

**E-Series I/Q Modulator**  
1070 — 1095 MHz

**EKIN2-1082**  
V1

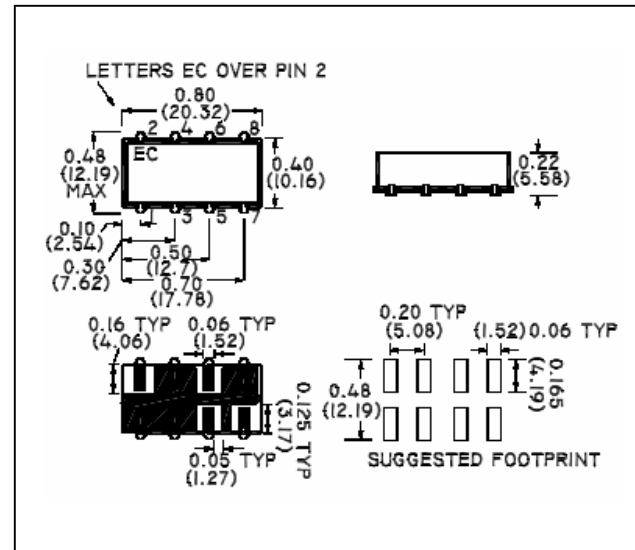
**Features**

- High Carrier Suppression
- High 3 I and 5 I Suppression
- LO Power + 10 dBm Typical
- Surface Mount
- Tape and reel packaging available

**Description**

M/A-COM's EKIN2-1082 is a passive, high performance surface mount Modulator. It is ideally suited for Direct Modulation in Cellular Base Stations. 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 Frequency	—	1070 - 1095	MHz	—	—	—
I/Q Frequency	—	DC - 5	MHz	—	—	—
LO Carrier Suppression	When Q = +90 degrees relative to I; Lower sideband is suppressed. Related to wanted sideband power.	1070 - 1095	dBc	30	35	—
SSB Rejection		1070 - 1095	dBc	30	35	—
Harmonic Suppression 3 x I/Q		1070 - 1095	dBc	30	36	—
Harmonic Suppression 5 x I/Q		1070 - 1095	dBc	40	50	—
Conversion Loss	—	1070 - 1095	dB	—	9.7	11.5
(LO) Carrier Power	—	1070 - 1095	dBm	—	+10 ± 1	—
I/Q Drive Level	—	1070 - 1095	dBm	—	-5	—

**Ordering Information**

Part Number	Package
EKIN2-1082TR	Tape and Reel (300 piece Reel)

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

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Sideband Spurious	—	1025 - 1070	dBc	25	—	—
Sideband Spurious	—	1095 - 1135	dBc	25	—	—
Carrier Rejection	—	1025 - 1070	dBc	25	—	—
Carrier Rejection	—	1095 - 1135	dBc	25	—	—

**Absolute Maximum Ratings <sup>1</sup>**

Parameter	Absolute Maximum
Impedance	50 Ohms Nominal
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°C
Pin Temperature (10 seconds)	260°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