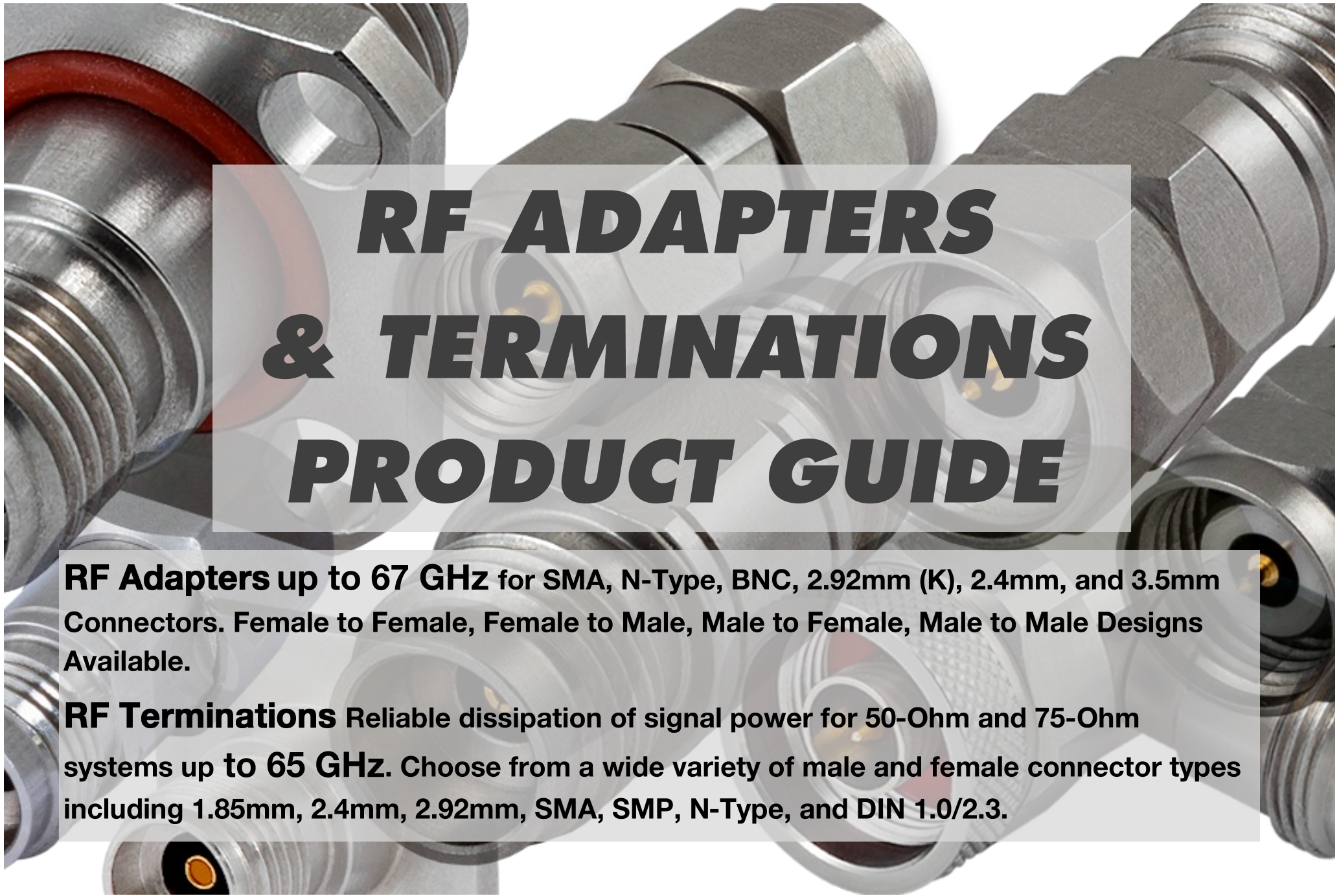




RF ADAPTERS & TERMINATIONS PRODUCT GUIDE

RF Adapters up to 67 GHz for SMA, N-Type, BNC, 2.92mm (K), 2.4mm, and 3.5mm Connectors. Female to Female, Female to Male, Male to Female, Male to Male Designs Available.

RF Terminations Reliable dissipation of signal power for 50-Ohm and 75-Ohm systems up to **65 GHz**. Choose from a wide variety of male and female connector types including 1.85mm, 2.4mm, 2.92mm, SMA, SMP, N-Type, and DIN 1.0/2.3.

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RF ADAPTERS PRODUCT GUIDE

Adapters | 50 Ω | DC to 2 GHz



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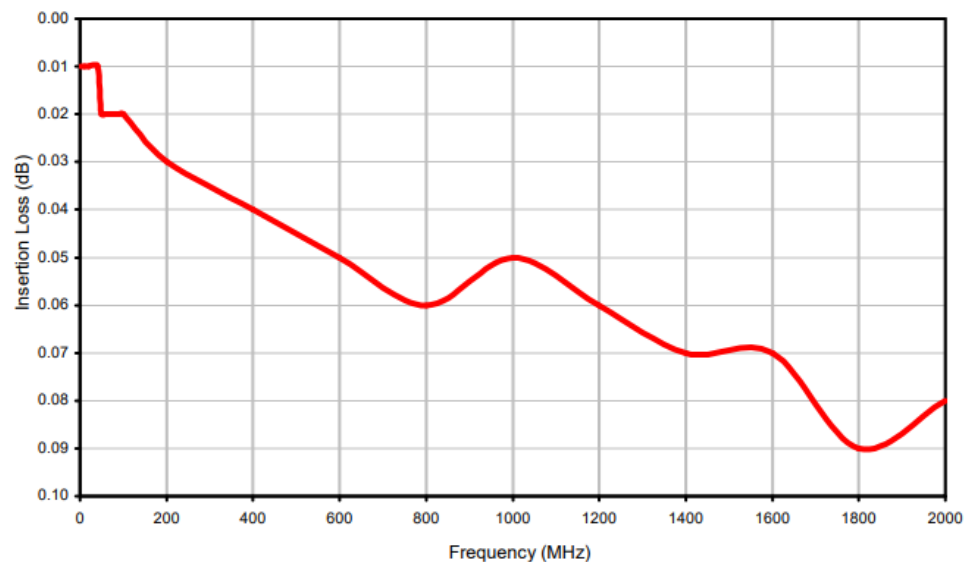
Model Number	Conn. 1	Conn. 2	F Low (GHz)	F High (GHz)	VSWR(:1) Typ.	Impedance (Ω)
NF-BM50+	N-Female	BNC-Male	DC	2	1.15	50
SF-BF50+	SMA-Female	BNC-Female	DC	2	1.2	50
SF-BM50+	SMA-Female	BNC-Male	DC	2	1.2	50
SM-BF50+	SMA-Male	BNC-Female	DC	2	1.2	50
SM-BM50+	SMA-Male	BNC-Male	DC	2	1.2	50



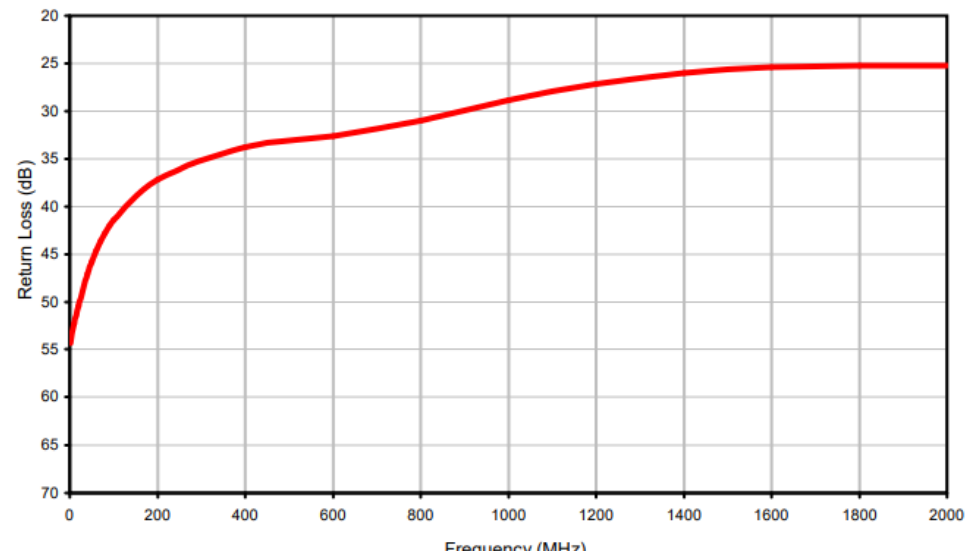
Adapter, SMA-Female to BNC-Male SF-BM50+ Typical Performance Curves



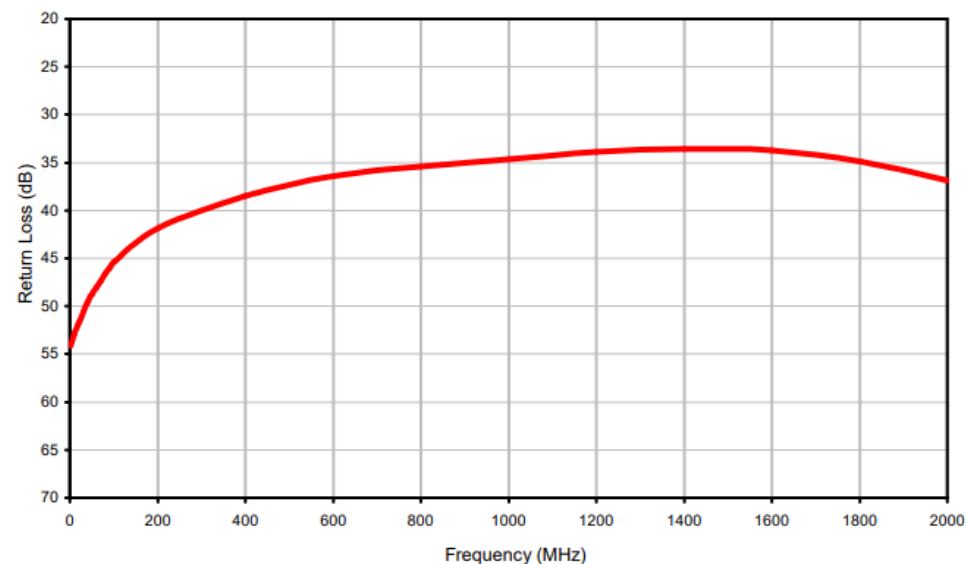
Insertion Loss



SMA-Female Return Loss



BNC-Male Return Loss



Adapters | 50 Ω | DC to 12 GHz

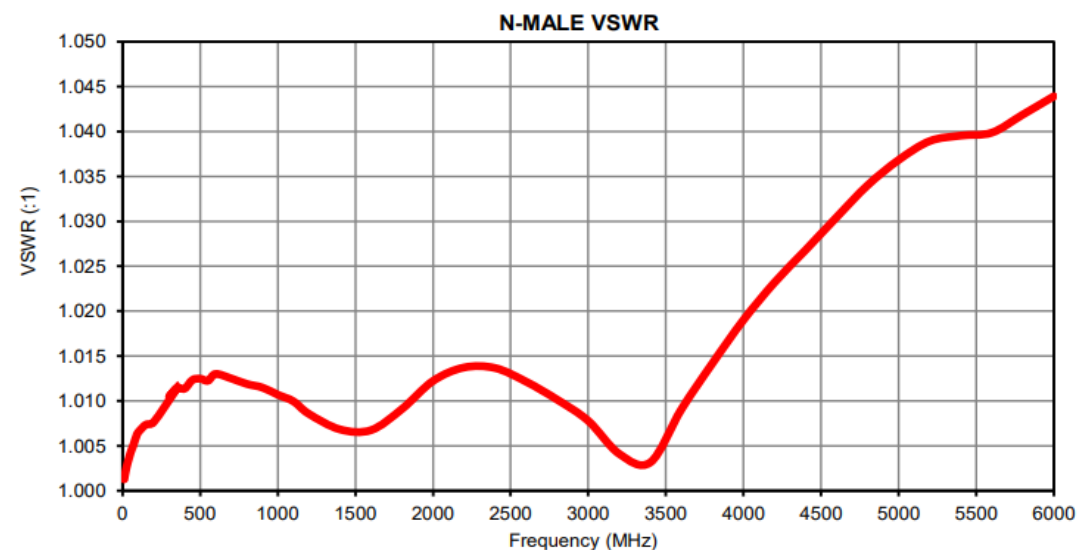
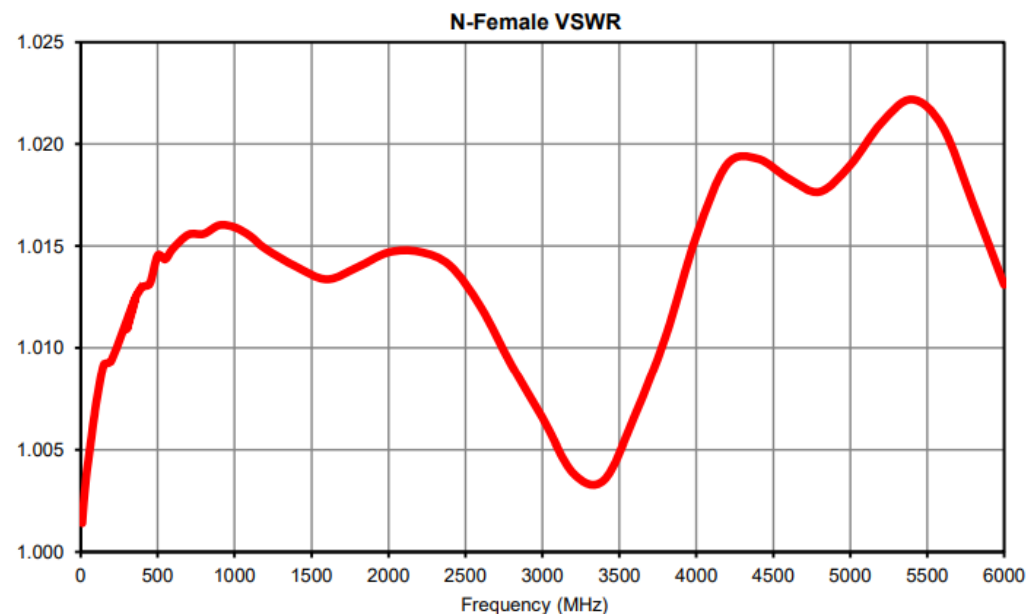
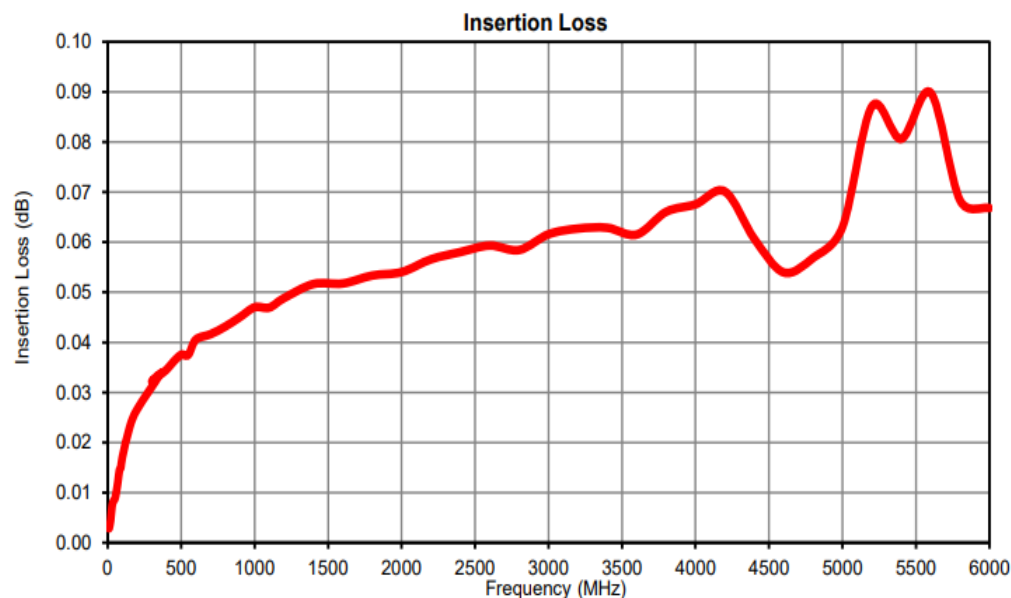


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Model Number	Conn. 1	Conn. 2	F Low (GHz)	F High (GHz)	VSWR(:1) Typ.	Impedance (Ω)
NF-NF50+	N-Female	N-Female	DC	6	1.2	50
NF-NMR50+	N-Female	N-Male Right Angle	DC	6	1.02	50
NM-NM50+	N-Male	N-Male	DC	6	1.03	50
SF-SFRP50+	SMA-Female	SMA-FRP	DC	12	1.2	50
SF-SMRP50+	SMA-Female	SMA-MRP	DC	12	1.2	50
SMRP-SM50+	SMA-MRP	SMA-Male	DC	12	1.22	50



Right Angle Adapter, N-Female to N-Male NF-NMR50+ Typical Performance Curves



Adapters | 50 Ω | DC to 18 GHz | 1/2



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Model Number	Conn. 1	Conn. 2	F Low (GHz)	F High (GHz)	VSWR(:1) Typ.	Impedance (Ω)
NF-NMR50-18+	N-Female	N-Male Right Angle	DC	18	1.06	50
NF-SF50+	N-Female	SMA-Female	DC	18	1.2	50
NF-SM50+	N-Female	SMA-Male	DC	18	1.2	50
NFFL-SF50+	N-Female	SMA-Female	DC	18	1.2	50
NFFL-SM50+	N-Female	SMA-Male	DC	18	1.08	50
NM-NM50-18+	N-Male	N-Male	DC	18	1.04	50
NM-SF50+	N-Male	SMA-Female	DC	18	1.25	50
NM-SM50+	N-Male	SMA-Male	DC	18	1.2	50
SF-MQK50+	SMA-Female	SMA-Male Quick Connect	DC	18	1.25	50



Part #: NF-NMR50-18+



Part #: NF-SF50+



Part #: NF-SM50+



Part #: NFFL-SF50+



Part #: NFFL-SM50+



Part #: NM-NM50-18+



Part #: NM-SF50+



Part #: NM-SM50+

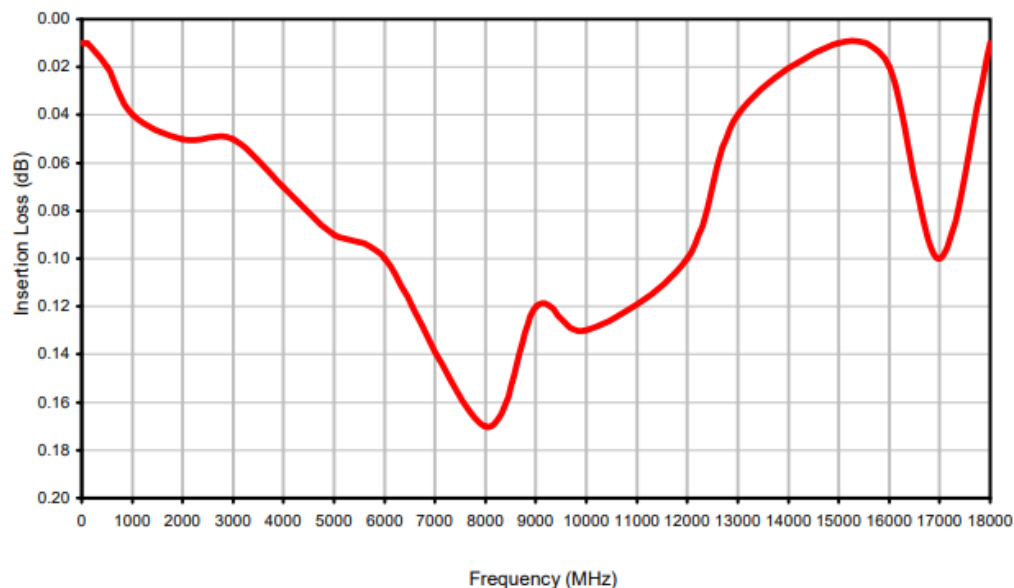


Part #: SF-MQK50+

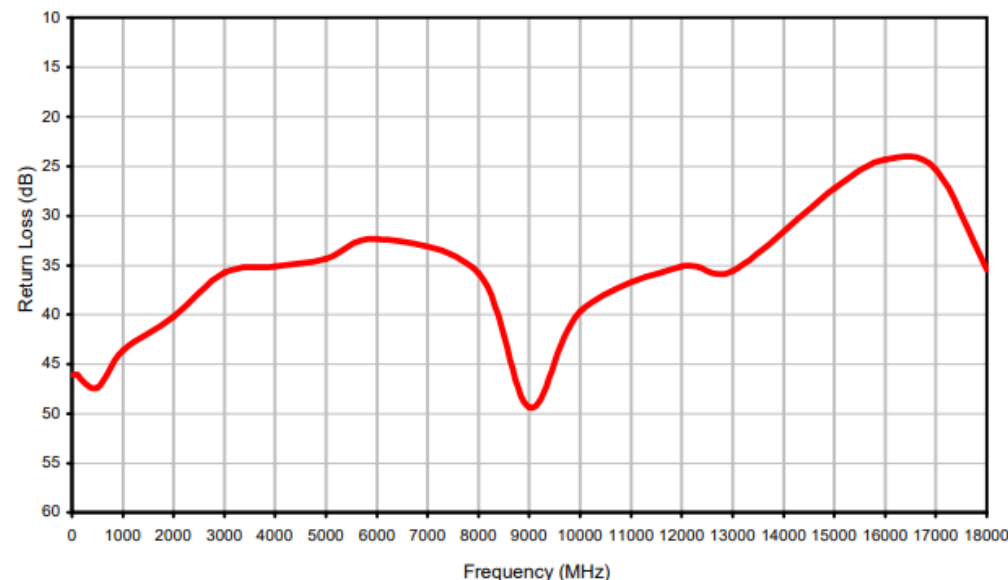
Adapter, N-Male to SMA-Female NM-SF50+ Typical Performance Curves



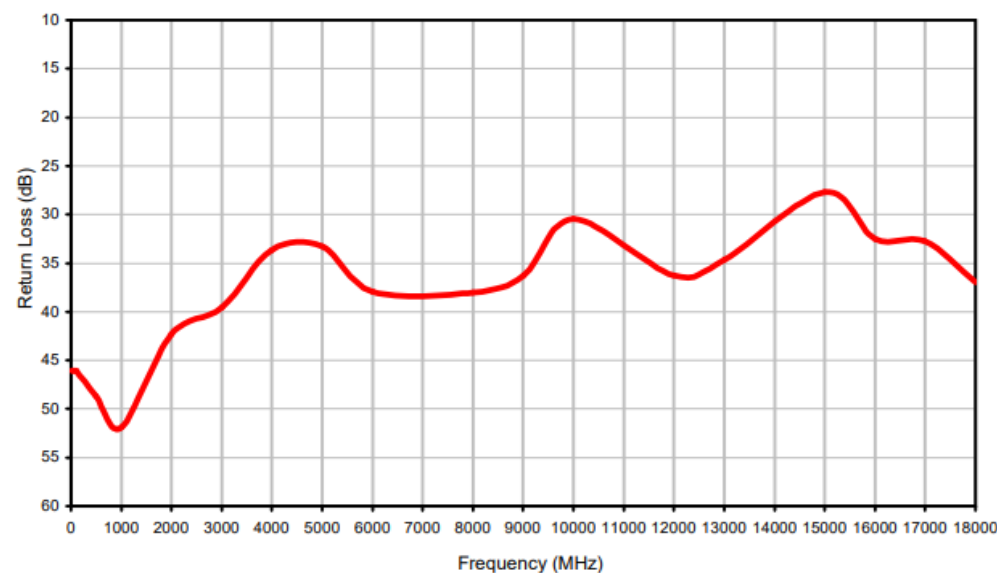
Insertion Loss



N-Male Return Loss



SMA-Female Return Loss



Part #: NM-SF50+

Adapters | 50 Ω | DC to 18 GHz | 2/2

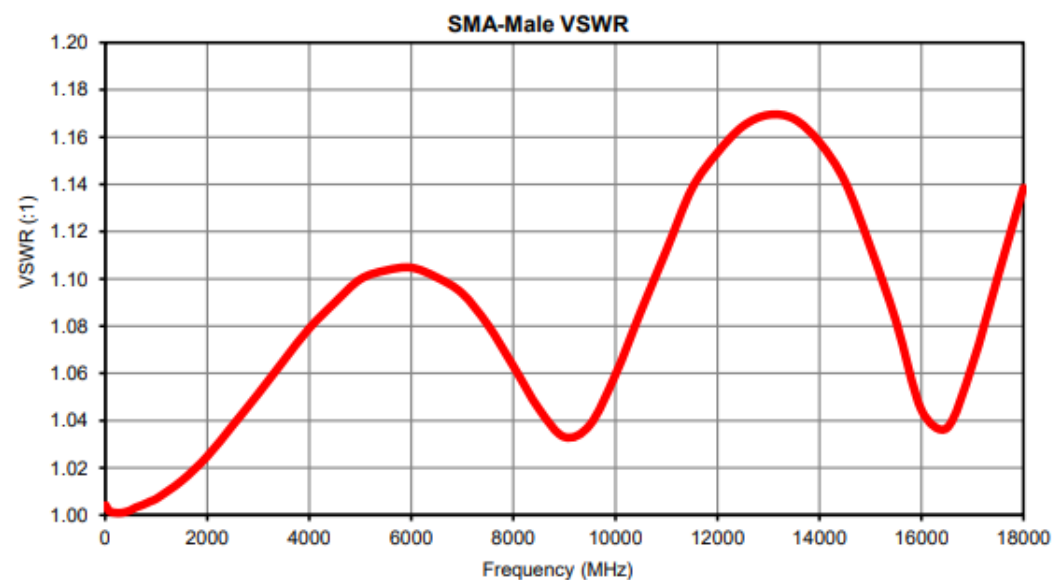
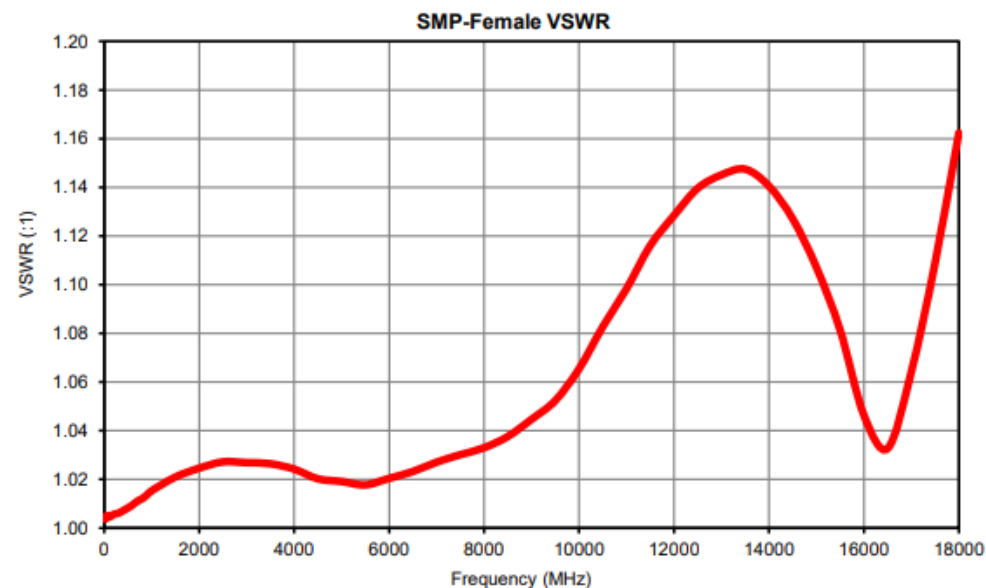
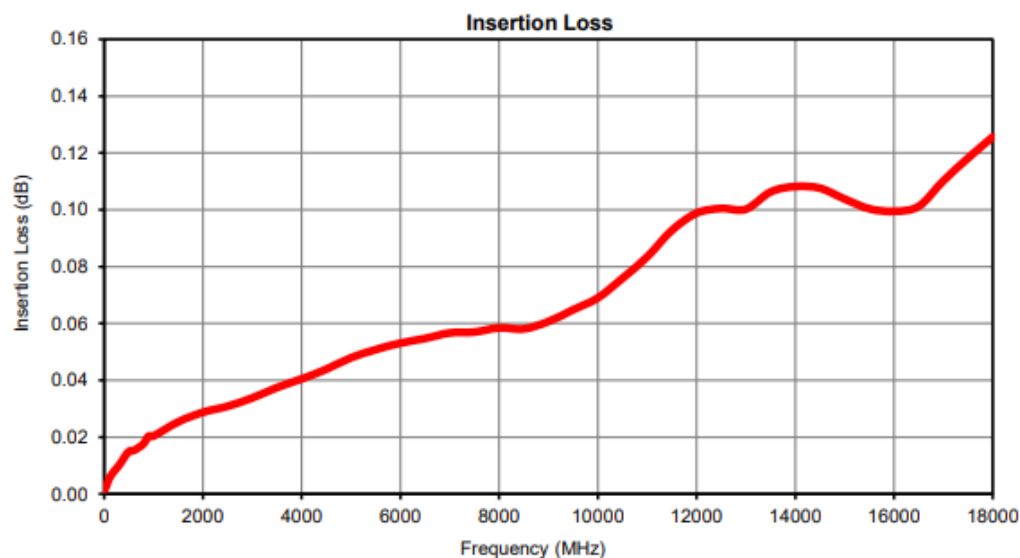


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Model Number	Conn. 1	Conn. 2	F Low (GHz)	F High (GHz)	VSWR(:1) Typ.	Impedance (Ω)
SF-SF50+	SMA-Female	SMA-Female	DC	18	1.25	50
SF-SM50+	SMA-Female	SMA-Male	DC	18	1.28	50
SFFL-SF50+	SMA-Female	SMA-Female	DC	18	1.13	50
SFR-KF50+	SMA-Female	2.92mm-Female	DC	18	1.11	50
SFR-NM50+	SMA-Female	N-Male	DC	18	1.13	50
SFR-SM50+	SMA-Female	SMA-Male	DC	18	1.09	50
SM-SM50+	SMA-Male	SMA-Male	DC	18	1.3	50
SMPF-SF50+	SMP-F	SMA-F	DC	18	1.07	50
SMPF-SM50+	SMP-F	SMA-M	DC	18	1.07	50



Adapter, SMP Female to SMA Male SMPF-SM50+ Typical Performance Curves



Adapters | 50 Ω | DC to 34 GHz

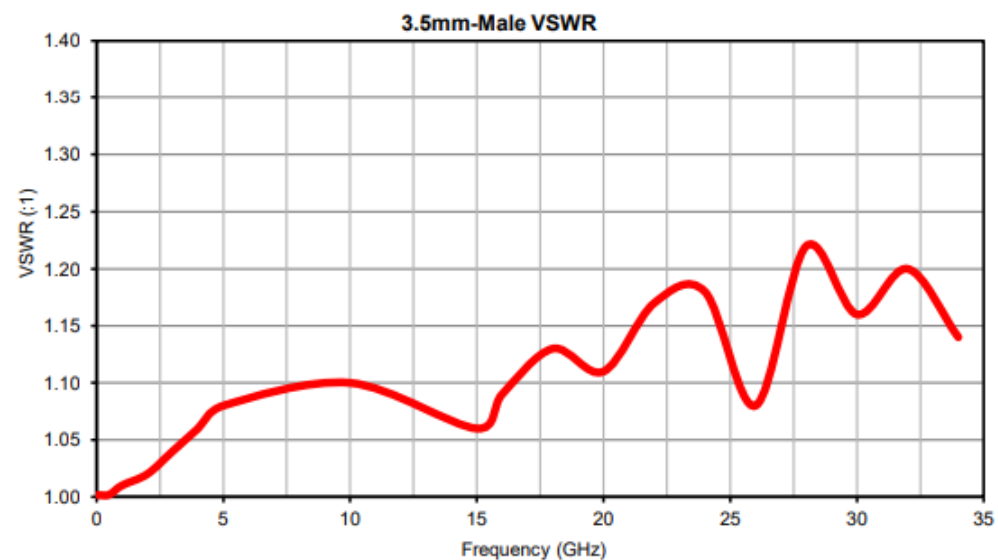
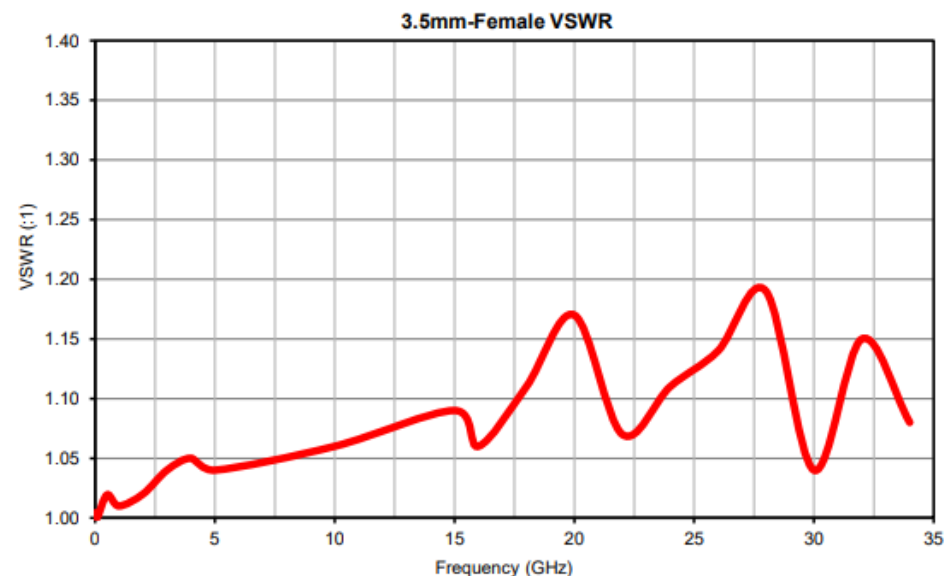
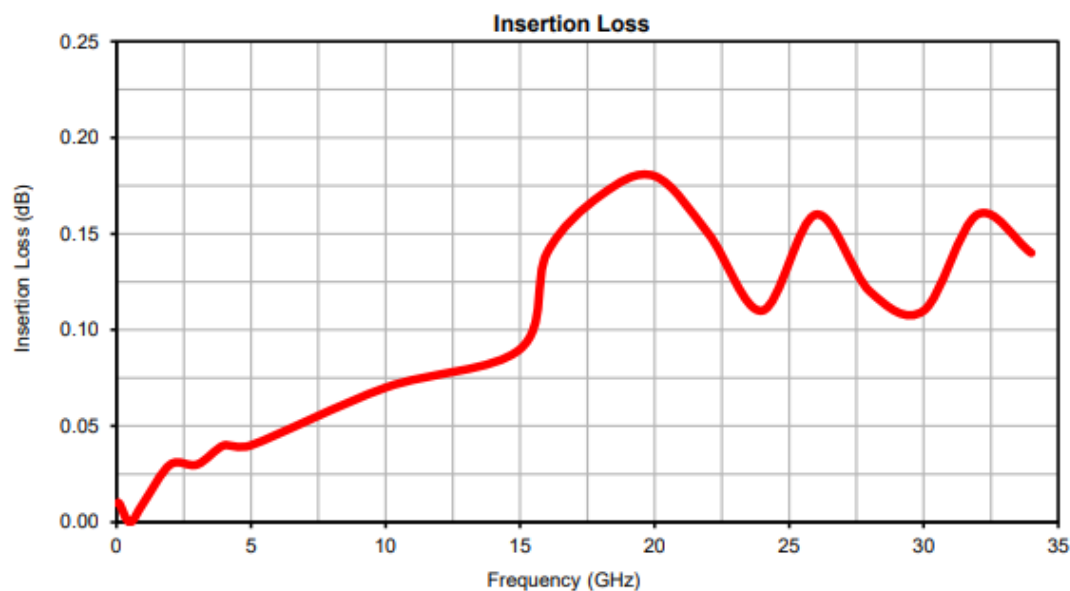


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Model Number	Conn. 1	Conn. 2	F Low (GHz)	F High (GHz)	VSWR(:1) Typ.	Impedance (Ω)
SF-35M50+	SMA-Female	3.5mm-Male	DC	26.5	1.1	50
SMPMR-SM50+	SMP-Male	SMA-M Right Angle	DC	26.5	1.1	50
35FFL-35F50+	3.5mm-Female	3.5mm-Female	DC	33	1.07	50
35F-35F50+	3.5mm-Female	3.5mm-Female	DC	34	1.07	50
35F-35M50+	3.5mm-Female	3.5mm-Male	DC	34	1.07	50
35M-35M50+	3.5mm-Male	3.5mm-Male	DC	34	1.02	50



Adapter, 3.5mm Female to 3.5mm Male 35F-35M50+ Typical Performance Curves



Adapters | 50 Ω | DC to 40 GHz | 1/2

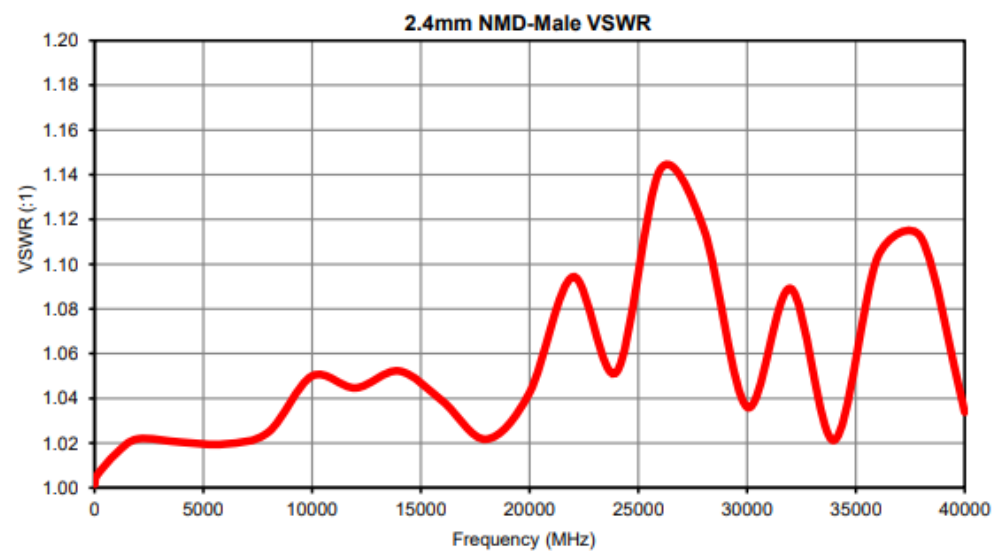
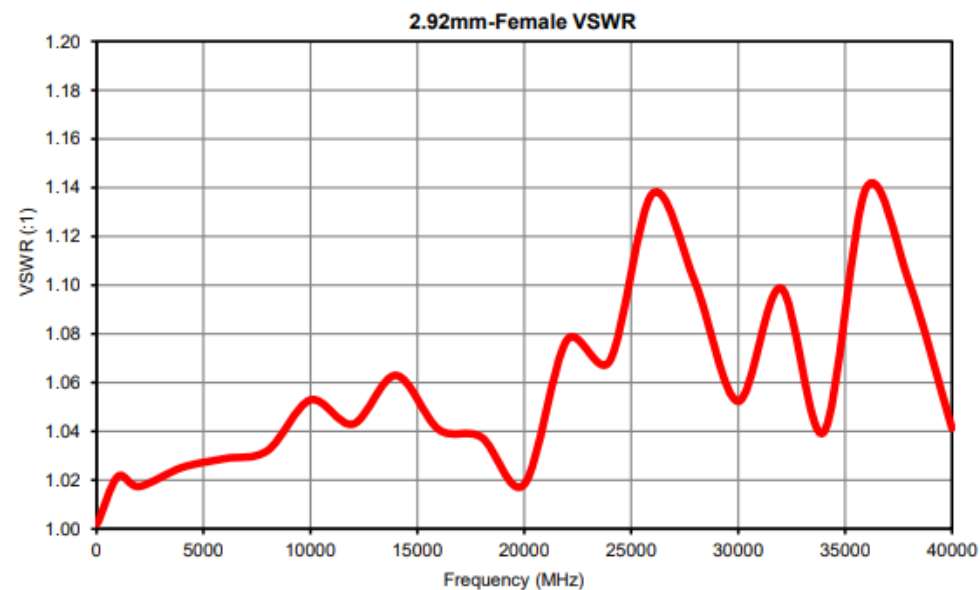
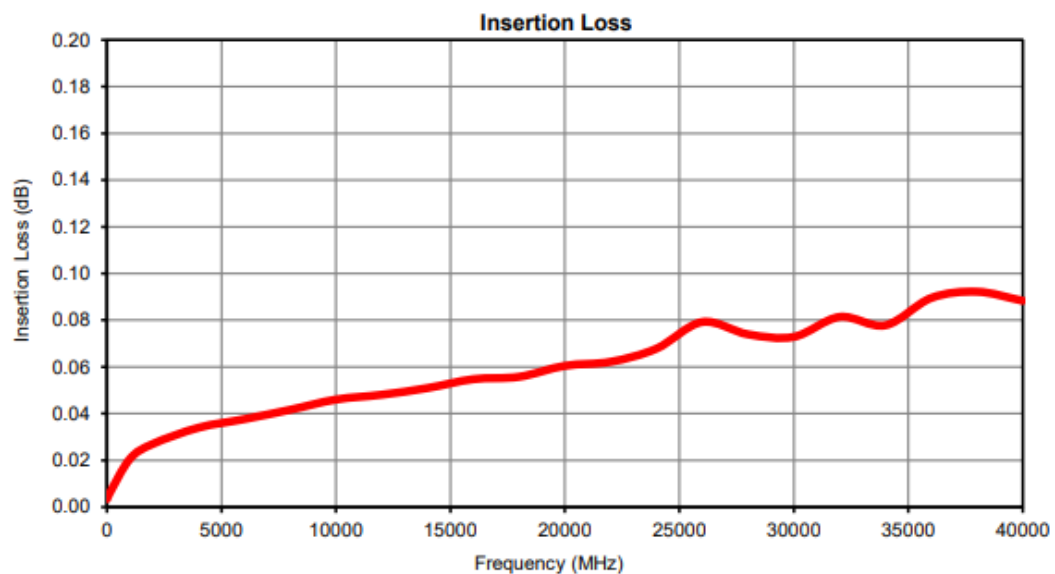


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Model Number	Conn. 1	Conn. 2	F Low (GHz)	F High (GHz)	VSWR(:1) Typ.	Impedance (Ω)
24B-KB+	2.92mm-F	2.4mm-F	DC	40	1.05	50
185F-KF+	1.85mm-F	2.92mm-F	DC	40	1.05	50
185F-KM+	1.85mm-F	2.92mm-M	DC	40	1.04	50
185M-KF+	1.85mm-M	2.92mm-F	DC	40	1.04	50
185M-KM+	1.85mm-M	2.92mm-M	DC	40	1.03	50
KB-KB50+	2.92mm-F	2.92mm-F	DC	40	1.03	50
KF-24F+	2.92mm-F	2.4mm-F	DC	40	1.1	50
KF-24M+	2.92mm-F	2.4mm-M	DC	40	1.1	50
KF-24MNMD+	2.92mm-F	2.4mm NMD-M	DC	40	1.06	50
KF-KF50+	2.92mm-F	2.92mm-F	DC	40	1.03	50
KF-KM50+	2.92mm-F	2.92mm-M	DC	40	1.04	50
KFFL-KF50+	2.92mm-F	2.92mm-F	DC	40	1.05	50



Adapter, 2.92mm-Female to 2.4mm NMD-Male KF-24MNMD+ Typical Performance



Adapters | 50 Ω | DC to 40 GHz | 2/2

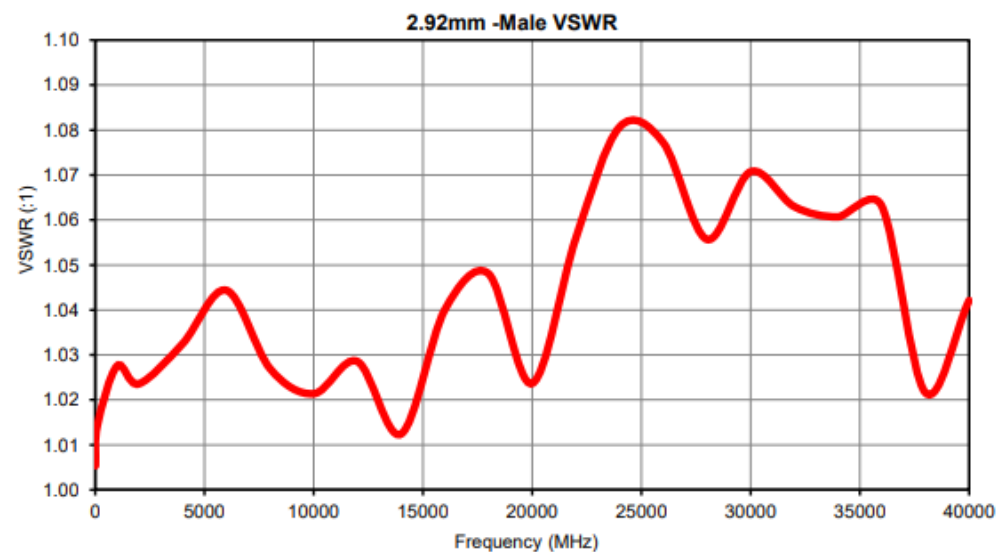
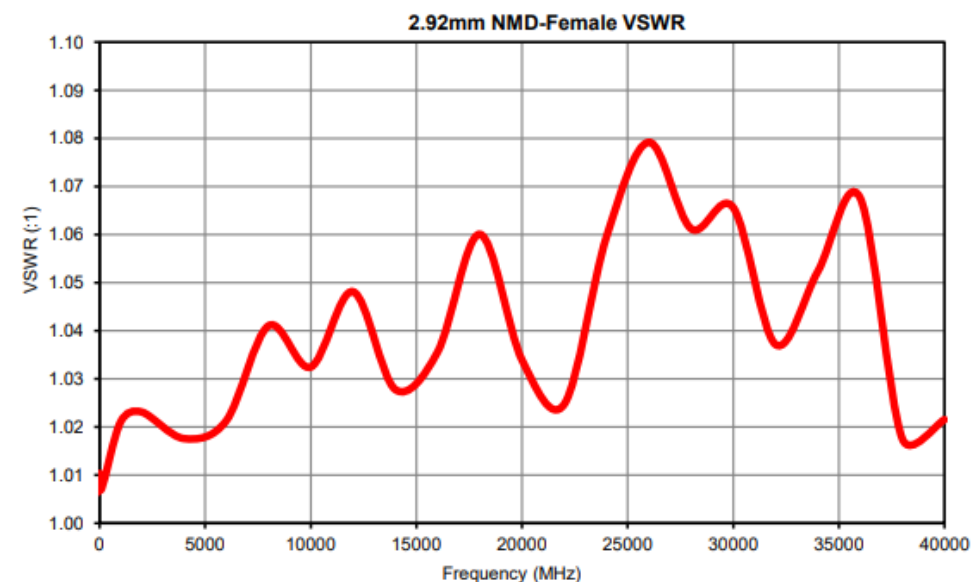
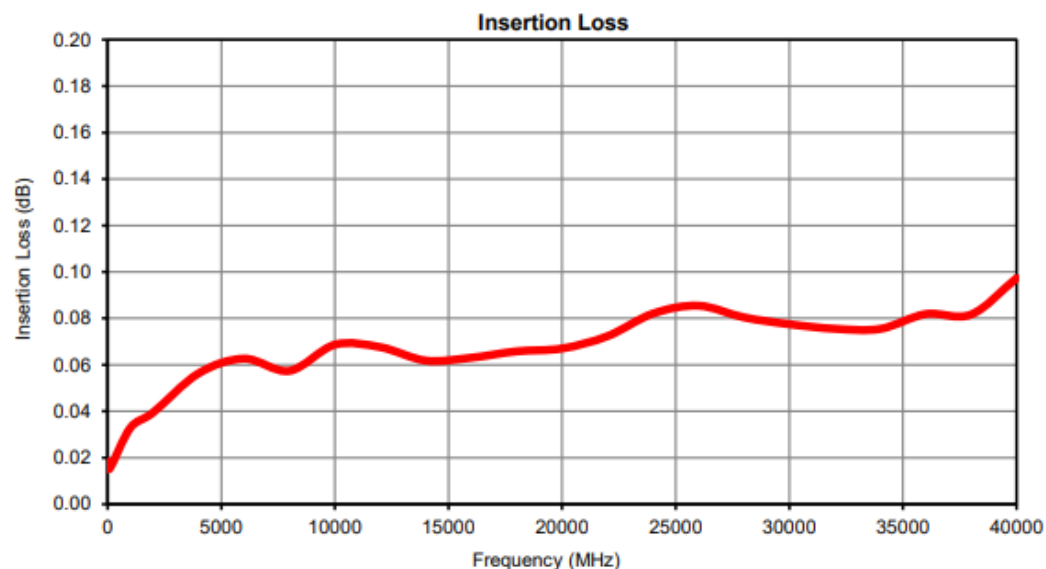


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Model Number	Conn. 1	Conn. 2	F Low (GHz)	F High (GHz)	VSWR(:1) Typ.	Impedance (Ω)
KFNMD-24MNMD+	2.92mm NMD-F	2.4mm NMD-M	DC	40	1.08	50
KFNMD-KM+	2.92mm NMD-F	2.92mm-M	DC	40	1.06	50
KFNMD-KMNMD+	2.92mm NMD-F	2.92mm NMD-M	DC	40	1.05	50
KFPM-KF50+	2.92mm-F	2.92mm-F	DC	40	1.08	50
KM-24F+	2.92mm-M	2.4mm-F	DC	40	1.1	50
KM-24M+	2.92mm-M	2.4mm-M	DC	40	1.1	50
KM-24MNMD+	2.92mm-M	2.4mm NMD-M	DC	40	1.04	50
KM-KM50+	2.92mm-M	2.92mm-M	DC	40	1.02	50
KMNMD-24MNMD+	2.92mm NMD-M	2.4mm NMD-M	DC	40	1.06	50
KMR-24F+	2.4mm-F	2.92mm-M Right Angle	DC	40	1.09	50
SMPM-24M+	SMP-M	2.4mm-M	DC	40	1.1	50



Adapter, 2.92mm NMD-Female to 2.92mm-Male KFNMD-KM+ Typical Performance



Adapters | 50 Ω | DC to 50 GHz



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Model Number	Conn. 1	Conn. 2	F Low (GHz)	F High (GHz)	VSWR(:1) Typ.	Impedance (Ω)
24F-24F+	2.4mm-F	2.4mm-F	DC	50	1.03	50
24F-24M+	2.4mm-F	2.4mm-M	DC	50	1.06	50
24M-24M+	2.4mm-M	2.4mm-M	DC	50	1.04	50
185F-24F+	1.85mm-F	2.4mm-F	DC	50	1.08	50
185F-24M+	1.85mm-F	2.4mm-M	DC	50	1.08	50
185M-24F+	1.85mm-M	2.4mm-F	DC	50	1.06	50
185M-24M+	1.85mm-M	2.4mm-M	DC	50	1.04	50
24FPM-24F+	2.4mm-F	2.4mm-F	DC	50	1.04	50



Part #: 24F-24F+



Part #: 24F-24M+



Part #: 24M-24M+



Part #: 185F-24F+



Part #: 185F-24M+



Part #: 185M-24F+



Part #: 185M-24M+



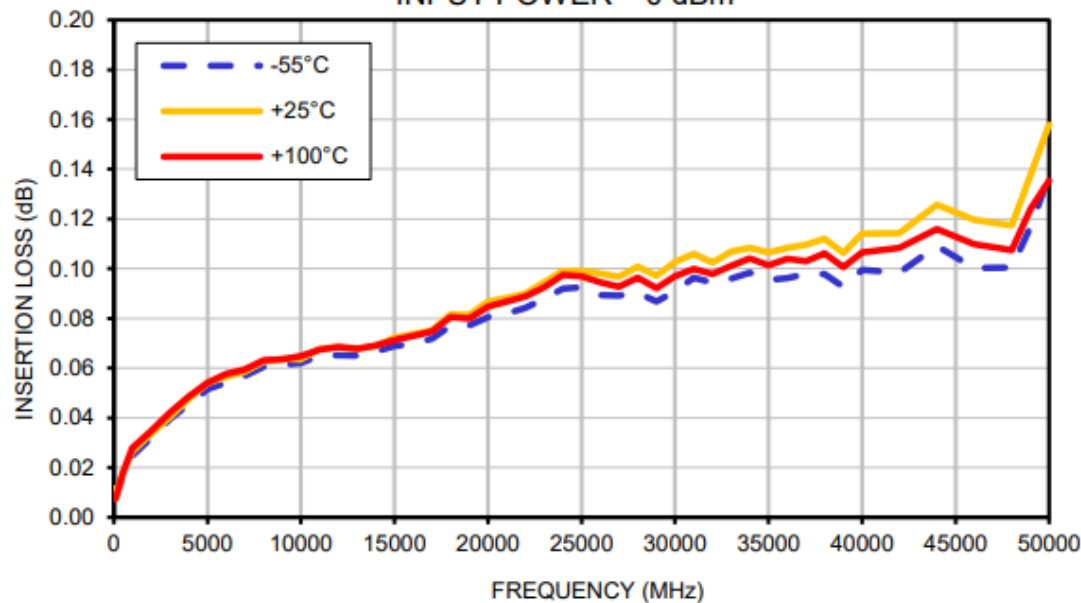
Part #: 24FPM-24F+

Adaptor 2.4mm-Female to 2.4mm-Female 24FPM-24F+ Typical Performance Curves



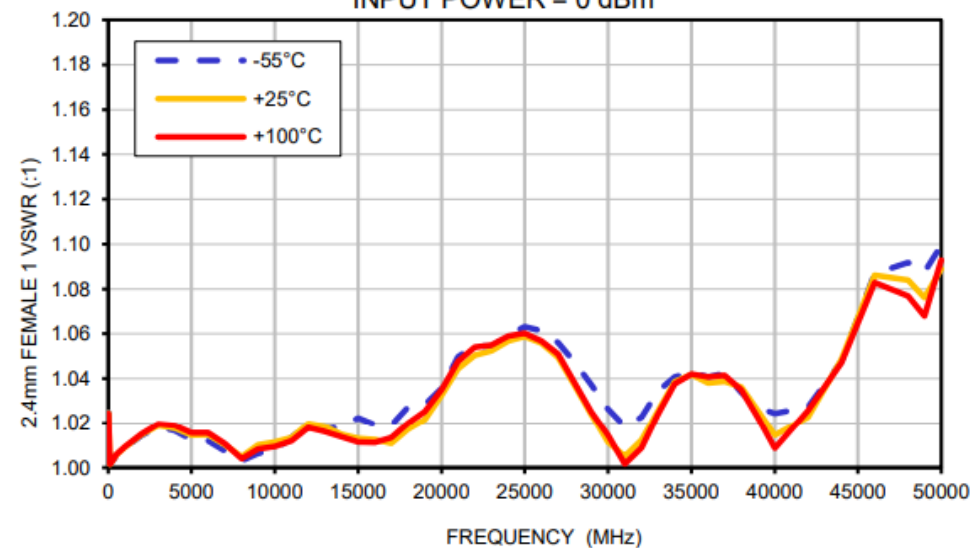
INSERTION LOSS vs. TEMPERATURE

INPUT POWER = 0 dBm



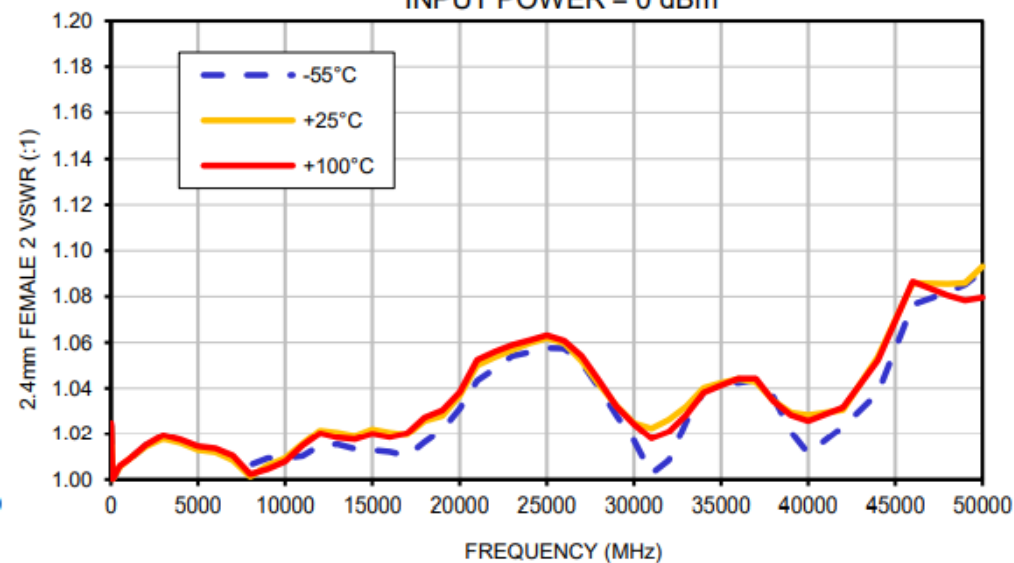
2.4mm Female 1 VSWR vs. TEMPERATURE

INPUT POWER = 0 dBm



2.4mm Female 2 VSWR vs. TEMPERATURE

INPUT POWER = 0 dBm



Adapters | 50 Ω | DC to 67 GHz



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Model Number	Conn. 1	Conn. 2	F Low (GHz)	F High (GHz)	VSWR(:1) Typ.	Impedance (Ω)
185F-185F+	1.85mm-F	1.85mm-F	DC	67	1.05	50
185M-185F+	1.85mm-M	1.85mm-F	DC	67	1.04	50
185M-185M+	1.85mm-M	1.85mm-M	DC	67	1.04	50



Part #: 185F-185F+



Part #: 185M-185F+



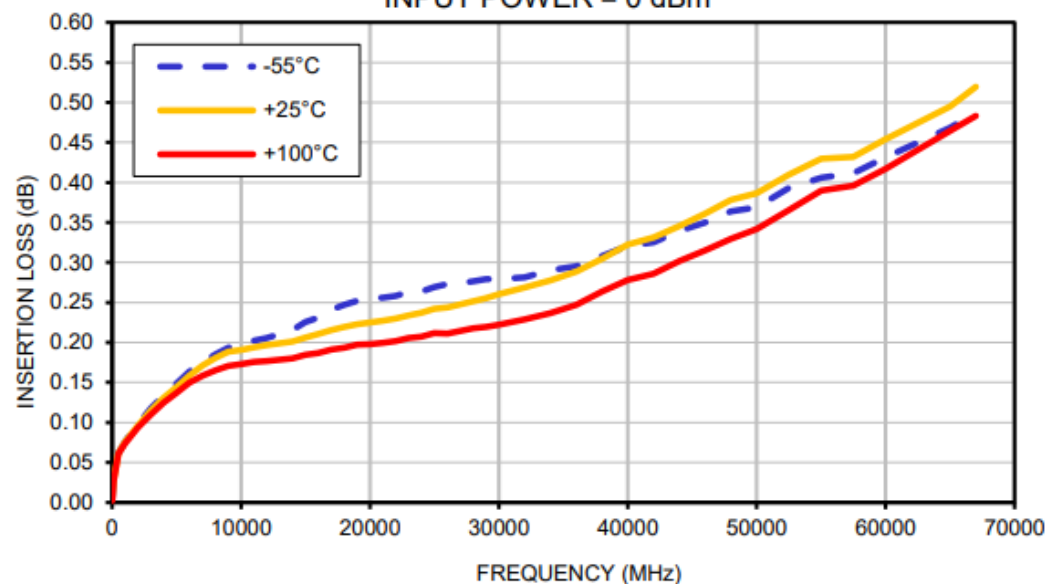
Part #: 185M-185M+

Adaptor 1.85mm-Male to 1.85mm-Female 185M-185F+ Typical Performance Curves



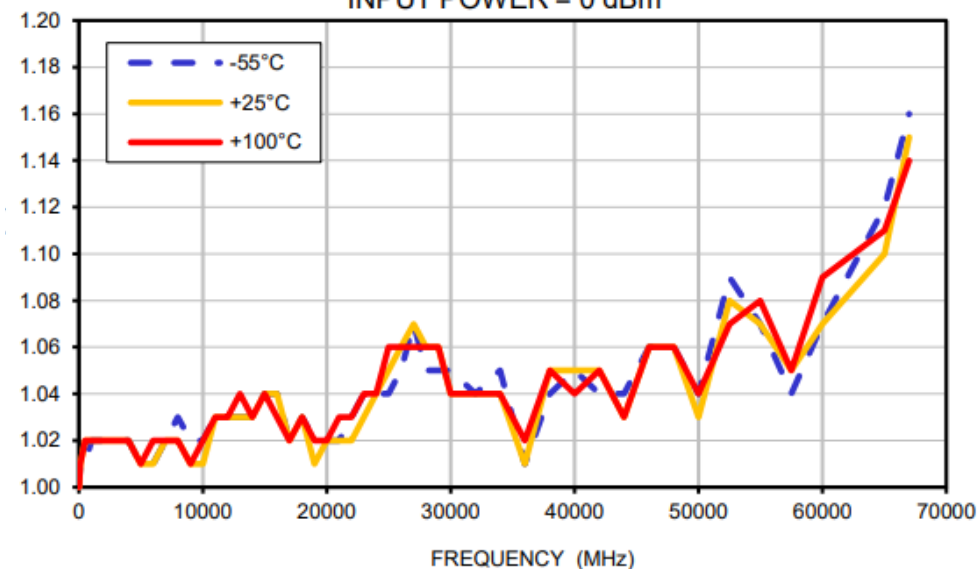
INSERTION LOSS vs. TEMPERATURE

INPUT POWER = 0 dBm



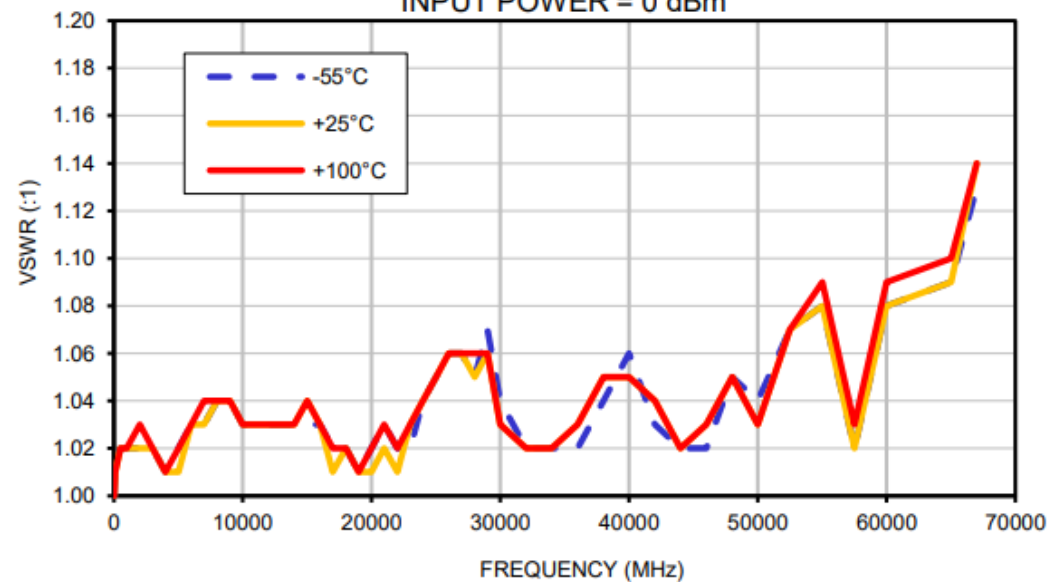
1.85mm-MALE VSWR vs. TEMPERATURE

INPUT POWER = 0 dBm



1.85mm-FEMALE VSWR vs. TEMPERATURE

INPUT POWER = 0 dBm





RF TERMINATIONS PRODUCT GUIDE

Terminations | Coaxial | DC to 12 GHz

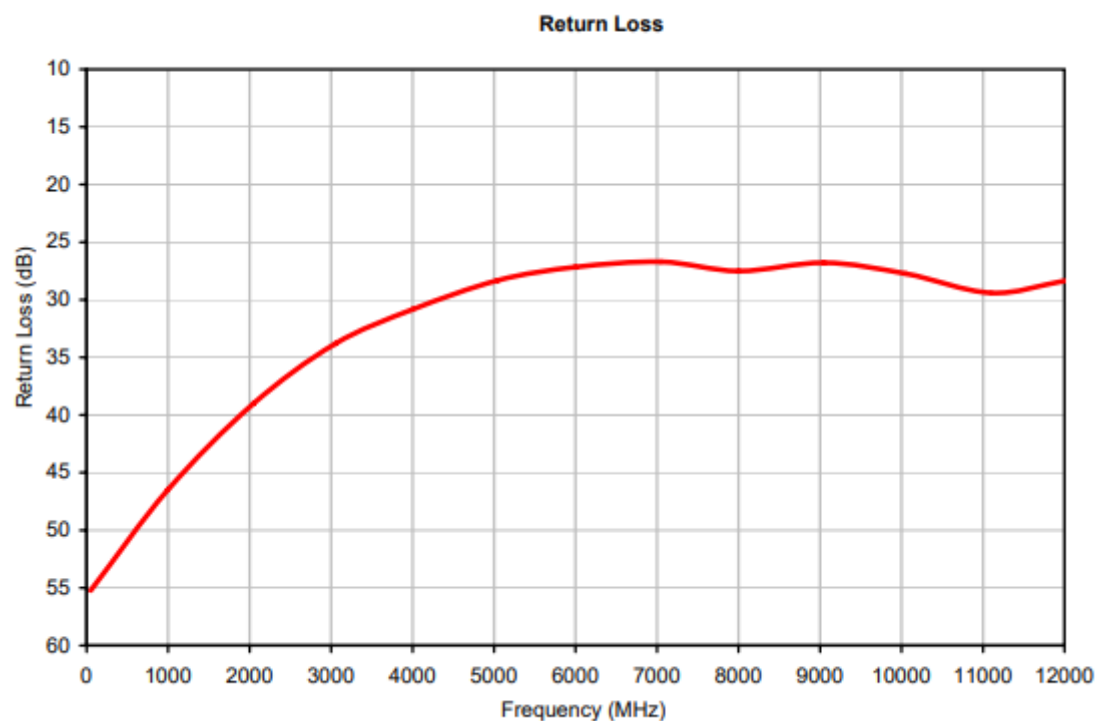


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Model Number	Imp (Ω)	Con Type	Con Desc	Freq. (GHz) Low	Freq. (GHz) High	Return Loss (dB), Typ. @ 1 GHz	Return Loss (dB), Typ. @ 2 GHz	Return Loss (dB), Typ. @ 4 GHz	Return Loss (dB), Typ. @ 6 GHz	Return Loss (dB), Typ. @ 8 GHz	Return Loss (dB), Typ. @ 12 GHz	Power Rating (W), Max.
BTRM-75+	75	BNC	Male-75 Ohm	DC	1	33	-	-	-	-	-	0.5
LOUIS-50	50	DIN 1.0/2.3	Male	DC	2	42	36	-	-	-	-	0.125
BTRM-50CN+	50	BNC	Male	DC	4	41	37	26	-	-	-	0.5
BTRM-50+	50	BNC	Male	DC	4	30	21	20	-	-	-	0.5
ANNE-50RP+	50	SMA	Male Reverse Polarity	DC	6	35	35	35	35	-	-	1
ROSE-50+	50	SMB	Female	DC	6	50	49	45	45	-	-	0.5
TTRM-50+	50	TNC	Male	DC	6	24	24	22	21	-	-	2
KARN-50+	50	N-Type	Male	DC	8	46	44	40	37	35	-	2
KARN-50CN+	50	N-Type	Male w/chain	DC	8	46	44	40	37	35	-	2
ANNE-50L+	50	SMA	Male	DC	12	48	46	39	34	31	27	1



Termination 50 Ω , SMA ANNE-50L+ Typical Performance Curves



Terminations | Coaxial | DC to 20 GHz

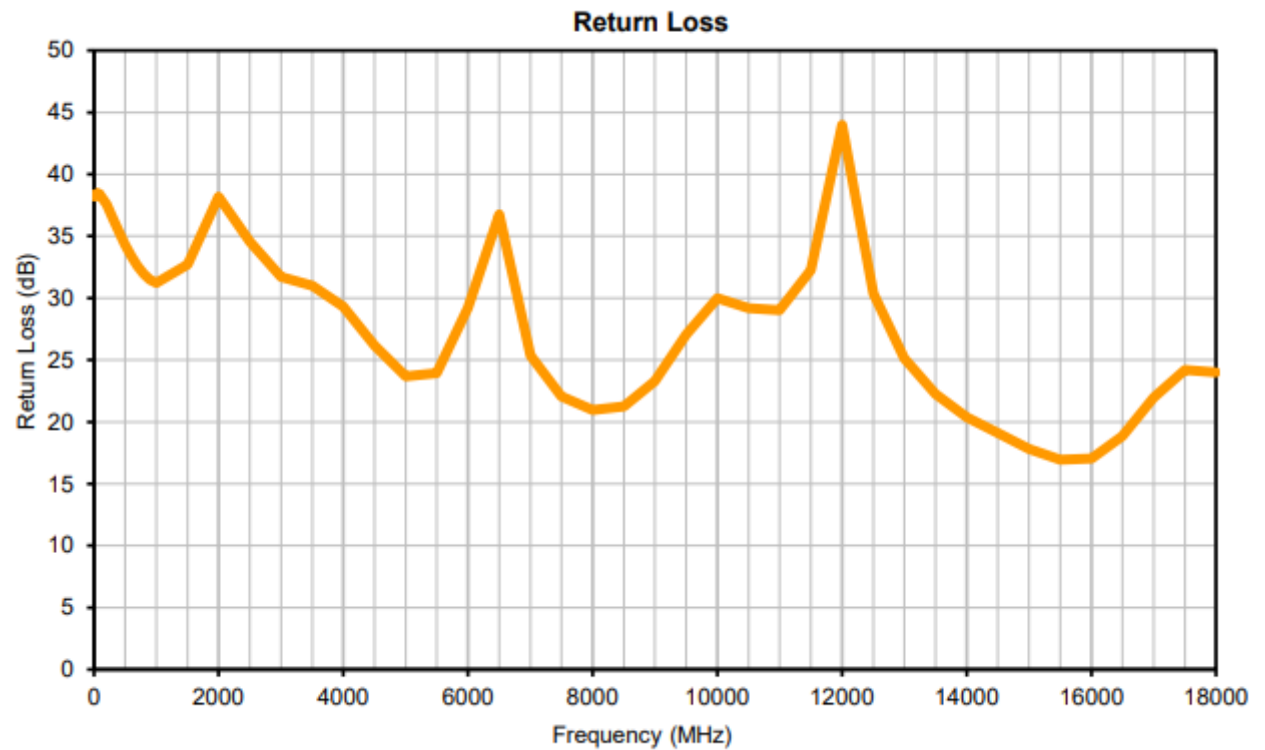


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Model Number	Imp (Ω)	Con Type	Con Desc	Freq. (GHz) Low	Freq. (GHz) High	Return Loss (dB), Typ. @ 1 GHz	Return Loss (dB), Typ. @ 2 GHz	Return Loss (dB), Typ. @ 4 GHz	Return Loss (dB), Typ. @ 6 GHz	Return Loss (dB), Typ. @ 8 GHz	Return Loss (dB), Typ. @ 12 GHz	Return Loss (dB), Typ. @ 18 GHz	Return Loss (dB), Typ. @ 20 GHz	Power Rating (W), Max.
ANNE-50+	50	SMA	Male	DC	18	50	46	41	40	38	45	30	-	1
ANNE-50CN+	50	SMA	Male w/Chain	DC	18	50	46	41	40	38	45	30	-	1
ANNEF-50+	50	SMA	Female	DC	18	46	45	40	40	41	32	23	-	1
KARN-50-18+	50	N-Type	Male	DC	18	46	44	41	41	41	41	28	-	2
SMPF-TERM50+	50	SMP	Female	DC	18	47	46	45	35	30	24	22	-	1
TERM-25W-183N+	50	N-Type	Male	DC	18	33	36	25	31	30	36	22	-	25
TERM-25W-183S+	50	SMA	Male	DC	18	33	32	32	25	28	24	29	-	25
TERM-50W-183N+	50	N-Type	Male	DC	18	31	38	29	29	21	44	24	-	50
TERM-50W-183S+	50	SMA	Male	DC	18	34	31	41	32	21	30	26	-	50
ANNE-50X+	50	SMA	Male	DC	20	48	46	39	37	35	35	25	25	1
ANNEQ-50X+	50	SMA	Male Quick-Turn	DC	20	48	46	43	39	33	26	26	31	1



High Power Termination 50Ω, N-Male TERM-50W-183N+ Typical Performance Curves



Terminations | Coaxial | DC to 40 GHz



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Model Number	Imp (Ω)	Con Type	Con Desc	Freq. (GHz) Low	Freq. (GHz) High	Return Loss (dB), Typ. @ 1 GHz	Return Loss (dB), Typ. @ 2 GHz	Return Loss (dB), Typ. @ 4 GHz	Return Loss (dB), Typ. @ 6 GHz	Return Loss (dB), Typ. @ 8 GHz	Return Loss (dB), Typ. @ 12 GHz	Return Loss (dB), Typ. @ 18 GHz	Return Loss (dB), Typ. @ 20 GHz	Return Loss (dB), Typ. @ 40 GHz	Return Loss (dB), Typ. @ 50 GHz	Return Loss (dB), Typ. @ 65 GHz	Power Rating (W), Max.
ANNE-50K+	50	2.92mm	Male	DC	40	40	38	35	32	30	30	30	27	20	-	-	1
ANNEF-50K+	50	2.92mm	Female	DC	40	38	36	32	32	30	29	26	26	32	-	-	1
ANNEQ-50K+	50	2.92mm	Male Quick-Turn	DC	40	38	36	31	29	27	26	26	23	25	-	-	1



Termination 50Ω, Quick Turn 2.92mm-Male ANNEQ-50K+ Typical Performance Curves



Terminations | Coaxial | DC to 65 GHz

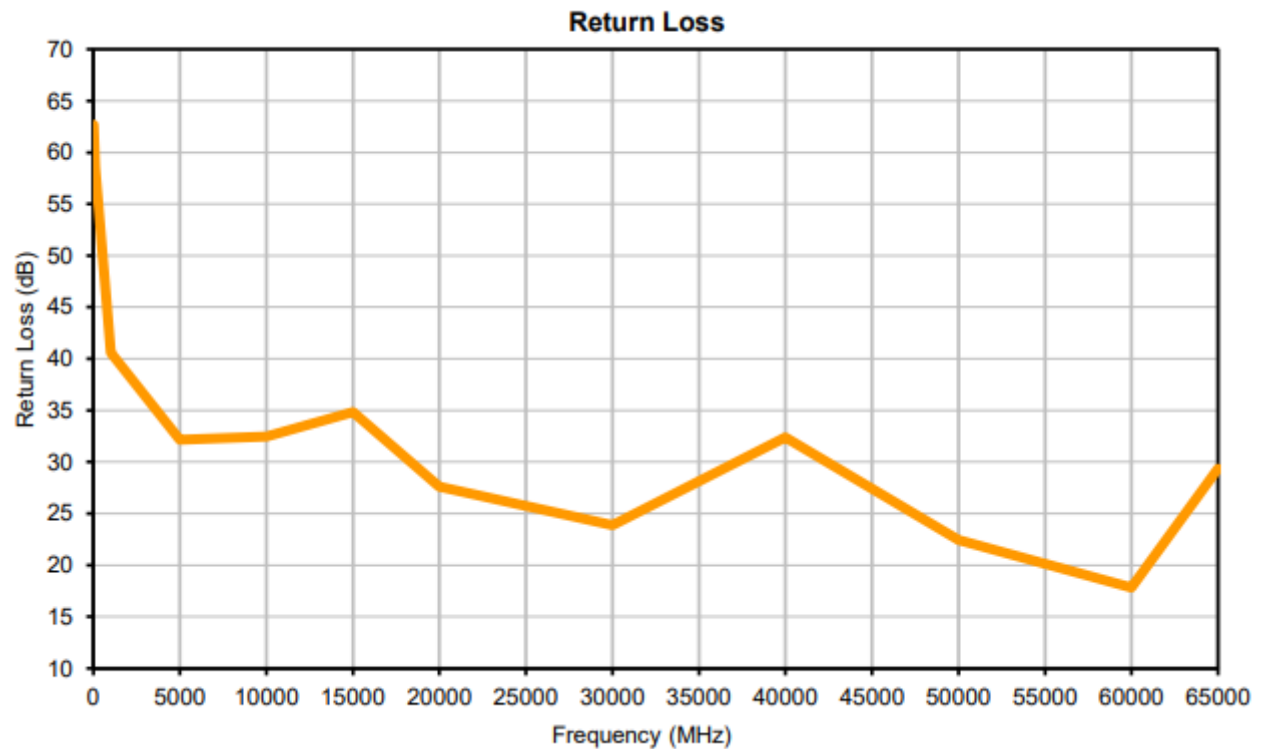


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Model Number	Imp (Ω)	Con Type	Con Desc	Freq. (GHz) Low	Freq. (GHz) High	Return Loss (dB), Typ. @ 1 GHz	Return Loss (dB), Typ. @ 2 GHz	Return Loss (dB), Typ. @ 4 GHz	Return Loss (dB), Typ. @ 6 GHz	Return Loss (dB), Typ. @ 8 GHz	Return Loss (dB), Typ. @ 12 GHz	Return Loss (dB), Typ. @ 18 GHz	Return Loss (dB), Typ. @ 20 GHz	Return Loss (dB), Typ. @ 40 GHz	Return Loss (dB), Typ. @ 50 GHz	Return Loss (dB), Typ. @ 65 GHz	Power Rating (W), Max.
ANNE-50V+	50	2.4mm	Male	DC	50	43	42	37	35	35	38	29	27	26	19	-	1
ANNEF-50V+	50	2.4mm	Female	DC	50	45	44	42	43	45	38	31	30	20	24	-	1
ANNE-50E+	50	1.85mm	Male	DC	65	41	38	36	32	32	33	31	28	32	22	29	1
ANNEF-50E+	50	1.85mm	Female	DC	65	54.5	38.0	30.6	28.5	29.5	29.8	26.4	24.2	29.8	25.8	16.1	1



Termination 50Ω, 1.85mm-Male ANNE-50E+ Typical Performance Curves



Terminations | Coaxial | Up to 500W

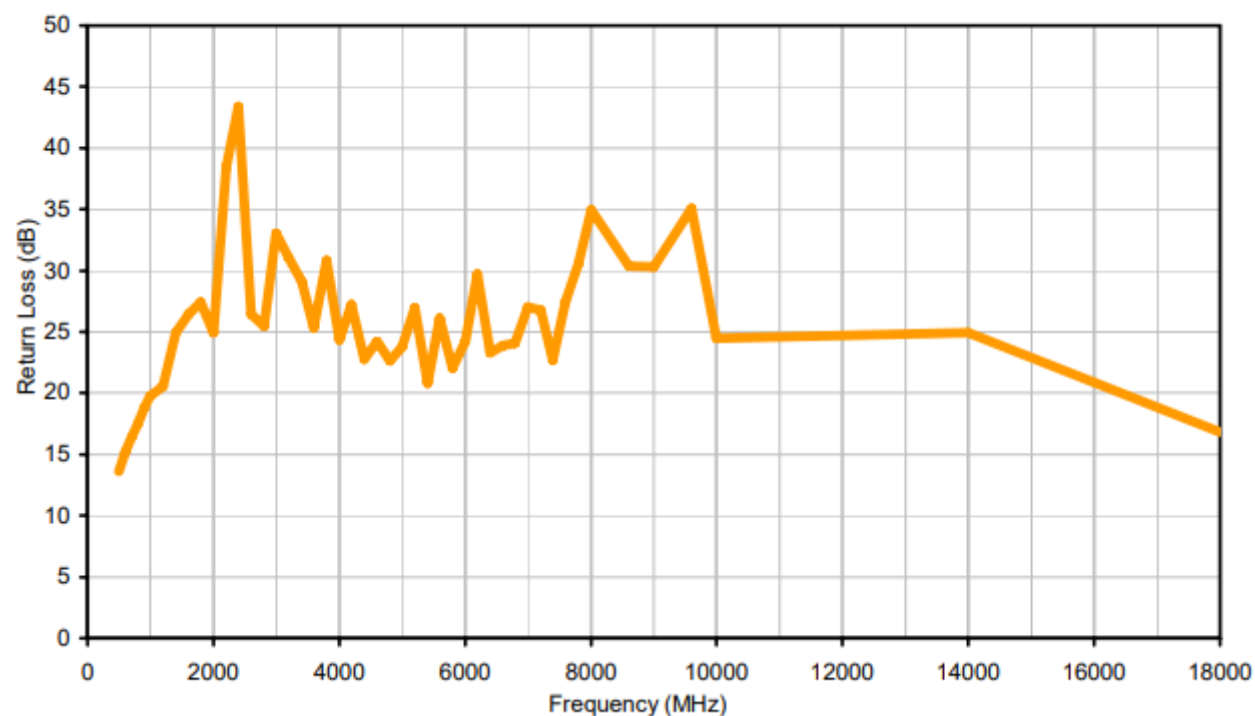


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Model Number	Impedance (Ω)	Con Type	Con Desc	Freq. (GHz) Low	Freq. (GHz) High	Return Loss (dB), Typ. @ 0.7 GHz	Return Loss (dB), Typ. @ 1 GHz	Return Loss (dB), Typ. @ 2 GHz	Return Loss (dB), Typ. @ 4 GHz	Return Loss (dB), Typ. @ 6 GHz	Return Loss (dB), Typ. @ 10 GHz	Power Rating (W), Max.
TERM-500W-14N+	50	N-Type	Female	0.7	10	17	20	23	25	25	23	500



**TERM-500W-14N+
Return Loss**



***RF ADAPTERS
& TERMINATIONS
PRODUCT GUIDE***

**RECOMMENDED
ACCESORIES**

Recommended Accessories | Torque Wrench



Torque Wrench TRQ-516-08

Mini-Circuits' Precise Break-over Torque Wrench TRQ-516-08 allows for precise mating force and easy use in tight spaces. The head will break over to signal the user when preset torque is achieved. It will effectively prevent over/under tightening.

Features:

- Lab quality
- Accuracy
- Precise preset torque
- Prevent over or under tightening
- Light weight, easy to use
- SMA, 3.5mm, 2.92mm, 2.4mm, 1.85mm connectors

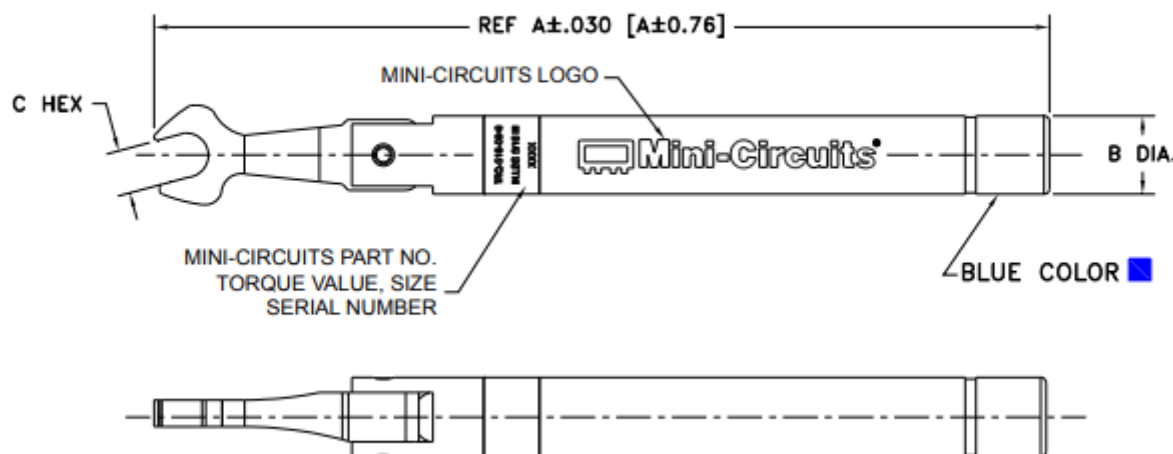


Wrench Torque	8±0.32 inch-lbs (0.9±0.04 NM)
Wrench Size	8.0 mm (5/16 inches)
Wrench Head	Stainless steel
Color	Blue Handle
Handle	Aluminum blue anodized
Length	6.44±.030
Weight	83.05 gms

Performance standards are in compliance with ANSI/NCSL Z540 and ISO 10011

Performance standards are in compliance with ANSI/NCSL Z540 and ISO 10011

Outline Drawing



[Click for more Information & Datasheet](#)



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or speak with our Engineers directly by calling **077-5406075**