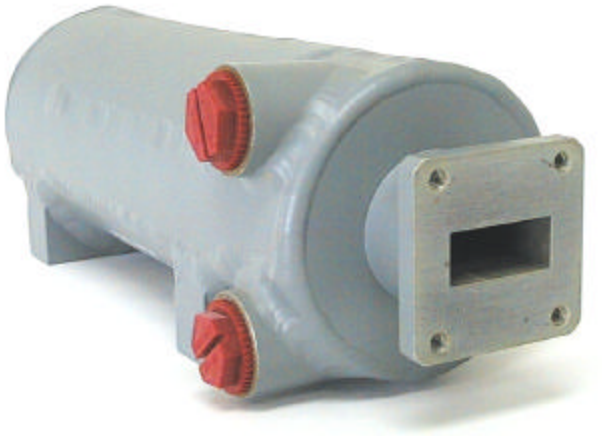
MICROLAB / FXR Waveguide Loads

WL series

Liquid Cooled Dummy Loads
2.6 – 18.0 GHz

- **Extremely Rugged High Power Loads**
- **High Power Refractory Load Elements**
- **Flexible Liquid Cooled Design**
- **Available with most Common Flanges**
- **Mounting in any position**



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

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. Generally faster delivery and a more economical unit can be furnished for use over narrower frequency ranges. Always specify your frequency and VSWR requirements.

The table on page 2 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.

Designs to meet special requirements for bandwidth, size, flanges, etc., are available on request. (4/99)

General Specifications

VSWR:	1.10:1 max.
Coolant:	Liquid
Dissipative Material:	Refractory
Coolant:	
Max. Inlet Temp:	150°F
Test Pressure:	50 psig. max.
Pressure:	100 psig max.
Coolant Connector:	NPT, female
WL-0025:	¾ - 14
WL-0035:	¾ - 14
WL-0045:	¾ - 14
WL-0050:	¼ - 18
WL-0055:	¼ - 18
WL-0065:	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

Other Waveguide Loads:

Unfinned Loads:	WE series
Finned Loads:	WF series
Superfinned Loads:	WG series
Load Inserts:	WD/WZ ser.

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Model	Frequency Range	Waveguide Size		Power Ratings				Min. Flow Rate (gpm)	Approximate Dimensions/Weight Inches/Pounds		
				Independent*		Combined					
		RG	WR	W Avg.	kW pk @ 30 psig	W Avg.	kW pk @ 45 psig		L In.	Diam In.	Wt. lbs.
WL-0025	2.60-3.95	75	284	15,000	19,000	7,500	4,000	5	17.5	5.9	19
WL-0035	3.95-5.85	95	187	10,000	7,750	4,000	1,800	4	12.6	4.8	10
WL-0045	5.85-8.20	106	137	5,000	4,250	2,000	1,000	2	9.0	3.4	4
WL-0050	7.05-10.0	68	112	4,000	2,750	1,500	750	2	8.1	3.1	3
WL-0055	8.50-12.4†	67	90	3,000	1,750	1,000	350	1	7.0	2.9	2.3
WL-0065	12.4-18.0	349	62	1,500	1,000	500	250	1	5.8	2.5	1.3

†Operation to 8.2 GHz with reduced VSWR of 1.15:1 *See text 4/99

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