

# Precision, Variable Waveguide Short Circuits

## Series 050 / 051

### Features

- **Non-Contacting Choked Piston**
- **Precision Micrometer Lockable Drive**

The Flann Series 050 of Waveguide Short Circuits features a length of waveguide which houses a non-contacting choked, low-high-low impedance piston.

Millimetre wave units utilise a precision machined waveguide section. Careful choke design ensures freedom from spurious resonances. The piston is driven by a precision calibrated mechanism which enables accurate and resettable piston positioning.

The drive mechanism is fitted with a lock. All units provide a high VSWR and an accurate reference to the flange face.

The piston movement for each model is greater than half of the waveguide wavelength at the lowest frequency. Variable short circuits can be used to establish an accurate reference plane for VSWR and impedance measurements.



Model 22050

**The Flann Series 051 of Waveguide Short Circuits offers the user an automated version. Please contact Sales for further information.**

Model	Frequency Range (GHz)	Waveguide			Reflection coefficient	Dimension A (mm)
		WG	R	WR		
10050	2.6 - 3.95	10	32	284	>0.995	493
11A050	3.22 - 4.9	11A	40	229	>0.995	456
12050	3.94 - 5.99	12	48	187	>0.995	410
13050	4.64 - 7.05	13	58	159	>0.995	364
14050	5.38 - 8.18	14	70	137	>0.995	318
15050	6.58 - 8.18	15	84	112	>0.995	278
16050	8.20 - 12.5	16	100	90	>0.995	263
17050	9.84 - 15.0	17	120	75	>0.995	253
18050	11.9 - 18.0	18	140	62	>0.995	260
19050	14.5 - 22.0	19	180	51	>0.995	204
20050	17.6 - 26.7	20	220	42	>0.990	205
22050	26.4 - 40.1	22	320	28	>0.985	150
23050	33.0 - 50.1	23	400	22	>0.985	140
24050	39.3 - 59.7	24	500	19	>0.985	140
25050	49.9 - 75.8	25	620	15	>0.985	127
26050	60.5 - 92.0	26	740	12	>0.980	127
27050	73.8 - 112	27	900	10	>0.980	126
28050	92.3 - 140	28	1200	8	>0.980	126
29050	114 - 173	29	1400	6	Specification / dimensions available on request	
30050	145 - 220	30	1800	5		
31050	172 - 261	31	2200	4		
32050	217 - 330	32	2600	3		

**ORDERING INFORMATION**  
 Model: Description  
 Example: Model 22050 Precision variable waveguide short circuit

Series 050

For standard flange types and recommendations see pages 111 onwards