

**Features**

- 50 dB Directivity
- Low Coupling Sensitivity



Model: 20133-10

The Flann Series 133 of ultra-high directivity Multihole Couplers has been developed principally for laboratory applications involving network analyser or reflectometer systems. The Couplers are a 3-port design with an extremely low reflection termination built into the fourth arm. The standard coupling values are 10 dB and 20 dB.

**Specifications**

Model	Frequency Range (GHz)	Waveguide			Minimum Directivity (dB)	Coupling (10 dB & 20 dB)		Primary Arm VSWR	Secondary Arm VSWR
		WG	R	WR		Sensitivity ( $\pm$ dB)	Nominal Accuracy (dB)		
<b>11A133</b>	3.22 - 4.90	11A	40	229	50	0.5	5%	1.03	1.1
<b>12133</b>	3.94 - 5.99	12	48	187	50	0.5	5%	1.03	1.1
<b>13133</b>	4.64 - 7.05	13	58	159	50	0.5	5%	1.03	1.1
<b>14133</b>	5.38 - 8.18	14	70	137	50	0.5	5%	1.03	1.1
<b>15133</b>	6.58 - 10.0	15	84	112	50	0.5	5%	1.03	1.1
<b>16133</b>	8.20 - 12.5	16	100	90	50	0.5	5%	1.03	1.1
<b>17133</b>	9.84 - 15.0	17	120	75	50	0.5	5%	1.03	1.1
<b>18133</b>	11.9 - 18.0	18	140	62	48	0.5	5%	1.03	1.1
<b>19133</b>	14.5 - 22.0	19	180	51	48	0.5	5%	1.03	1.1
<b>20133</b>	17.6 - 26.7	20	220	42	46	0.75	7%	1.03	1.2
<b>21133</b>	21.7 - 33.0	21	260	34	46	0.75	7%	1.03	1.2
<b>22133</b>	26.4 - 40.1	22	320	28	46	0.75	7%	1.03	1.2

**Custom Design**

Custom built instruments can be supplied; please contact the sales team for more information

[sales@flann.com](mailto:sales@flann.com)

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**FLANN MICROWAVE**

**Multihole Directional Couplers**

Series 133

Model	Dimensions (mm)				Weight (kg)
	A		B	C	
	10 dB	20 dB			
<b>11A133</b>	1044	1044	70	100	6.0
<b>12133</b>	920	920	60	90	5.0
<b>13133</b>	802	802	55	75	2.5
<b>14133</b>	765	765	50	60	3.0
<b>15133</b>	620	620	35	50	1.8
<b>16133</b>	528	528	35	45	1.1
<b>17133</b>	427	427	35	40	0.85
<b>18133</b>	356	356	30	35	0.50
<b>19133</b>	330	330	30	35	0.40
<b>20133</b>	250	250	25	25	0.20
<b>21133</b>	235	235	25	25	0.20
<b>22133</b>	180	180	24	29	0.18

**Ordering**

Model	Series		Coupling Value	Flange
WG11A – WG22	133		10dB or 20dB	See flann.com

Example: 17133-20 UBR120

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