

OPERATING NOTE 1 APRIL 68

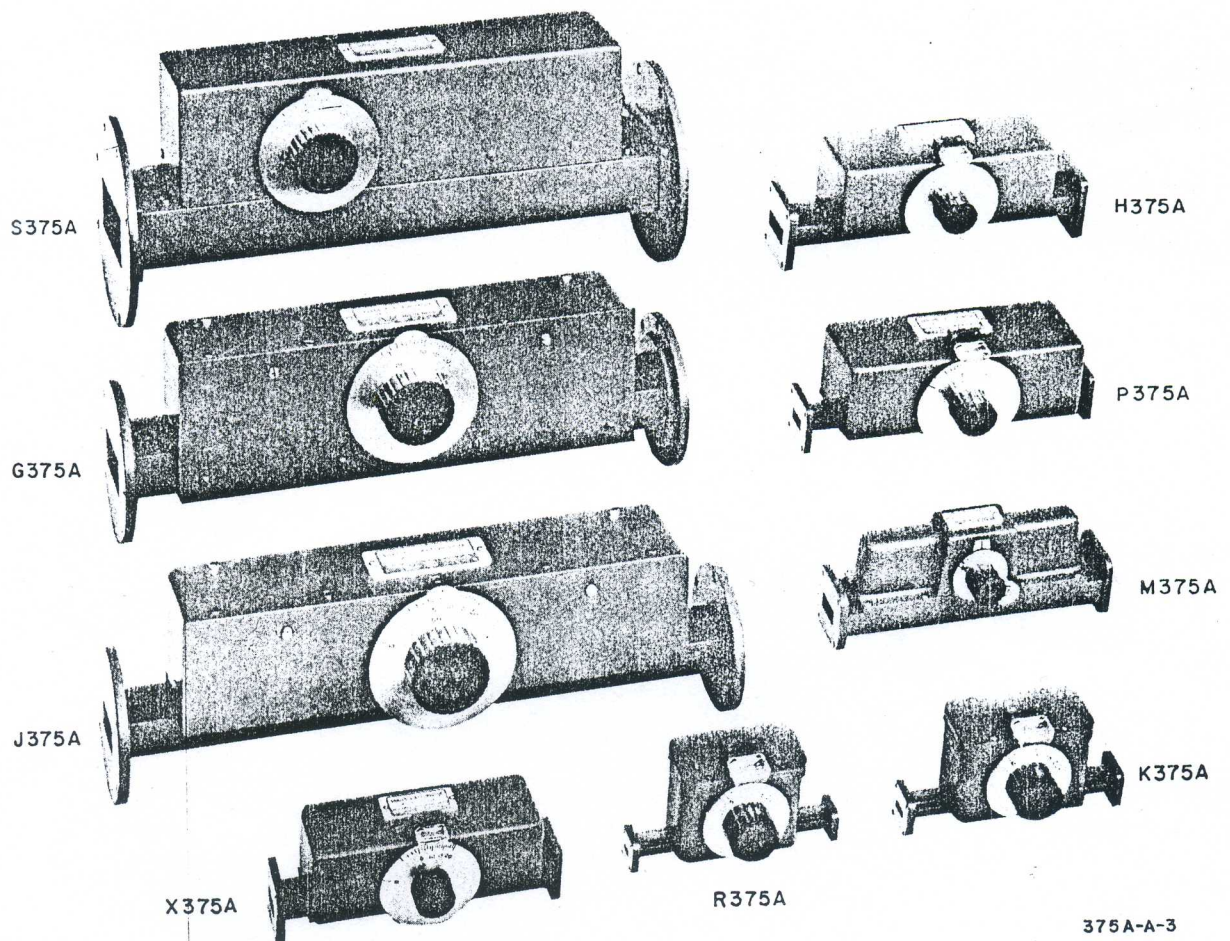


Figure 1. Model 375A Variable Attenuators

00219-6

00375-90002



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Table 1. Specifications

Model	Frequency (Gc)	Fits Waveguide Size (in.)	Fits Waveguide Type	Fits Flange JAN Type	Length (in.)	Net Weight		Avg Power Dissipation (watts)
						lbs	kg	
S375A	2.60- 3.95	3 x 1-1/2	WR284	UG-53/U	14-1/8	7-3/4	3,5	2
G375A	3.95- 5.85	2 x 1	WR187	UG-149A/U	13	4	1,8	2
J375A	5.30- 8.20	1-1/2 x 3/4	WR137	UG-344/U	13	3	1,4	2
H375A	7.05-10.0	1-1/4 x 5/8	WR112	UG-51/U	8-1/4	2-1/4	1	2
X375A	8.20-12.4	1 x 1/2	WR90	UG-39/U	7-8/10	2	0,9	2
M375A	10.0 -15.0	.850 x .450	WR75		6-1/4	1-7/8	0,83	1
P375A	12.4 -18.0	.702 x .391	WR62	UG-419/U	7-1/4	1-3/4	0,79	1
K375*	18.0 -26.5	.500 x .250	WR42	UG-595/U	4-1/2	1-1/2	0,68	0.5
R375A*	26.5 -40.0	.360 x .220	WR28	UG-599/U	4-3/8	1-1/4	0,56	0.5
<p>Maximum SWR: 1.15</p> <p>Calibration Accuracy: 0 to 10 db; ± 1 db 10 to 20 db; ± 2 db</p> <p>* Flange adapters for circular waveguide are available for K and R bands: K-band: UG-425/U R-band: UG-381/U</p>								

1. INTRODUCTION.

2. The 375A series Variable Attenuators (Figure 1) permits adjustment of power level in a waveguide system or provides isolation between source and load. The Model 375A series covers the frequency range from 2.6 to 40 Gc (S through R bands). Attenuation is continuously variable from 0 to 20 db. For the Model 375A series, SWR is less than 1.15 over the waveguide frequency band.

3. DESCRIPTION.

4. The Model 375A consists of a single slotted section in which a matched resistive strip is inserted into the center of the waveguide. Attenuation is accomplished by varying the depth of penetration of the resistive material. The dial indicates attenuation in db and is accurate to ± 1 db from 0 to 10 db and ± 2 db from 10 to 20 db. On the Model M375A a locking screw holds the dial at the desired setting.

5. PERFORMANCE CHECKS.

6. INTRODUCTION.

7. The performance checks given in Paragraphs 10 through 25 verify that the Model 375A Variable Attenuator meets its specifications. These checks are useful as an incoming quality control inspection or to verify instrument performance after repair.

8. REQUIRED TEST EQUIPMENT.

9. Test equipment for the performance checks is listed in Table 2. Equipment having similar characteristics can be substituted for the equipment listed.

Note

Test setups and instructions are given only for X band. Measurement techniques for the other frequency bands are similar.