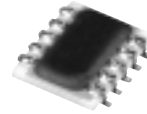


Surface Mount

# Frequency Doublers

1.6 to 4.8 GHz

KBA-20 • KBA-40



**BLUE CELL™**

**Features**

- low conversion loss, 12 dB typ.
- solder plated leads for strain relief and excellent solderability

**Applications**

- synthesizers
- local oscillators

CASE STYLE:	SM2	MODEL	PRICE	QTY
KBA-20	\$9.95 ea.	(10-49)		
KBA-40	\$14.95 ea.	(1-9)		

**Frequency Doubler Electrical Specifications**

MODEL NO.	FREQUENCY (GHz)		INPUT POWER (dBm)		CONVERSION LOSS (dB)		HARMONIC OUTPUT (dBc)						
	Input	Output	Min.	Max.	Input Freq.	Typ. Max.	F1		F3		F4		
							Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
KBA-20	1.6 - 2.2	3.2 - 4.4	11	15	1.6-2.2	12	15.8	12	7	20	13	23	10
KBA-40	2.7-4.8	5.4-9.6	10	16	2.7-4.8	12.3	17.6	18	10	26	15	24	14
			5	10	2.7-4.8	13	19	15	8	26	16	26	12

BLUE CELL™ is protected by U.S. Patents 5,534,830 5,640,132 5,640,134 5,640,699

**Pin Connections**

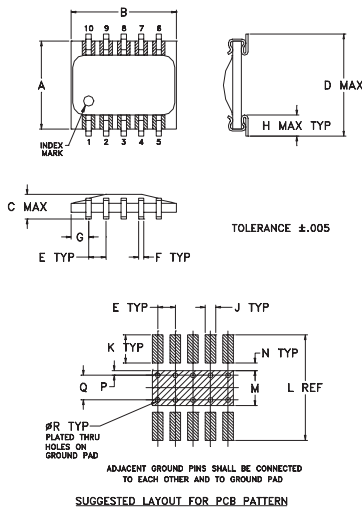
MODEL	KBA-20	KBA-40
INPUT	10	10
OUTPUT	5	6
SAMPLE*	3	—
50Ω TERMINATED	—	1
GROUND	1,2,4,6,7,8,9	2,3,4,5,7,8,9

\*sample port output power, -10 dBc typ.  
Terminate in 50 ohms if not used.

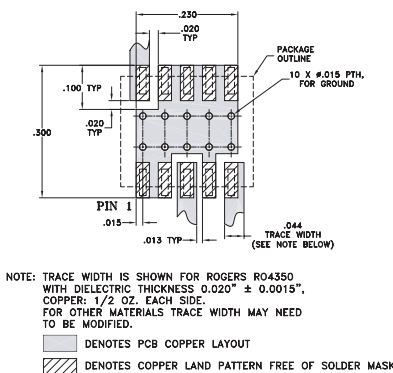
**Maximum Ratings**

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C

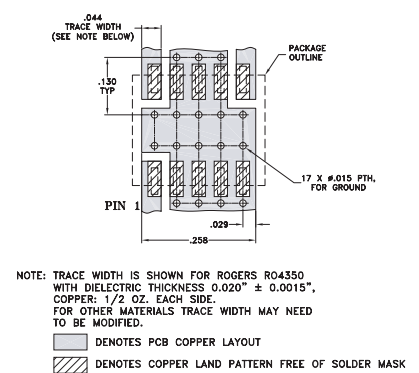
**Outline Drawing**



**KBA-20 Demo Board MCL P/N: TB-99  
Suggested PCB Layout (PL-066)**



**KBA-40 Demo Board MCL P/N: TB-74  
Suggested PCB Layout (PL-067)**



**Outline Dimensions (inch/mm)**

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	wt.
.250	.300	.070	.290	.050	.015	.050	.060	.030	.080	.300	.100	.020	.015	.070	.014	grams
6.35	7.62	1.78	7.37	1.27	.38	1.27	1.52	0.76	2.03	7.52	2.54	0.51	.38	1.78	.36	.3