

High IP3

Frequency Mixer

Level 10 (LO Power+10 dBm) 1850 to 1910 MHz

MCA-19FLH+



CASE STYLE: DZ883

PRICE: \$9.95 ea. QTY.(1-9)

Maximum Ratings

Operating Temperature -55°C to 100°C

Storage Temperature -55°C to 100°C

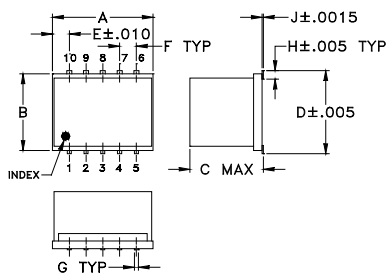
LO & RF Power 16 dBm

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

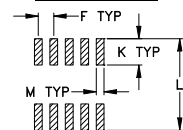
Pin Connections

LO	10
RF	5
IF	3
GROUND	1,2,4,6,7,8,9

Outline Drawing



PCB Land Pattern

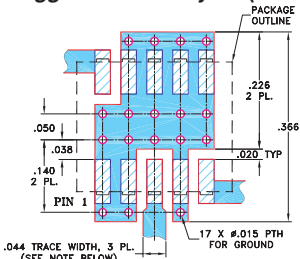


Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.30	.250	.190	.266	.050	.050	.012
7.62	6.35	4.83	6.76	1.27	1.27	0.30
H	J	K	L	M		wt
.029	.004	.085	.296	.030		grams
0.74	0.10	2.16	7.52	0.76		0.5

Demo Board MCL P/N: TB-144 Suggested PCB Layout (PL-045)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .020" ± .0015"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- high IP3, 25 dBm typ.
- excellent L-R isolation, 40 dB typ.
- excellent 1 dB compression, RF>LO power
- industry standard foot print
- LTCC design for excellent temperature stability, performance repeatability and small size
- aqueous washable
- double balanced mixer
- low price
- protected by US Patent 6,959,180

Applications

- GSM 1800
- DECT

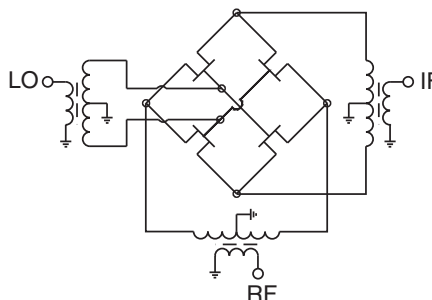
Electrical Specifications (T_{AMB}=-55°C to 100°C)

FREQUENCY (MHz)			IP3 (dBm)	RF in at 1 dB compr. (dBm)	CONVERSION LOSS (dB)		LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)	
RF	LO	IF	Typ.	Min.	Typ.	Max.	Typ.	Min.	Typ.	Min.
1850-1910	1760-1820	70-130	25	10	6.9	8.8	40	22	39	20

Typical Performance Data

Frequency (MHz)		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)	IP3 (dBm)
RF	LO	LO +10dBm	LO +10dBm	LO +10dBm	LO +10dBm	LO +10dBm	LO +10dBm
1850.00	1760.00	6.85	44.21	41.75	1.53	2.64	24.92
1865.00	1775.00	6.90	43.21	44.25	1.59	2.23	25.31
1880.00	1790.00	6.91	42.08	45.03	1.59	2.00	25.58
1895.00	1805.00	6.91	41.65	43.44	1.57	1.99	25.65
1910.00	1820.00	6.85	41.40	41.36	1.57	2.16	25.93

Electrical Schematic



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ISO 9001 ISO 14001 AS 9100 CERTIFIED

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IF/RF MICROWAVE COMPONENTS

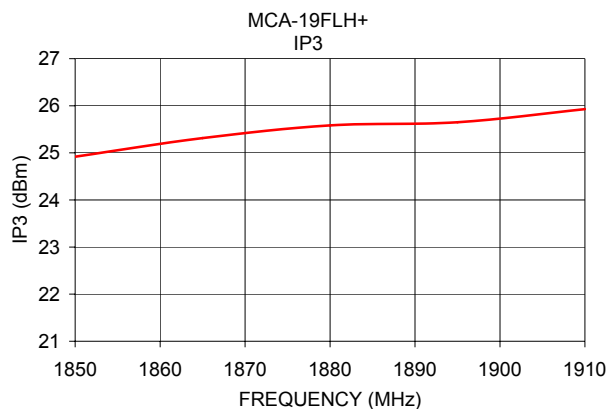
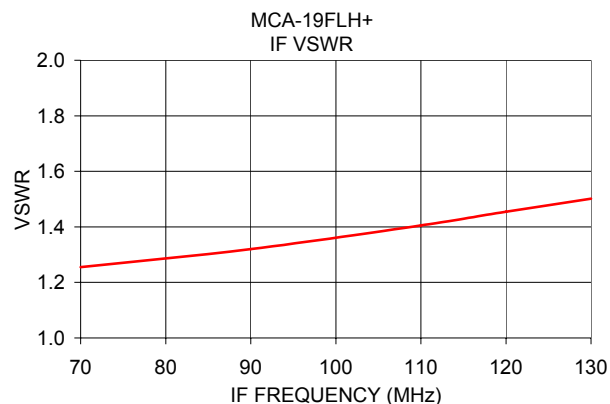
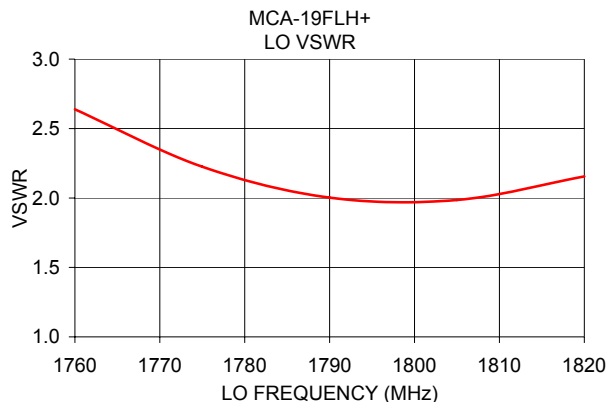
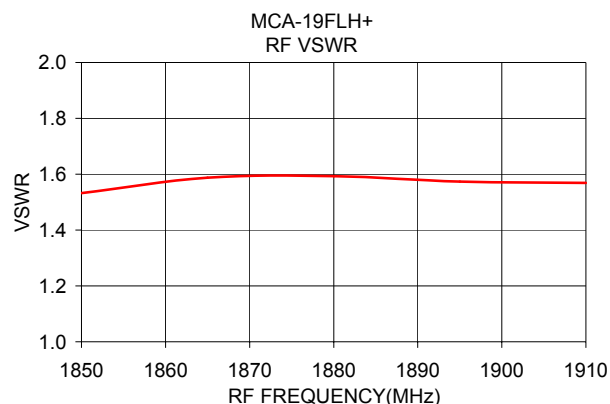
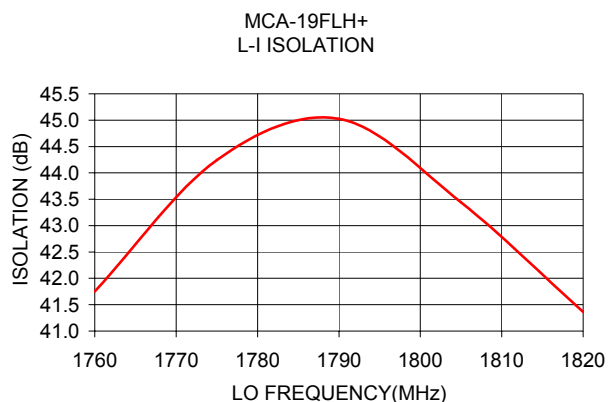
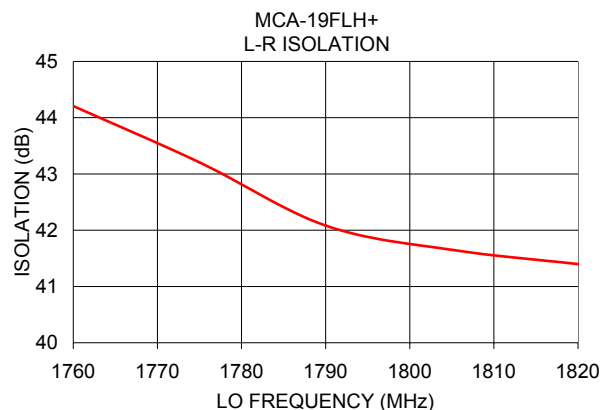
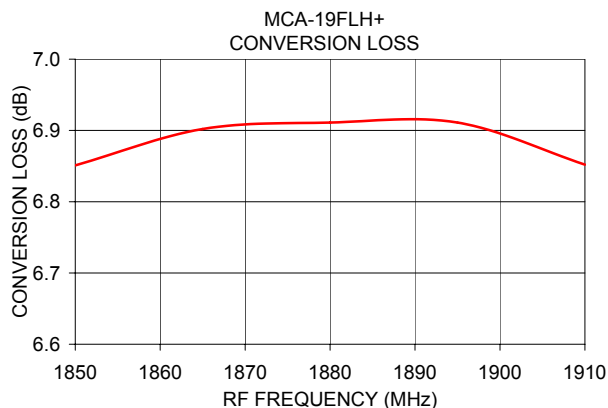
For detailed performance specs
& shopping online see web site

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ED-9488A/2
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Performance Charts

MCA-19FLH+



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IF/RF MICROWAVE COMPONENTS

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