

Test Accessories

RF and microwave test accessories from JFW are manufactured to the highest quality standards with the specifications of each customer in mind. Our long list of devices includes bias taps/tees, DC blocks, impedance matching pads, impedance matching transformers, feedthru terminations, RF detectors, RF fuse holders, RF cable assemblies, DC cable assemblies and RF adapters.



Available Features

- Rugged construction
- Quality RF performance
- Any RF connector combination (BNC, SMA, N, TNC, 7/16, F, reverse polarity and more)
- Custom designs available

AFFORDABLE CUSTOM DESIGNS ARE ALSO AVAILABLE!

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Test Accessories

Model Number Index

Please add connector type to the end of part number to complete model number (Example: 50DB-009 SMA).

Adapters

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| | | |
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DC Blocks - 75 Ohm

| | | |
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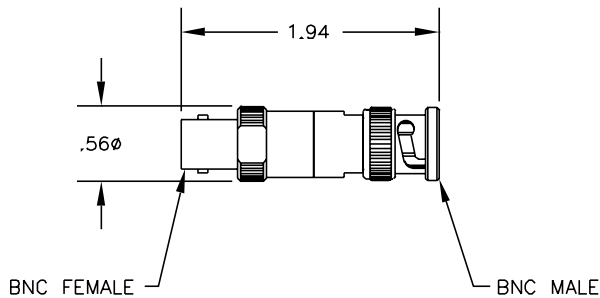
RF Fuse Holders - 50 Ohm

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|--------------|-----------------|-----------|------|
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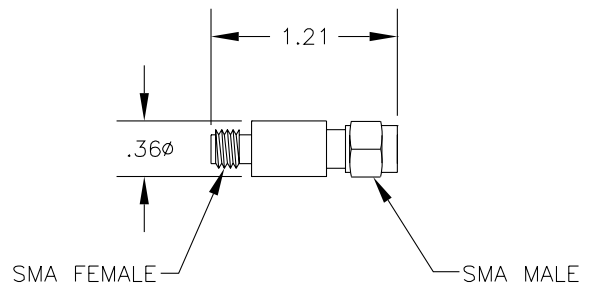
DC Blocks

| Model | Frequency Range | Impedance | Insertion Loss (maximum) | VSWR (maximum) | Breakdown Voltage | RF Input Power (average) | RF Connector |
|----------|--------------------|-----------|---|---|-------------------|--------------------------|--------------------|
| 50DB-002 | 50 KHz - 1800 MHz | 50 Ohms | 0.5 dB | 1.3:1 | 100 Volts | 2 Watts | BNC, TNC or N |
| 50DB-007 | 10 MHz - 18 GHz | 50 Ohms | 0.5 dB | 1.35:1 | 200 Volts | 2 Watts | SMA |
| 50DB-009 | 10 - 4000 MHz | 50 Ohms | 0.3 dB | 1.3:1 | 50 Volts | 2 Watts | BNC, TNC, N or SMA |
| 50DB-011 | 10 MHz - 18 GHz | 50 Ohms | 0.6 dB | 1.35:1 | 200 Volts | 2 Watts | N |
| 50DB-039 | 200 KHz - 2000 MHz | 50 Ohms | 0.4 dB | 1.2:1 | 50 Volts | 2 Watts | SMA |
| 75DB-001 | 1-2500 MHz | 75 Ohms | 0.2 dB 1-1000 MHz 0.3 dB 1000-2500 MHz | 1.1:1 1-500 MHz 1.25:1 500-1000 MHz 1.35:1 1000-2000 MHz 1.4:1 2000-2500 MHz | 100 Volts | 2 Watts | BNC, TNC or N |
| 75DB-013 | 0.1-3000 MHz | 75 Ohms | 0.5 dB 0.1-2000 MHz 0.7 dB 2000-3000 MHz | 1.3:1 0.1-2000 MHz 1.4:1 2000-3000 MHz | 50 Volts | 2 Watts | N |

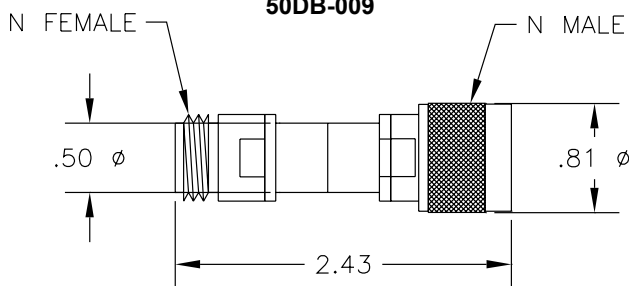
50DB-002 / 75DB-001



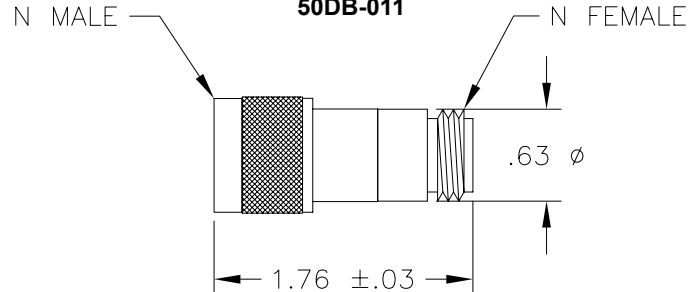
50DB-007



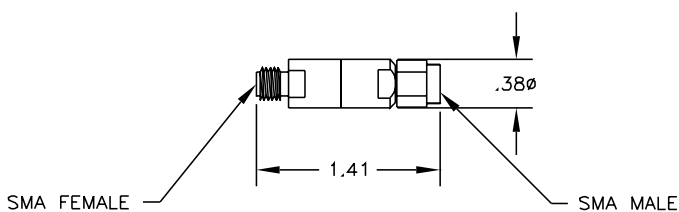
50DB-009



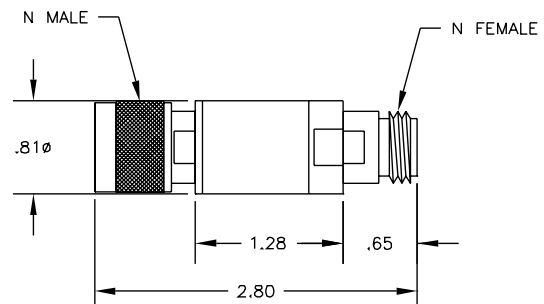
50DB-011



50DB-039



75DB-013



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Impedance Matching Pads

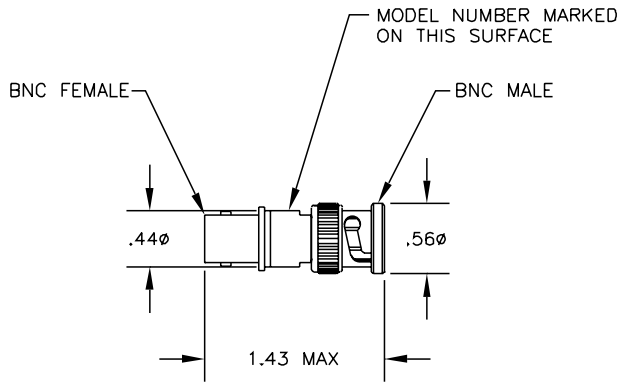
| Model | Frequency Range | Impedance* | Attenuation Loss | VSWR (maximum) |
|--------|-----------------|--------------------------------|--|---|
| 57Z | DC-1000 MHz | 50 Ohms male 75 Ohms female | 5.7 +/- 0.5 dB | 1.2:1 |
| 75Z | DC-1000 MHz | 75 Ohms male 50 Ohms female | 5.7 +/- 0.5 dB | 1.2:1 |
| 57Z-2G | DC-2000 MHz | 50 Ohms male 75 Ohms female | 5.7 +/- 0.5 dB | 1.2:1 DC-1000 MHz 1.3:1 1000-2000 MHz |
| 75Z-2G | DC-2000 MHz | 75 Ohms male 50 Ohms female | 5.7 +/- 0.5 dB | 1.2:1 DC-1000 MHz 1.3:1 1000-2000 MHz |
| 57Z-3G | DC-3000 MHz | 50 Ohms male 75 Ohms female | 5.7 +/- 0.3 dB DC-1500 MHz 5.7 +/- 0.5 dB 1500-3000 MHz | 1.2:1 DC-1500 MHz 1.35:1 1500-3000 MHz |
| 75Z-3G | DC-3000 MHz | 75 Ohms male 50 Ohms female | 5.7 +/- 0.3 dB DC-1500 MHz 5.7 +/- 0.5 dB 1500-3000 MHz | 1.2:1 DC-1500 MHz 1.35:1 1500-3000 MHz |

*** OTHER IMPEDANCES AVAILABLE - PLEASE CONTACT THE FACTORY**

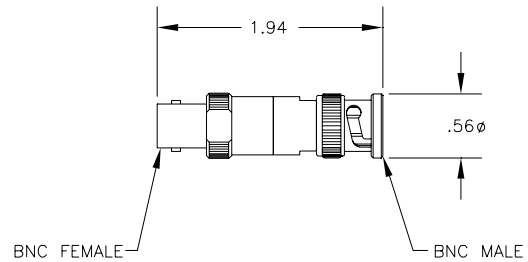
Common Specifications

| Input Power | Operating Temperature | RF Connectors - 50 Ohm Side | RF Connectors - 75 Ohm Side |
|-----------------------------------|-----------------------|-----------------------------|-----------------------------|
| 1 Watt average 1000 Watts peak | -20° C to +85° C | BNC, TNC, N or SMA | BNC, TNC, N or F |

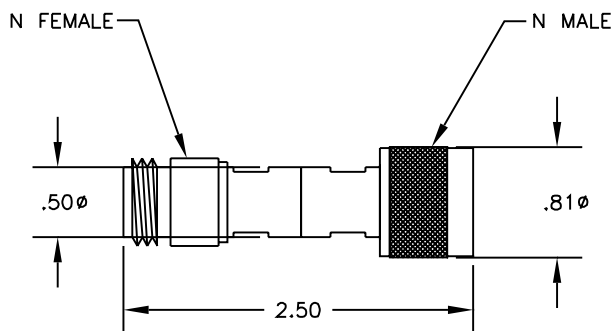
57Z / 75Z BNC



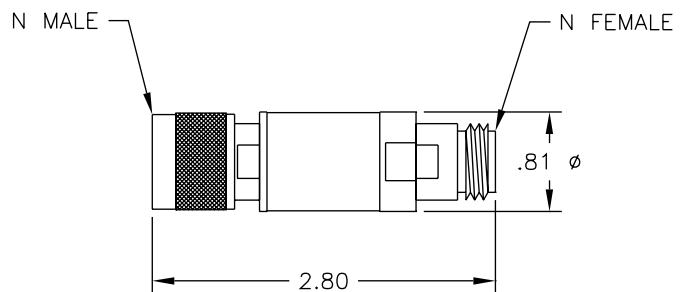
57Z-2G / 75Z-2G BNC



57Z / 75Z / 57Z-2G / 75Z-2G N



57Z-3G / 75Z-3G N



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Impedance Matching Transformers

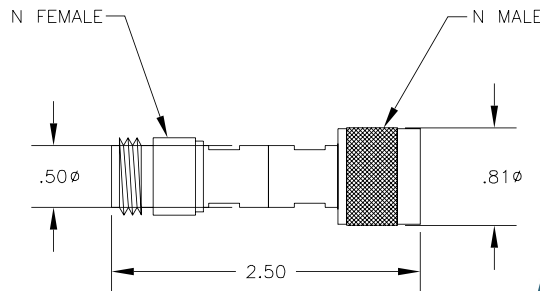
| Model | Frequency Range | Impedance* | Attenuation Loss (maximum) | VSWR (maximum) | Input Power |
|----------|-----------------|--------------------------------|--|--|-----------------------------------|
| 57ZT | 0.5-600 MHz | 50 Ohms male 75 Ohms female | 0.75 dB 0.5-300 MHz 1 dB 300-600 MHz | 1.3:1 0.5-3 MHz 1.2:1 3-300 MHz 1.3:1 300-600 MHz | 1 Watt average 1000 Watts peak |
| 75ZT | 0.5-600 MHz | 75 Ohms male 50 Ohms female | 0.75 dB 0.5-300 MHz 1 dB 300-600 MHz | 1.3:1 0.5-3 MHz 1.2:1 3-300 MHz 1.3:1 300-600 MHz | 1 Watt average 1000 Watts peak |
| 57ZT-1G | 0.5-1000 MHz | 50 Ohms male 75 Ohms female | 0.75 dB 0.5-300 MHz 1.2 dB 300-1000 MHz | 1.3:1 0.5-3 MHz 1.2:1 3-300 MHz 1.3:1 300-1000 MHz | 1 Watt average 1000 Watts peak |
| 75ZT-1G | 0.5-1000 MHz | 75 Ohms male 50 Ohms female | 0.75 dB 0.5-300 MHz 1.2 dB 300-1000 MHz | 1.3:1 0.5-3 MHz 1.2:1 3-300 MHz 1.3:1 300-1000 MHz | 1 Watt average 1000 Watts peak |
| 57ZTT-AA | 800-2200 MHz | 50 Ohms male 75 Ohms female | 0.5 dB | 1.3:1 | 20 Watts average |
| 75ZTT-AA | 800-2200 MHz | 75 Ohms male 50 Ohms female | 0.5 dB | 1.3:1 | 20 Watts average |

*** OTHER IMPEDANCES AVAILABLE - PLEASE CONTACT THE FACTORY**

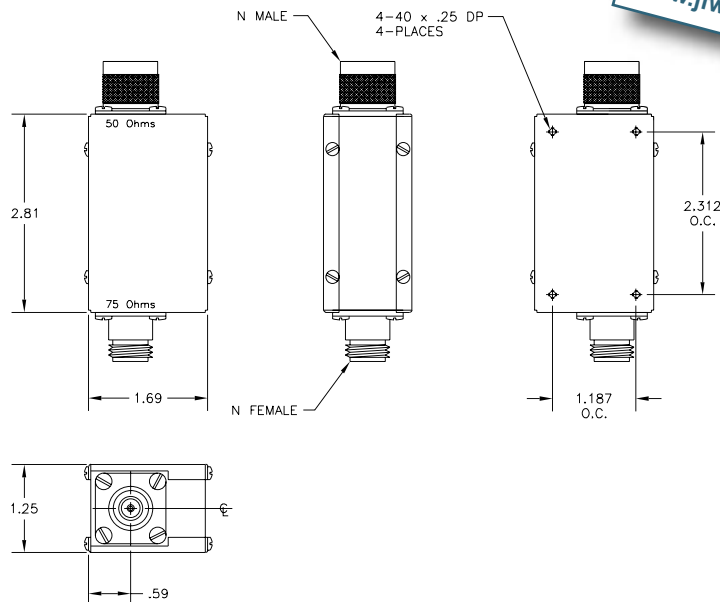
Common Specifications

| Operating Temperature | RF Connectors - 50 Ohm Side | RF Connectors - 75 Ohm Side |
|-----------------------|-----------------------------|-----------------------------|
| -20° C to +85° C | BNC, TNC, N or SMA | BNC, TNC, N or F |

57ZT / 75ZT / 57ZT-1G / 75ZT-1G



57ZTT-AA / 75ZTT-AA



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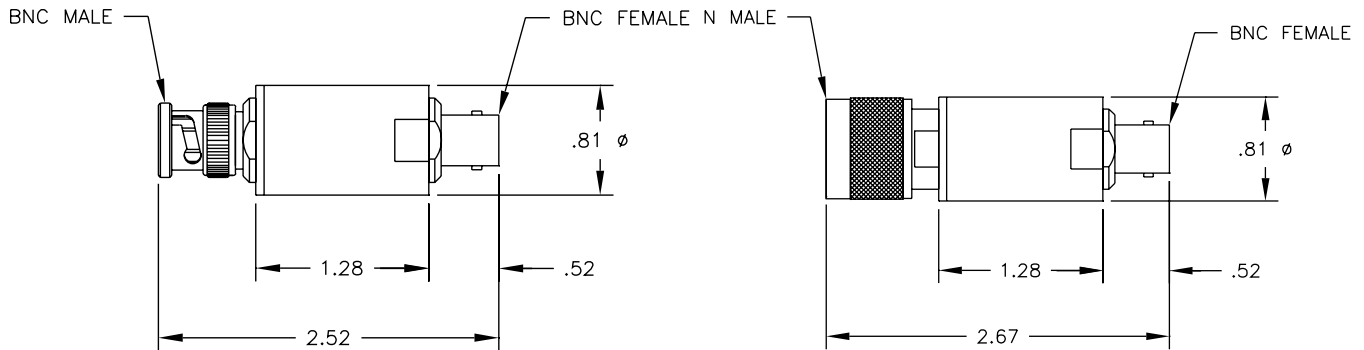
Detectors 50 Ohm

| Model | Frequency Range | VSWR (maximum) | Flatness | RF Input Power (maximum) | Output Capacitance |
|---------|-----------------|--|---|--------------------------|--------------------|
| 50D-050 | 1-1000 MHz | 1.2:1 | +/- 0.2 dB | 100 mW | 1000 pF |
| 50D-051 | 1-2000 MHz | 1.2:1 1-1000 MHz 1.3:1 1000-2000 MHz | +/- 0.3 dB | 100 mW | 1000 pF |
| 50D-052 | 1-3000 MHz | 1.2:1 1-1000 MHz 1.3:1 1000-2000 MHz 1.4:1 2000-3000 MHz | +/- 0.2 dB 1-500 MHz +/- 0.3 dB 500-2000 MHz +/- 0.5 dB 2000-3000 MHz | 100 mW | 1000 pF |

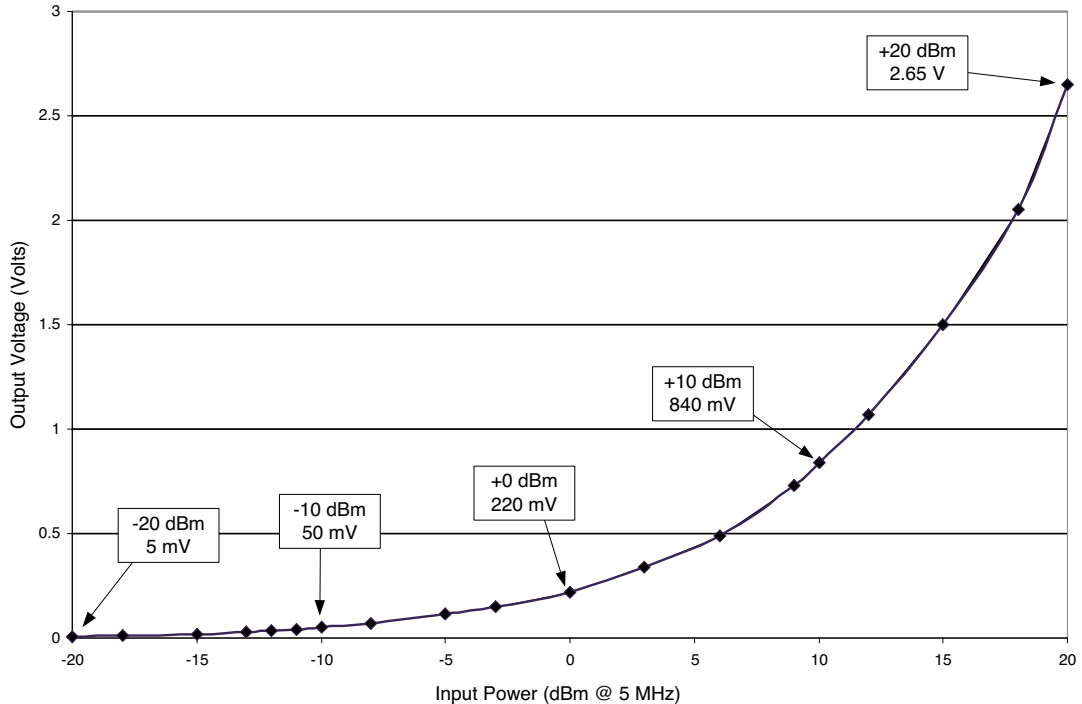
Common Specifications

| Impedance | RF Input Connector | DC Output Connector | DC Output Polarity |
|-----------|-----------------------------------|---------------------------|---------------------------------------|
| 50 Ohms | N, BNC, TNC or SMA male or female | BNC, TNC, N or SMA female | Negative or Positive (please specify) |

Note: Detector output voltage will be either positive or negative based on which polarity of detector is ordered.



Typical Input Power vs . Output Voltage for 50D-050/50D-051/50D-052



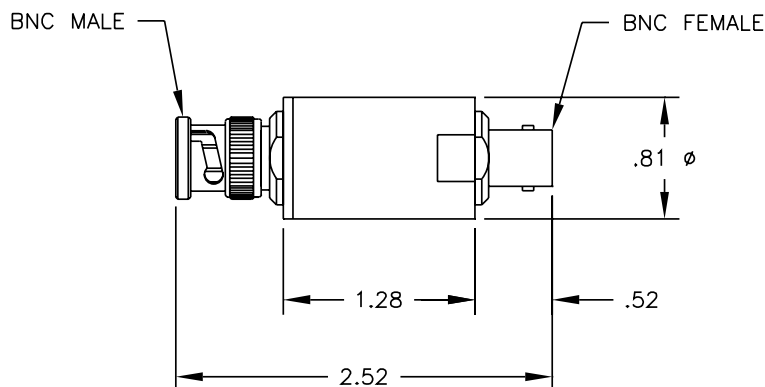
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Detectors 75 Ohm

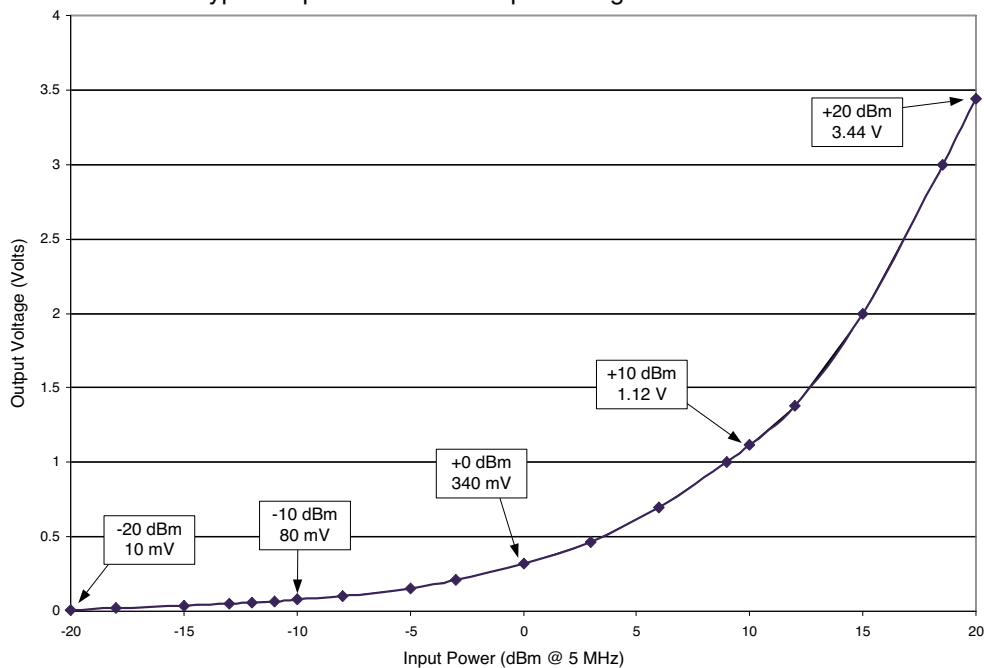
| Model | Frequency Range | VSWR (maximum) | Flatness | RF Input Power (maximum) | Output Capacitance (nominal) |
|---------|-----------------|---|------------|--------------------------|------------------------------|
| 75D-009 | 1-1000 MHz | 1.2:1 | +/- 0.2 dB | 100 mW | 1000 pF |
| 75D-010 | 1-2200 MHz | 1.2:1 1-1000 MHz 1.4:1 1000-2200 MHz | +/- 0.2 dB | 100 mW | 1000 pF |

| Common Specifications | | | |
|-----------------------|------------------------------|-------------------------------|---------------------------------------|
| Impedance | RF Input Connector (75 Ohms) | DC Output Connector (50 Ohms) | DC Output Polarity |
| 75 Ohms | BNC, N or F male or female | BNC, TNC, N or SMA female | Negative or Positive (please specify) |

Note: Detector output voltage will be either positive or negative based on which polarity of detector is ordered.



Typical Input Power vs. Output Voltage for 75D-009/-010



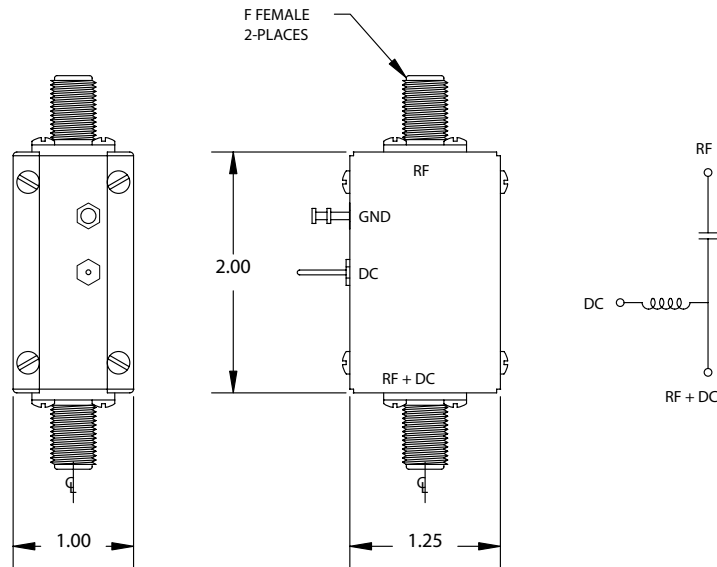
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Bias Taps

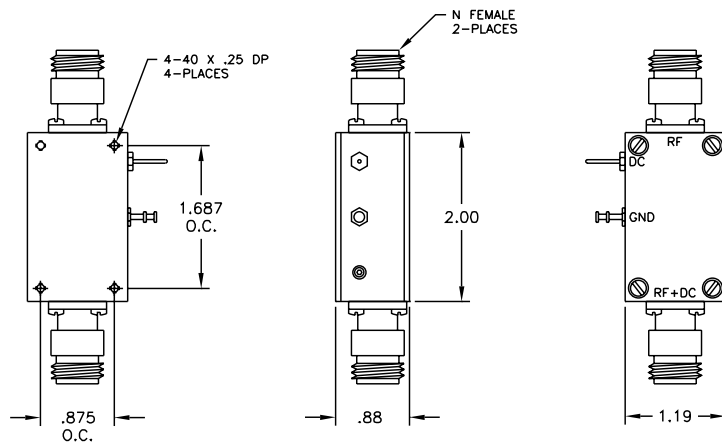
| Model | Impedance | Frequency Range | VSWR (maximum) | Input Power (average) | Insertion Loss (maximum) |
|----------|-----------|-----------------|---|--------------------------|-----------------------------|
| 50BT-014 | 50 Ohms | 800-2500 MHz | 1.2:1 | 2 Watts | 0.3 dB |
| 50BT-017 | 50 Ohms | 100-1750 MHz | 1.4:1 100-300 MHz 1.3:1 300-1750 MHz | 2 Watts | 1.25 dB |
| 50BT-029 | 50 Ohms | 250-3000 MHz | 1.5:1 250-500 MHz 1.3:1 500-3000 MHz | 1 Watts | 0.5 dB |
| 75BT-007 | 75 Ohms | 100-1750 MHz | 1.4:1 100-300 MHz 1.3:1 300-1750 MHz | 2 Watts | 1.25 dB |

| Model | RF Connectors | DC Voltage | DC Current | Operating Temperature |
|----------|------------------------------|------------|------------|-----------------------|
| 50BT-014 | N, BNC or TNC female | 150 Volts | 5 Amps | -55° C to +85° C |
| 50BT-017 | N, BNC or TNC female | 200 Volts | 2 Amps | -55° C to +85° C |
| 50BT-029 | N, BNC or SMA male or female | 100 Volts | 1 Amp | -55° C to +85° C |
| 75BT-007 | F female or BNC female | 200 Volts | 2 Amps | -55° C to +85° C |

50BT-029 / 75BT-007



50BT-014 / 50BT-017

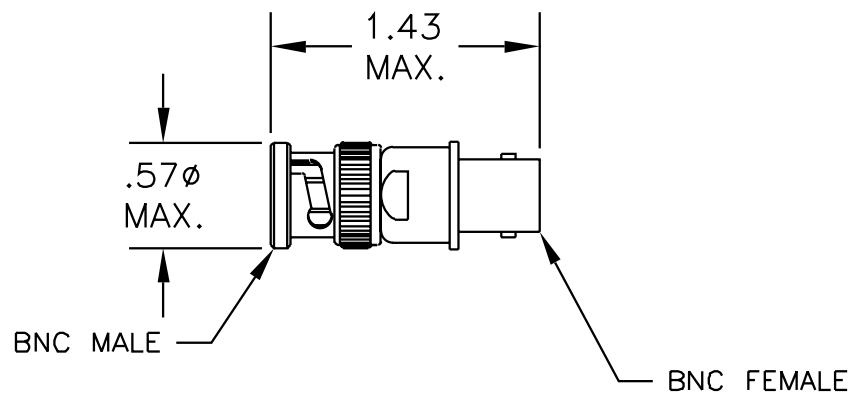


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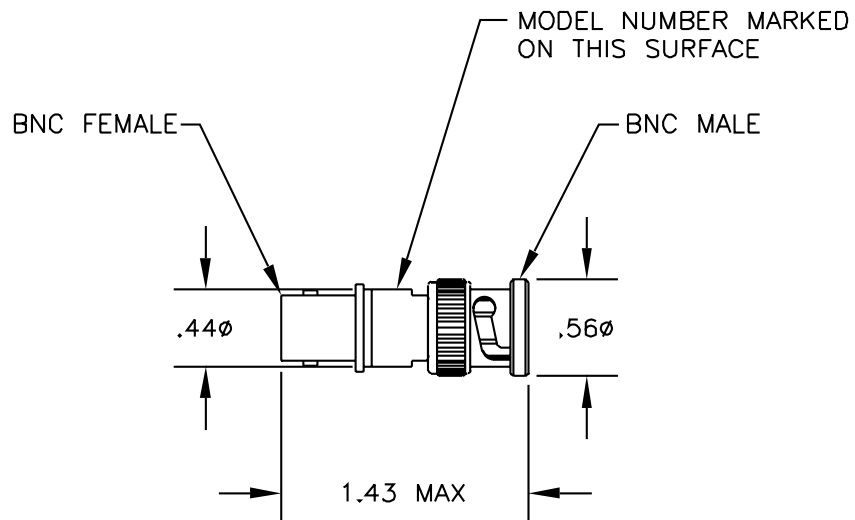
Feedthru Terminations

| Model | Frequency Range | Impedance | VSWR (maximum) | RF Input Power | Operating Temperature | RF Connectors |
|---------|-----------------|-----------|--|-----------------------------------|-----------------------|-----------------------|
| 50L-001 | DC-1000 MHz | 50 Ohms | 1.1:1 DC-500 MHz 1.2:1 500-1000 MHz | 1 Watt average 1000 Watts peak | -20° C to +100° C | BNC male / BNC female |
| 50L-018 | DC-1000 MHz | 50 Ohms | 1.2:1 | 2 Watts average 500 Watts peak | -20° C to +100° C | BNC male / BNC female |
| 75L-001 | DC-500 MHz | 75 Ohms | 1.2:1 | 1 Watt average 1000 Watts peak | -20° C to +100° C | BNC male / BNC female |
| 75L-004 | DC-1000 MHz | 75 Ohms | 1.2:1 DC-500 MHz 1.4:1 500-1000 MHz | 1 Watt average 1000 Watts peak | -20° C to +100° C | BNC male / BNC female |

50L-018 / 75L-004



50L-001 / 75L-001

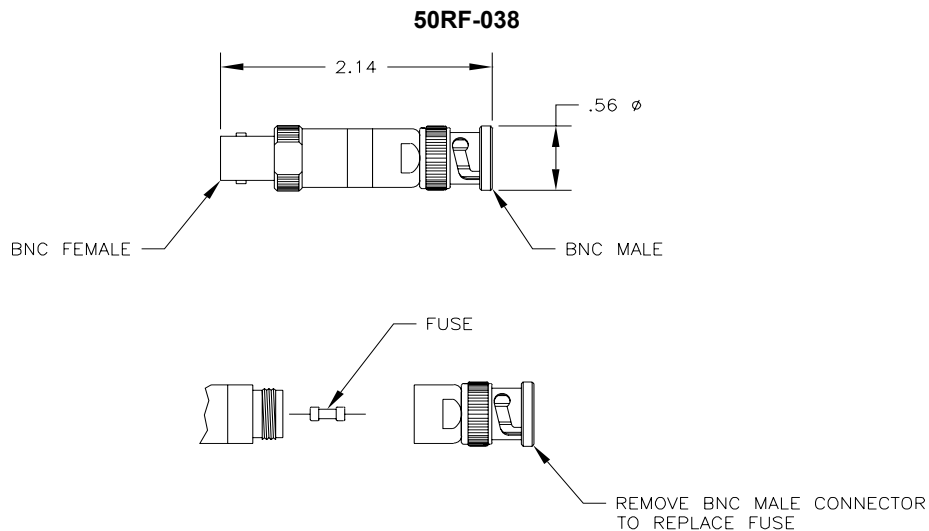
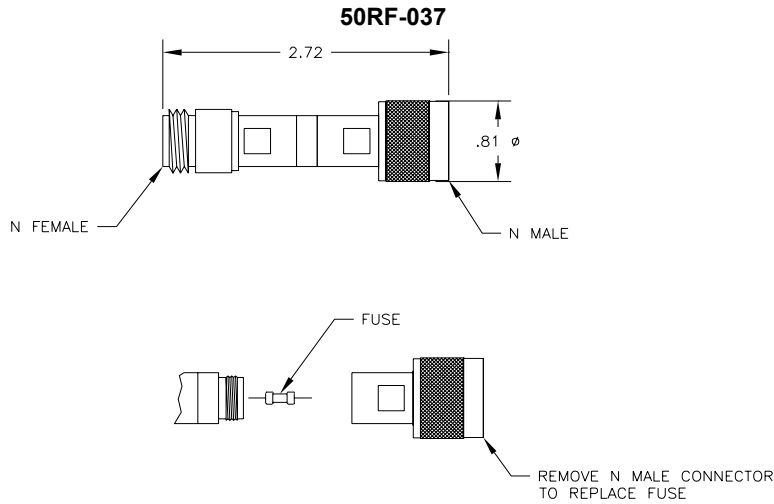


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RF Fuse Holders

| Model | Frequency Range | Impedance | Insertion Loss | VSWR Common to Fuse Element | Connectors |
|----------|-----------------|-----------|--|---|-----------------------|
| 50RF-037 | DC-1000 MHz | 50 Ohms | with 1/16 amp fuse <2.0 dB @ 1000 MHz with 1/8 amp fuse <0.5 dB @ 1000 MHz with 1/4 amp fuse <0.3 dB @ 1000 MHz | with 1/16 amp fuse 1.5:1 DC-500 MHz 1.6:1 500-1000 MHz with 1/8 amp fuse 1.2:1 DC-500 MHz 1.4:1 500-1000 MHz with 1/4 amp fuse 1.2:1 DC-500 MHz 1.4:1 500-1000 MHz | N male / N female |
| 50RF-038 | DC-1000 MHz | 50 Ohms | with 1/16 amp fuse <2.0 dB @ 1000 MHz with 1/8 amp fuse <0.5 dB @ 1000 MHz with 1/4 amp fuse <0.3 dB @ 1000 MHz | with 1/16 amp fuse 1.5:1 DC-500 MHz 1.6:1 500-1000 MHz with 1/8 amp fuse 1.2:1 DC-500 MHz 1.4:1 500-1000 MHz with 1/4 amp fuse 1.2:1 DC-500 MHz 1.4:1 500-1000 MHz | BNC male / BNC female |

| Fuse Rating | 100% of rated current | 200% of rated current | Fusing Level |
|-------------|-----------------------|--|----------------------|
| 1/16 A | 4 hours minimum | 1 second maximum (0.015 seconds typical) | +23 dBm (195 mW) |
| 1/8 A | 4 hours minimum | 1 second maximum (0.04 seconds typical) | +29 dBm (785 mW) |
| 1/4 A | 4 hours minimum | 1 second maximum (0.10 seconds typical) | +35 dBm (3.13 Watts) |



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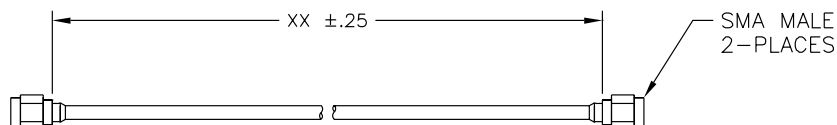
RF Cable Assemblies

| Model | RF Connectors | Frequency Range | RG Type | Impedance | Temperature Range |
|-------------|-----------------|-----------------|----------------|-----------------|-------------------|
| 016-064-XX* | SMA male / male | DC-6000 MHz | RG-402 type ** | 50 Ohms nominal | -55° C to +100° C |
| 016-550-XX* | N male / male | DC-6000 MHz | RG-402 type ** | 50 Ohms nominal | -55° C to +100° C |

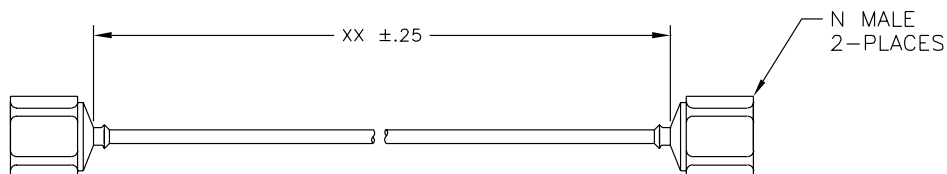
* (xx) insert length in inches

** Cable Description: Inner conductor is 19 AWG silver coated copper-covered steel, insulator is TFE core, outer conductor is copper-tin flexible composite braid with 100% shield coverage.

016-064-XX



016-550-XX



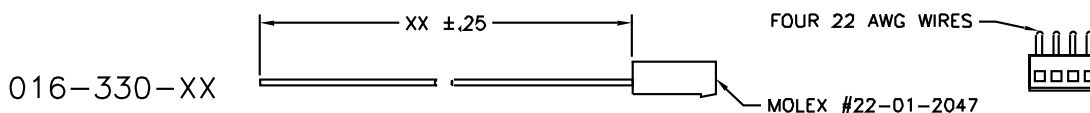
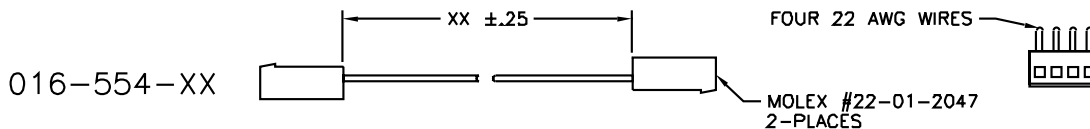
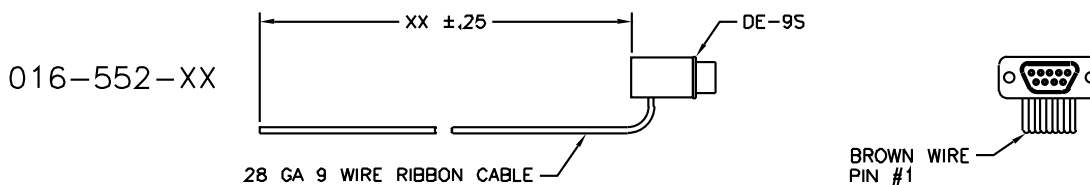
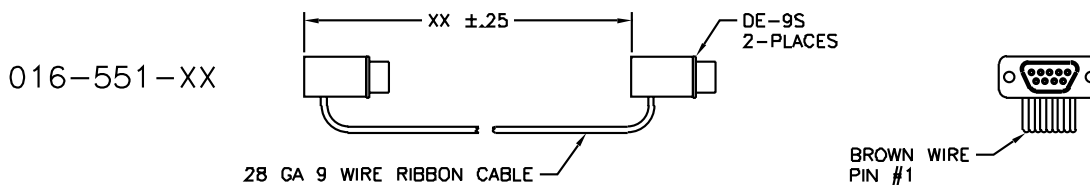
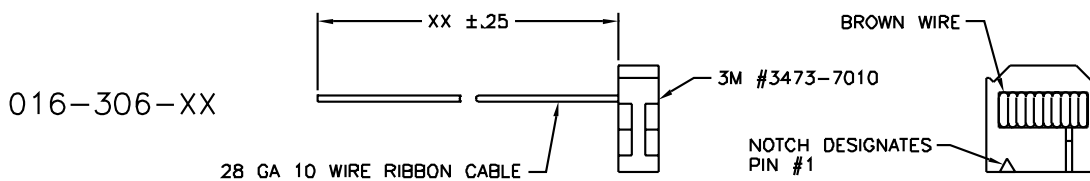
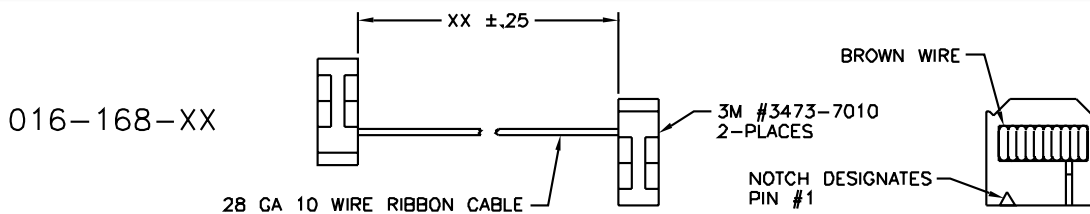
| Frequency | SMA male / male and N male / male | | SMA male / male | N male / male |
|-----------|-----------------------------------|-----------------------|-----------------|----------------|
| | Insertion Loss (typical) | Input Power (maximum) | VSWR (typical) | VSWR (typical) |
| 500 MHz | 0.10 dB / foot | 550 Watts | < 1.05:1 | < 1.05:1 |
| 1000 MHz | 0.15 dB / foot | 350 Watts | < 1.05:1 | < 1.05:1 |
| 2000 MHz | 0.22 dB / foot | 250 Watts | < 1.05:1 | < 1.10:1 |
| 3000 MHz | 0.27 dB / foot | 185 Watts | < 1.07:1 | < 1.10:1 |
| 4000 MHz | 0.33 dB / foot | 150 Watts | < 1.07:1 | < 1.10:1 |
| 5000 MHz | 0.36 dB / foot | 135 Watts | < 1.10:1 | < 1.10:1 |
| 6000 MHz | 0.44 dB / foot | 115 Watts | < 1.10:1 | < 1.10:1 |

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DC Cable Assemblies

| Model | Description | Mating Connector |
|--------------|--|--|
| 016-168-XX * | 10 pin ribbon cable female / female | T & B 609-1057 male and 3M #3793-5303 male |
| 016-306-XX * | 10 pin ribbon cable female / open wires | T & B 609-1057 male and 3M #3793-5303 male |
| 016-551-XX * | D-subminiature 9 pin (DE-9S) female / female | D-subminiature 9 pin male (DE-9P) |
| 016-552-XX * | D-subminiature 9 pin (DE-9S) female / open wires | D-subminiature 9 pin male (DE-9P) |
| 016-554-XX * | 4 pin Molex female / female | Molex #22-12-2044 male |
| 016-330-XX * | 4 pin Molex female / open wires | Molex #22-12-2044 male |

*** (xx) insert length in inches**

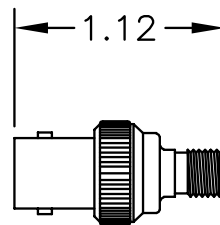
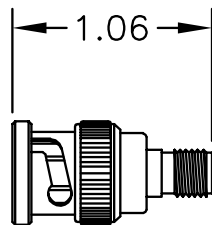


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Adapters

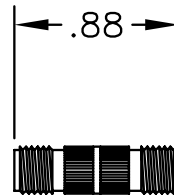
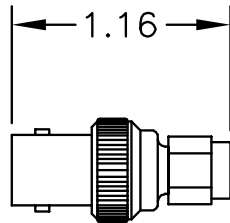
| Model | Connectors | Plating |
|---------|--------------------------|-----------------------|
| 115-002 | SMA female to BNC male | Gold Pins / Gold Body |
| 115-003 | SMA female to BNC female | Gold Pins / Gold Body |
| 115-004 | SMA male to BNC female | Gold Pins / Gold Body |
| 115-005 | SMA female to SMA female | Gold Pins / Gold Body |
| 115-006 | SMA female to N male | Gold Pins / Gold Body |
| 115-007 | SMA female to N female | Gold Pins / Gold Body |
| 115-008 | SMA male to N female | Gold Pins / Gold Body |

115-002
BNC M / SMA F



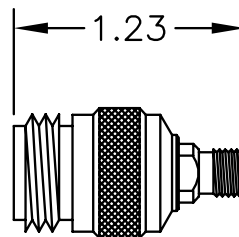
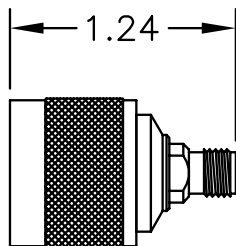
115-003
BNC F / SMA F

115-004
BNC F / SMA M

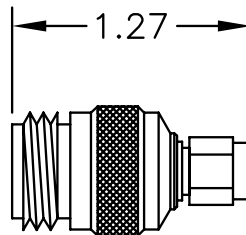


115-005
SMA F / SMA F

115-006
N M / SMA F



115-007
N F / SMA F



115-008
N F / SMA M

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