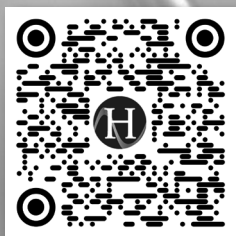




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# TERMINATIONS LOADS

RF Terminations or loads are components that are used to absorb energy and prevent RF signals from reflecting back from an open-ended or unused port. The ports are usually terminated with a load that has the same characteristic impedance as the transmission line.

Any multi-port RF system, whose ports are not all being used should be terminated so that any signal incident on these ports will be absorbed. If a port is left un-terminated, then the signals can reflect back into the system which can introduce distortions and other undesirable effects. These are used in couplers, hybrids, isolators, test equipment and in systems where a port needs to be terminated. There are three main types of RF terminations: coaxial, waveguide, and chip. Coaxial terminations terminate coaxial ports, and waveguide terminations terminate waveguide ports.

# COAXIAL TERMINATIONS

PHOTO(S)	TYPE PART #	FREQUENCY RANGE	MAX. VSWR	POWER	FLANGE MATERIAL
	1.85mm • HT65M (Male) • HT65F (Female)	DC to 65 GHz	1.45:1	1.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Passivated Stainless Steel</li> <li>Contact: Gold Plated BeCu</li> <li>Dielectric: PTFE</li> </ul>
	2.4mm • HT50M (Male) • HT50F (Female)	DC to 50 GHz	1.45:1	1.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Passivated Stainless Steel</li> <li>Contact: Gold Plated BeCu</li> <li>Dielectric: High Temperature Plastic Bead</li> </ul>
	2.9mm • HT40M (Male) • HT40F (Female)	DC to 40 GHz	1.25:1	1.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Passivated Stainless Steel</li> <li>Contact: Gold Plated BeCu</li> <li>Dielectric: High Temperature Plastic Bead</li> </ul>
	2.9mm • HT40F-1 (Female)	DC to 40 GHz	1.25:1	1.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Passivated Stainless Steel</li> <li>Contact: Gold Plated BeCu</li> <li>Dielectric: PEI, Natural</li> </ul>
	2.9mm • HT40M-2 (Male)	DC to 40 GHz	1.25:1	2.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Passivated Stainless Steel</li> <li>Contact: Gold Plated BeCu</li> <li>Dielectric: High Temperature Plastic Bead</li> </ul>
	3.5mm • HT35M-1 (Male)	DC to 34.5 GHz	1.15:1	1.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Passivated Stainless Steel</li> <li>Contact: Gold Plated BeCu</li> <li>Dielectric: Silicone</li> </ul>
	N • 221-34-50-001 (Female)	DC to 18 GHz	1.43:1	2.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Tri-Metal over Brass</li> <li>Contact: Gold Plated BeCu</li> <li>Dielectric: PTFE</li> </ul>
	N • 231-34-50-001 (Male) Knurled Head	DC to 18 GHz	1.43:1	2.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Ternary Alloy Plated Brass</li> <li>Contact: Gold Plated Brass</li> <li>Dielectric: PTFE</li> </ul>
	N • 231-34-50-002 (Male) Hex Head	DC to 18 GHz	1.43:1	2.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Ternary Alloy Plated Brass</li> <li>Contact: Gold Plated Brass</li> <li>Dielectric: PTFE</li> </ul>
	N • HT18NM-10 (Male)	DC to 18 GHz	1.05:1	10.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Passivated Stainless Steel</li> <li>Contact: Gold Plated BeCu</li> <li>Dielectric: PTFE</li> <li>Heat Sink: Black Anodized Aluminum</li> </ul>
	N • HT18NM-25 (Male)	DC to 18 GHz	1.40:1	25.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Passivated Stainless Steel</li> <li>Contact: Gold Plated BeCu</li> <li>Dielectric: PTFE</li> <li>Heat Sink: Black Anodized Aluminum</li> </ul>
	N • HT4NM-100 (Male)	DC to 4 GHz	1.25:1	100.0 WATT	<ul style="list-style-type: none"> <li>Housing: Albaloy Plated Brass</li> <li>Contact: Silver Plated Phosphor Bronze</li> <li>Dielectric: PTFE</li> <li>Heat Sink: Black Anodized Aluminum</li> </ul>
	TNC • HT4310M-2 (Male)	DC to 4 GHz	1.25:1	2.0 WATT	<ul style="list-style-type: none"> <li>Housing: Brass</li> <li>Contact: Brass</li> <li>Dielectric: PSeries Resin</li> </ul>
	TNC • HT4310M-5 (Male)	DC to 8.5 GHz	1.25:1	5.0 WATT	<ul style="list-style-type: none"> <li>Housing: Albaloy Plated Brass</li> <li>Contact: Silver Plated Phosphor Bronze</li> <li>Dielectric: PTFE</li> <li>Heat Sink: Black Anodized Aluminum</li> </ul>
	TNC • HT4310M-10 (Male)	DC to 8.5 GHz	1.25:1	10.0 WATT	<ul style="list-style-type: none"> <li>Housing: Albaloy/Al Plated Brass</li> <li>Contact: Silver Plated Phosphor Bronze</li> <li>Dielectric: PTFE</li> <li>Heat Sink: Black Anodized Aluminum</li> </ul>
	TNC • HT4310M-25 (Male)	DC to 7 GHz	1.25:1	25.0 WATT	<ul style="list-style-type: none"> <li>Housing: Albaloy/Al Plated Brass</li> <li>Contact: Silver Plated Phosphor Bronze</li> <li>Dielectric: PTFE</li> <li>Heat Sink: Black Anodized Aluminum</li> </ul>

# COAXIAL TERMINATIONS

PHOTO(S)	TYPE PART #	FREQUENCY RANGE	MAX. VSWR	POWER	FLANGE MATERIAL
	SMA <ul style="list-style-type: none"> <li>HT20M (Male)</li> <li>HT20M-1C (with Chain)</li> </ul>	DC to 20 GHz	1.22:1	1.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Gold Plated Brass</li> <li>Hex Nut: Ternary Alloy Plated Brass</li> <li>Contact: Gold Plated Brass</li> <li>Dielectric: PTFE</li> </ul>
	SMA <ul style="list-style-type: none"> <li>HT18M-S (Male)</li> </ul>	DC to 18 GHz	1.20:1	1.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Passivated Stainless Steel</li> <li>Contact: Gold Plated BeCu</li> <li>Dielectric: PTFE</li> </ul>
	SMA <ul style="list-style-type: none"> <li>HT18M-1FX (Male)</li> </ul>	DC to 18 GHz	1.20:1	1.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Passivated Stainless Steel</li> <li>Contact: Gold Plated Brass</li> <li>Dielectric: PTFE</li> </ul>
	SMA <ul style="list-style-type: none"> <li>HT18QMM (Male)</li> </ul> Quick Mate	DC to 18 GHz	1.15:1	1.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Passivated Stainless Steel</li> <li>Contact: Gold Plated BeCu</li> <li>Dielectric: PTFE</li> </ul>
	SMA <ul style="list-style-type: none"> <li>HT18EMS (Male)</li> </ul>	DC to 18 GHz	1.30:1	2.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Nickel Plated Stainless Steel</li> <li>Contact: Gold Plated BeCu</li> <li>Dielectric: PTFE</li> </ul>
	SMA <ul style="list-style-type: none"> <li>HT18M2-02 (Male)</li> <li>HT18M2-02C (with Chain)</li> </ul>	DC to 18 GHz	1.20:1	2.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Passivated Stainless Steel</li> <li>Contact: Gold Plated BeCu</li> <li>Dielectric: PTFE &amp; PEI</li> </ul>
	SMA <ul style="list-style-type: none"> <li>HT26M-2 (Male)</li> </ul>	DC to 26.5 GHz	1.25:1	2.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Passivated Stainless Steel</li> <li>Contact: Gold Plated BeCu</li> <li>Dielectric: PTFE &amp; PEI</li> </ul>
	SMA <ul style="list-style-type: none"> <li>HT18F-2 (Female)</li> </ul>	DC to 18 GHz	1.20:1	2.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Passivated Stainless Steel</li> <li>Contact: Gold Plated BeCu Alloy</li> <li>Dielectric: PTFE &amp; PEI</li> <li>Heat Sink: Albaloy Plated Brass</li> </ul>
	SMA <ul style="list-style-type: none"> <li>HT18F-2G (Female)</li> </ul>	DC to 18 GHz	1.20:1	2.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Gold Plated Brass</li> <li>Contact: Gold Plated BeCu Alloy</li> <li>Dielectric: PTFE &amp; PEI</li> <li>Heat Sink: Albaloy Plated Brass</li> </ul>
	SMA <ul style="list-style-type: none"> <li>HT18F-2G-1 (Female)</li> </ul>	DC to 18 GHz	1.20:1	2.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Gold Plated Brass</li> <li>Contact: Gold Plated BeCu Alloy</li> <li>Dielectric: PTFE &amp; PEI</li> </ul>
	SMA <ul style="list-style-type: none"> <li>HT18M-5 (Male)</li> <li>HT18F-5 (Female)</li> </ul>	DC to 18 GHz	1.20:1	5.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Passivated Stainless Steel</li> <li>Contact: Gold Plated BeCu Alloy</li> <li>Dielectric: PTFE &amp; PEI</li> <li>Heat Sink: Black Anodized Aluminum</li> </ul>
	SMA <ul style="list-style-type: none"> <li>HT18M-10 (Male)</li> </ul>	DC to 18 GHz	1.350:1	10.0 WATTS	<ul style="list-style-type: none"> <li>Housing: Passivated Stainless Steel</li> <li>Contact: Gold Plated BeCu Alloy</li> <li>Dielectric: PTFE &amp; PEI</li> <li>Heat Sink: Black Anodized Aluminum</li> </ul>
	SMPM <ul style="list-style-type: none"> <li>HT6SMPMF (Female)</li> <li>HT6SMPMF-1 (Female)</li> </ul>	DC to 6 GHz	1.20:1	.25 WATT 1 WATT	<ul style="list-style-type: none"> <li>Housing and Contact: Gold Plated BeCu</li> <li>Ferrule &amp; Cover: Gold Plated Brass</li> <li>Dielectric: PPO</li> </ul>
	7/16 <ul style="list-style-type: none"> <li>HT716M-25 (Male)</li> </ul>	DC to 6 GHz	1.25:1	25.0 WATT	<ul style="list-style-type: none"> <li>Housing: Albaloy Plated Brass</li> <li>Contact: Silver Plated Phosphor Bronze</li> <li>Dielectric: PTFE</li> <li>Heat Sink: Black Anodized Aluminum</li> </ul>

# WAVEGUIDE TERMINATIONS

PHOTO	TYPE PART #	FREQUENCY RANGE	MAX. VSWR	POWER	FLANGE MATERIAL
	WR-08 (0.9" length) <b>HWLPT08-02-ER</b>	90 to 140 GHz	1.10:1	0.2 WATTS	<ul style="list-style-type: none"> <li>WG: Gold Plated Copper</li> <li>Flange: UG-387/U-M Round Gold Plated Brass</li> </ul>
	WR-10 (2.0" length) <b>HWLPT10-ER</b>	75 to 110 GHz	1.50:1	0.3 WATTS	<ul style="list-style-type: none"> <li>WG: Gold Plated Aluminum</li> <li>Flange: UG-387/U-M Round Gold Plated Aluminum</li> </ul>
	WR-10 (1.5" length) <b>HWLPT10-03-ER</b>	75 to 110 GHz	1.05:1	0.3 WATTS	<ul style="list-style-type: none"> <li>WG: Gold Plated Copper</li> <li>Flange: UG-387/U-M Round Gold Plated Brass</li> </ul>
	WR-12 (2.0" length) <b>HWLPT12-ER</b>	60 to 90 GHz	1.05:1	0.3 WATTS	<ul style="list-style-type: none"> <li>WG: Gold Plated Aluminum</li> <li>Flange: UG-387/U Round Gold Plated Aluminum</li> </ul>
	WR-12 (1.5" length) <b>HWLPT12-03-ER</b>	60 to 90 GHz	1.05:1	0.3 WATTS	<ul style="list-style-type: none"> <li>WG: Gold Plated Copper</li> <li>Flange: UG-387/U Round Gold Plated Brass</li> </ul>
	WR-15 (2.0" length) <b>HWLPT15-ER</b>	50 to 75 GHz	1.05:1	0.3 WATTS	<ul style="list-style-type: none"> <li>WG: Gold Plated Aluminum</li> <li>Flange: UG-385/U Round Gold Plated Aluminum</li> </ul>
	WR-15 (1.5" length) <b>HWLPT15-03-ER</b>	50 to 75 GHz	1.05:1	0.3 WATTS	<ul style="list-style-type: none"> <li>WG: Gold Plated Aluminum</li> <li>Flange: UG-385/U Round Gold Plated Aluminum</li> </ul>
	WR-19 (1.75" length) <b>HWLPT19-2-ER</b>	40 to 60 GHz	1.05:1	2.0 WATTS	<ul style="list-style-type: none"> <li>WG: Gold Plated Copper</li> <li>Flange: UG-383/U-M Round Gold Plated Brass</li> </ul>
	WR-22 (2.0" length) <b>HWLPT22-2-ER</b>	33 to 50 GHz	1.05:1	4.0 WATTS	<ul style="list-style-type: none"> <li>WG: Gold Plated Copper</li> <li>Flange: UG-383/U Round Gold Plated Brass</li> </ul>
	WR-28 (0.56" length) <b>HWLPT28-1-ES</b>	26.5 to 40 GHz	1.30:1	1.0 WATTS	<ul style="list-style-type: none"> <li>WG: Gold Plated Copper</li> <li>Flange: UG-599/U Square</li> </ul>
	WR-34 (0.69" length) <b>HWLPT34-2-ES</b>	22 to 33 GHz	1.25:1	1.0 WATTS	<ul style="list-style-type: none"> <li>WG: Gold Plated Copper</li> <li>Flange: UG-1530/U Square</li> </ul>
	WR-42 (1.0" length) <b>HWLPT42-2-ES</b>	18 to 26.5 GHz	1.25:1	1.0 WATTS	<ul style="list-style-type: none"> <li>WG: Gold Plated Copper</li> <li>Flange: UG-1530/U Square</li> </ul>
	WR-51 (1.0" length) <b>HWLPT51-1-ES</b> <b>HWLPT51-2-ES</b>	15 to 22 GHz	1.20:1	1.0 WATTS 2.0 WATTS	<ul style="list-style-type: none"> <li>WG: Gold Plated Copper</li> <li>Flange: UBR180 Square</li> </ul>
	WR-62 (1.0" length) <b>HWLPT62-2-ES</b>	12.4 to 18 GHz	1.20:1	2.0 WATTS	<ul style="list-style-type: none"> <li>WG: Gold Plated Copper</li> <li>Flange: UG-1665/U Square</li> </ul>
	WR-75 (1.0" length) <b>HWLPT75-2-ES</b>	10 to 15 GHz	1.20:1	2.0 WATTS	<ul style="list-style-type: none"> <li>WG: Gold Plated Copper</li> <li>Flange: UG-138/U Square</li> </ul>
	WR-90 (1.0" length) <b>HWLPT90-1-ES</b> <b>HWLPT90-2-ES</b>	8.2 to 12.4 GHz	1.20:1	1.0 WATTS 2.0 WATTS	<ul style="list-style-type: none"> <li>WG: Gold Plated Copper</li> <li>Flange: UG-135/U Square</li> </ul>
	WR-112 (1.13" length) <b>HWLPT112-2-ES</b>	7.05 to 10 GHz	1.20:1	2.0 WATTS	<ul style="list-style-type: none"> <li>WG: Gold Plated Copper</li> <li>Flange: UG-138/U Square</li> </ul>