

E-Series I/Q Demodulator
70 MHz

EKIN2-70D
V3

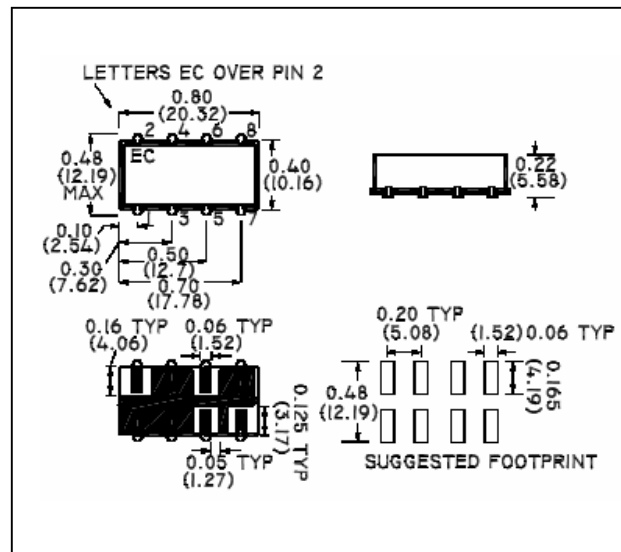
Features

- 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)

- **North America** Tel: 800.366.2266 / Fax: 978.366.2266
- **Europe** Tel: 44.1908.574.200 / Fax: 44.1908.574.300
- **Asia/Pacific** Tel: 81.44.844.8296 / Fax: 81.44.844.8298

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

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Absolute Maximum Ratings ¹

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

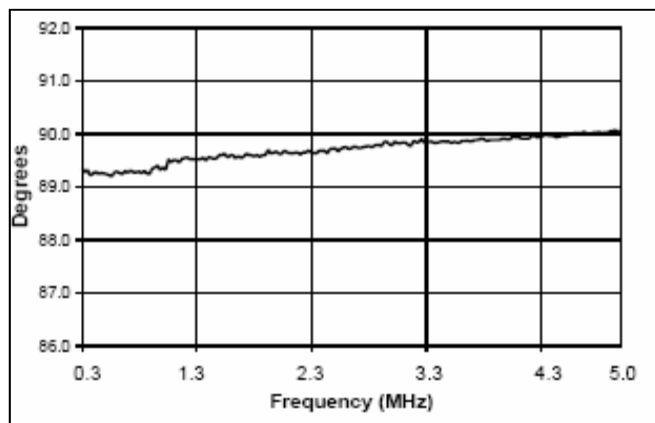
1. Operation of this device above any one of these parameters may cause permanent damage.

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

