

# High IP3 Active Mixer

## MAX-19H

Level 0 (LO Power +0 dBm) 1700 to 1940 MHz

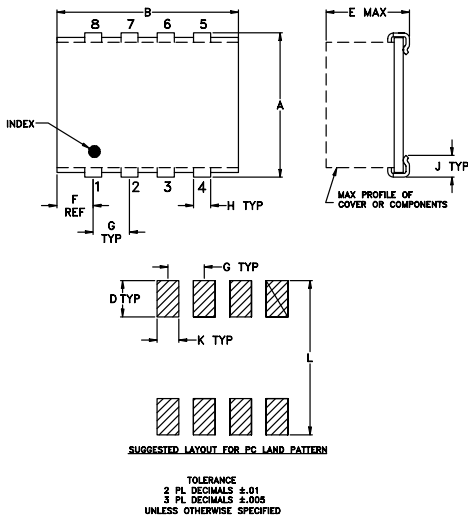
### Maximum Ratings

|                       |                |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C  |
| Storage Temperature   | -55°C to 100°C |
| LO Power              | 10 dBm         |
| RF Power              | 15 dBm         |
| DC Voltage            | +5.5V          |

### Pin Connections

|        |         |
|--------|---------|
| LO     | 1       |
| RF     | 3       |
| IF     | 5       |
| DC     | 7       |
| GROUND | 2,4,6,8 |

### Outline Drawing



### Outline Dimensions (inch/mm)

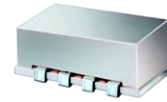
|       |       |      |       |      |      |       |
|-------|-------|------|-------|------|------|-------|
| A     | B     | C    | D     | E    | F    | G     |
| .395  | .520  | --   | .100  | .230 | .110 | .100  |
| 10.03 | 13.21 | --   | 2.54  | 5.84 | 2.79 | 2.54  |
| H     | J     | K    | L     |      |      | wt    |
| .047  | .065  | .065 | .425  |      |      | grams |
| 1.19  | 1.65  | 1.65 | 10.80 |      |      | 0.85  |

### Features

- low LO power, 0 dBm
- gain, 9 dB typ.
- output IP3, 32 dBm typ.
- noise figure, 9 dB typ.
- patent pending

### Applications

- GSM
- DCS/PCS



CASE STYLE: BJ937  
PRICE: \$19.95 ea. QTY (10)

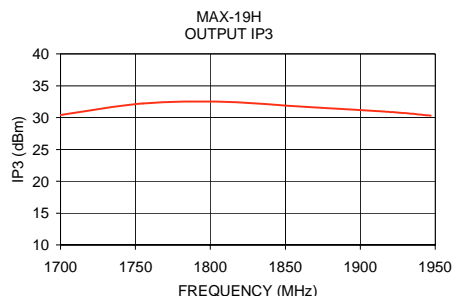
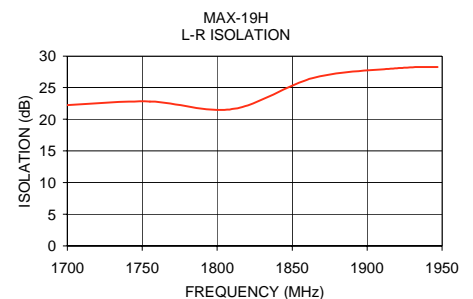
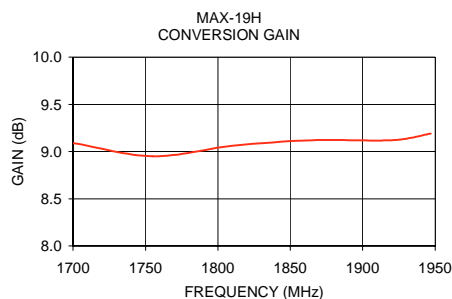
### Electrical Specifications (T<sub>AMB</sub>=25°C)

| FREQUENCY (MHz) |           |         | OUTPUT IP3 (dBm) | RF INPUT @ 1dB compr. (dBm) | CONVERSION GAIN (dB) |      | NOISE FIGURE (dB) | LO-RF ISOL. (dB) |      | LO-IF* ISOL. (dB) |      | DC POWER  |              |
|-----------------|-----------|---------|------------------|-----------------------------|----------------------|------|-------------------|------------------|------|-------------------|------|-----------|--------------|
| RF              | LO        | IF      | Typ.             |                             | Min.                 | Max. | Max.              | Typ.             | Min. | Typ.              | Min. | Volt Nom. | Current Max. |
| 1700-1940       | 1450-1675 | 240-260 | 32               | 7                           | 7.5                  | 10   | 11                | 19               | 10   | 6                 | —    | 5         | 165          |

\*LO to IF isolation is measured at input to LO internal amplifier and at output of internal IF amplifier.  
To improve rejection, select filter from LFCN or HFCN series.

### Typical Performance Data

| Frequency RF MHz | Frequency LO MHz | Conversion Gain (dB) | L-R Isolation (dB) | Output IP3 (dBm) |
|------------------|------------------|----------------------|--------------------|------------------|
| 1700.00          | 1450.00          | 9.09                 | 22.27              | 30.44            |
| 1755.00          | 1506.25          | 8.95                 | 22.82              | 32.23            |
| 1810.00          | 1562.50          | 9.06                 | 21.61              | 32.47            |
| 1865.00          | 1618.75          | 9.12                 | 26.59              | 31.66            |
| 1920.00          | 1675.00          | 9.12                 | 28.07              | 30.89            |
| 1947.00          | 1703.00          | 9.19                 | 28.28              | 30.31            |



### electrical schematic

