

E-Series I/Q Modulator
921 — 960 MHz

EKIN2-960
V3

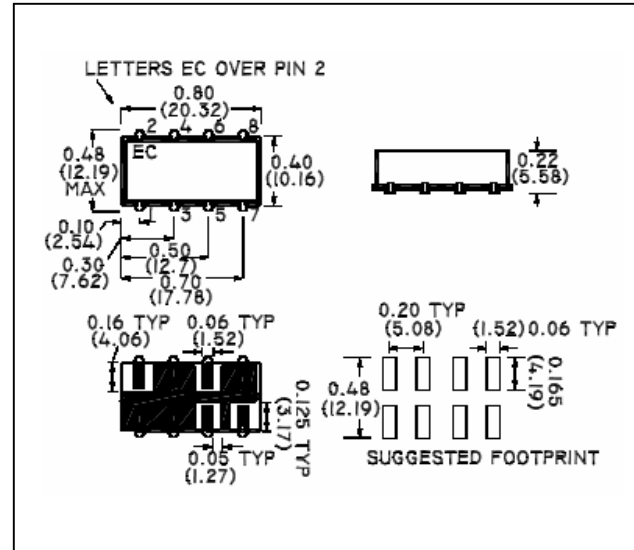
Features

- High Carrier Suppression
- High 3 I and 5 I Suppression
- LO Power + 10 dBm Typical
- Surface Mount
- Tape and reel packaging available

Description

M/A-COM's EKIN2-960 is a passive, high performance surface mount Modulator. It is ideally suited for Direct Modulation in GSM / E-GSM Cellular Base Stations. Parts are packaged in tape & reel.

SM - 28 Package



Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$

| Parameter | Test Conditions | Frequency | Units | Min | Typ | Max |
|------------------------------|---|-----------|-------|-----|---------|-----|
| LO Frequency | — | 921 - 960 | MHz | — | — | — |
| I/Q Frequency | — | DC - 0.27 | MHz | — | — | — |
| LO Carrier Suppression | When Q = +90 degrees relative to I; Lower sideband is suppressed. Related to wanted sideband power. | 921 - 960 | dBc | — | 27 | — |
| SSB Rejection | | 921 - 960 | dBc | — | 34 | — |
| Harmonic Suppression 3 x I/Q | | 921 - 960 | dBc | — | 40 | — |
| Harmonic Suppression 5 x I/Q | | 921 - 960 | dBc | — | 55 | — |
| Conversion Loss | — | 921 - 960 | dB | — | — | 10 |
| (LO) Carrier Power | — | 921 - 960 | dBm | — | +10 ± 1 | — |
| I/Q Drive Level | — | 921 - 960 | dBm | — | -10 | — |

Ordering Information

| Part Number | Package |
|-------------|--------------------------------|
| EKIN2-960TR | Tape and Reel (300 piece Reel) |

Absolute Maximum Ratings ¹

| Parameter | Absolute Maximum |
|------------------------------|------------------|
| Impedance | 50 Ohms Nominal |
| Operating Temperature | -40°C to +85°C |
| Storage Temperature | -55°C to +125°C |
| Pin Temperature (10 seconds) | 260°C |

1. Operation of this device above any one of these parameters may cause permanent damage.

Pin Configuration

| Pin No. | Function |
|---------|-------------|
| 1 | LO |
| 2 | Case Ground |
| 3 | Case Ground |
| 4 | Case Ground |
| 5 | I |
| 6 | Q |
| 7 | Case Ground |
| 8 | RF |

Typical Performance

Harmonic Suppression

