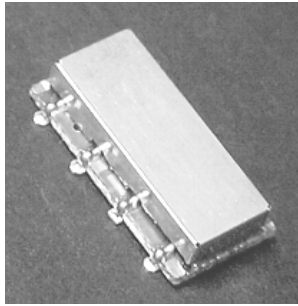




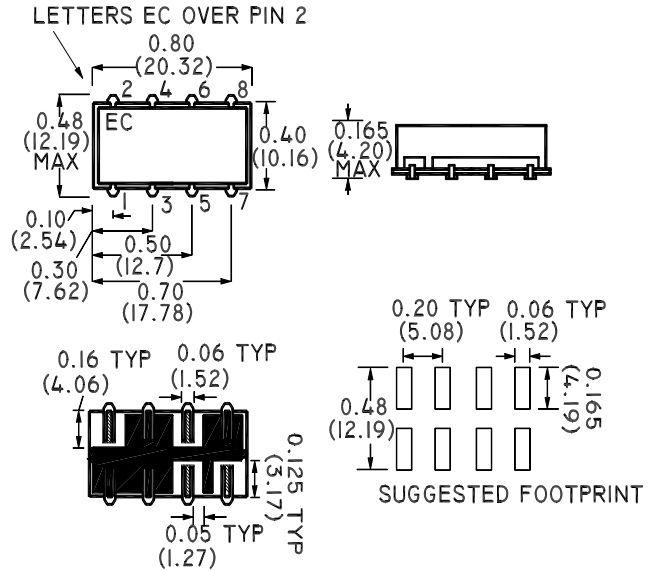
E-Series I/Q Modulator 380 - 400 MHz

Features

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



SM-92 Package



Description

M/A-COM's EKIN2-390X-2 is an I/Q Modulator. Ideally suited for Direct Modulation in PMR/TETRA applications.

Electrical Specifications @25°C

| Parameter | Units | Typical | Minimum | Maximum |
|--------------------------|-----------|---------|---------|---------|
| Frequency Range | | | | |
| (LO) Carrier | 380 - 400 | MHz | — | — |
| I/Q | DC - 1 | MHz | — | — |
| LO Carrier Suppression * | | dBc | 35 | 30 |
| SSB Rejection * | | dBc | 35 | 30 |
| Harmonic Suppression * | | | | |
| 3 x I/Q | | dBc | 45 | 35 |
| 5 x I/Q | | dBc | 51 | 45 |
| Conversion Loss | | dB | 6.5 | 8.5 |
| (LO) Carrier Power | | dBm | +10±1 | — |
| I/Q Drive Level | | dBm | -10 | — |

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

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

V2.00 S 1408 D

ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.
PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

• North America Tel: 800.366.2266 • Europe Tel: +353.21.244.6400
 • India Tel: +91.80.4155721 • China Tel: +86.21.2407.1588
 Visit www.macomtech.com for additional data sheets and product information.

M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make

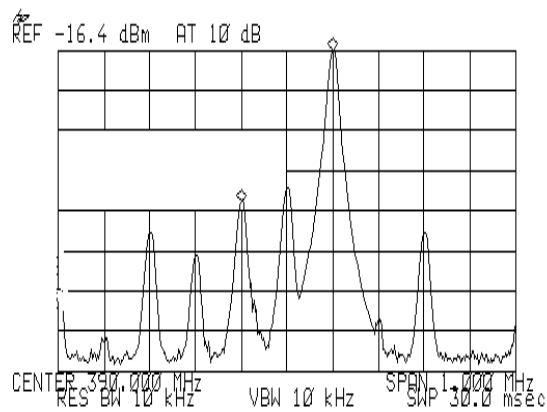
Operating Characteristics

| | |
|--------------------------|------------------|
| Impedance | 50 Ohms Nominal |
| Parameter | Absolute Maximum |
| Operating Temperature | -40°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



V2.00 S 1408 D

ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.

PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

• **North America** Tel: 800.366.2266 • **Europe** Tel: +353.21.244.6400
• **India** Tel: +91.80.4155721 • **China** Tel: +86.21.2407.1588

Visit www.macomtech.com for additional data sheets and product information.

M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make