



E-Series I/Q Demodulator 9 – 11 MHz

EKIN2-10D V2

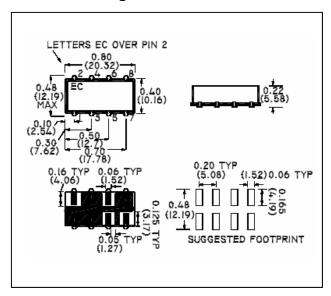
Features

- 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 | _ |

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

information.

Ordering Information

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

M/A-COM Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. M/A-COM makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does M/A-COM assume any liability whatsoever arising out of the use or application of any product(s) or

[•] 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





E-Series I/Q Demodulator

9 – 11 MHz

EKIN2-10D V2

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 | | |

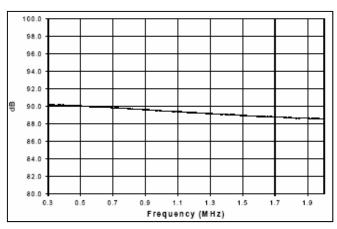
^{1.} Operation of this device above any one of these parameters may cause permanent damage.

Pin Configuration

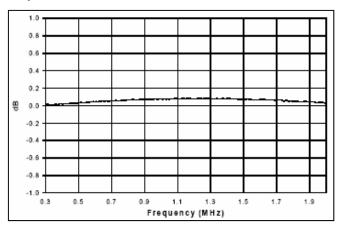
| Pin No. | Function | |
|---------|-------------|--|
| 1 | LO | |
| 2 | Case Ground | |
| 3 | Case Ground | |
| 4 | Case Ground | |
| 5 | I | |
| 6 | Q | |
| 7 | Case Ground | |
| 8 | RF | |

Typical Performance Curves

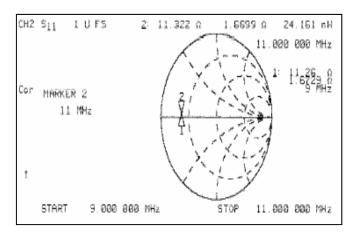
Phase Unbalance



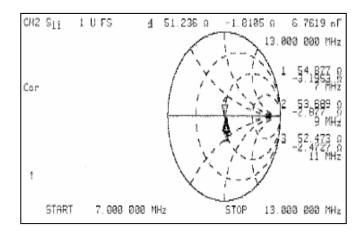
Amplitude Unbalance



LO VSWR



RF VSWR



- M/A-COM Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. M/A-COM makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does M/A-COM assume any liability whatsoever arising out of the use or application of any product(s) or information.
- 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

_



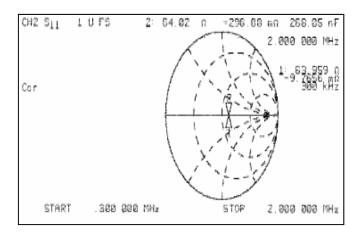


E-Series I/Q Demodulator 9 – 11 MHz

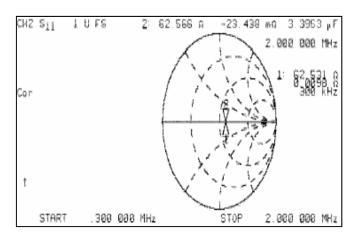
EKIN2-10D V2

Typical Performance Curves

I VSWR



Q VSWR



[•] Europe Tel: 44.1908.574.200 / Fax: 44.1908.574.300

Asia/Pacific Tel: 81.44.844.8296 / Fax: 81.44.844.8298