

DEMODULATORS

50 Ω

Plug-In & Coaxial

I&Q 1.15 to 895 MHz



MIQA



MIQY
MIQC



ZFMIQ

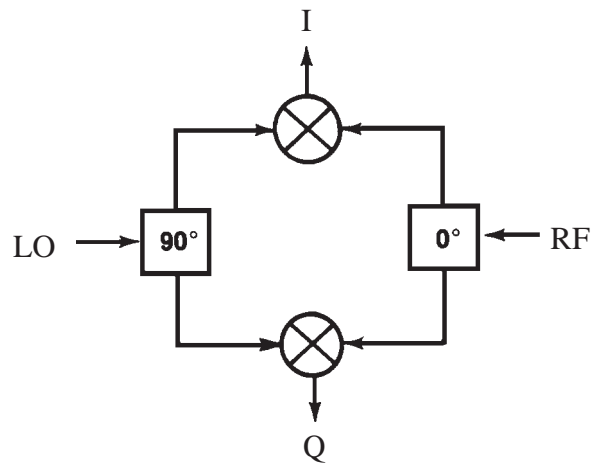


ZAMIQ

MODEL NO.	FREQUENCY (MHz)		CONVERSION LOSS (dB)			AMPLITUDE UNBALANCE (dB)		PHASE UNBALANCE (Deg.)		HARMONIC SUPPRESSION (-dBc)				CAPD DATA	CASE STYLE	C O N N E C T I O N	PRICE \$		
	RF(signal)/LO(carrier)		I & Q			Typ.	Max.	Typ.	Max.	3xI/Q		5xI/Q							
	f _L	f _U	Min.	Max.	σ					Typ.	Min.	Typ.	Min.						
MIQA-10D	9	11	DC	2	6.0	0.10	7.0	0.15	0.3	1.0	3.0	50	35	65	55	FOR	A06	dv	49.95
MIQA-21D	20	23	DC	3	6.1	0.15	7.0	0.15	0.6	0.7	3.0	64	35	67	50		A06	gd	49.95
MIQA-70D	66	73	DC	3	6.2	0.10	7.0	0.15	0.5	0.7	3.0	56	45	58	55		A06	dv	49.95
MIQC-38D	34	38	DC	4	5.5	0.10	7.0	0.10	0.6	0.5	3.0	60	40	66	55	DATA	CO7	gu	49.95
MIQC-60WD	20	60	DC	5	5.3	0.10	7.0	0.15	0.6	1.0	5.0	55	45	67	55		CO7	dx	79.95
MIQC-895D	868	895	DC	5	8.0	0.20	10.5	0.15	0.3	1.5	4.0	40	35	55	50		CO7	dw	99.95
△ ZFMIQ-10D	9	11	DC	2	6.0	0.10	7.0	0.15	0.3	1.0	3.0	50	35	65	55	SEE YONI ON OUR WEBSITE	J17	cz	89.95
△ ZFMIQ-70D	66	73	DC	2	6.2	0.10	7.0	0.15	0.5	0.7	3.0	56	45	58	55		J17	cz	89.95
△ ZAMIQ-895D	868	895	DC	5	8.0	0.20	10.5	0.15	0.3	1.5	4.0	52	35	58	50		HH141	gv	149.95
□ MIQY-1.25D	1.15	1.35	DC	02	5.0	0.10	6.0	0.15	0.4	1.0	3.0	59	40	67	55		CO7	gu	29.95
□ MIQY-70D	67	73	DC	5	5.5	0.25	7.0	0.10	0.6	0.5	3.0	52	40	66	50		CO7	dy	19.95
□ MIQY-140D	137	143	DC	5	5.5	0.25	7.0	0.10	0.6	0.5	3.0	47	35	70	50		CO7	dy	19.95

NOTES:

- ⌘ Average of conversion loss at center of mid-band frequency (f_L+f_U)/4
- σ Standard deviation
- Non-hermetic
- △ Available only with SMA connectors
- A. General Quality Control Procedures, Environmental Specifications, Hi-Rel and MIL description are given in section 0, see "Mini-Circuits Guarantees Quality" article.
- B. Connector types and case mounted options, case finishes are given in section 0, see "Case styles & outline drawings".
- C. Prices and specifications subject to change without notice.
- 1. Absolute maximum power, voltage and current rating:
 - 1a. LO/RF power, 50mW.
 - 1b. I&Q current, 40mA
- 2. Operating LO power: 10 ± 0.5dBm
- 3. 1dB compression at +4dBm RF input
- 4. DC offset 1mV typical
- 5. Conversion Loss = RF power, dBm - (I+Q) power, dBm



I&Q Demodulation Block Diagram

Surface Mount \square

I&Q 104 MHz to 1880 MHz



JCIQ

MODEL NO.	FREQUENCY (MHz)		CONVERSION LOSS (dB)				AMPLITUDE UNBALANCE (dB)		PHASE UNBALANCE (Deg.)		HARMONIC SUPPRESSION (-dBc)				CAPD DATA	CASE STYLE	C O N N E C T I O N	PRICE \$			
	RF(signal)/LO(carrier)		I & Q		\bar{x}	σ	Max.	Typ.	Max.	Typ.	Max.	3x1/Q		5x1/Q					Note B	Qty. (1-9)	
	f_L	f_U	Min.	Max.								Typ.	Min.	Typ.							Min.
JCIQ-176D	104	176	DC	5	5.5	0.1	7.0	0.15	0.6	2	5	52	40	65	50	(see YONI on our website)	BG291	hs	54.95		
JCIQ-895D	868	895	DC	5	8.6	0.1	10.5	0.2	0.6	1	4	45	35	65	50		BG291	hs	99.95		
JCIQ-1785D	1710	1785	DC	5	8	0.2	10.5	0.2	0.6	2	5	50	35	65	50		BG291	hs	99.95		
JCIQ-1880D	1805	1880	DC	5	8	0.2	10.5	0.2	0.6	2	5	50	35	65	50		BG291	hs	99.95		

features

- shielded surface mount metal case
- solder plated J-leads for excellent solderability and strain relief
- cellular applications, radar and communication systems
- good amplitude and phase unbalance
- excellent 3rd and 5th order harmonic suppression
- small size 0.8 X 0.87 X 0.25 inch

pin and coaxial connections

see case style outline drawings

PORT	dv	dw	dx	dy	dz	gd	gu	gv	hs
LO (carrier)	1	13	13	13	1	1	13	1	2
RF (signal)	8	2	1	1	3	8	1	3	9
I (0°)(ref.)	7	4	8	8	S	7	8	4	4
Q (90°)*	4	1	5	5	2	4	5	2	11
ISOLATED**	—	9,12,16	—	10,11	—	—	10,11	—	—
50W TERM. EXT.	2	—	—	—	—	—	—	—	—
NOT USED	—	—	—	—	—	2	—	—	—
GND EXT.	3,5,6	3,5,6,7,8,10,11,14,15	2,3,4,6,7,9,10,11,12,14,15,16	2,3,4,6,7,9,12,14,15,16	—	3,5,6	2,3,4,6,7,9,12,14,15,16	—	1,3,5,6,7,8,10,12,13,14
CASE GND	3,5,6	3,5,6,7,8,10,11,14,15	3,4,6,7,10,11,14,15	2,3,4,6,7,9,12,14,15,16	—	3,5,6	3,4,6,7,14,15	—	—

For I&Q demodulators:

Models MIQA-70D and ZFMIQ-70D: Q= +90° for LO>RF
Q= -90° for LO<RF

All other models: Q=+90° for LO<RF
Q=-90° for LO>RF

** For MIQY, MIQC-38D, external variable capacitors can be connected at pins 10 & 11 to ground for improvement of phase unbalance.



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