IMAGE REJECT 500 to 2550 MHz

JCIR

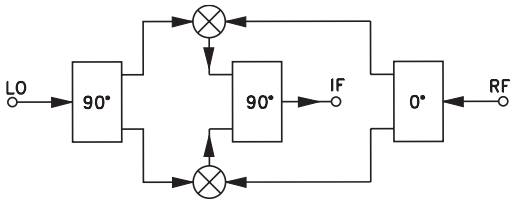
JCIR-4MH (+15 dBm LO)
JCIR-25 (+13 dBm LO)

MODEL NO.	FREQUENCY MHz RF f_L-f_U	LO f_L-f_U	IF	CONVERSION LOSS dB $\bar{x}$	σ	Max.	IMAGE REJECTION dBc RF>LO	LO>RF	Typ.	Min.	LO-RF ISOLATION dB M Typ.	M Min.	LO-IF ISOLATION dB M Typ.	M Min.	RF-IF ISOLATION dB M Typ.	M Min.	IP3@ center band (dBm) Typ.	CASE STYLE	CONNECTION	PRICE $ QTY. (1-9)
◆ JCIR-4MH	430-930	500-1000	65-75	7.9	0.15	9.0	●		28	18	55	40	25	20	25	15	20	BG291	kj	54.95
◆ JCIR-25	2490-2550	2420-2480	57-83	7.0	—	8.5		●	27	17	35	25	26	18		25	16	BG291	kk	44.95

L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U/2] U = upper range [f_U/2 to f_U]
m = mid band [2f_L to f_U/2]

features

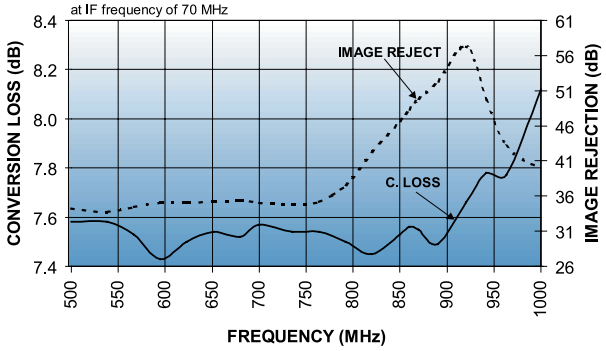
- excellent image rejection, 28 dB typ. (JCIR-4MH)
- low conversion loss, 7.9 dB typ. (JCIR-4MH)
  7.0 dB typ. (JCIR-25)
- solder plated J-leads for excellent solderability & strain relief



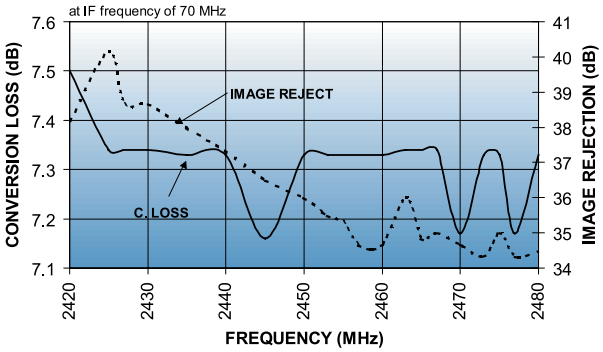
applications

- cellular
- ISM

JCIR-4MH
CONVERSION LOSS & IMAGE REJECTION



JCIR-25
CONVERSION LOSS & IMAGE REJECTION



NOTES:
◆ Aqueous washable.
A. Environmental specifications and re-flow soldering information available in General Information Section.
B. Units are non-hermetic unless otherwise noted. For details on case dimensions & finishes see "Case Styles & Outline Drawings".
C. Prices and Specifications subject to change without notice.
1. Absolute maximum power, voltage and current ratings:
1a. RF power 100mW (JCIR-4MH); 200mW (JCIR-25)
1b. IF current, 40mA

pin connections

see case style outline drawings

PORT	kj	kk
LO	2	9
RF	9	2
IF	11	11
GND	1,3,5,6,7,8 10,12,13,14	1,3,4,5,6,7,8 10, 12, 13, 14
50 OHM TERM	4	—

000426

FREQUENCY MIXERS *Surface Mount*

LOW LEVEL *200 kHz to 5900 MHz*


ADE/ADEX

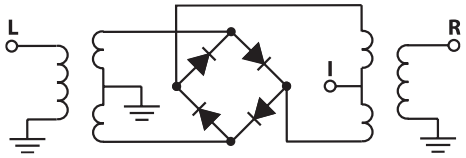

† LRMS-J


MBA


† RMS

	MODEL NO.	LO LEVEL dBm	RF @ 1dB Comp. Typ. dBm	FREQUENCY MHz LO/RF f_L-f_U	FREQUENCY MHz IF	CONVERSION LOSS dB Mid-Band m $\bar{x}$	Mid-Band m σ	Mid-Band m Max.	Total Range Max.	LO-RF ISOLATION, dB L Typ.	L Min.	M Typ.	M Min.	U Typ.	U Min.	LO-IF ISOLATION, dB L Typ.	L Min.	M Typ.	M Min.	U Typ.	U Min.	IP3 @ center band Typ. (dBm)	CASE STYLE	CONNECTION	PRICE $ Qty. (10-49)
◆	ADE-1L**	+3	0	2-500	DC-500	5.2	0.1	7.2	8.0	68	50	55	30	44	30	55	40	45	30	35	25	16	CD542	ht	3.95
◆	ADE-3L**	+3	-3	0.2-400	DC-400	5.3	.01	6.5	9.0	58	50	47	34	38	28	55	50	38	25	30	20	10	CD636	ht	4.25
NEW◆	ADEX-10L**	+4	+1	10-1000	DC-800	7.2	0.1	8.2	8.8††	75	55	60	40	47	37	40	26	33	20	24	13	16	CD542	ht	2.95
◆	MBA-10L*	+3	0	800-1000	DC-200	8.0	0.1	—	9.5			20 (typ.)	13 (min.)					15 (typ.)	8 (min.)			9	SM2	ld	6.95
◆	MBA-10VL*	0	-3	800-1000	DC-200	7.4	0.1	—	9.8			18 (typ.)	14 (min.)					14 (typ.)	8 (min.)			3	SM2	ld	5.95
◆	MBA-15L*	+4	0	1200-2400	DC-600	6.5	0.1	—	8.5			27 (typ.)	15 (min.)					20 (typ.)	10 (min.)			10	SM2	ld	6.95
◆	MBA-18L*	+4	-1	1600-3200	DC-500	6.5	0.15	—	8.9			24 (typ.)	17 (min.)					16 (typ.)	10 (min.)			8	SM2	ld	6.95
◆	MBA-25L*	+4	0	2000-3000	DC-600	6.2	0.15	—	8.6			28 (typ.)	18 (min.)					15 (typ.)	7 (min.)			10	SM2	ld	6.95
◆	MBA-35L*	+4	0	3000-4000	DC-700	5.5	0.1	—	8.5			26 (typ.)	20 (min.)					17 (typ.)	7 (min.)			9	SM2	ld	6.95
◆	MBA-591L*	+4	+1	4950-5900	DC-1000	7.0	0.1	—	9.0			35 (typ.)	25 (min.)					26 (typ.)	17 (min.)			15	SM2	le	6.95
																									Qty. (1-9)
◆	LRMS-2LJ	+3	-3	800-1000	DC-200	7.0	0.2	—	8.4			24 (typ.)	16 (min.)					20 (typ.)	12 (min.)			—	QQQ569	w	6.95
◆	LRMS-5LJ	+3	-3	400-1400	DC-800	7.0	0.2	—	9.8			22 (typ.)	14 (min.)					18 (typ.)	6 (min.)			—	QQQ569	w	13.95
	RMS-2L	+3	-3	800-1000	DC-200	7.0	0.2	—	8.4			24 (typ.)	16 (min.)					20 (typ.)	12 (min.)			—	TT240	w	6.95
	RMS-5L	+3	-3	400-1400	DC-800	7.0	0.2	—	9.8			22 (typ.)	14 (min.)					22 (typ.)	6 (min.)			—	TT240	w	13.95

L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U/2] U = upper range [f_U/2 to f_U]
m = mid band [2f_L to f_U/2]



BLUE CELL™

NOTES:
$\bar{x}$ Average of conversion loss at center of mid-band frequency (f_L+f_U/4)
σ Standard deviation
◆ Aqueous washable. For non-aqueous requirements, LRMS units available in case style QQQ130.
† Phase detection, positive polarity.
* BLUE CELL™ mixers protected by U.S. Patents 5,534,830 5,640,132 5,640,134 5,640,699
** Protected under U.S. patent 6133525
†† Conversion loss increases 0.8 dB when IF is above 150 MHz.
A. Environmental specifications and re-flow soldering information available in General Information Section.
B. Units are non-hermetic unless otherwise noted. For details on case dimensions & finishes see "Case Styles & Outline Drawings".
C. Prices and Specifications subject to change without notice.
1. Absolute maximum power, voltage and current ratings:
1a. RF power, 50mW
1b. Peak IF current, 40mA

pin connections

PORT	w	ht[1]	ld	le
LO	1	6	10	10
RF	4	3	5	6
IF	5	2	3	1
GND EXT.	2,3,6	1,4,5	all others	all others
DEMO BOARD	TB-03	TB-03	TB-99	TB-74

[1] pin connection physically same as w

020614