

Plug-In Phase Detector

50Ω High Output 10 to 200 MHz

MPD-2+



CASE STYLE: A11
PRICE: \$27.20 ea. QTY (1-9)

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

Maximum Ratings

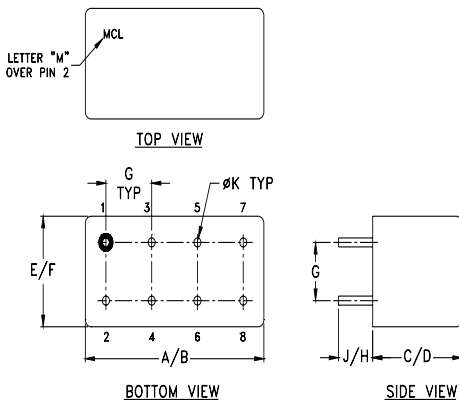
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Input Power	50mW
Peak IF current	20mA

Permanent damage may occur if any of these limits are exceeded.

Pin Connections

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

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	

Features

- wideband, 10 to 200 MHz
- hermetic case
- low DC offset, 0.3 mV typ.
- high DC output, 1000 mV typ.

Applications

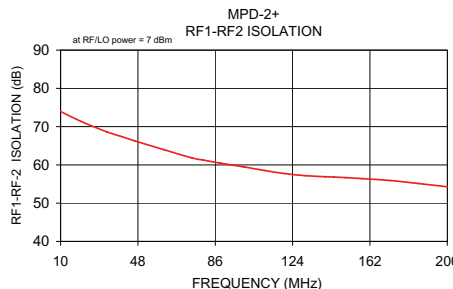
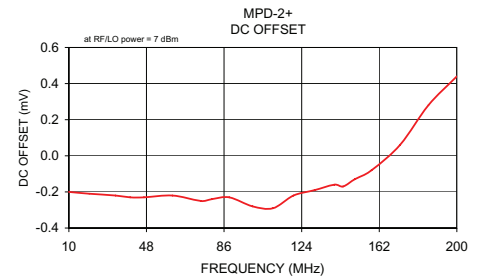
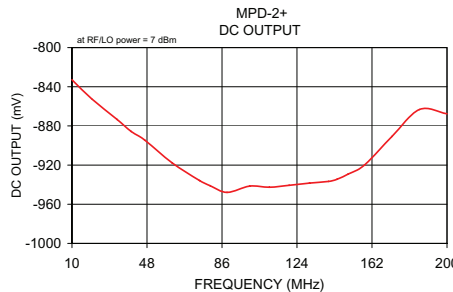
- monitoring circuits
- leveling circuits
- PLL

Phase Detector Electrical Specifications

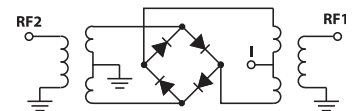
FREQUENCY (MHz)	POWER IN	SCALE FACTOR	IMPEDANCE (ohms) Output Load I	ISOLATION (dB)	OUTPUT POLARITY	DC OUTPUT (mV)		FIGURE OF MERIT
						Max. Typ.	Offset Typ. Max.	
RF1	RF1							
RF2	RF2 (dBm)	mV/deg.		RF1/RF2 Min.	RF1/RF2 In-Phase			
10-200	DC-50	7	500	40	neg.	1000	700	0.3
								1
								143

Typical Performance Data

Frequency (MHz)	DC Output mV		DC Offset mV		RF1-RF2 Isolation (dB)
	\bar{X}	σ	\bar{X}	σ	
10.00	-832.85	8.84	-0.20	0.31	73.96
20.00	-852.33	8.56	-0.21	0.32	71.39
32.86	-873.37	8.31	-0.22	0.33	68.61
40.00	-885.64	8.09	-0.23	0.33	67.41
46.79	-894.39	7.95	-0.23	0.33	66.22
60.71	-917.70	7.62	-0.22	0.35	64.00
74.64	-935.82	7.73	-0.25	0.37	61.81
80.00	-941.09	7.83	-0.24	0.37	61.28
88.57	-947.91	8.28	-0.23	0.38	60.45
100.00	-941.46	8.44	-0.28	0.40	59.49
110.00	-942.62	8.94	-0.29	0.41	58.55
120.00	-940.69	9.51	-0.22	0.40	57.75
130.36	-938.41	10.59	-0.19	0.39	57.17
140.00	-936.70	11.75	-0.16	0.37	56.90
144.29	-934.52	12.34	-0.17	0.36	56.82
150.00	-929.14	12.91	-0.13	0.38	56.68
158.21	-919.94	13.74	-0.08	0.40	56.42
172.14	-890.67	15.14	0.06	0.41	55.90
186.07	-863.24	17.28	0.28	0.31	55.11
200.00	-867.58	20.41	0.44	0.24	54.28



electrical schematic



Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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