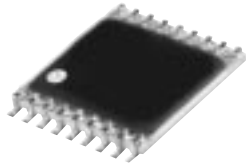


BLUE CELL™ Surface Mount I/Q Modulator

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.

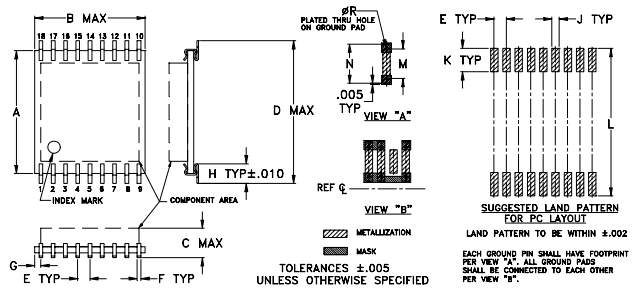
Maximum Ratings

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

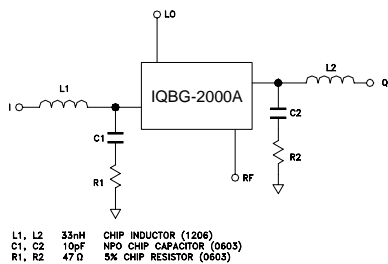
Pin Connections

| | |
|--------------|--------------------------------------|
| 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



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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