



# E-Series I/Q Demodulator 9 – 11 MHz

EKIN2-10D V2

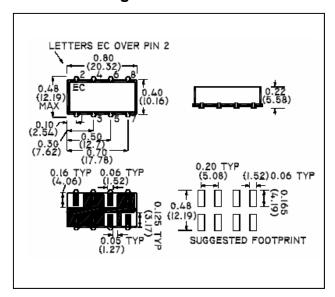
#### **Features**

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

#### **Description**

M/A-COM's EKIN2-10D is an I/Q Demodulator. Ideally suited for Direct 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	_	9 - 11	MHz	_	_	_
Amplitude Unbalance	_	9 - 11	dB	_	0.2	0.4
Phase Unbalance	_	9 - 11	Degrees	_	1.5°	3°
3 * I/Q	_	9 - 11	dB	_	50	35
Conversion Loss	_	9 - 11	dB	_	6.0	7.0
(LO) Carrier Power	_	9 - 11	dBm	_	+10	_
LO VSWR	_	9 - 11	Ratio	_	4.5:1	_
RF VSWR	_	9 - 11	Ratio	_	1.1:1	_
I VSWR	_	9 - 11	Ratio	_	1.3:1	_

<sup>\*</sup>  $Q = -90^{\circ}$  for RF < LO

# **Ordering Information**

Part Number	Package	
EKIN2-10DTR	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		

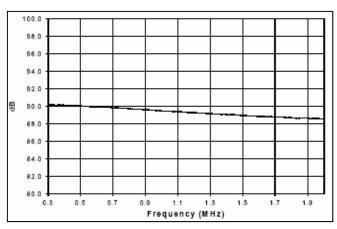
<sup>1.</sup> Operation of this device above any one of these parameters may cause permanent damage.

### **Pin Configuration**

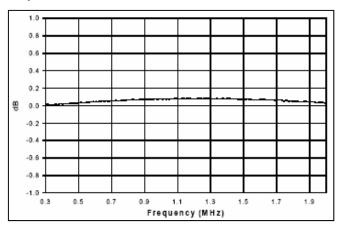
Pin No.	Function	
1	LO	
2	Case Ground	
3	Case Ground	
4	Case Ground	
5	I	
6	Q	
7	Case Ground	
8	RF	

# **Typical Performance Curves**

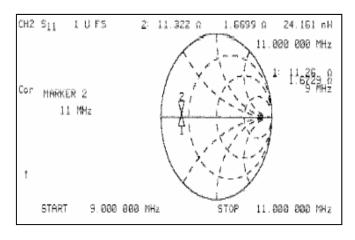
#### Phase Unbalance



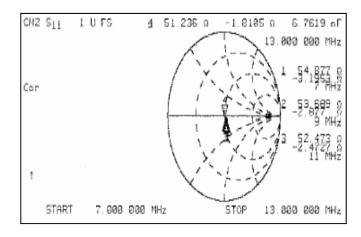
#### Amplitude Unbalance



#### LO VSWR



#### RF VSWR



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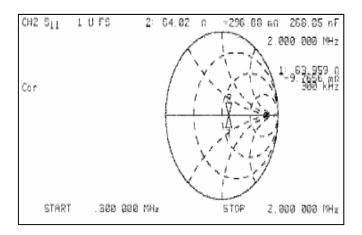


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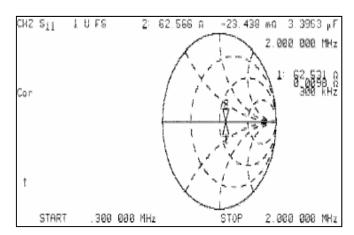
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# **Typical Performance Curves**

#### I VSWR



#### Q VSWR



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