

MODEL 505FP

Non-Reflective UHF-L Limiter



Features:

- Does not distort incoming signals
- Will not degrade system impedance
- Input low-pass filter rejects out of band signals
- Hermetically sealed Kovar package

The model 505 is a UHF Low Band RF signal limiter intended for front end protection in transmitter co-located environments.

Unlike conventional diode based limiters, the model 505 does not distort (clip) the incoming signals nor degrade the system's match (impedance). When in limiting, the 505 proportionately attenuates the incoming signals, preserving the system's linear performance and match. The unit is housed in a hermetic Kovar package.

Electrical Characteristics:

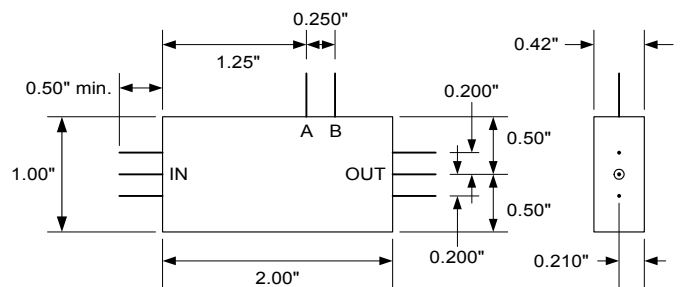
Frequency Range:	500 – 1200 MHz
Insertion Loss (below threshold):	2.0 dB
Maximum Attenuation (above threshold):	25 dB
Limiting Threshold:	+16 to +23 dBm, user adjustable
Transient Time:	2 μ S
Maximum Input Level:	+33 dBm
Inter-modulation Distortion, OIP ³ :	+45 dBm
Impedance:	50 Ω
Return Loss / VSWR:	-14 dB / 1.5:1
Bias Voltage:	see table

Mechanical Characteristics:

RF Connectors: Pins - See Below

Environmental:

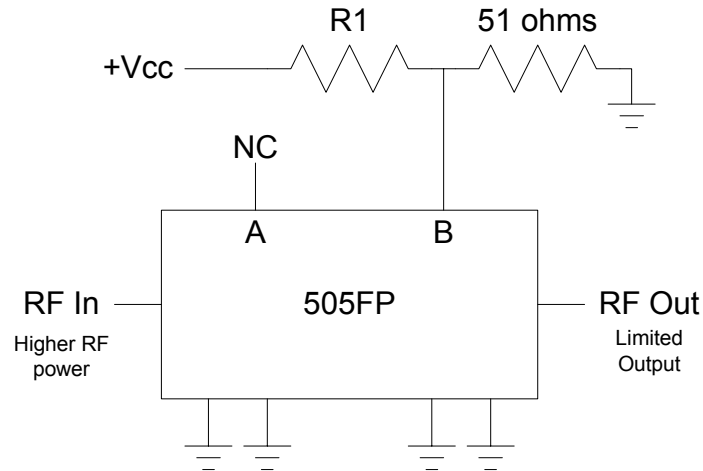
Operating Temperature: -20° to +70° C



0.030" dia. Pins, 8 places

Unmarked pins are ground. Pin A is the +Vcc.
Pin B is the threshold adjust, user select resistors.

Setting the Limiting Threshold:



Limiting dBm	Bias Voltage (Vdc) pin B	Resistor R1 (ohms)		
		+5V	+12V	+15V
16	0.00	open	open	open
17	0.50	470	1200	1500
18	1.00	200	560	750
19	1.50	120	360	470
20	2.00	75	270	330
21	2.50	51	200	270
22	3.25	27	130	180
23	4.50	12	100	150

Absolute Ratings: (operation above these levels may cause permanent damage)

DC Supply Voltage, +Vcc (A): DNA

Maximum RF Input Level: +33 dBm

Maximum Threshold Voltage (B): +10 Volts