



Features

- 0.32 GHz to 330 GHz
- Industry Leading Performance
- Low VSWR over full waveguide range
- Sealed, 15 psi(g) Standard
- Models up to 10 kW Applications
- System Dummy Loads
- HPA Testing



18101-500 UBR140

General Specifications

- Maximum Power is Mean/CW Non shedding ceramic elements
- Non shedding ceramic elements
- Low out-gassing (load element total mass loss < 1.0%, collected volatile condensable materials <0.10%)

Natural Convection

Terminations incorporating heat sinks orientation sensitive due to the direction of air flow over the heat sink. Flann model number includes a 'V' or 'H' code to differentiate which is the recommended orientation. It should be noted that the waveguide broad wall should be vertical in the 'H' configuration.

Forced Air

Where stated, the standard natural convection design can be used at 1.5 times its rated power with forced air cooling; 3 m/s velocity over all heatsink surfaces.

Natural Convection Ratings

Natural Convection specified power rating @ +20°C ambient – no direct sunlight.

Ambient power rating adjustment is -/+5% W per +/-10°C

Vertical design rating is with flange mounted below heatsink – or derate 25%

Vertical design mounted horizontally derate 35%

Horizontal design mounted vertically derate 30%

Horizontal design mounted horizontally but axis through 90° derate 15%

Natural Convection is increased by 50% if used with Forced Air cooling at 3 m/s.

All terminations have been designed to give high durability and reliability using ceramic elements encapsulated in aluminium body.



Multipaction and COMSOL (heat transfer) analysis can be carried out on request.

Microwave Specifications

Model	Frequency Range (GHz)	Waveguide			Natural Convection CW/Mean Power Maximum (W)	VSWR (better than)
		WG	R	WR		
08101	1.72 – 2.61	8	22	430	400, 500, 750, 1000	1.08 ≤ 400W 1.12 > 400W
09A101	2.17 – 3.30	9A	26	340	250, 750, 1000	1.08 ≤ 750W 1.22 > 750W
10101	2.60 – 3.95	10	32	284	150, 200, 600, 1200, 2000, 3000, 3800, 4000	1.08 < 1000W 1.10 ≥ 1000W
11A101	3.22 – 4.90	11A	40	229	125, 200, 250, 475, 1000, 1500, 2000, 3000, 4000	
12101	3.94 – 5.99	12	48	187	100, 175, 300, 400, 1000, 1250, 2000, 2500, 3800	
13101	4.64 – 7.05	13	58	159	75, 150, 250, 350, 1000, 1500, 2000, 2500, 3000, 3700	1.08
14101	5.38 – 8.18	14	70	137	55, 150, 175, 3000, 500, 650, 1000, 1500, 2000, 2500, 3000, 3600	
15101	6.58 – 10.0	15	84	112	40, 100, 250, 500, 1000, 1500, 2000, 2500, 3000, 3400	1.08*
16101	8.20 – 12.5	16	100	90	27, 75, 175, 200, 240, 500, 1000, 1250, 1500, 2000, 2500, 3200	* Some units 1.10
17101	9.84 – 15.0	17	120	75	19, 60, 75, 160, 240, 300, 500, 1000, 1250, 1500, 2000, 2900	1.08 ≤ 1250W 1.07 > 1250W
18101	11.9 – 18.0	18	140	62	18, 60, 75, 150, 160, 250, 275, 500, 1000, 1250, 1500, 2000, 2700	1.08 < 1250W 1.07 ≥ 1250W
19101	14.5 – 22.0	19	180	51	14, 60, 140, 250, 275, 500, 1000, 1500, 2000, 2500	1.08 ≤ 100W 1.10 > 100W
20101	17.6 – 26.7	20	220	42	16, 30, 60, 70, 100, 160, 240, 250, 500, 1000	
21101	21.7 – 33.0	21	260	34	9, 25, 60, 75, 160, 240, 250, 500, 1000	1.10 ≤ 40W 1.12 > 40W
22101	26.4 – 40.1	22	320	28	7, 20, 50, 125, 250, 500, 1000	
23101	33.0 – 50.1	23	400	22	6, 40, 125, 250, 500, 1000	1.10
24101	39.3 – 59.7	24	500	19	25, 75, 100, 130, 150	
25101	49.9 – 75.8	25	620	15	20, 50, 100, 120, 150	
26101	60.5 – 92.0	26	740	12	15, 50, 75, 100, 120	
27101	73.8 – 112	27	900	10	15, 50, 100	
28101	92.3 – 140	28	1200	8	10	1.12
29101	114 – 173	29	1400	6	10	1.15
30101	145 – 220	30	1800	5	10	1.2
31101	172 – 261	31	2200	4	10	1.25
32101	217 – 330	32	2600	3	10	1.32
710101	260 – 400	-	-	'2.8'	Specifications available on request	
570101	330 – 500	-	-	'2.2'		

Custom Design

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

Options

- Fan assisted version
- Liquid cooled version (water, oil or glycol)
- Thermal plate version