

- ◆ Extremely Rugged High Power Loads
- ◆ High Temperature Refractory Load Elements
- ◆ Optimized Transverse Cooling Fins
- ◆ Available with most Common Flanges
- ◆ Mounting in any position



Microlab WL series dummy loads are high power liquid cooled dry loads. They are used in the 2.60 to 18.0 GHz bands

The WL dummy loads employ high temperature refractory load elements designed to meet the requirements of MIL-D-3954A. Load elements are in direct contact with waveguide walls for optimum heat transfer. They can withstand extremely high temperature, temperature gradients, and thermal shocks. They are designed to operate at the rated power without coolant for sufficient time to permit detection and correction of coolant system failure.

The units utilize a cylindrical aluminum cooling jacket. Stiffening ribs are employed for mechanical rigidity, improved heat transfer, and optimum coolant flow. Water is used as a coolant. Standard female pipe threads are provided for coolant connections. Coolant flow rates shown are the minimum recommended for proper flow. These units may be mounted in any position.

These loads can be supplied to operate over the full indicated waveguide frequency band, although a more economical unit may be available for narrower frequency ranges. Always specify frequency and VSWR requirements.

The table below provides power ratings for each model. The independent average power rating assumes CW operation, and the independent peak power rating assumes negligible average power. The combined average and peak power ratings should be employed together. (01/13)

VSWR:	1.10:1 max.
Coolant:	Liquid
Dissipative Mat'l:	Refractory
Coolant:	
Max Inlet Temp:	150°F (65°C)
Test Pressure:	50 psig. max.
Pressure:	100 psig max.
Coolant Connector:	NPT, female
WL-0025/35/45:	¾ - 14
WL-0050/60/65:	¼ - 18
Housing Finish:	Black Paint Per TT-E-489
Flange type:	
<2.6 GHz:	Contact
>2.6 GHz	Flange Cover
Flange Material:	Aluminum
Flange Finish:	Iridite Per MIL-C-5541

Model No.	Frequency Range GHz	Waveguide Size		Power Ratings Independent [†]		Combined		Min. Flow Rate	Dimensions Inches (mm)		Weight nom. lbs (kg)
		RG	WR	W avg.	kW pk. @45 psig	W avg.	kW pk. @30 psig g.p.m.		L	Diam	
WL-0025	2.60 - 3.95	75	284	15,000	19,000	7,500	4,000	5	17.5 (445)	5.9 (150)	19 (8.6)
WL-0035	3.95 - 5.85	95	187	10,000	7,750	4,000	1,800	4	12.6 (320)	4.8 (122)	10 (4.5)
WL-0045	5.85 - 8.20	106	137	5,000	4,250	2,000	1,000	2	9.0 (229)	3.4 (86)	4.0 (1.8)
WL-0050	7.05 - 10.0	68	112	4,000	2,750	1,500	750	2	8.1 (206)	3.1 (79)	3.0 (1.4)
WL-0055	8.80 - 12.4 [‡]	67	90	3,000	1,750	1,000	350	1	7.5 (191)	2.9 (74)	2.3 (1.05)
WL-0065	12.4 - 18.0	349	62	1,500	1,000	500	250	1	5.8 (147)	2.5 (64)	1.3 (0.59)

[‡] Operation to 8.2 GHz with reduced VSWR of <1.15:1 [†] see text