

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

**EKIN2-70D**  
V3

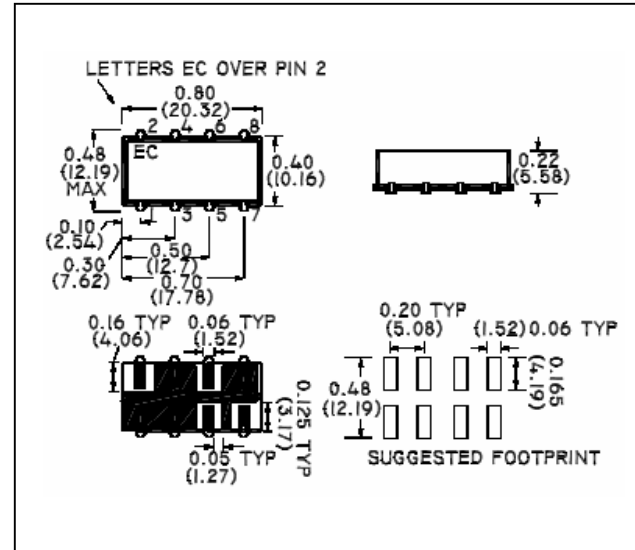
**Features**

- Excellent Phase and Amplitude Balance
- LO Power + 10 dBm Typical
- Surface Mount
- Tape and reel packaging available

**Description**

M/A-COM's EKIN2-70D is a passive, high performance surface mount Demodulator. It is ideally suited for IF Demodulation in Cellular Base Stations. Typical system applications include GSM, DCS1800, W-CDMA, and PCS air interfaces. 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 & RF Frequency	—	70	MHz	—	—	—
I/Q Frequency	—	DC - 5	MHz	—	—	—
Amplitude Unbalance	—	70	dB	—	0.2	1.0
Phase Unbalance	—	70	Degrees	—	0.5°	2°
LO to RF Isolation	—	70	dB	50	65	—
Conversion Loss	—	70	dB	—	8.0	9.0
(LO) Carrier Power	—	70	dBm	—	+10 ± 2	—

Q = I -90° for RF > LO

**Ordering Information**

Part Number	Package
EKIN2-70DTR	Tape and Reel (300 piece Reel)

### Absolute Maximum Ratings <sup>1</sup>

Parameter	Absolute Maximum
DC Offset Voltage	1 mV Typical
RF Power (1 dB Compression)	+4 dBm Maximum
Impedance	50 Ohms Nominal
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°C

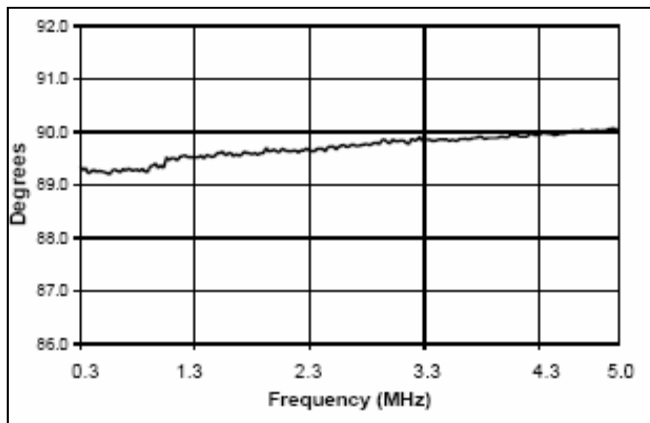
1. Operation of this device above any one of these parameters may cause permanent damage.

### 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 Curves

#### Phase Unbalance



#### Amplitude Unbalance

