

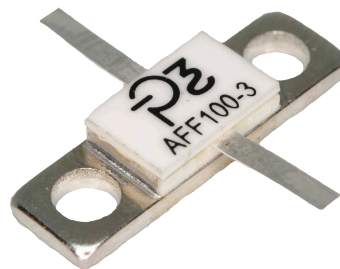


Data Sheet AFF100-XX Rev A

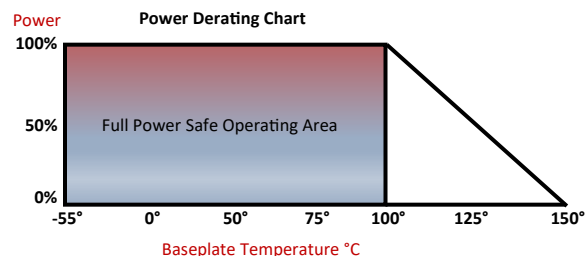
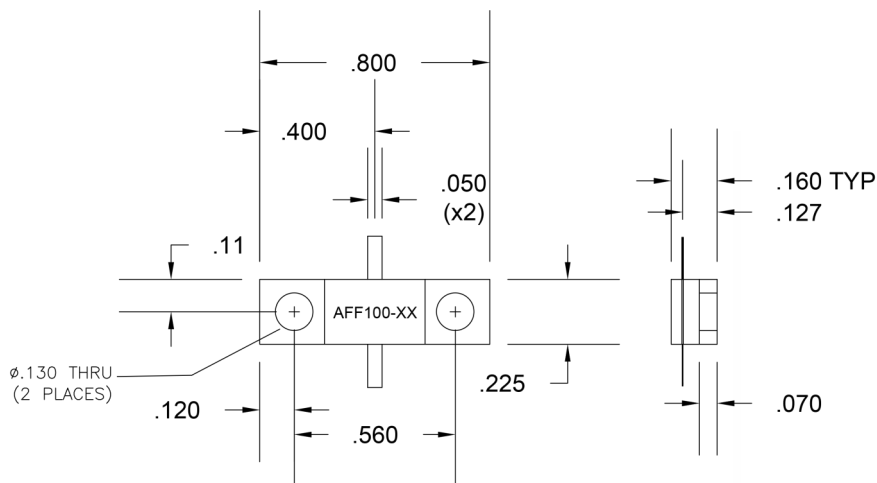
**DC - 3.0 GHz.**  
**Model: AFF100-XX**

XX= Attenuation Value 0.25 - 30 dB

Example: AFF100-1 (1dB)  
AFF100-2R5 (2.5 dB)  
AFF100-12 (12 dB)

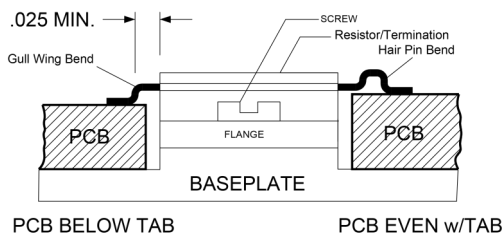


**HYBR-FILM** Full Flange Attenuators are the high performance RF & Microwave power film resistive products on the market today. Designed to be bolted down to a heat-sink or a plated-thru hole printed circuit board, offer the highest power and frequency stability than any other supplier. Power ratings up to 200 watts combined with versatile industry standard configurations allow for easy design-in solutions or replacing older outdated marginal devices that may have degraded or drifted over time. Applications include Medical, Broadcast, Industrial, Commercial Wireless, Military and Space. The **P3** library of designs allows for modifications of standard designs to be made quickly and inexpensively to meet specific requirements with short delivery times. Please contact the factory for any special requirements or frequency ranges.



Specifications subject to change without notice

SUGGESTED MOUNTING AND TAB STRESS RELIEF METHOD



SCREW SIZING CHART

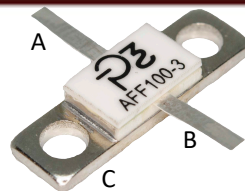
THREAD SIZE	TORQUE SETTING
2-56	4 inch-pounds
4-40	6 inch-pounds
6-32	8-inch-pounds
8-32	12-inch-pounds

**ELECTRICAL SPECIFICATION**

Frequency Range: DC - 3.0 GHz.  
Impedance: 50 Ω  
Attenuation: See Chart 2nd Page  
Average Power: 100W (See Power vs Temp. Chart)  
Peak Power: 300 W (700µs pulse,20% duty cycle)  
VSWR: See Chart 2nd Page  
Operating Temp.: -55° C to +150° C

**MECHANICAL SPECIFICATION**

Flange Material: Copper, Nickel Plate Per QQN-290 99%  
Substrate: Beryllium Oxide  
Resistor Film: Hybrid Blended Thick Film  
Cover Material: 96% Aluminum Oxide  
Tab Material: 99.99% Silver, W=.060 x L=.150" x T= .005  
Storage Temp: -55° C To +175° C



# Standard Performance & Specification Chart

Custom Values Available Upon Request In 0.1 dB Increments

P3 Part Number	Attenuation (dB)	Frequency (GHz)	VSWR (Typ)	Resistance $\Omega$ (A-B)	Resistance $\Omega$ (A-C)	Resistance $\Omega$ (B-C)	Resistance Tolerance
AFF100-1	1 $\pm$ 0.4	DC - 3.0	1.45:1	5.75	436.0	436.0	$\pm$ 5%
AFF100-2	2 $\pm$ 0.4	DC - 3.0	1.45:1	11.46	221.0	221.0	$\pm$ 5%
AFF100-3	3 $\pm$ 0.4	DC - 3.0	1.35:1	17.0	150.5	150.5	$\pm$ 5%
AFF100-4	4 $\pm$ 0.4	DC - 3.0	1.35:1	22.6	116.2	116.2	$\pm$ 5%
AFF100-5	5 $\pm$ 0.3	DC - 3.0	1.30:1	28.0	96.2	96.2	$\pm$ 5%
AFF100-6	6 $\pm$ 0.3	DC - 3.0	1.25:1	33.2	83.6	83.6	$\pm$ 5%
AFF100-7	7 $\pm$ 0.3	DC - 3.0	1.25:1	38.2	75.0	75.0	$\pm$ 5%
AFF100-8	8 $\pm$ 0.3	DC - 3.0	1.20:1	43.0	68.8	68.8	$\pm$ 5%
AFF100-9	9 $\pm$ 0.3	DC - 3.0	1.20:1	47.6	64.4	64.4	$\pm$ 5%
AFF100-10	10 $\pm$ 1.2	DC - 3.0	1.30:1	52.0	61.0	61.0	$\pm$ 5%
AFF100-11	11 $\pm$ 1.2	DC - 3.0	1.30:1	56.0	58.6	58.6	$\pm$ 5%
AFF100-12	12 $\pm$ 1.2	DC - 3.0	1.30:1	59.8	56.7	56.7	$\pm$ 5%
AFF100-13	13 $\pm$ 1.2	DC - 3.0	1.30:1	63.4	55.3	55.3	$\pm$ 5%
AFF100-14	14 $\pm$ 1.2	DC - 3.0	1.30:1	66.7	54.0	54.0	$\pm$ 5%
AFF100-15	15 $\pm$ 1.2	DC - 3.0	1.25:1	69.8	53.2	53.2	$\pm$ 5%
AFF100-16	16 $\pm$ 1.2	DC - 3.0	1.25:1	72.6	52.6	52.6	$\pm$ 5%
AFF100-17	17 $\pm$ 1.2	DC - 3.0	1.25:1	75.2	52.0	52.0	$\pm$ 5%
AFF100-18	18 $\pm$ 1.2	DC - 3.0	1.25:1	77.6	51.6	51.6	$\pm$ 5%
AFF100-19	19 $\pm$ 1.2	DC - 3.0	1.20:1	79.8	51.2	51.2	$\pm$ 5%
AFF100-20	20 $\pm$ 0.6	DC - 3.0	1.20:1	81.8	51.0	51.0	$\pm$ 5%
AFF100-30	30 $\pm$ 2.0	DC - 3.0	1.20:1	94.0	50.0	50.0	$\pm$ 5%

Specifications subject to change without notice

**NOTES:**

- 1). TEST DATA AND SPECIFICATIONS APPLY WHEN MOUNTED IN P3 TEST FIXTURE.
- 2). ALL TEST DATA IS TAKEN AT BASE-PLATED MAINTAINED @25°C USING A CALIBRATED NETWORK ANALYZER.
- 3). TEST FIXTURE DRAWING CAN BE PROVIDED UPON REQUEST.
- 4). A COMPLETE TEST FIXTURE MAY ALSO BE PURCHASED BY CONTACTING: [sales@p3-rf.com](mailto:sales@p3-rf.com)



Made In USA