



# E-Series I/Q Demodulator 70 MHz

EKIN2-70D V3

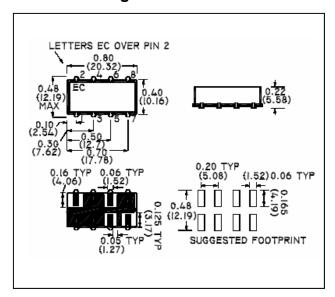
#### **Features**

- 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: $T_A = 25$ °C, $Z_0 = 50\Omega$

Parameter	Test Conditions	Frequency	Units	Min	Тур	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	<del>-</del>	70	dB	_	8.0	9.0
(LO) Carrier Power	<del>-</del>	70	dBm	_	+10 ± 2	_

 $Q = I - 90^{\circ}$  for RF > LO

### Ordering Information

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

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<sup>•</sup> North America Tel: 800.366.2266 / Fax: 978.366.2266

<sup>•</sup> Europe Tel: 44.1908.574.200 / Fax: 44.1908.574.300

Asia/Pacific Tel: 81.44.844.8296 / Fax: 81.44.844.8298





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## 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		

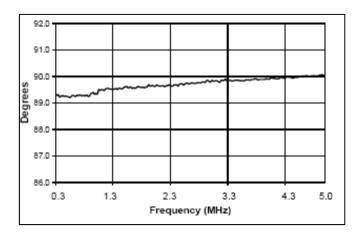
<sup>1.</sup> Operation of this device above any one of these parameters may cause permanent damage.

## **Pin Configuration**

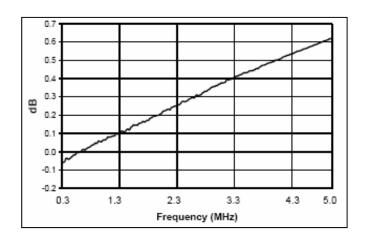
Pin No.	Function	
1	LO	
2	Case Ground	
3	Case Ground	
4	Case Ground	
5	I	
6	Q	
7	Case Ground	
8	RF	

## **Typical Performance Curves**

#### Phase Unbalance



### Amplitude Unbalance



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