

High IP3

Frequency Mixer

MCA-2751FH+

Level 17 LO Power+17 dBm 2430 to 2750 MHz



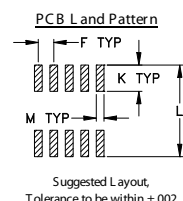
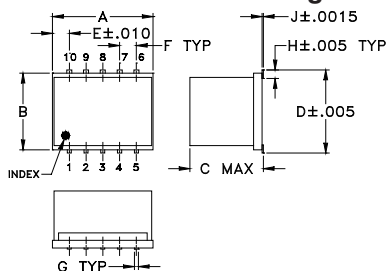
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
LO & RF Power	20 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

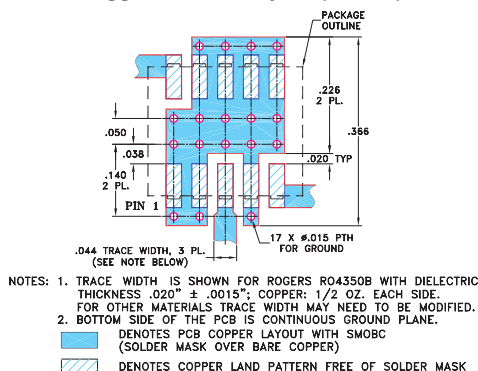
Outline Drawing



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)



Features

- high IP3, 31 dBm typ.
- good L-R isolation, 40 dB typ.
- excellent 1 dB compression
- 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

- line of sight links
- satellite communications
- WiMAX

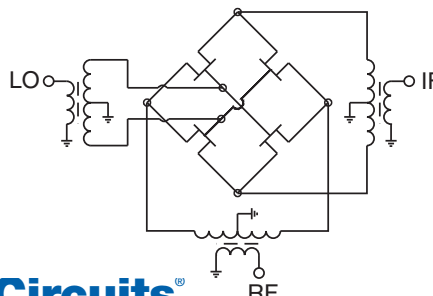
Electrical Specifications (T_{AMB}= -55°C to 100°C)

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.
2430-2750	2780-3100	100-600	31	15	7.6 9.1	40 34	32 23

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 +17dBm	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm
2426.10	2776.10	8.24	42.06	34.46	1.12	4.87	31.78
2456.10	2806.10	8.10	43.49	34.69	1.12	4.13	33.54
2500.10	2850.10	7.84	44.00	38.21	1.11	2.80	33.84
2505.10	2855.10	7.73	44.11	38.43	1.13	2.69	33.92
2560.10	2910.10	7.61	41.42	34.77	1.10	2.02	34.61
2600.10	2950.10	7.57	40.02	31.71	1.09	2.21	32.78
2630.10	2980.10	7.62	39.30	30.01	1.09	2.68	32.56
2650.10	3000.10	7.61	39.13	29.17	1.11	3.05	32.21
2655.10	3005.10	7.62	39.18	29.01	1.11	3.14	31.85
2660.10	3010.10	7.63	39.37	28.83	1.11	3.23	31.58
2665.10	3015.10	7.63	39.20	28.69	1.11	3.32	31.27
2670.10	3020.10	7.63	38.92	28.54	1.12	3.42	31.14
2675.10	3025.10	7.62	38.89	28.42	1.13	3.52	30.74
2680.10	3030.10	7.62	38.85	28.32	1.13	3.63	30.45
2685.10	3035.10	7.63	38.53	28.22	1.14	3.76	30.35
2690.10	3040.10	7.64	38.33	28.12	1.15	3.89	30.26
2700.10	3050.10	7.66	38.48	28.02	1.15	4.17	30.14
2720.10	3070.10	7.69	39.05	27.78	1.15	4.74	29.98
2740.10	3090.10	7.73	40.60	27.49	1.16	5.25	29.42
2760.10	3110.10	7.81	41.53	27.57	1.22	5.66	28.54

Electrical Schematic



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

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