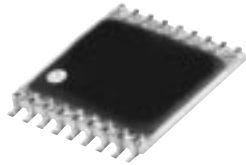


BLUE CELL™ Surface Mount I/Q Modulator

LO Drive +10 dBm, 1800 to 2000 MHz

NEW!
IQBG-2000A



SM20A

Features

- excellent sideband rejection, 34 dB typ.
- excellent temperature stability
- low noise floor
- low height

Applications

- PCS
- feed forward amplifiers



Electrical Specifications (T_{AMB} = -40°C to 85°C)

MODEL NO.	FREQUENCY (MHz)		CONVERSION LOSS (dB)			CARRIER REJECTION (dBc)		SIDE BAND REJECTION (dBc)		HARMONIC SUPPRESSION (dBc)				CASE STYLE	CASE NO.	PRICE \$		
	RF (signal)/ LO (carrier)	I&Q	Min.	Max.	X	σ	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.				Typ.	Min.
IQBG-2000A	1800-2000	DC	10		7.5	—	9.0	30	20	34	28	50	45	70	50	SM20A	Im	24.95

Notes:
Q=I+90, lower sideband suppression
Tested @ I/Q power -10 dBm

BLUE CELL™ is protected by U.S. Patents.

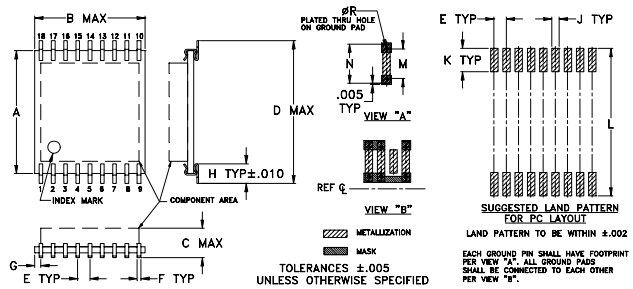
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	20 dBm max.

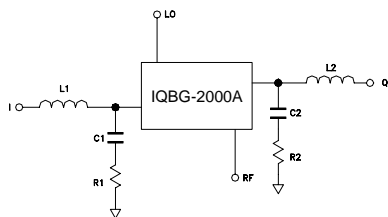
Pin Connections

PORT	(Im)
LO (carrier)	9
RF (signal)	14
I(0°)(ref)	10
Q(90°)	18
GROUND	1,2,3,4,5,6,7,8,11 12,13,15,16,17

Outline Drawing



Recommended IF diplexer



L1, L2 33nH CHIP INDUCTOR (1206)
C1, C2 10pF NPO CHIP CAPACITOR (0603)
R1, R2 47Ω 5% CHIP RESISTOR (0603)

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J
.500	.460	.075	.575	.050	.015	.025	.070	.030
12.70	11.68	1.91	14.61	1.27	.38	.64	1.78	.76
K	L	M	N	P	Q	R	wt.	
.095	.600	.120	.160	—	—	.012	grams	
2.41	15.24	3.05	4.06	—	—	.30	.5	

REV. OR
M79898
EDB-0204B
IQBG-2000A
BLUECELL/TD/CP
020129



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