

**E-Series I/Q Modulator  
70 MHz**

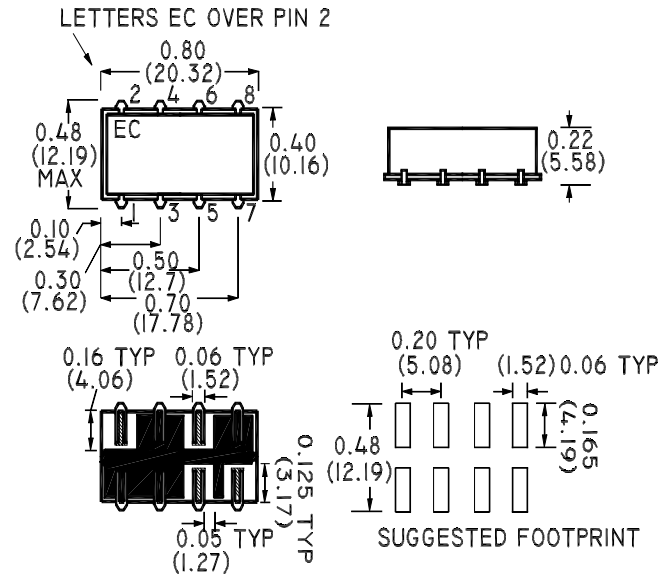


**Features**

- High Carrier Suppression
- High 3I and 5I Suppression



**SM-28 Package**



**Description**

M/A-COM's EKIN2-70 is a passive, high performance surface mount Modulator. It is ideally suited for IF Modulation in Cellular Base Stations. Typical system applications include GSM, DCS1800, W-CDMA and PCS.

**Electrical Specifications @25°C**

| Parameter  | Units      | Typical    | Minimum | Maximum |
|--|------------|------------|---------|---------|
| Frequency Range (LO) Carrier 70<br>I/Q DC - 0.27 | MHz<br>MHz | —<br>—     | —<br>—  | —<br>—  |
| (LO) Carrier Suppression *                       | dBc        | 40.0       | 30.0    | —       |
| SSB Rejection *                                  | dBc        | 40.0       | 30.0    | —       |
| Harmonic Suppression *                           |            |            |         |         |
| 3 x I/Q  | dBc        | 50.0       | 40.0    | —       |
| 5 x I/Q  | dBc        | 65.0       | 55.0    | —       |
| Conversion Loss                                  | dB         | 5.2        | —       | 6.5     |
| (LO) Carrier Power                               | dBm        | +10.0 ±2.0 | —       | —       |
| I/Q Drive Level                                  | —          | -10.0      | —       | —       |
| LO - RF Isolation                                | dB         | 64.0       | 50.0    | —       |

\* Note: When Q = +90 degrees relative to I; Lower sideband is suppressed. Related to wanted sideband power.

Please note that the photograph above indicates package only, not actual unit.

## Absolute Maximum Ratings

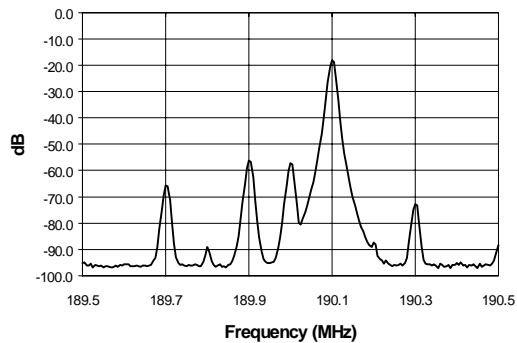
| Parameter                | Absolute Maximum |
|--------------------------|------------------|
| Operating Temperature    | -55°C to +85°C   |
| Storage Temperature      | -55°C to +100°C  |
| Pin Temperature (10 Sec) | 260°C            |

## Functional Configuration

| Function         | Pin No. |
|------------------|---------|
| LO               | 1       |
| RF               | 8       |
| I                | 5       |
| Q                | 6       |
| External 50 Ohms | —       |
| Case Ground      | 2,3,4,7 |
| Not Connected    | —       |

## Typical Performance @ +25°C

### Harmonic Suppression



V2.00 S 0751 F



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