

**E-Series I/Q Demodulator**  
9 – 11 MHz

**EKIN2-10D**  
**V2**

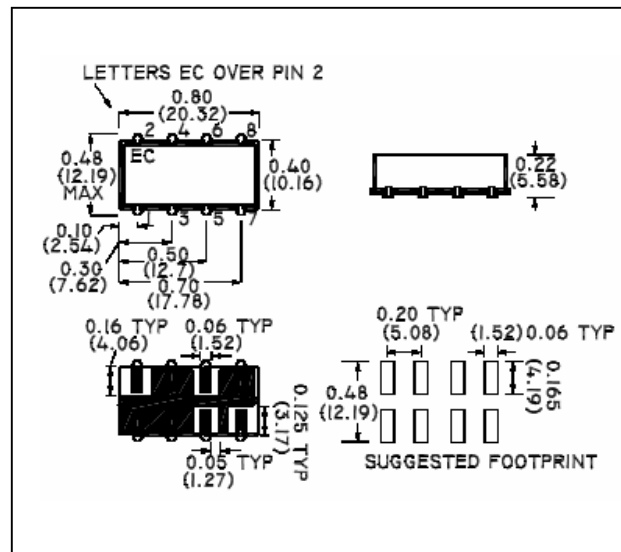
**Features**

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

Parameter	Test Conditions	Frequency	Units	Min	Typ	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	—

\*  $Q = -90^\circ$  for RF < LO

**Ordering Information**

Part Number	Package
EKIN2-10DTR	Tape and Reel (300 piece Reel)

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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

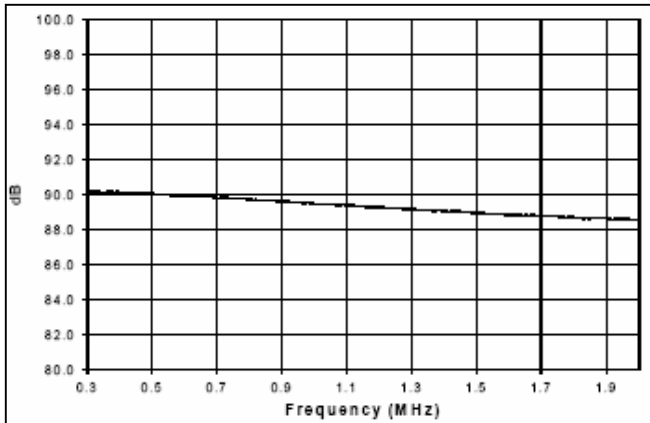
1. Operation of this device above any one of these parameters may cause permanent damage.

**Pin Configuration**

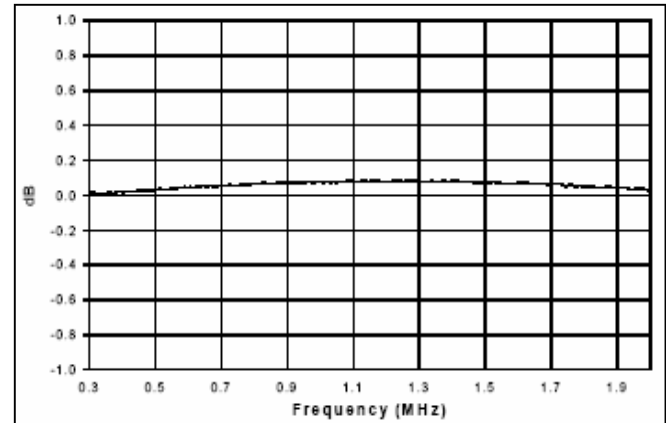
Pin No.	Function
1	LO
2	Case Ground
3	Case Ground
4	Case Ground
5	I
6	Q
7	Case Ground
8	RF

**Typical Performance Curves**

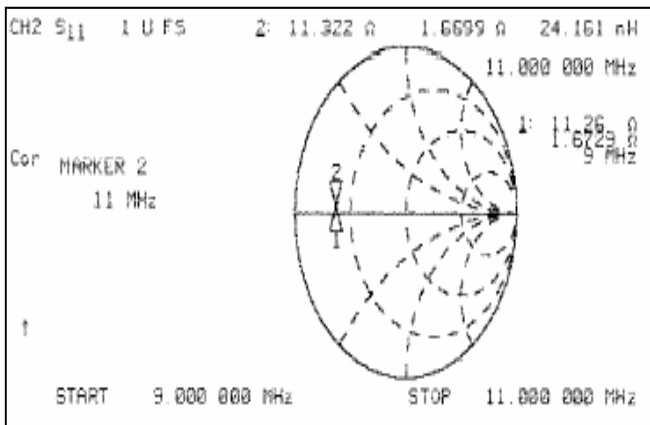
**Phase Unbalance**



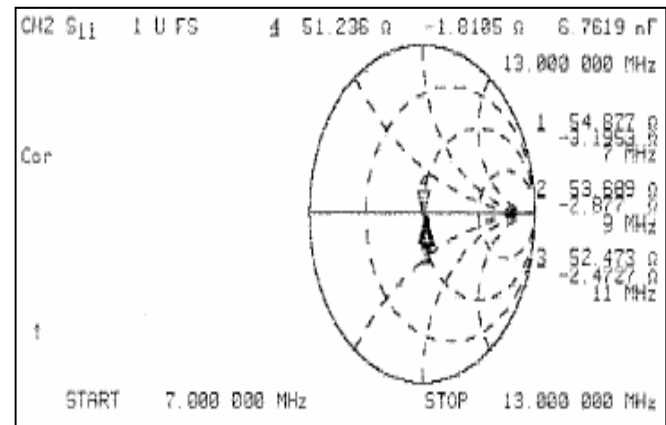
**Amplitude Unbalance**



**LO VSWR**

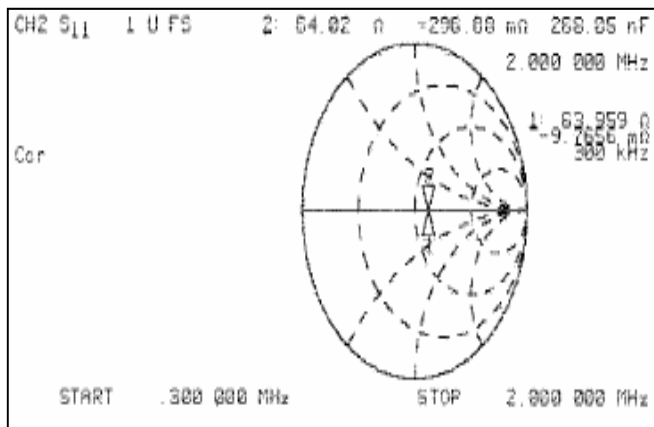


**RF VSWR**



**Typical Performance Curves**

**I VSWR**



**Q VSWR**

