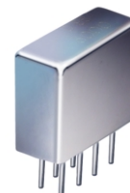


Plug-In Phase Detector

50Ω High Output

1 to 100 MHz

MPD-1+
MPD-1



CASE STYLE: A11

PRICE: \$23.70 ea. QTY (1-9)

+ RoHS compliant in accordance
with EU Directive (2002/95/EC)

The + suffix identifies RoHS Compliance. See our web site
for RoHS Compliance methodologies and qualifications.

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Input Power	50mW
Peak IF current	20mA

Pin Connections

RFPREF (RF2)	8
RF IN (RF1)	1
DC OUT (I)	3,4
GROUND	2,5,6,7
CASE GROUND	2

Features

- wideband, 1 to 100 MHz
- hermetic case
- low DC offset, 0.2mV typ.
- high DC output, 1000 mV typ.
- high isolation, 40 dB min.

Applications

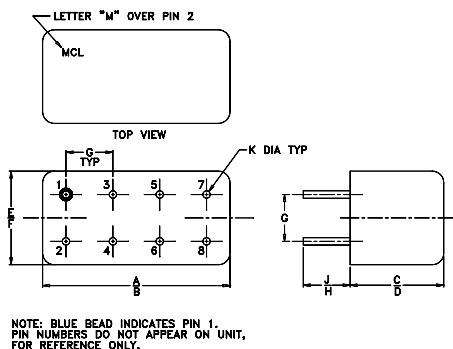
- monitoring circuits
- leveling circuits
- PLL

Phase Detector Electrical Specifications

FREQUENCY (MHz)	POWER IN	SCALE FACTOR	IMPEDANCE (ohms) Output Load	ISOLATION (dB)	OUTPUT POLARITY	DC OUTPUT (mV)	FIGURE OF MERIT
RF1 RF2	I RF1 RF2 (dBm)	mV/deg.	I	RF1-RF2 Min.	RF1/RF2 In-Phase	Max. Typ. Min. Offset Typ. Max.	Typ.
1-100	DC-50	7	8	500	40	neg.	1000 700 0.2 1 143

DC output decreases to 550mV over 1-10 MHz as temperature decreases to -55°C

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F
.480	.500	.240	.255	.210	.230
12.19	12.70	6.10	6.48	5.33	5.84
G	H	J	K		wt
.100	.20	.14	.020		grams
2.54	5.08	3.56	0.51		1.9

Typical Performance Data

FREQUENCY (MHz)	DC OUTPUT mV	DC OFFSET mV	RF1-RF2 ISOLATION (dB)
	- X σ	- X σ	- X
1.00	-769.98 14.85	0.10 0.16	76.12
5.00	-830.34 8.90	0.11 0.18	75.09
8.07	-840.24 14.44	0.11 0.18	74.07
10.00	-843.71 14.61	0.10 0.18	73.19
15.14	-851.12 17.01	0.11 0.19	70.19
20.00	-859.20 18.91	0.11 0.19	68.10
22.21	-861.26 20.52	0.10 0.20	67.28
29.29	-872.02 22.55	0.11 0.21	65.14
36.36	-881.57 24.77	0.11 0.22	63.29
40.00	-886.86 25.39	0.12 0.23	62.38
43.43	-889.93 26.41	0.12 0.23	61.76
50.50	-917.82 25.99	0.14 0.25	60.51
57.57	-927.50 28.69	0.15 0.27	59.35
60.00	-917.14 33.08	0.15 0.26	59.18
64.64	-920.62 38.60	0.15 0.27	58.73
71.71	-925.22 45.18	0.17 0.31	57.82
78.79	-928.03 51.83	0.18 0.31	57.35
85.86	-932.34 57.31	0.17 0.31	57.15
92.93	-932.98 60.65	0.18 0.38	56.93
100.00	-909.17 74.27	0.23 0.43	56.36

