+4	+14
J4018N	4.0 - 18.0	4.0 - 18.0	DC - 4.0	+13	5.5/7.5	35/22	35/22	+7	+17
J4018H	4.0 - 18.0	4.0 - 18.0	DC - 4.0	+16	5.5/7.5	35/22	35/22	+10	+19
J6018L	6.0 - 18.0	6.0 - 18.0	DC - 4.0	+7	5.5/7.3	35/23	35/23	+1	+11
J6018M	6.0 - 18.0	6.0 - 18.0	DC - 4.0	+10	5.5/7.3	35/23	35/23	+4	+14
J6018N	6.0 - 18.0	6.0 - 18.0	DC - 4.0	+13	5.5/7.3	35/23	35/23	+7	+17
J6018H	6.0 - 18.0	6.0 - 18.0	DC - 4.0	+16	5.5/7.3	35/23	35/23	+10	+19
J16026L	16.0 - 26.0	16.0 - 26.0	DC - 4.0	+7	7.5/9.5	38/25	30/20	+1	+11
J16026M	16.0 - 26.0	16.0 - 26.0	DC - 4.0	+10	7.5/9.5	38/25	30/20	+4	+14

1. To indicate package style, add prefix to the end of the model number. (Example: Model No. J6018LB - Package "B").
2. Connectors and Spacers are standard to the part.
3. Custom operating frequency bands & power levels are available upon request.

Triple-Balanced Mixers A-SERIES 1.0 to 20.0 GHz

FEATURES

- > Multi-Octave Bandwidth
- > Dual Quad Diodes
- > Ultra Wide RF/LO/IF Bandwidth
- > High IF Frequency to RF/LO Frequency
- > AC Coupled IF Output
- > High Dynamic Range Application

Maximum Input Power: +27 dBm CW
 Operating Temperature Range: -55°C to +125°C
 Storage Temperature Range: -65°C to +150°C
 Specification @ +25°C

Model No.	RF Frequency (GHz)	LO Frequency (GHz)	IF Frequency (GHz)	LO Power dBm Nom.	Conversion Loss dB Typ.	L-R Isolation dB Typ./Min	L-I Isolation dB Typ./Min	INPUT 1dB COMP dBm Typ.	INPUT TOIP dBm Typ.
A-1010M	1.0-10.0	1.0-10.0	0.5-4.0	+10	7.5	23/18	26/18	+4	+14
A-1010N	1.0-10.0	1.0-10.0	0.5-4.0	+15	7.5	23/18	26/18	+9	+18
A-1010H	1.0-10.0	1.0-10.0	0.5-4.0	+19	7.5	23/18	26/18	+14	+22
A-2018M	2.0-18.0	2.0-18.0	2.0-8.0	+10	7.5	25/18	24/16	+4	+14
A-2018N	2.0-18.0	2.0-18.0	2.0-8.0	+15	7.5	25/18	24/16	+9	+18
A-2018H	2.0-18.0	2.0-18.0	2.0-8.0	+19	7.5	25/18	24/16	+14	+22
A-2118M	2.0-18.0	2.0-18.0	0.5-8.0	+10	7.5	25/18	24/16	+4	+14
A-2118N	2.0-18.0	2.0-18.0	0.5-8.0	+15	7.5	25/18	24/16	+9	+18
A-2118H	2.0-18.0	2.0-18.0	0.5-8.0	+19	7.5	25/18	24/16	+14	+22
A-2002M	2.0-20.0	2.0-20.0	2.0-8.0	+10	8.0	25/18	25/16	+4	+14
A-2002N	2.0-20.0	2.0-20.0	2.0-8.0	+15	8.0	25/18	25/16	+9	+18
A-2002H	2.0-20.0	2.0-20.0	2.0-8.0	+19	8.5	25/18	25/16	+14	+22
A-2102M	2.0-20.0	2.0-20.0	0.5-8.0	+10	8.0	25/18	25/16	+4	+14
A-2102N	2.0-20.0	2.0-20.0	0.5-8.0	+15	8.0	25/18	25/16	+9	+18
A-2102H	2.0-20.0	2.0-20.0	0.5-8.0	+19	8.0	28/18	28/16	+14	+22
A-6018M	6.0-18.0	6.0-18.0	2.0-8.0	+10	7.0	25/20	25/20	+4	+14
A-6018N	6.0-18.0	6.0-18.0	2.0-8.0	+15	7.0	25/20	25/20	+9	+18
A-6018H	6.0-18.0	6.0-18.0	2.0-8.0	+19	7.0	25/20	25/20	+14	+22
A-6118M	6.0-18.0	6.0-18.0	0.5-8.0	+10	7.5	24/20	25/20	+4	+14
A-6118N	6.0-18.0	6.0-18.0	0.5-8.0	+15	7.5	24/20	25/20	+9	+18
A-6118H	6.0-18.0	6.0-18.0	0.5-8.0	+19	7.5	24/20	25/20	+14	+22

1. To indicate package style, add prefix to the end of the model number. (Example: Model No. A-6118NB - Package "B").
2. Connectors and Spacers are standard to the parts and spacers are optional.
3. Custom operating frequency bands & power levels are available upon request.

FEATURES

- > Octave Bandwidth
- > Broad IF Frequency Response: DC - 500 MHz
- > Excellent Image Rejection: 28 dB Typ.
- > High Port-to-Port Isolations

Max. Input Power: +23 dBm @ +25°C
 Operating Temperature Range: -55°C to +125°C
 Storage Temperature Range: -65°C to +150°C
 Specification @ +25°C

Model No.	RF/LO Frequency GHz	LO Power dBm Nom.	Conversion Loss ¹ dB Typ./Max	Image Rejection ¹ dB Typ./Min.	L-R Isolation dB Typ./Min.	L-I/Q Isolation dB Typ./Min.	Amplitude Match dB Typ.	Phase Match Deg. Typ.	Package Style
IQ2040M	2.0 - 4.0	+10	5.5/7.0	28/19	40/30	30/25	0.2	2.0	F4, P4
IQ2040N	2.0 - 4.0	+13	5.5/7.0	28/19	40/30	30/25	0.2	2.0	F4, P4
IQ2040H	2.0 - 4.0	+17	5.5/7.0	28/19	40/30	30/25	0.2	2.0	F4, P4
IQ3060M	3.0 - 6.0	+10	6.0/8.0	28/19	30/25	28/20	0.2	2.5	F2, P2
IQ3060N	3.0 - 6.0	+13	6.0/8.0	28/19	30/25	28/20	0.2	2.5	F2, P2
IQ3060H	3.0 - 6.0	+17	6.0/8.0	28/19	30/25	28/20	0.2	2.5	F2, P2
IQ4080M	4.0 - 8.0	+10	5.5/7.5	28/19	30/25	30/22	0.15	3.0	F2, P2
IQ4080N	4.0 - 8.0	+13	5.5/7.5	28/19	30/25	30/22	0.15	3.0	F2, P2
IQ4080H	4.0 - 8.0	+17	5.5/7.5	28/19	30/25	30/22	0.15	3.0	F2, P2
IQ7013M	7.0 - 13.0	+10	5.5/7.0	28/20	30/25	35/28	0.2	5.0	F2, P2
IQ7013N	7.0 - 13.0	+13	5.5/7.0	28/20	30/25	35/28	0.2	5.0	F2, P2
IQ7013H	7.0 - 13.0	+17	5.5/7.0	28/20	30/25	35/28	0.2	5.0	F2, P2

1. Conversion Loss and Image Rejection are tested with an external 90° hybrid connected to the I/Q ports at 70 MHz.
 2. To indicate package style, add prefix to the end of the model number. (Example: Model No. IQ6090MF2 - Package "F2")
 3. Custom operating frequency bands and power levels are available upon request.