

# 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).

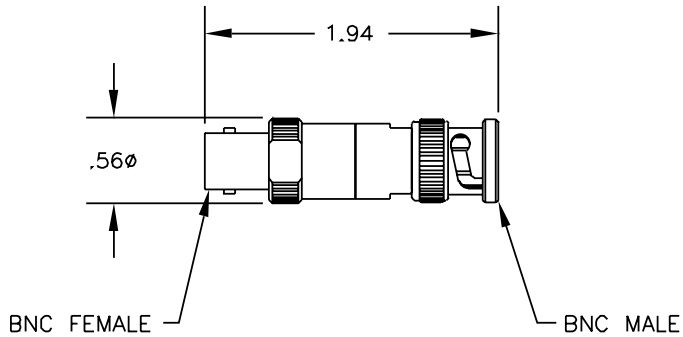
Bias Taps - 50 Ohm		
Model Number	Frequency Range	Page
50BT-014	800-2500 MHz	8-8
50BT-017	100-1750 MHz	8-8
50BT-029	250-3000 MHz	8-8
Bias Taps - 75 Ohm		
75BT-007	100-1750 MHz	8-8
DC Blocks - 50 Ohm		
Model Number	Frequency Range	Page
50DB-002	50 KHz-1800 MHz	8-3
50DB-007	10 MHz-18 GHz	8-3
50DB-009	10-4000 MHz	8-3
50DB-011	10 MHz - 18 GHz	8-3
50DB-039	200 KHz-2000 MHz	8-3
DC Blocks - 75 Ohm		
75DB-001	1-2500 MHz	8-3
75DB-010	0.1 - 4000 MHz	8-3
Detectors - 50 Ohm		
Model Number	Frequency Range	Page
50D-050	1-1000 MHz	8-6
50D-051	1-2000 MHz	8-6
50D-052	1-3000 MHz	8-6
Detectors - 75 Ohm		
75D-009	1-1000 MHz	8-7
75D-010	1-2200 MHz	8-7
Impedance Matching Pads		
Model Number	Frequency Range	Page
57Z	DC-1000 MHz	8-4
75Z	DC-1000 MHz	8-4
57Z-2G	DC-2000 MHz	8-4
75Z-2G	DC-2000 MHz	8-4
57Z-3G	DC-3000 MHz	8-4
75Z-3G	DC-3000 MHz	8-4

Impedance Matching Transformers			
Model Number	Frequency Range	Page	
57ZT	0.5-600 MHz	8-5	
75ZT	0.5-600 MHz	8-5	
57ZT-1G	0.5-1000 MHz	8-5	
75ZT-1G	0.5-1000 MHz	8-5	
57ZTT-AA	800-2200 MHz	8-5	
75ZTT-AA	800-2200 MHz	8-5	
RF Fuse Holders - 50 Ohm			
Model Number	Frequency Range	Page	
50RF-037	DC-1000 MHz	8-10	
50RF-038	DC-1000 MHz	8-10	
Feedthru Terminations			
Model Number	Frequency Range	Impedance	Page
50L-001	DC-1000 MHz	50 Ohm	8-9
50L-018	DC-1000 MHz	50 Ohm	8-9
75L-001	DC-500 MHz	75 Ohm	8-9
75L-004	DC-1000 MHz	75 Ohm	8-9
RF Cables			
Model Number	Connectors	Impedance	Page
016-064-XX	SMA M/M	50 Ohm	8-11
016-550-XX	N M/M	50 Ohm	8-11
DC Cables			
Model Number	Description	Page	
016-168-XX	10 Pin Ribbon	8-12	
016-306-XX	10 Pin Ribbon	8-12	
016-551-XX	D-Subminiature 9 Pin	8-12	
016-552-XX	D-Subminiature 9 Pin	8-12	
016-554-XX	4 Pin Molex	8-12	
016-330-XX	4 Pin Molex	8-12	
Adapters			
Model Number	Connectors	Page	
115-002	SMA female / BNC male	8-13	
115-003	SMA female / BNC female	8-13	
115-004	SMA male / BNC female	8-13	
115-005	SMA female / SMA female	8-13	
115-006	SMA female / N male	8-13	
115-007	SMA female / N female	8-13	
115-008	SMA male / N female	8-13	

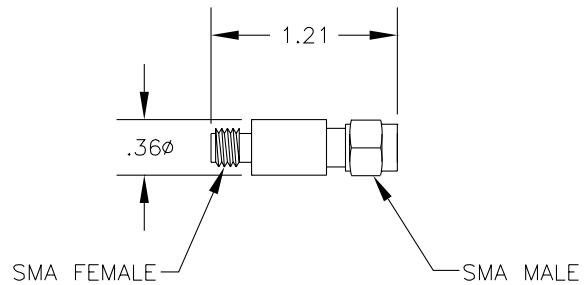
# DC Blocks

Model	Frequency Range	Impedance	Insertion Loss (maximum)	VSWR (maximum)	Breakdown Voltage	RF Connector	RF Input Power (average)
50DB-002	50 KHz - 1800 MHz	50 Ohms	0.5 dB	1.3:1	100 Volts	BNC, TNC or N	2 Watts
50DB-007	10 MHz - 18 GHz	50 Ohms	0.5 dB	1.35:1	200 Volts	SMA	2 Watts
50DB-009	10 - 4000 MHz	50 Ohms	0.3 dB	1.3:1	50 Volts	BNC, TNC, N or SMA	2 Watts
50DB-011	10 MHz - 18 GHz	50 Ohms	0.6 dB	1.35:1	200 Volts	N	2 Watts
50DB-039	200 KHz - 2000 MHz	50 Ohms	0.4 dB	1.2:1	50 Volts	SMA	2 Watts
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	BNC, TNC or N	2 Watts
75DB-010	0.1 - 4000 MHz	75 Ohms	0.5 dB 0.1-2000 MHz 0.7 dB 2000-4000 MHz	1.3:1 0.1-2000 MHz 1.4:1 2000-4000 MHz	50 Volts	N	2 Watts

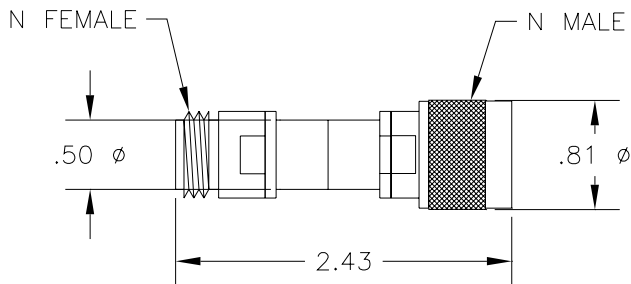
**50DB-002 / 75DB-001**



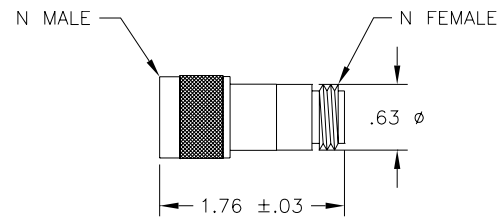
**50DB-007**



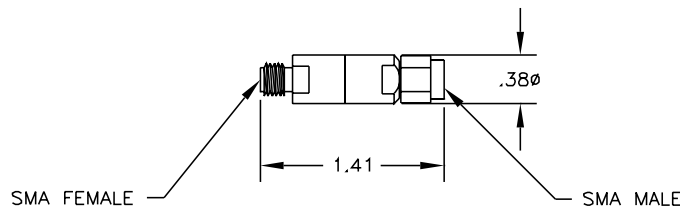
**50DB-009**



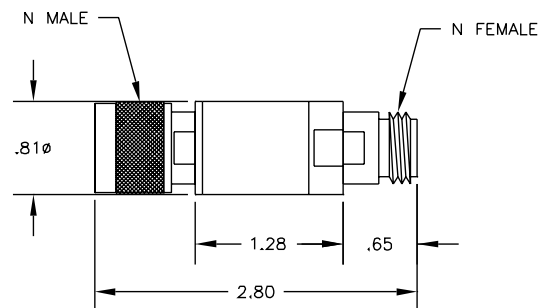
**50DB-011**



**50DB-039**



**75DB-010**



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# Impedance Matching Pads

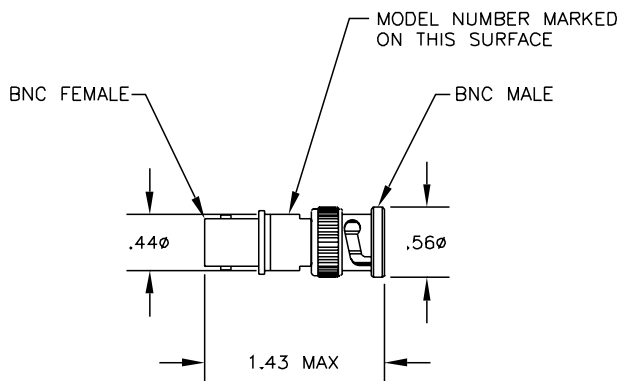
Model	Frequency Range	Impedance*	Attenuation Loss	VSWR (maximum)
57Z	DC-1000 MHz	50 Ohms male 75 Ohms female	5.7 dB +/- 0.5 dB	1.2:1
75Z	DC-1000 MHz	75 Ohms male 50 Ohms female	5.7 dB +/- 0.5 dB	1.2:1
57Z-2G	DC-2000 MHz	50 Ohms male 75 Ohms female	5.7 dB +/- 0.5 dB	1.2:1 DC-1000 MHz 1.3:1 1000-2000 MHz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

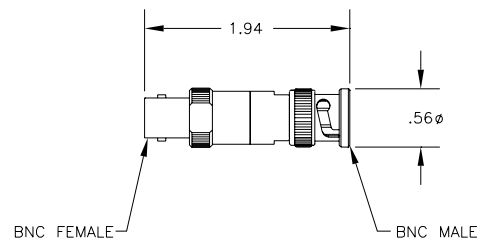
## Common Specifications

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

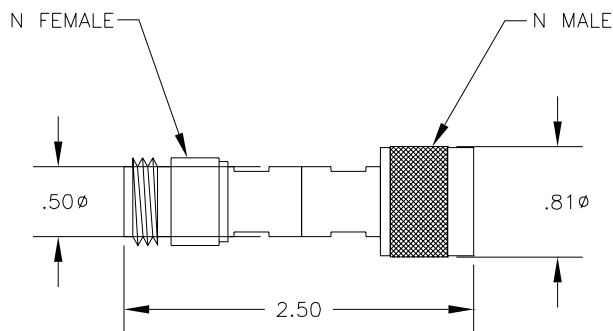
**57Z / 75Z BNC**



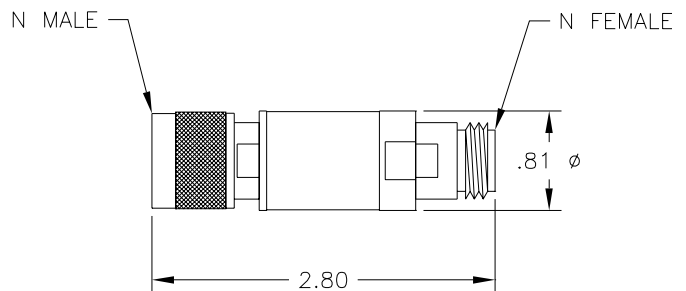
**57Z-2G / 75Z-2G BNC**



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



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



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# Impedance Matching Transformers

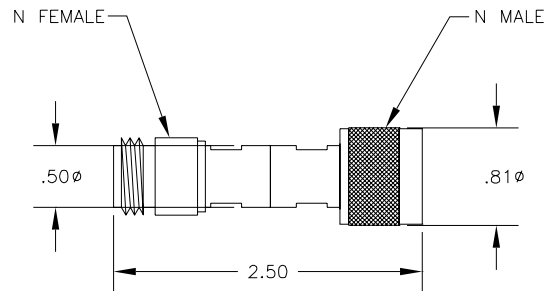
Model	Frequency Range	Impedance*	Attenuation Loss (maximum)	VSWR (maximum)	Input Power
57ZT	0.5-600 MHz	50 Ohms male 75 Ohms female	0.75 dB 0.5-300 MHz 1 dB 300-600 MHz	1.3:1 0.5-3 MHz 1.2:1 3-300 MHz 1.3:1 300-600 MHz	1 Watt average 1000 Watts peak
75ZT	0.5-600 MHz	75 Ohms male 50 Ohms female	0.75 dB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

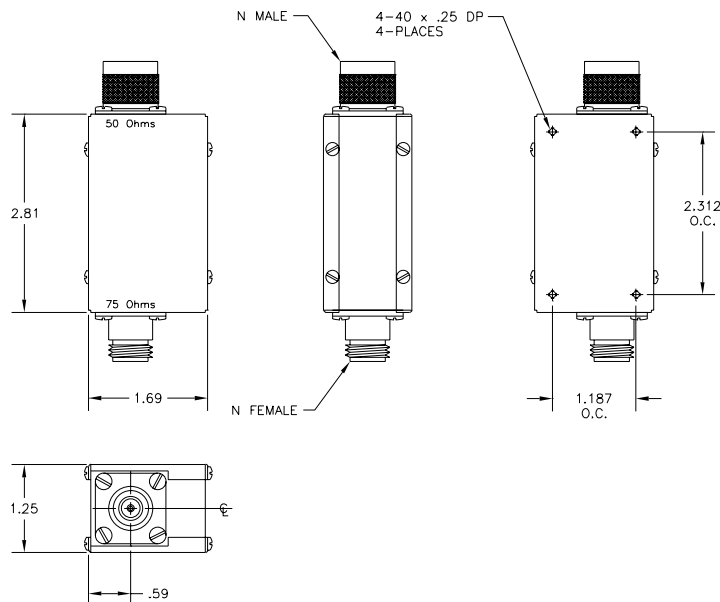
## Common Specifications

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



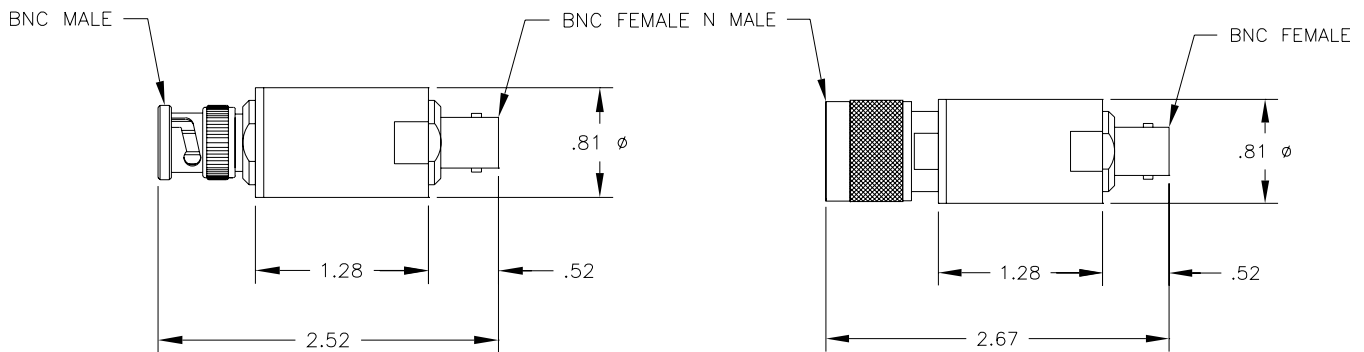
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# Detectors 50 Ohm

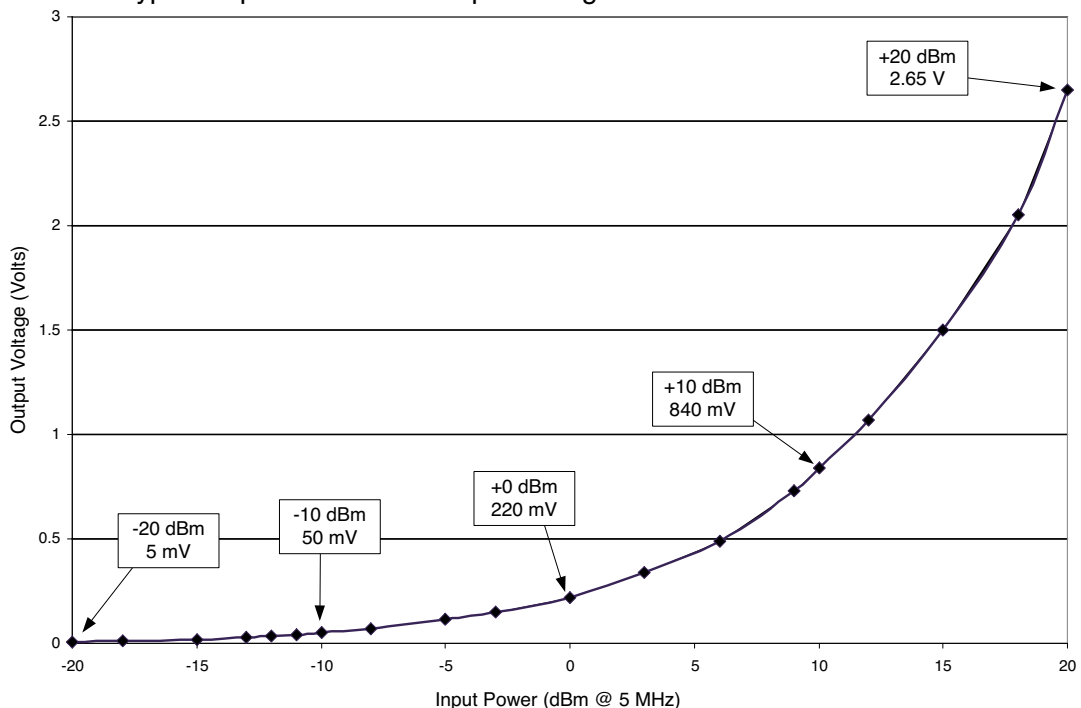
Model	Frequency Range	VSWR (maximum)	Flatness	RF Input Power (maximum)	Output Capacitance
50D-050	1-1000 MHz	1.2:1	+/- 0.2 dB to 1000 MHz	100 mW	1000 pF
50D-051	1-2000 MHz	1.2:1 @ 1000 MHz 1.3:1 @ 2000 MHz	+/- 0.3 dB to 2000 MHz	100 mW	1000 pF
50D-052	1-3000 MHz	1.2:1 @ 1-1000 MHz 1.3:1 @ 1000-2000 MHz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

Model	Impedance	RF Input Connector	DC Output Connector	DC Output Polarity
50D-050	50 Ohms	N, BNC, TNC or SMA male or female	BNC, TNC, N or SMA female	Negative or Positive (please specify)
50D-051	50 Ohms	N, BNC, TNC or SMA male	BNC, TNC, N or SMA female	Negative or Positive (please specify)
50D-052	50 Ohms	N, BNC, TNC or SMA male	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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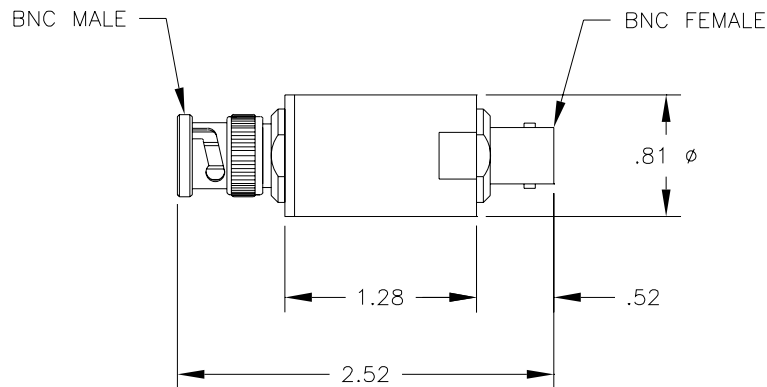
# Detectors 75 Ohm

Model	Frequency Range	VSWR (maximum)	Flatness	RF Input Power (maximum)	Output Voltage (typical)	Output Capacitance (nominal)
75D-009	1-1000 MHz	1.2:1	+/- 0.2 dB	100 mW	(-20 dBm) 0.010 V (-10 dBm) 0.080 V (0 dBm) 0.340 V (+10 dBm) 1.120 V (+20 dBm) 3.440 V	1000 pF
75D-010	1-2200 MHz	1.2:1 1-1000 MHz 1.4:1 1000-2200 MHz	+/- 0.2 dB	100 mW	(-20 dBm) 0.010 V (-10 dBm) 0.080 V (0 dBm) 0.340 V (+10 dBm) 1.120 V (+20 dBm) 3.440 V	1000 pF

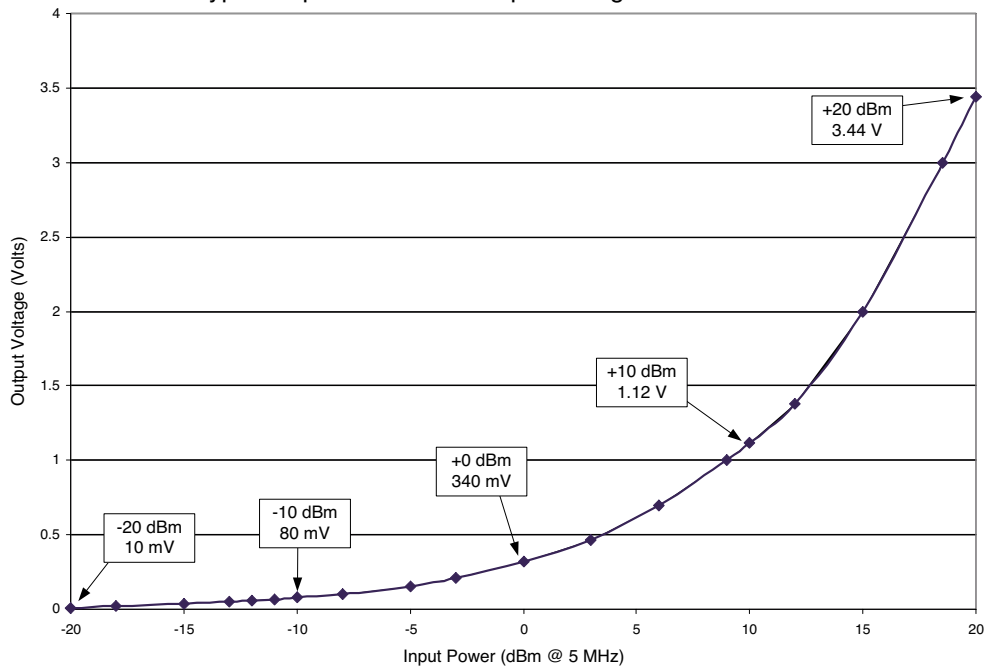
## Common Specifications

Impedance	RF Input Connector (75 Ohms)	DC Output Connector (50 Ohms)	DC Output Polarity
75 Ohm	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



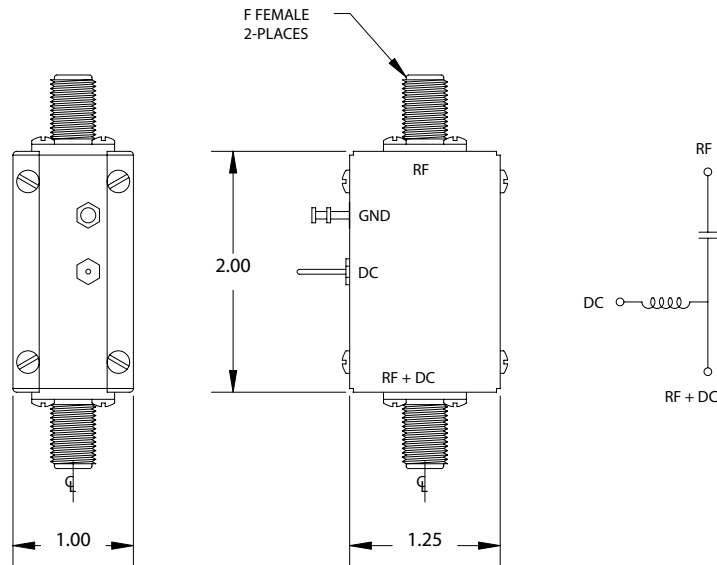
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# Bias Taps

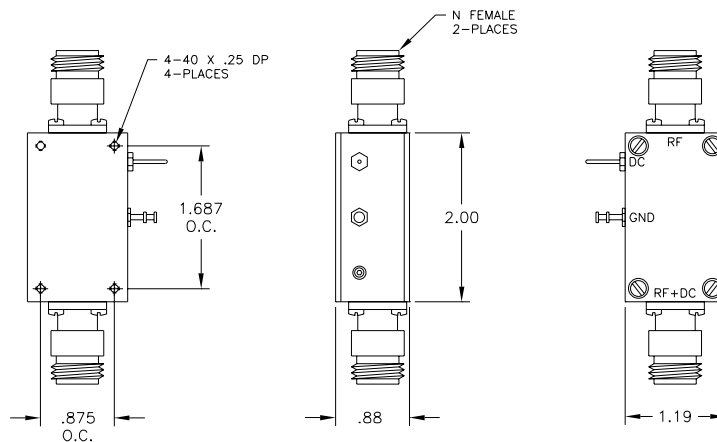
Model	Impedance	Frequency Range	VSWR (maximum)	Input Power (average)	Insertion Loss (maximum)
50BT-014	50 Ohms	800-2500 MHz	1.2:1	2 Watts	0.3 dB
50BT-017	50 Ohms	100-1750 MHz	1.4:1 100-300 MHz 1.3:1 300-1750 MHz	2 Watts	1.25 dB
50BT-029	50 Ohms	250-3000 MHz	1.5:1 250-500 MHz 1.3:1 500-3000 MHz	1 Watts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



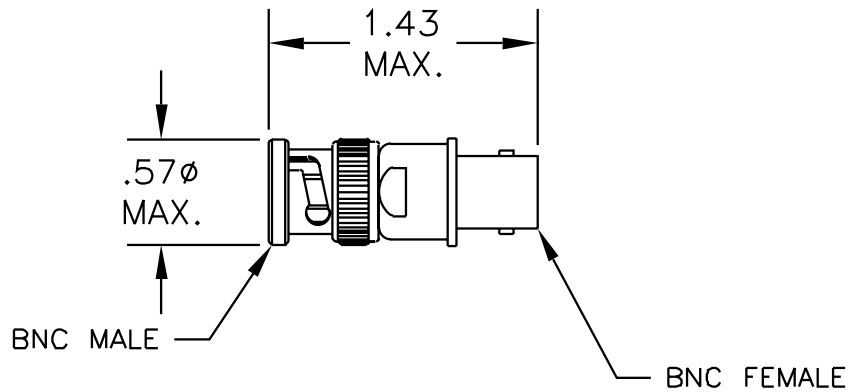
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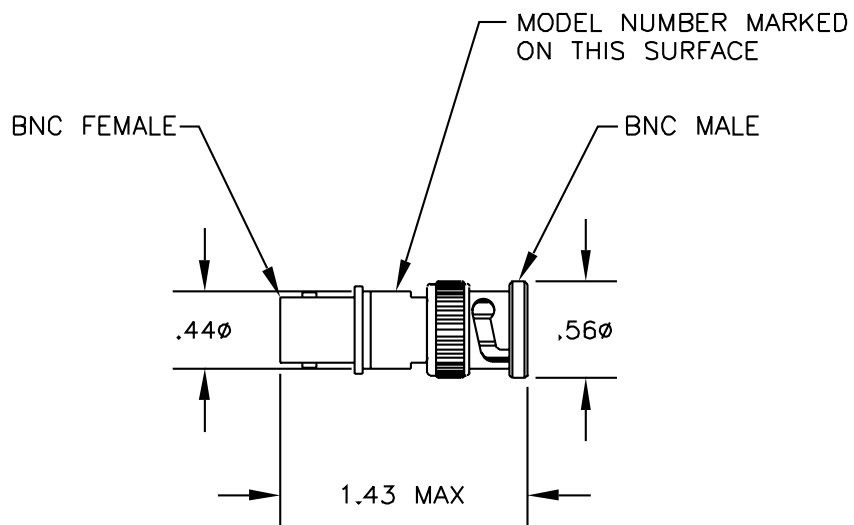
# Feedthru Terminations

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



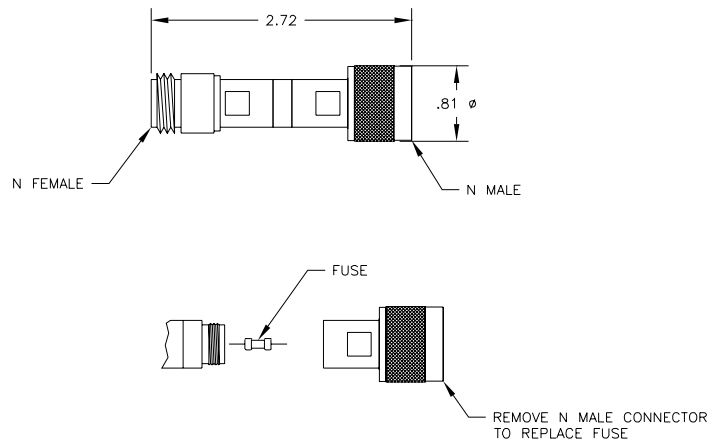
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# RF Fuse Holders

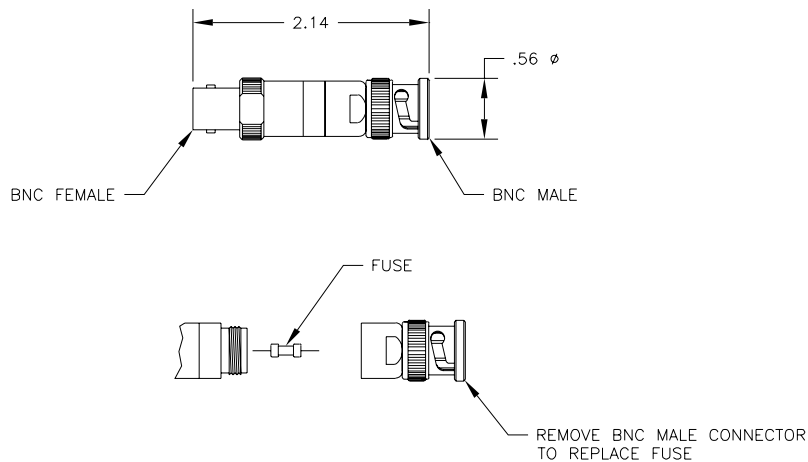
Model	Frequency Range	Impedance	Insertion Loss	VSWR Common to Fuse Element	Fusing Level	Connectors
50RF-037	DC-1000 MHz	50 Ohms	with 1/16 amp fuse element <2.0 dB @ 1000 MHz with 1/8 amp fuse element <0.5 dB @ 1000 MHz with 1/4 amp fuse element <0.3 dB @ 1000 MHz	with 1/16 amp fuse element 1.5:1-500 MHz 1.6:1-1000 MHz with 1/8 amp fuse element 1.2:1-500 MHz 1.4:1-1000 MHz with 1/4 amp fuse element 1.2:1-500 MHz 1.4:1-1000 MHz	with 1/16 amp fuse element +23 dBm (195 mW) with 1/8 amp fuse element +29 dBm (785 mW) with 1/4 amp fuse element +35 dBm (3.13 Watts)	N male / N female
50RF-038	DC-1000 MHz	50 Ohms	with 1/16 amp fuse element <2.0 dB @ 1000 MHz with 1/8 amp fuse element <0.5 dB @ 1000 MHz with 1/4 amp fuse element <0.3 dB @ 1000 MHz	with 1/16 amp fuse element 1.5:1-500 MHz 1.6:1-1000 MHz with 1/8 amp fuse element 1.2:1-500 MHz 1.4:1-1000 MHz with 1/4 amp fuse element 1.2:1-500 MHz 1.4:1-1000 MHz	with 1/16 amp fuse element +23 dBm (195 mW) with 1/8 amp fuse element +29 dBm (785 mW) with 1/4 amp fuse element +35 dBm (3.13 Watts)	BNC male / BNC female

Fuse Rating	100% of rated current	200% of rated current
1/16 A	4 hours minimum	1 second maximum (0.015 seconds typical)
1/8 A	4 hours minimum	1 second maximum (0.04 seconds typical)
1/4 A	4 hours minimum	1 second maximum (0.1 seconds typical)

## 50RF-037



## 50RF-038



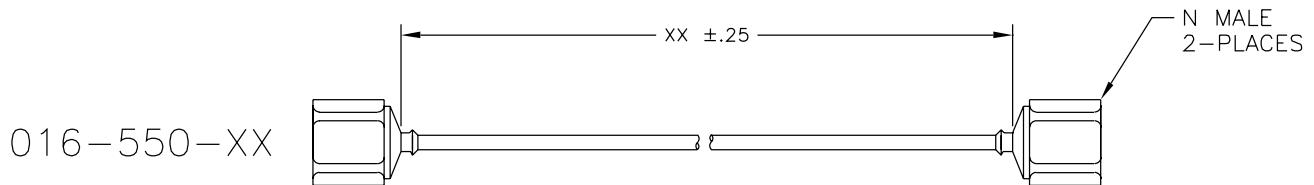
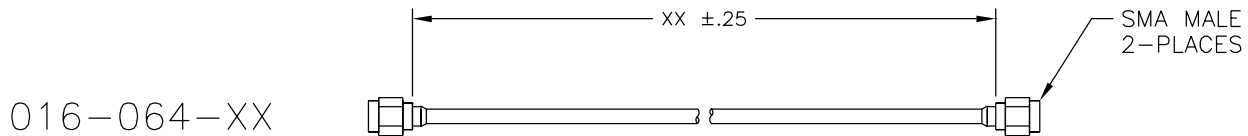
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# RF Cable Assemblies

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.**



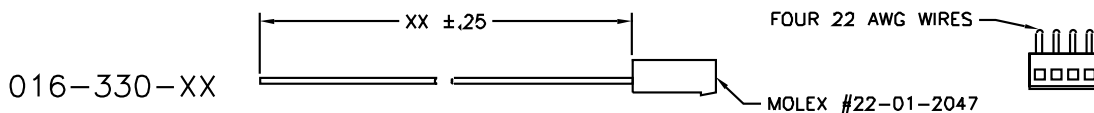
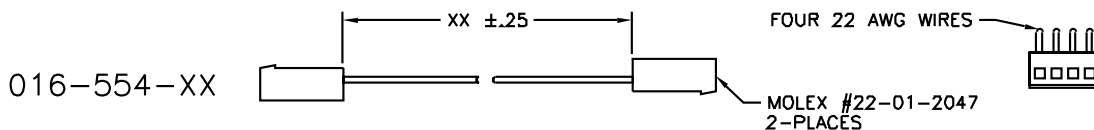
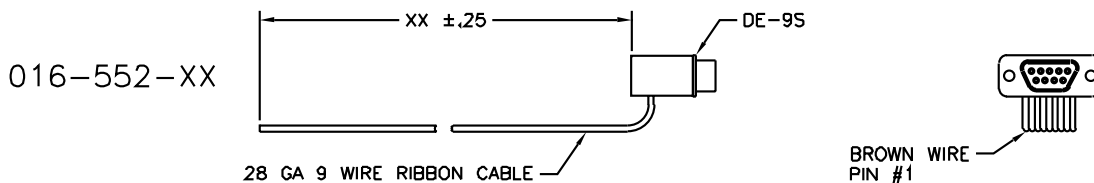
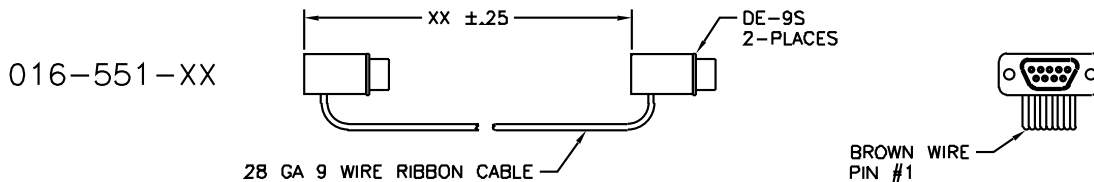
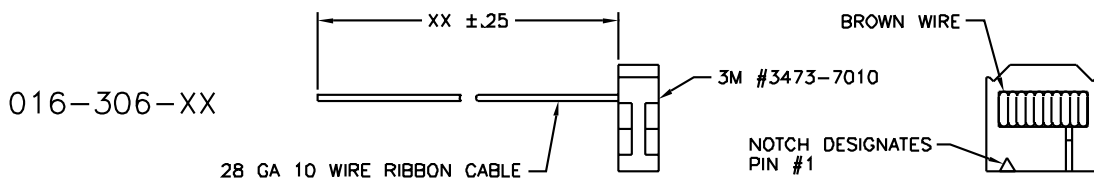
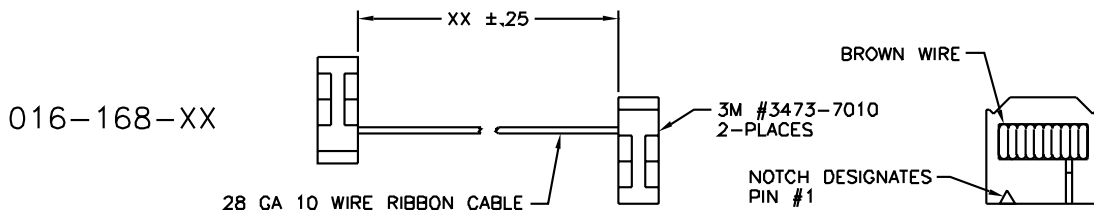
	SMA male / male and N male / male		SMA male / male	N male / male
Frequency	Insertion Loss (typical)	Input Power (maximum)	VSWR (typical)	VSWR (typical)
500 MHz	0.10 dB / foot	550 Watts	< 1.05:1	< 1.05:1
1000 MHz	0.15 dB / foot	350 Watts	< 1.05:1	< 1.05:1
2000 MHz	0.22 dB / foot	250 Watts	< 1.05:1	< 1.10:1
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

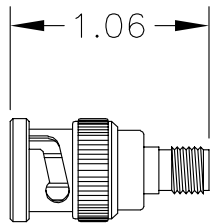


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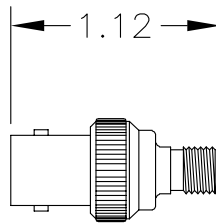
# Adapters

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

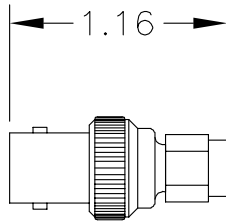
115-002  
BNC M / SMA F



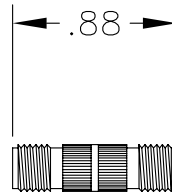
115-003  
BNC F / SMA F



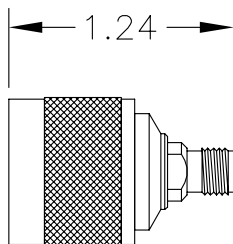
115-004  
BNC F / SMA M



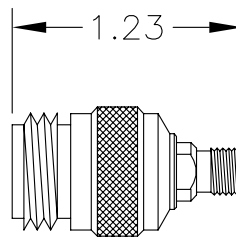
115-005  
SMA F / SMA F



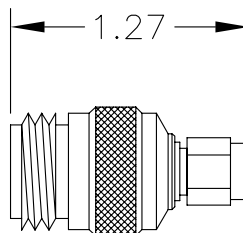
115-006  
N M / SMA F



115-007  
N F / SMA F



115-008  
N F / SMA M



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