

# Calibrated Variable Attenuators

## Series 020

### Features

- **Models From 1.72 to 140 GHz**
- **0 - 30 dB Calibrated Attenuation Range**
- **1.07:1 VSWR (maximum)**

### Specifications:

Calibrated attenuation range      0 - 30 dB

VSWR (maximum)                      1.07 : 1



Model 22020

The Flann Series 020 of Calibrated Variable attenuators are fitted with astable precision attenuating elements driven across the waveguide section by a micrometer.

The micrometer drive is free from backlash, permitting attenuation calibration to a high accuracy. The micrometer is fitted with a locking device which enables the adjusting mechanism to be set and locked at any setting. The attenuating elements are constructed from an extremely stable ni-chromed glass composite.

**On models 08020 to 24020** the vane is introduced transversely across the waveguide.

**Models 25020 - 28020** has a vane introduced through a slot in the centre of the broad wall.

A calibration is provided at the centre band frequency unless otherwise specified.

Calibration at additional frequencies can be provided at extra cost.

Model	Frequency Range (GHz)	Waveguide			Calibration accuracy (dB)	Calibration frequency (GHz)	Maximum Insertion Loss (dB)	Maximum Power (watts)	Model
		WG	R	WR					
08020	1.72 - 2.61	8	22	430	±0.2	2.17	0.2	4.0	08020
10020	2.60 - 3.95	10	32	284	±0.2	3.28	0.2	2.5	10020
11A020	3.30 - 4.90	11A	40	229	±0.2	4.10	0.2	2.0	11A020
12020	3.94 - 5.99	12	48	187	±0.2	4.97	0.2	2.0	12020
13020	4.64 - 7.05	13	58	159	±0.2	5.85	0.2	2.0	13020
14020	5.38 - 8.18	14	70	137	±0.2	6.78	0.2	1.0	14020
15020	6.58 - 10.0	15	84	112	±0.2	8.29	0.2	1.0	15020
16020	8.20 - 12.5	16	100	90	±0.2	10.35	0.2	1.0	16020
17020	9.84 - 15.0	17	120	75	±0.2	12.42	0.2	0.75	17020
18020	11.9 - 18.0	18	140	62	±0.2	14.95	0.3	0.75	18020
19020	14.5 - 22.0	19	180	51	±0.3	18.25	0.3	0.75	19020
20020	17.6 - 26.7	20	220	42	±0.3	22.15	0.3	0.5	20020
21020	21.7 - 33.0	21	260	34	±0.3	27.035	0.3	0.5	21020
22020	26.4 - 40.1	22	320	28	±0.3	33.25	0.4	0.5	22020
23020	33.0 - 50.1	23	400	22	±0.4	41.55	0.5	0.5	23020
24020	39.3 - 59.7	24	500	19	±0.4	49.50	0.6	0.5	24020
25020	49.9 - 75.8	25	620	15	±0.5	62.85	0.5	0.5	25020
26020	60.5 - 92.0	26	740	12	±0.5	76.25	0.5	0.3	26020
27020	73.8 - 112	27	900	10	±0.75	92.9	0.9	0.3	27020
28020	92.3 - 140	28	1200	8	±0.75	116.2	1.0	0.2	28020