Coaxial

I&Q Modulator

ZAMIQ-895M

50Ω 868 to 895 MHz

CASE STYLE: HHH141

Connectors	Model	Price	Qty.
SMA	ZAMIQ-895M	$149.95	(1-9)

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
LO Power	50mW
I&Q current	40mA

Permanent damage may occur if any of these limits are exceeded.

Coaxial Connections

LO (carrier)	1
RF (signal)	3
I (0°)(ref.)	4
Q (90°)*	2

*Q= I +90° for lower sideband suppression

Features

- rugged, shielded case
- excellent 3rd-5th order harmonic suppression
- good carrier and sideband rejection

Applications

- cellular
- communication systems

Modulator Electrical Specifications

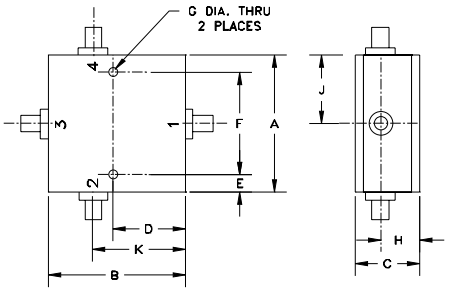
MODEL NO.	FREQUENCY (MHz) RF (SIGNAL) LO (CARRIER) f_L	f_U	I&Q Min.	I&Q Max.	CONVERSION LOSS (dB) $\bar{x}$	σ	Max.	CARRIER REJECTION (-dBc) Typ.	Min.	SIDEBAND REJECTION (-dBc) Typ.	Min.	HARMONIC SUPPRESSION (-dBc) 3XI/Q Typ.	Min.	5XI/Q Typ	Min.
ZAMIQ-895M	868	895	DC	5	8.0	0.10	10.5	40	30	40	30	52	35	58	50

Operating LO power: 10±1dBm
1dB Compression: 0dBm typical
Conversion Loss: (I + Q) power, dBm-RF power, dBm
Carrier and sideband rejections measured at -5dBm I/Q power.

Typical Performance Data

Carrier Freq. (MHz)	Conversion Loss $\bar{x}$ (dB)	σ (dB)	Sideband Rejection($\bar{x}$) LSB (-dBc)	USB (-dBc)	Carrier Rejection($\bar{x}$) LSB (-dBc)	USB (-dBc)	3rd. Harmonic Suppression ($\bar{x}$) LSB (-dBc)	USB (-dBc)	5th. Harmonic Suppression ($\bar{x}$) LSB (-dBc)	USB (-dBc)	DC Offset ($\bar{x}$) (mV)
868.00	8.64	0.06	40.37	39.42	40.28	40.16	46.63	44.24	59.35	62.87	-1.24
870.10	8.65	0.06	40.44	39.60	40.36	40.27	46.71	44.38	59.33	63.25	-1.23
872.30	8.66	0.04	40.41	39.49	40.37	40.45	46.95	44.52	59.48	62.84	-1.23
873.00	8.67	0.05	40.42	39.34	40.48	40.50	47.02	44.51	59.52	62.94	-1.23
874.40	8.67	0.05	40.80	39.30	40.45	40.46	47.21	44.68	59.44	62.90	-1.23
876.50	8.68	0.05	40.96	39.03	40.61	40.68	47.35	44.85	59.78	63.10	-1.22
877.90	8.69	0.04	40.97	38.86	40.65	40.77	47.56	45.02	59.79	62.97	-1.24
878.70	8.69	0.04	41.04	38.97	40.72	40.78	47.62	45.16	59.91	62.83	-1.24
880.80	8.69	0.04	41.23	38.95	40.96	41.03	47.85	45.23	60.03	63.19	-1.23
882.20	8.70	0.04	41.39	38.79	40.94	40.96	48.04	45.38	59.82	63.02	-1.22
882.90	8.71	0.04	41.46	38.73	40.98	41.04	48.15	45.51	60.04	63.04	-1.23
884.30	8.70	0.04	41.69	38.80	41.22	41.17	48.41	45.63	60.30	63.38	-1.22
886.50	8.73	0.04	41.24	38.56	41.27	41.07	48.52	45.76	59.96	62.74	-1.24
887.90	8.72	0.04	41.92	38.57	41.54	41.28	48.70	45.92	60.17	62.61	-1.23
888.60	8.73	0.04	41.48	38.50	41.55	41.22	48.75	46.03	60.16	62.54	-1.23
890.70	8.75	0.04	41.30	38.38	41.60	41.30	48.99	46.19	60.01	62.41	-1.24
892.90	8.75	0.04	41.13	38.40	41.87	41.39	49.19	46.47	59.93	62.57	-1.26
893.60	8.76	0.04	40.96	38.38	42.02	41.37	49.20	46.48	59.96	62.14	-1.26
894.30	8.77	0.04	40.78	38.18	42.08	41.39	49.24	46.54	59.88	61.92	-1.27
895.00	8.75	0.04	40.87	38.27	42.42	41.73	49.31	46.61	60.07	62.33	-1.26

Outline Drawing

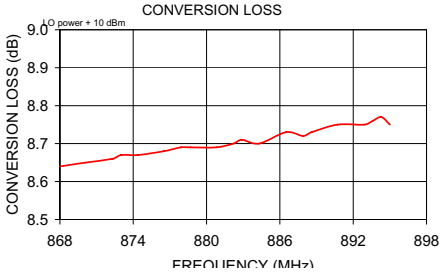


Outline Dimensions (inch / mm)

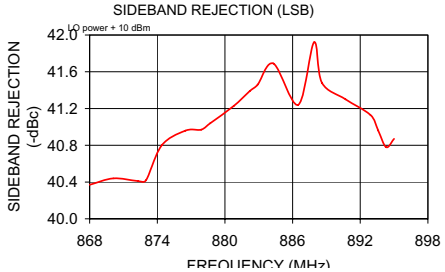
A	B	C	D	E	F
2.00	2.00	.95	1.062	.125	1.75
50.80	50.80	24.13	26.97	3.18	44.45

G	H	J	K	wt
.125	.575	1.00	1.35	grams
3.18	14.61	25.40	34.29	200

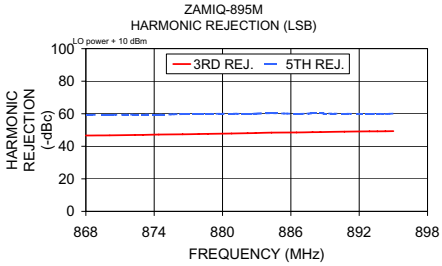
ZAMIQ-895M
CONVERSION LOSS



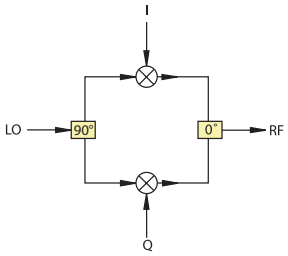
ZAMIQ-895M
SIDEBAND REJECTION (LSB)



ZAMIQ-895M
HARMONIC REJECTION (LSB)



I&Q modulation block diagram



Notes

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