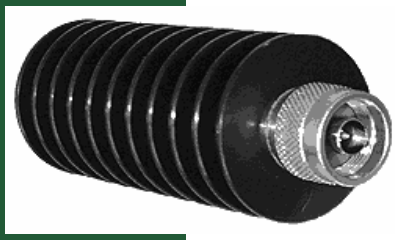
RF Terminations



Terminations, or loads, offered by DrawCom are matched to 50 ohms characteristic impedance. Matched loads provide a termination designed to absorb all the incident power with very little reflection, effectively terminating the line or port in its characteristic impedance. Terminations are used in a wide variety of measurement systems; any port of a multi-port microwave device that is not involved in the measurement should be terminated in its characteristic impedance in order to ensure an accurate measurement. Terminations are also used in devices such as directional couplers and isolators. High power versions are used in transmitter applications as dummy loads.

Convenient Electrical Conversions

VSWR	1.05:1	1.10:1	1.15:1	1.20:1	1.25:1	1.30:1	1.35:1	1.40:1	1.50:1	2.00:1
Return Loss (-dB)	32.256	26.444	23.127	20.828	19.085	17.692	16.540	15.563	13.979	9.542
Voltage Reflection Coeff.	0.024	0.048	0.070	0.091	0.111	0.130	0.149	0.167	0.200	0.333
Match Efficiency (%)	99.94	99.97	99.51	99.17	98.77	98.30	97.78	97.22	96.00	88.89
Mismatch Loss (-dB)	0.003	0.010	0.021	0.036	0.054	0.075	0.097	0.122	0.177	0.512

When selecting a termination for a given connector style, one must determine the amount of power that needs to be absorbed and the acceptable level of reflection (VSWR) that can be tolerated over the given frequency range. DrawCom offers a wide selection of terminations from stock ready for your just-in-time shipments. With power ratings from 1 to 500 watts and frequency ranges up to 18 GHz, our terminations are designed to exceed commercial specifications. Custom configurations with different impedance values, frequency ranges, power ratings, package sizes or heat sink profiles and connector styles or plating are also readily available in quantity. Silver-plated connectors available for your PIM concerns.

Type-N Male Terminations

Part No.	Model	Average Power (W)	Peak Power (W)	Freq. (GHz)	VSWR (Max)	Length (in)	Diameter (in)	Weight (g)
TN-1 TN-3 TN-6 TN-12 TN-18		1	1000	DC-1.0 DC-3.0 DC-6.0 DC-12.0 DC-18.0	1.05:1 1.10:1 1.10:1 1.20:1 1.20:1	0.99	0.82	36
401-1		2	2000	DC-3.0 DC-6.0	1.10:1 1.20:1	1.50	0.82	63
402-1		3	2000	DC-6.0 6.0-12.4	1.15:1 1.25:1	1.50	0.82	63
401-1F3		4	2000	DC-1.0 1.0-2.0 2.0-3.0	1.05:1 1.10:1 1.15:1	1.50	0.82	63
405-1		5	2000	DC-1.0 1.0-3.0	1.10:1 1.15:1	1.50	0.82	63

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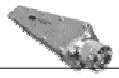
RF Terminations *(cont.)*

Type-N Male Terminations

Part No.	Model	Average Power (W)	Peak Power (W)	Freq. (GHz)	VSWR (Max)	Length (in)	Diameter (in)	Weight (g)
400-1		5	2000	DC-6.0 6.0-12.0	1.20:1 1.30:1	1.50	0.82	63
403-1		15	2000	DC-3.0 3.0-6.0 6.0-12.4	1.15:1 1.20:1 1.50:1	2.50	1.25	85
404-1		35	5000	DC-2.0 2.0-4.0 4.0-6.0	1.10:1 1.20:1 1.30:1	2.77	1.62	135
480-1		50	5000	DC-2.0 2.0-4.0 4.0-6.0	1.10:1 1.20:1 1.30:1	4.67	1.62	165
480-M02		50	5000	DC-2.0	1.10:1	4.67	1.62	165
490-1		100	5000	DC-1.0 1.0-2.4 2.4-4.0	1.10:1 1.20:1 1.30:1	6.79	2.73	990
CTN-250		250	5000	DC-1.0 1.0-2.0 2.0-3.0	1.10:1 1.15:1 1.30:1	2.45	W=2.00 H=1.06	301
CTN-500		500	5000	DC-1.0 1.0-2.4	1.15:1 1.35:1	8.0	W=1.50 H=1.00	1006

Type-N Female Terminations

Part No.	Model	Average Power (W)	Peak Power (W)	Freq. (GHz)	VSWR (Max)	Length (in)	Diameter (in)	Weight (g)
401-2		2	2000	DC-6.0	1.20:1	1.60	0.75	61
402-2		2	2000	DC-6.0 6.0-12.4	1.15:1 1.25:1	1.60	0.75	61
405-2		5	2000	DC-1.0 1.0-3.0	1.10:1 1.15:1	1.60	0.75	61
400-2		5	2000	DC-6.0 6.0-12.4	1.20:1 1.30:1	1.60	0.75	61
403-2		15	2000	DC-3.0 3.0-6.0 6.0-12.4	1.15:1 1.20:1 1.50:1	2.55	1.25	83
404-2		35	5000	DC-2.0 2.0-4.0 4.0-6.0	1.10:1 1.20:1 1.30:1	2.73	1.62	135
480-2		50	5000	DC-2.0 2.0-4.0 4.0-6.0	1.10:1 1.20:1 1.30:1	4.60	1.62	165
490-2		100	5000	DC-1.0 1.0-2.4 2.4-4.0	1.10:1 1.20:1 1.30:1	6.75	2.73	990

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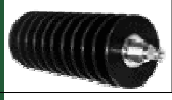
7-16 DIN Male Terminations								
Part No.	**Model**	**Average Power (W)**	**Peak Power (W)**	**Freq. (GHz)**	**VSWR (Max)**	**Length (in)**	**Diameter (in)**	**Weight (g)**
401-11A		1	250	DC-1.0 1.0-2.0 2.0-3.0	1.10:1 1.15:1 1.20:1	2.00	1.06	125
401-11		2	500	DC-1.0 1.0-2.0 2.0-3.0	1.10:1 1.15:1 1.20:1	2.00	1.06	125
405-11		5	1000	DC-1.0 1.0-2.0 2.0-3.0	1.10:1 1.15:1 1.20:1	2.00	0.95	140
417-11		10	500	DC-1.0 1.0-2.5	1.10:1 1.15:1	2.16	1.00	121

TNC Male Terminations								
Part No.	**Model**	**Average Power (W)**	**Peak Power (W)**	**Freq. (GHz)**	**VSWR (Max)**	**Length (in)**	**Diameter (in)**	**Weight (g)**
401-5		2	750	DC-3.0 3.0-6.0	1.15:1 1.25:1	1.35	0.65	26

SMA Male Terminations								
Part No.	**Model**	**Average Power (W)**	**Peak Power (W)**	**Freq. (GHz)**	**VSWR (Max)**	**Length (in)**	**Diameter (in)**	**Weight (g)**
462-1F3		1	1000	DC-3.0	1.15:1	0.43 ±.03	0.312 Hex	2
462-1		1	1000	DC-4.0 4.0-8.0 8.0-12.4 12.4-18.0	1.05:1 1.10:1 1.15:1 1.20:1	0.33 ±.05	0.312 5/16" Hex	2.2
464-1		2	1000	DC-4.0 4.0-8.0 8.0-12.4 12.4-18.0	1.05:1 1.10:1 1.15:1 1.20:1	0.58 ±.05	0.28 & 5/16" Hex	2
400-7		5	1000	DC-6.0 6.0-12.4	1.15:1 1.25:1	1.12	0.50	12
417-1		10	2000	DC-4.0 4.0-12.4	1.10:1 1.25:1	1.97	0.645	22
403-7		15	2000	DC-3.0 3.0-6.0 6.0-12.4	1.15:1 1.20:1 1.50:1	2.00	1.25	55
404-7		35	5000	DC-2.0 2.0-4.0 4.0-12.4	1.15:1 1.20:1 1.50:1	2.77	1.62	105
480-7		50	5000	DC-2.0 2.0-4.0 4.0-12.4	1.15:1 1.20:1 1.30:1	4.67	1.62	150

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SMA Female Terminations

Part No.	Model	Average Power (W)	Peak Power (W)	Freq. (GHz)	VSWR (Max)	Length (in)	Diameter (in)	Weight (g)
400-8		5	2000	DC-6.0 6.0-12.4	1.15:1 1.25:1	1.00	0.50	11
417-2		10	2000	DC-4.0 4.0-12.4	1.10:1 1.25:1	1.82	0.645	22
403-8		15	2000	DC-3.0 3.0-6.0 6.0-12.4	1.15:1 1.20:1 1.50:1	1.90	1.25	55
404-8		35	5000	DC-2.0 2.0-4.0 4.0-6.0	1.10:1 1.20:1 1.30:1	2.73	1.62	105
480-8		50	5000	DC-2.0 2.0-4.0 4.0-6.0	1.10:1 1.20:1 1.30:1	4.60	1.62	150

QMA Female Terminations

Part No.	Model	Average Power (W)	Peak Power (W)	Freq. (GHz)	VSWR (Max)	Length (in)	Diameter (in)	Weight (g)
TQ1-3		1	2000	DC-1.0 1.0-2.0 2.0-3.0	1.10:1 1.15:1 1.30:1	1.35	0.30 Cripm .25 5 Hex Ref	~

SMB-Plug Coaxial Terminations

Part No.	Model	Average Power (W)	Peak Power (W)	Freq. (GHz)	VSWR (Max)	Length (in)	Diameter (in)	Weight (g)
468-2		1	750	DC-1.0 1.0-5.0 5.0-6.0	1.10:1 1.15:1 1.25:1	0.825	0.250	4

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