*THANK YOU FOR YOUR PURCHASE!*

RFL-2
(THE RFL-2 IS FOR RECEIVE ONLY, DO NOT ATTEMPT TO TRANSMIT THROUGH THIS DEVICE)

The RFL-2 is an RF limiter designed to prevent high RF signal levels from damaging the input of your SDR, scanner or receiver. The RFL-2 incorporates "No Arc" 1kV components, gas discharge tube and a special circuit designed to reduce RF signals levels as high as +33dBm and limit them to 9dBm and below. The RFL-2 is also designed to eliminate static buildup on your antenna.

If using a "bias T" arrangement to power a preamp, make sure the bias T is located on the "ANT" side of the RFL-2. Placing the bias T on the "REC" side will damage the RFL-1 as it is not power passive.

Impedance: 50 Ohms
Frequency Range: 200 kHz – 3 GHz
Insertion Loss: .19 dB Typical @ 700MHz @ -10dBm
Case: Diecast Aluminum Alloy
Connectors: SMA, BNC, or RCA

Connect the RFL-2 between your antenna and receiver as indicated. The RFL-1 should be placed as close to the receiver as possible.

From Antenna or RF/IF PAT Board Output from Radio   To Receiver

ANT   RFL-2   REC
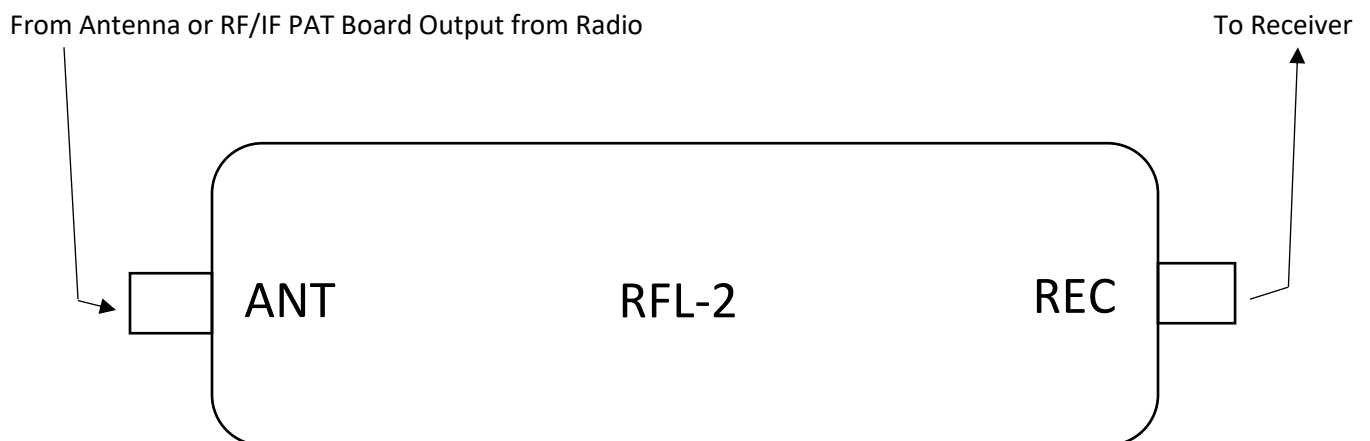
THE RFL-2 WILL NOT PROTECT YOUR RECEIVER FROM DIRECT OR NEAR BY LIGHTING STRIKES. A SEPARATE LIGHTNING ARRESTING DEVICE SHOULD BE INSTALLED AHEAD OF THE RFL-1. IT IS RECOMMENDED YOU DISCONNECT YOUR ANTENNA IF THUNDER STORMS ARE APPROCHING YOUR AREA.

The seller is not responsible for equipment damage due to misuse or lightning damage.

Electrical Specifications

Parameter	Condition	Min.	Typ.	Max.	Units
Frequency Range		0.2		3000	MHz
Linear Range					
Max Input Power	less than 1 dB compression	—	—	5	dBm
Insertion Loss	less than -10 dBm input power	—	0.25	0.9	dB
VSWR	less than -10 dBm input power	—	1.33	1.5	:1
Limiting Range Input Power	>1dB compression filtered signal frequency	+12	—	+33	dBm
Output Power		—	+13	—	dBm
Δ Output/ Δ 1dB Input	Input Power Range (dBm) 12 to 20				
	20 to 25	—	0.3	—	
	25 to 30	—	0.1	—	dB/dB
	30 to 33	—	0.1	—	
		—	0.2	—	
Recovery Time	1 watt pulse 50 μsec pw 1kHz duty cycle recovery to within 90% of final value @ 33 dBm	—	22.5	—	nsec
Response Time	33 dBm input 50 μsec PW 1 kHz duty cycle	—	5.6	—	nsec

Typical Performance Data

Freq. (MHz)	I. Loss (dB) in Linear Range at -10 dBm	VSWR (:1) in Linear Range at -10 dBm	Power Output (dBm)				Δ Output /		Δ 1dB Input	
			+12 dBm Input	+20 dBm +25 dBm +30 dBm Input Input Input		+33dBm Input	+12 to +20 dBm Input	+20 to +25 dBm Input	+25 to +30 dBm Input	+30 to +33 dBm Input
0.20	0.11	1.35	9.45	9.72	10.42	13.09	13.53	0.03	0.14	0.53	0.15
0.50	0.03	1.12	9.55	9.91	10.60	13.33	13.94	0.04	0.14	0.55	0.20
1.00	0.02	1.06	9.57	9.95	10.64	13.36	14.00	0.05	0.14	0.54	0.21
5.00	0.02	1.01	9.86	9.93	10.56	13.15	13.74	0.01	0.13	0.52	0.20
10.00	0.02	1.01	9.93	9.80	10.30	12.66	13.21	-0.02	0.10	0.47	0.18
50.00	0.05	1.01	9.86	8.85	9.17	11.30	11.57	-0.13	0.06	0.43	0.09
100.00	0.07	1.01	9.72	8.78	9.20	11.45	12.08	-0.12	0.08	0.45	0.21
700.00	0.19	1.08	8.79	10.83	12.18	12.26	12.21	0.26	0.27	0.02	-0.02
1700.00	0.36	1.20	8.57	10.78	8.06	11.17	13.74	0.28	-0.54	0.62	0.86
2200.00	0.43	1.17	8.49	9.90	9.83	10.60	12.80	0.18	-0.01	0.15	0.73
3000.00	0.55	1.16	8.40	4.47	6.64	12.06	14.61	-0.49	0.43	1.08	0.85

POWER INPUT	POWER OUTPUT
@ .2 MHz	
(dBM)	
12	9.45
20	9.72
25	10.42
30	13.09
33	13.53

POWER INPUT	POWER OUTPUT
@ 1700 MHz	
(dBM)	
12	8.57
20	10.78
25	8.06
30	11.17
33	13.74

POWER INPUT	POWER OUTPUT
@ 3000 MHz	
(dBM)	
12	8.23
20	4.65
25	7.02
30	11.50
33	14.20