

VERO TEST

Low insertion loss RF Cable

Features

- High Flexibility
- Low Insertion Loss

Typical Applications

- Bench Top Testing
- Laboratory Testing
- Automated Test Equipment



Cable Structure

VT18/VT26



The diagram shows a cross-section of a cable assembly. From left to right, the layers are: a thin silver-plated copper center conductor, a white dielectric layer, a braided outer conductor, a yellow inner layer, a braided outer shield, and a blue FEP jacket. A table below the diagram maps these layers to their material names.

Center Conductor	Dielectric	Outer Conductor	Inner Layer	Outer Shield	Jacket
Silver Plated Copper	Solid PTFE	Flat Wire Silver Plated	Aluminum Laminate	Silver Plated Copper	Blue FEP

VT40



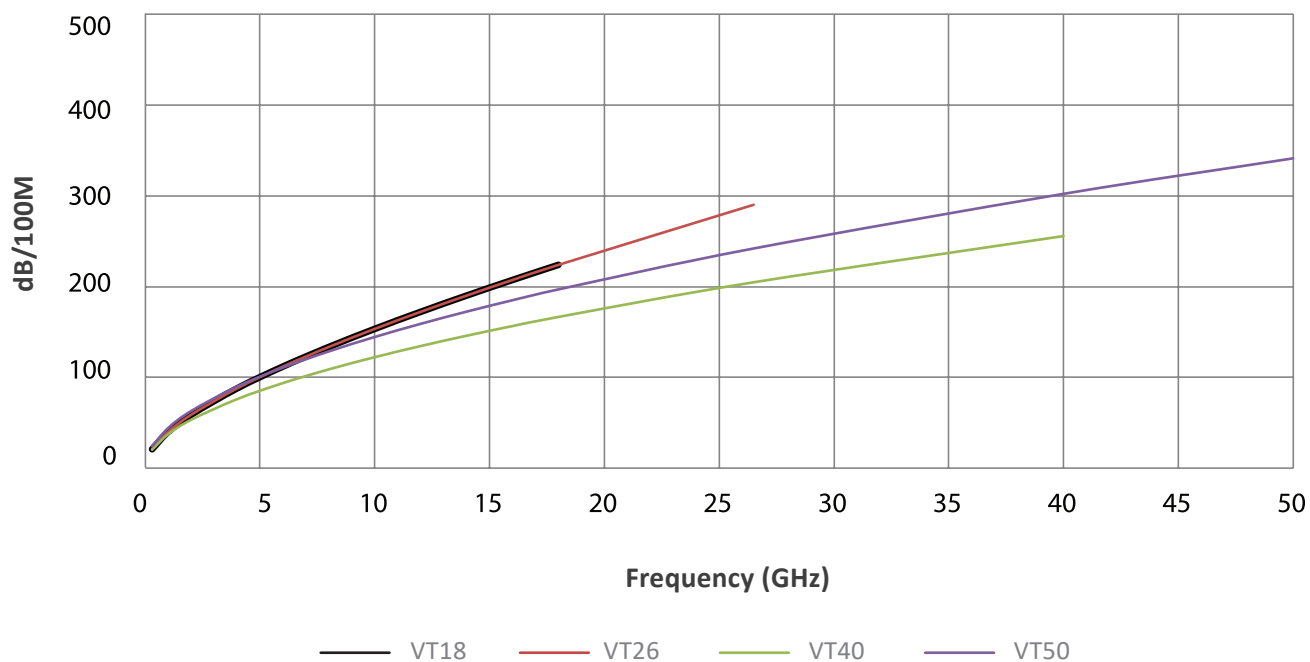
Center Conductor	Dielectric	Outer Conductor	Inner Layer	Outer Shield	Jacket
Silver Plated Copper	LD PTFE	Silver Plated Copper Foil	LD-PTFE	Silver Plated Copper Braid	Blue FEP

VT50

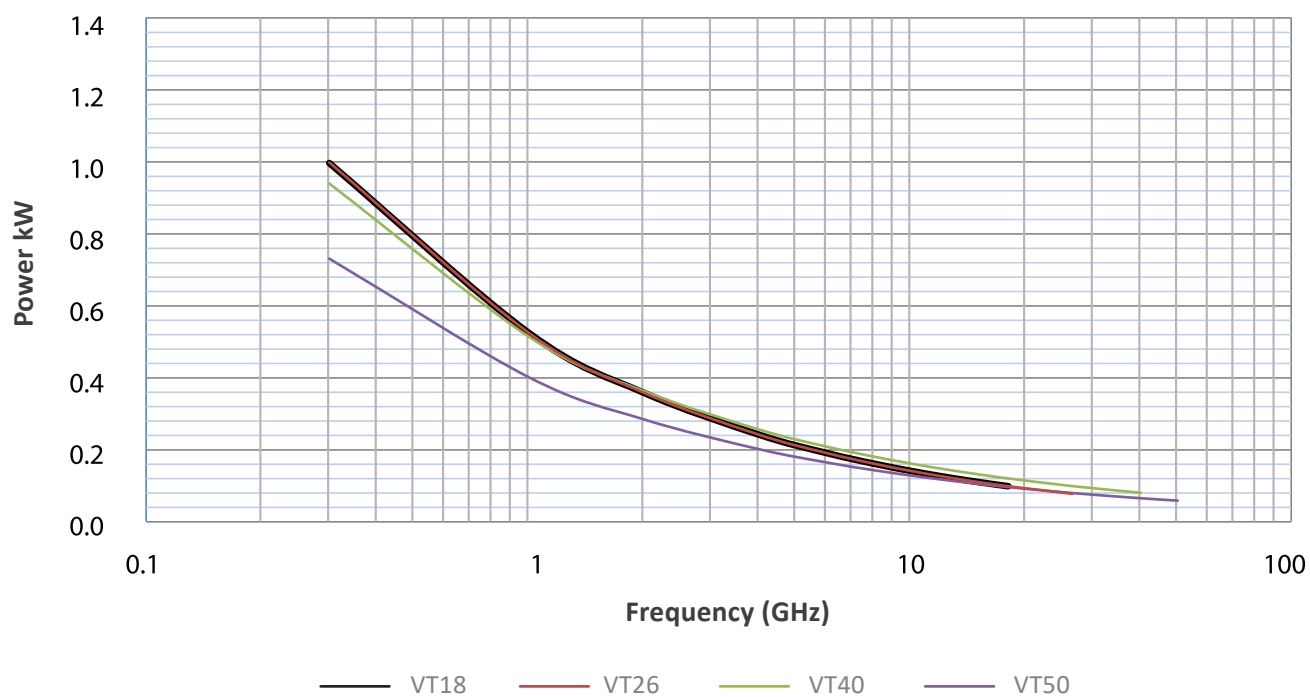


Center Conductor	Dielectric	Outer Conductor	Inner Tape	Outer Shield	Jacket
Silver Plated Copper	Pushing Foam PTFE	Silver Plated Copper Foil	LD PTFE	Silver Plated Copper	Blue FEP

VEROTEST Attenuation



VEROTEST Average Power

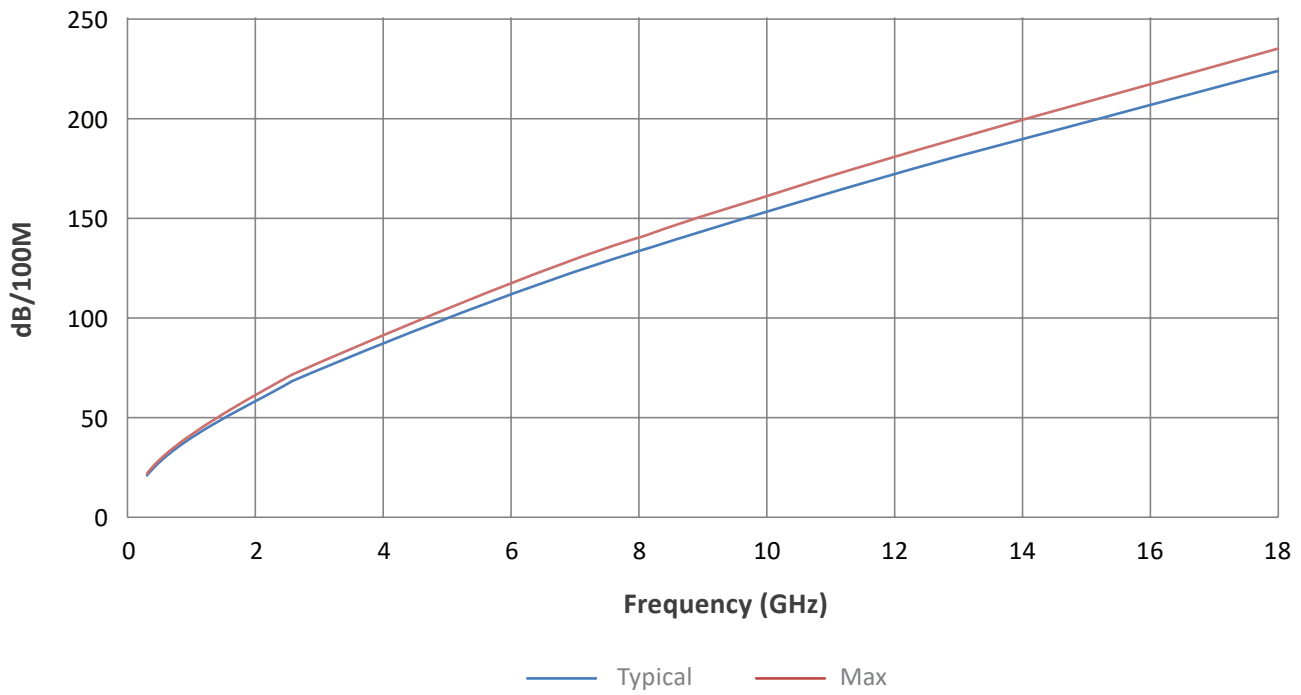




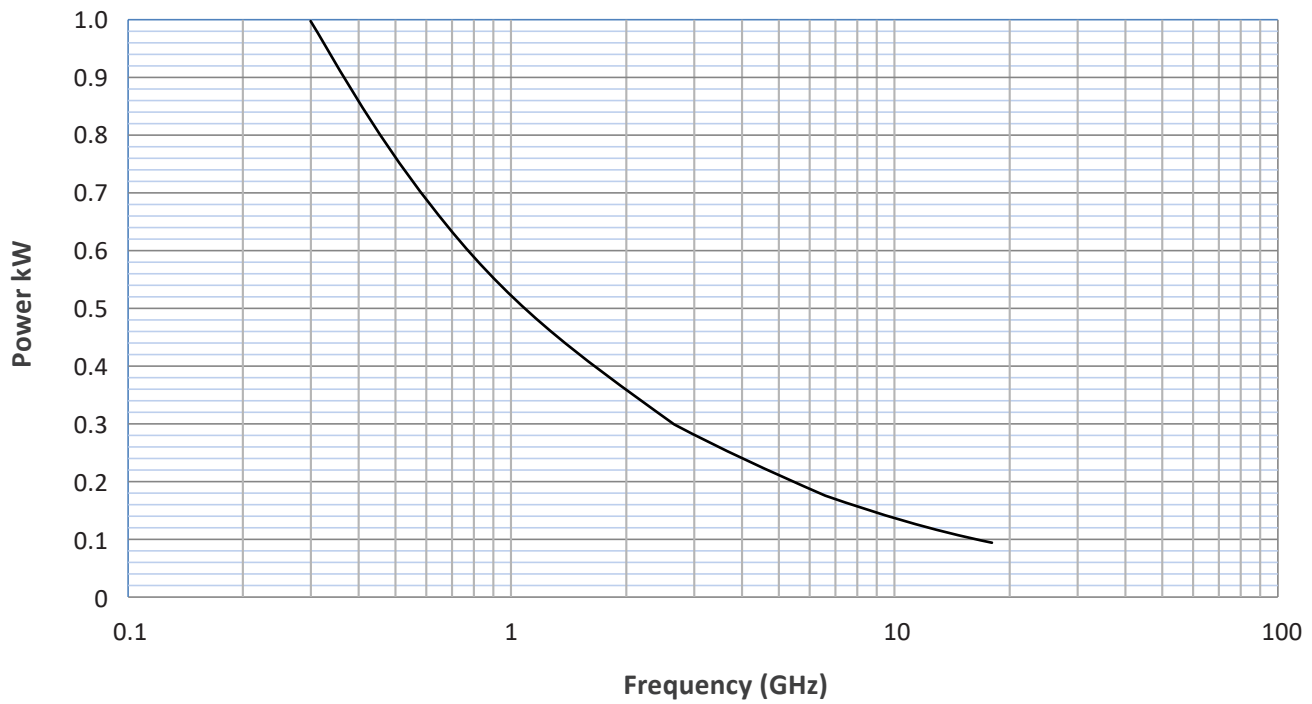
Specifications

Cable	VT18	VT26	VT40	VT50
Center Conductor	Solid	Solid	Solid	Solid
Overall Diameter (mm)	4.85	4.85	3.80	3.60
Nominal Weight (g/m)	64	64	35	29
Minimum Bend Radius (mm)	25	25	20	20
Max Flex Cycles	50,000	50,000	20,000	20,000
Temperature Range (°C)	-55/125	-55/125	-55/125	-55/125
Maximum Frequency (GHz)	18.0	26.5	40.0	50.0
Typical VSWR	1.20:1	1.22:1	1.25:1	1.25:1
Typical Insertion Loss (dB/m)	2.58	3.31	2.60	3.46
Maximum VSWR	1.30:1	1.30:1	1.30:1	1.35:1
Impedance (Nominal) (Ohms)	50	50	50	50
Typical Amplitude Stability (dB)	<± 0.05	<± 0.05	<± 0.05	<± 0.05
Typical Phase Stability (Degree)	±2.0	±3.0	±5.0	±6.0
Dielectric Constant (Nominal)	2.04	2.04	1.49	1.73
Velocity of Propagation (Nominal) (%)	70	70	82	76
Time Delay (Nominal) (ns/cm)	0.0476	0.0476	0.0406	0.0438

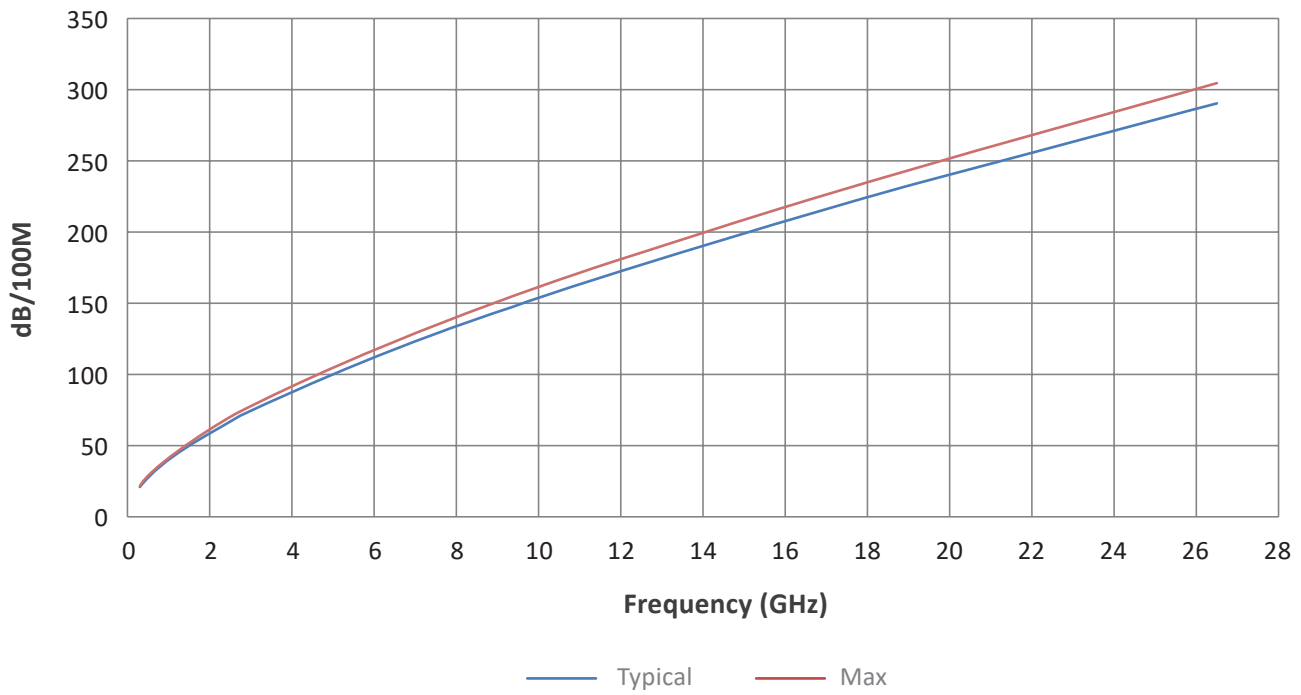
VT18 Attenuation



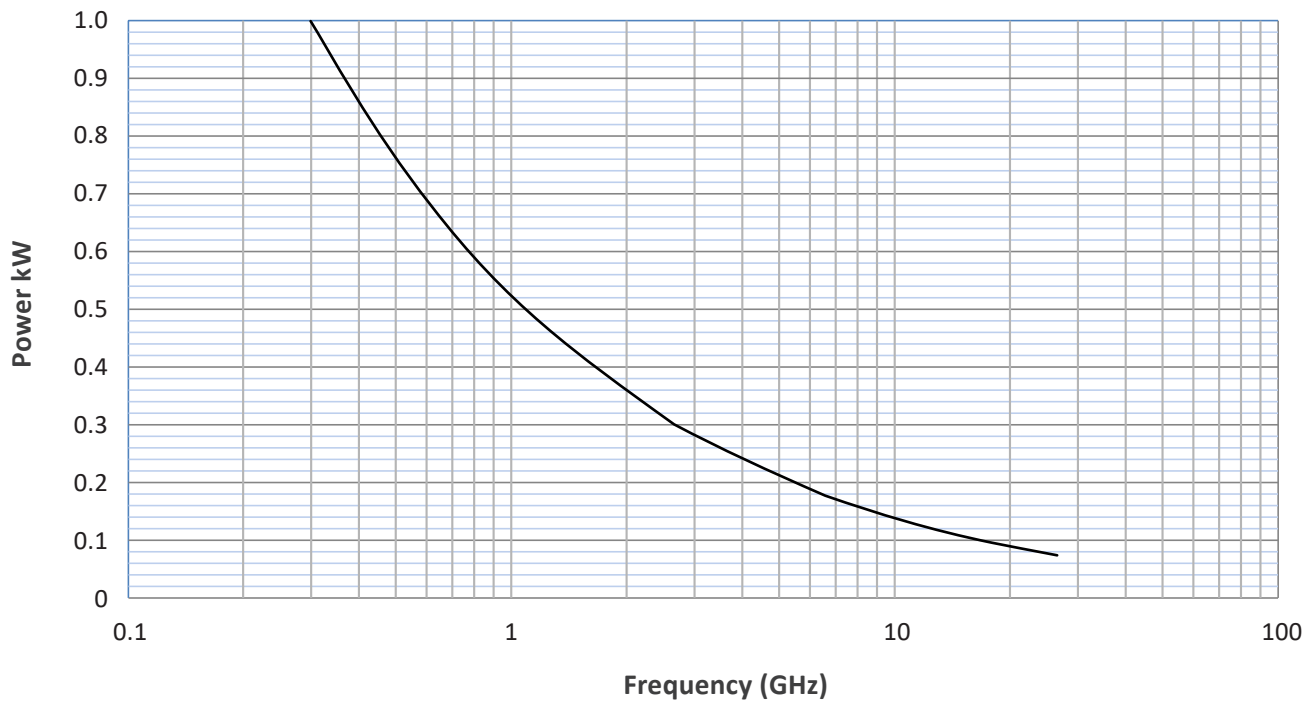
VT18 Average Power



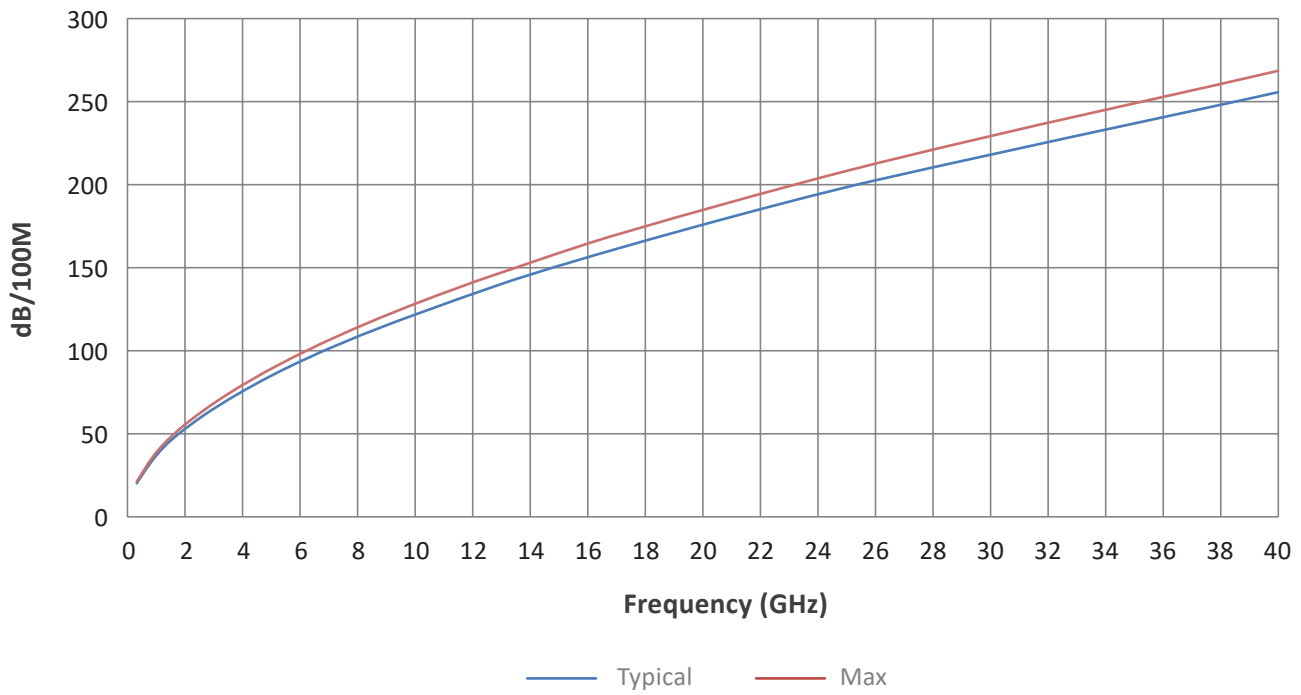
VT26 Attenuation



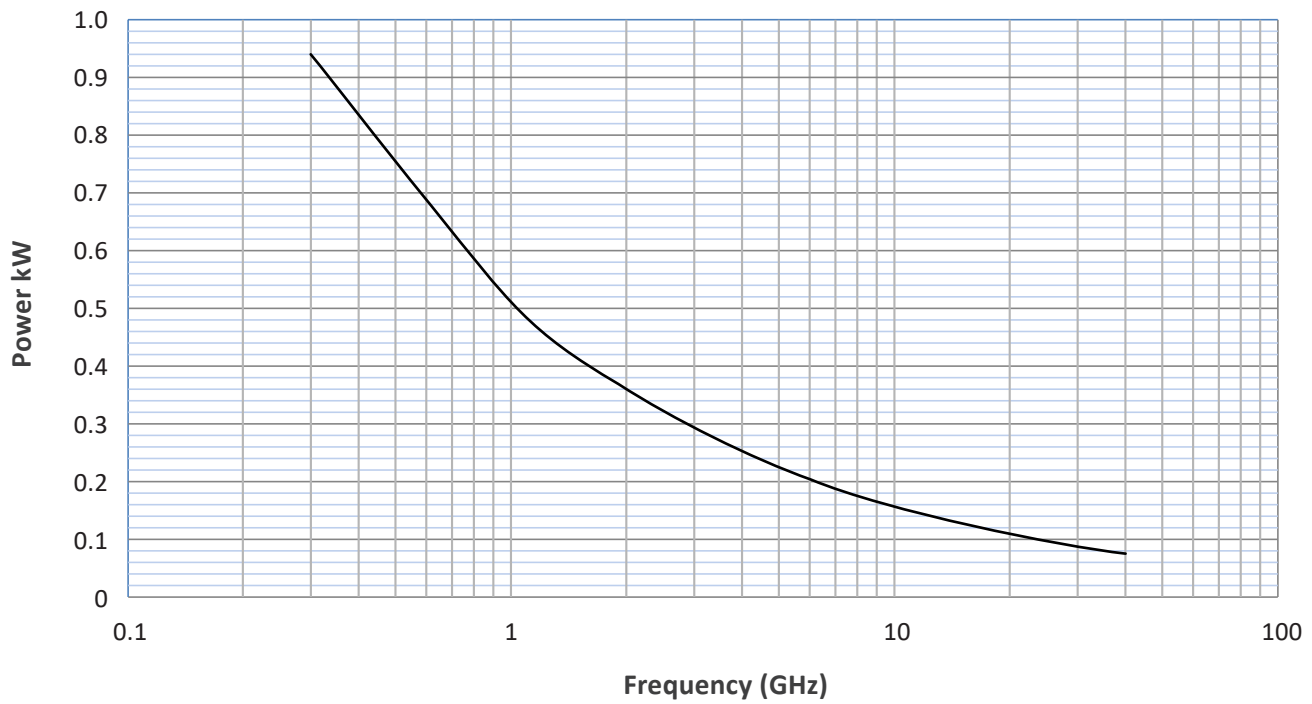
VT26 Average Power



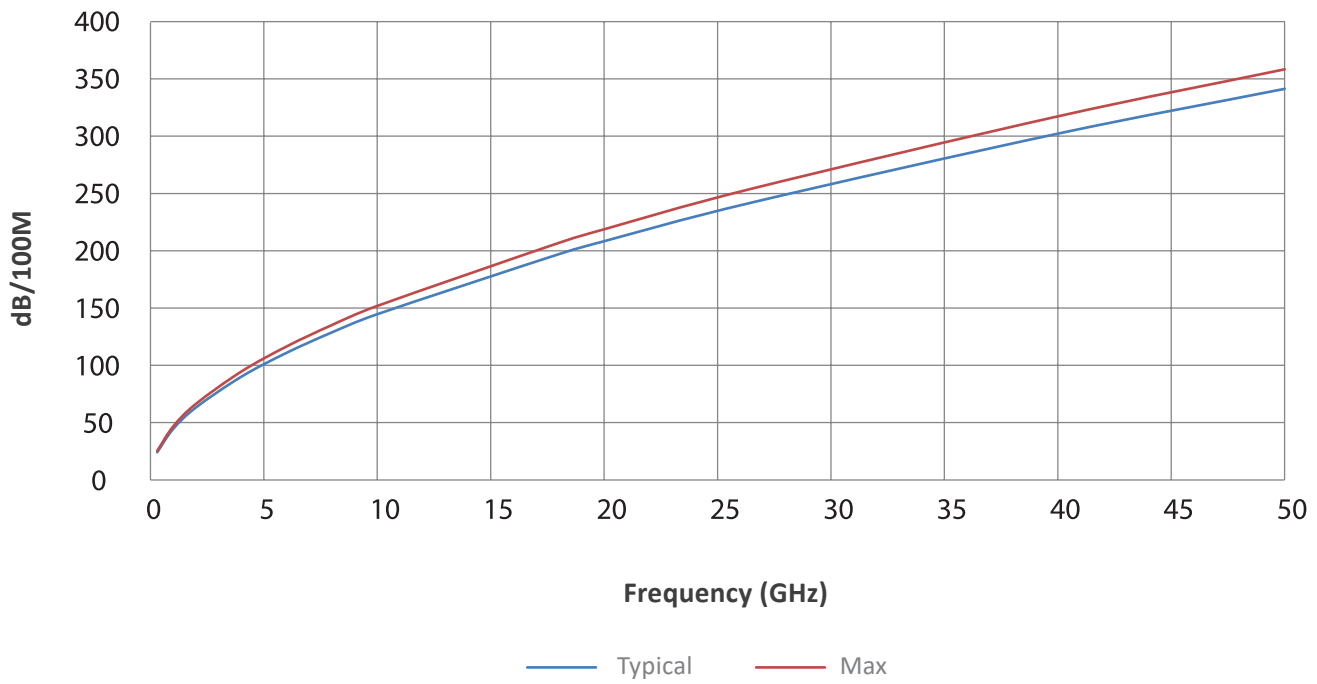
VT40 Attenuation



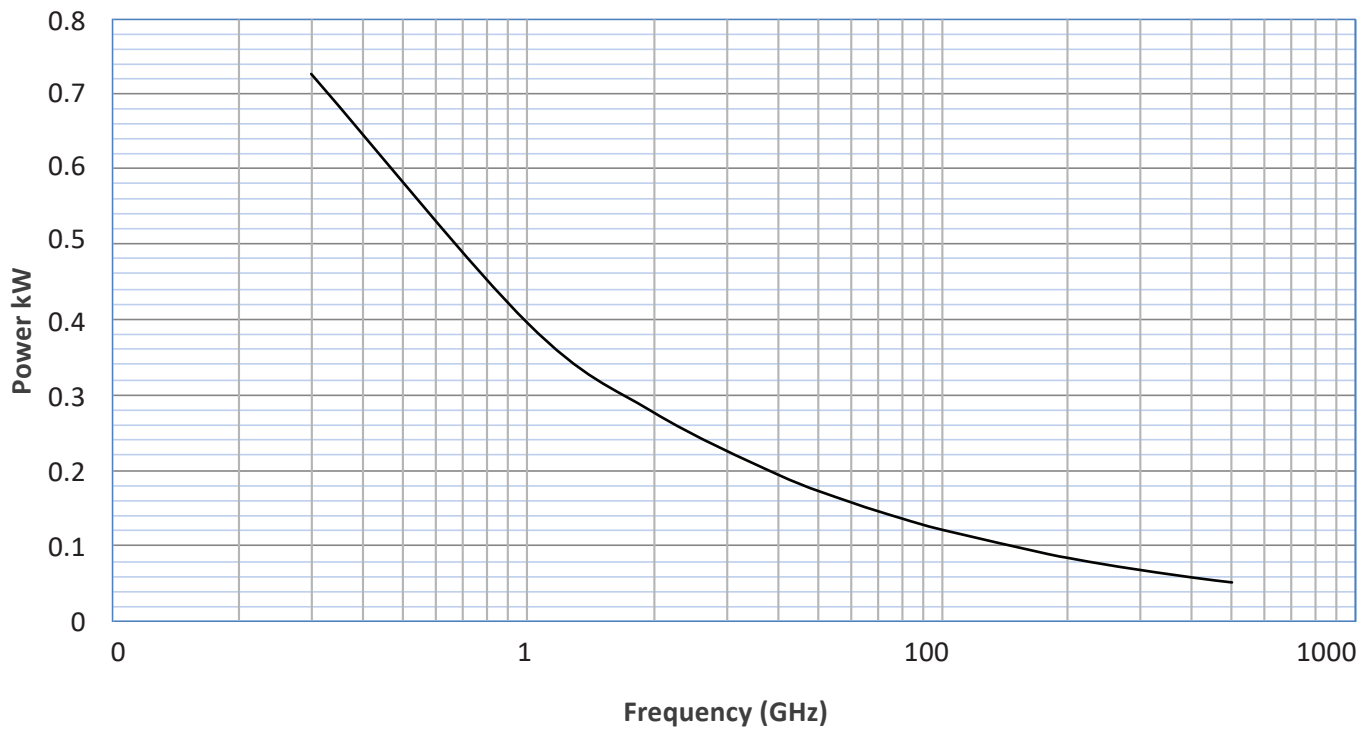
VT40 Average Power



VT50 Attenuation



VT50 Average Power



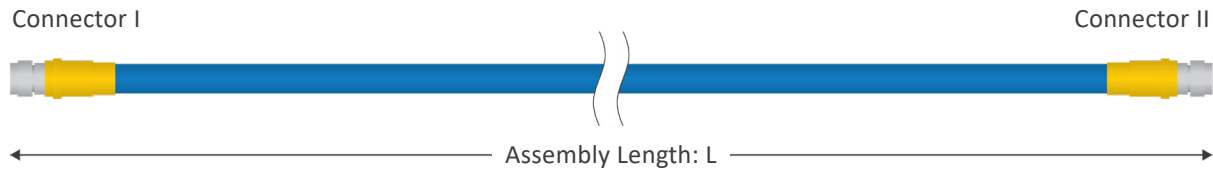
Attenuation (Typical @25°C & VSWR = 1:1)
& Power (VSWR = 1:1; 40°C; Sea Level)

Frequency (MHz)	VT18		VT26		VT40		VT50	
	Attenuation (dB/100m)	Average Power (kW)	Attenuation (dB/100m)	Average Power (kW)	Attenuation (dB/100m)	Average Power (kW)	Attenuation (dB/100m)	Average Power (kW)
300	20.95	0.997	20.95	0.997	20.40	0.940	24.11	0.730
1000	40.03	0.522	40.03	0.522	37.50	0.511	44.32	0.397
2000	58.92	0.355	58.92	0.355	53.36	0.359	63.05	0.279
4000	87.94	0.238	87.94	0.238	76.10	0.252	89.93	0.196
6000	112.03	0.187	112.03	0.187	93.81	0.204	110.86	0.159
8000	133.58	0.156	133.58	0.156	108.91	0.176	128.71	0.137
10000	153.50	0.136	153.50	0.136	122.35	0.157	144.59	0.122
12000	172.27	0.121	172.27	0.121	134.60	0.142	159.07	0.111
14000	190.16	0.110	190.16	0.110	145.96	0.131	172.49	0.102
16000	207.36	0.101	207.36	0.101	156.60	0.122	185.07	0.095
18000	223.99	0.093	223.99	0.093	166.67	0.115	196.96	0.089
26500			290.12	0.072	204.79	0.094	242.01	0.073
40000					255.69	0.075	302.17	0.058
50000							341.27	0.052

Calculate Attenuation = K1*VFMHz + K2*FMHz

	VT18	VT26	VT40	VT50
K1	1.1414400	1.1414400	1.1684700	1.3808668
K2	0.0039360	0.0039360	0.0005500	0.0006500

Selecting The Suitable Cable:
Part Number Construction



Cable Type-Length Conn (I)Conn (II) - N

VT26-01000 NNM NNF-N

1 2 3 4 5

1

Cable Type	Cable Code
VEROTest Operating@Max 26.5GHz	VT26

2

Length Requirement	Length Code
1000mm	01000

3

Connector (I)	Connector Code
N Type Male	NNM

4

Connector (II)	Connector Code
N Type Female	NNF

5

With Armor	No Armor
Not Applicable	N

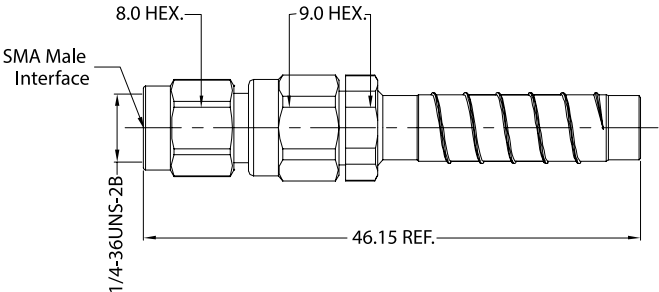
Criteria for Connector Selection

Connector Type	Mate	Connector Code			Max Operating Frequency (GHz)	VT18	VT26	VT40	VT50
SMA	M	S	M	M	26.5	●	●	●	●
SMA	F	S	M	F	18.0	●	●		
SMA RA	M	A	S	M	18.0	●	●		
N Type	M	N	N	M	18.0	●	●		●
N Type	F	N	N	F	18.0	●	●		
N Type RA	M	A	N	M	12.0	●	●		
TNC	M	T	N	M	18.0	●	●		
3.5mm	M	D	M	M	26.5		●	●	●
3.5mm	F	D	M	F	26.5			●	●
2.92mm	M	K	M	M	40.0			●	●
2.92mm RA	F	R	K	M	40.0				●
2.92mm	F	K	M	F	40.0			●	●
2.4mm	M	L	M	M	50.0			●	●
2.4mm	F	L	M	F	50.0			●	●

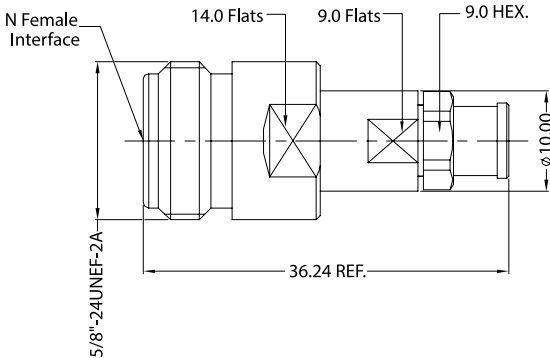
Available Standard Connectors

VT18/VT26

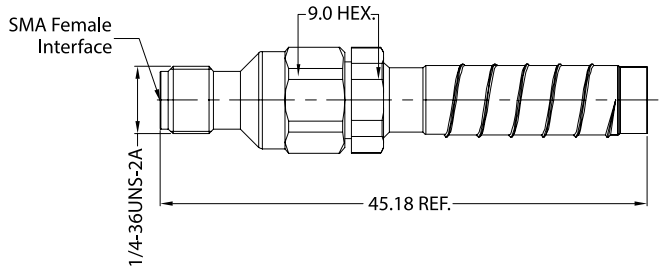
Type	SMA Male
Code	SMM



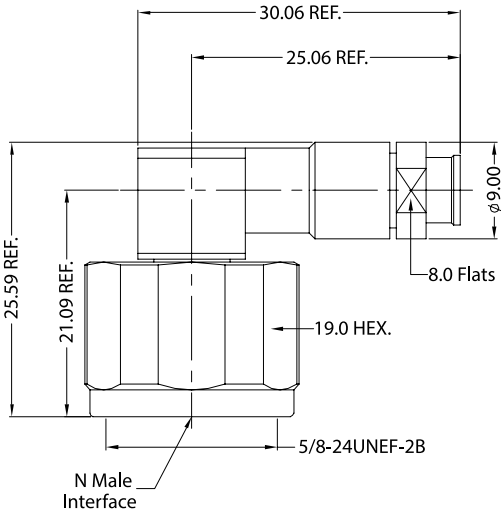
Type	N Female
Code	NNF



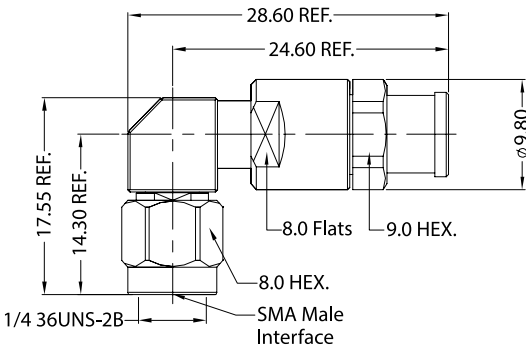
Type	SMA Female
Code	SMF



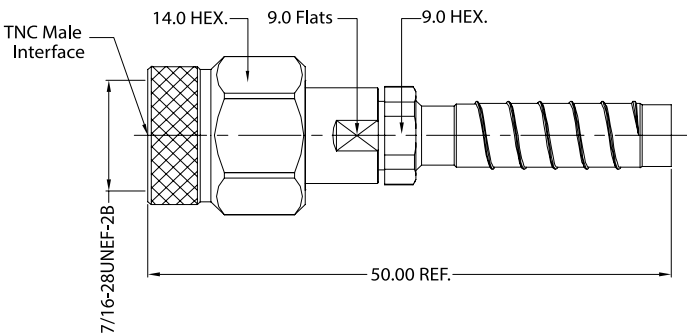
Type	N RA Male
Code	ANM



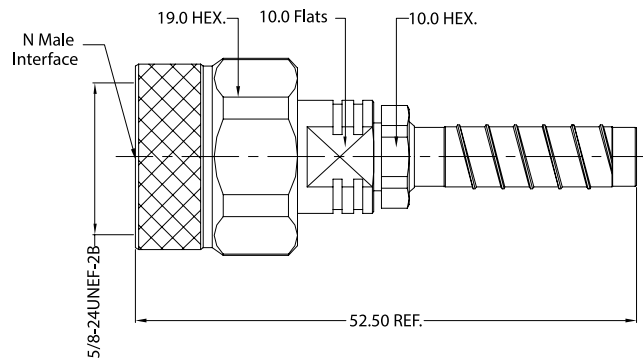
Type	SMA RA Male
Code	ASM



Type	TNC Male
Code	TNM

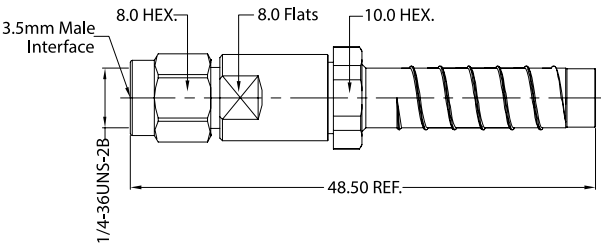


Type	N Male
Code	NNM



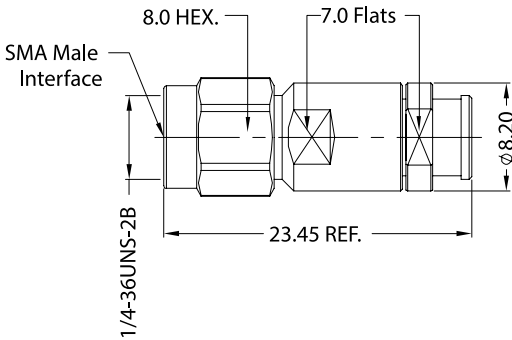
VT26

Type	3.5mm Male	Code	DMM
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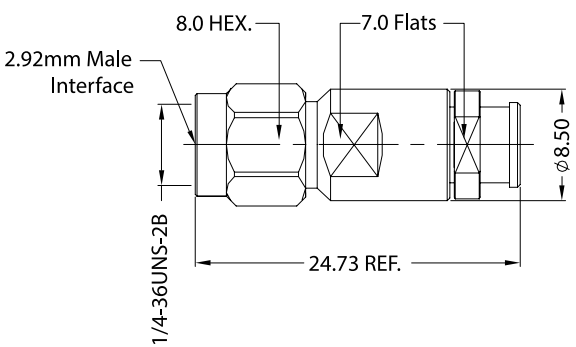


VT40

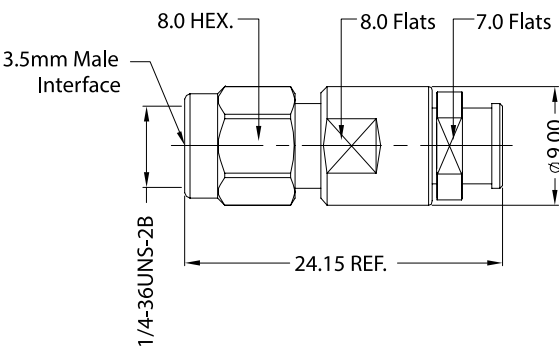
Type	SMA Male	Code	SMM
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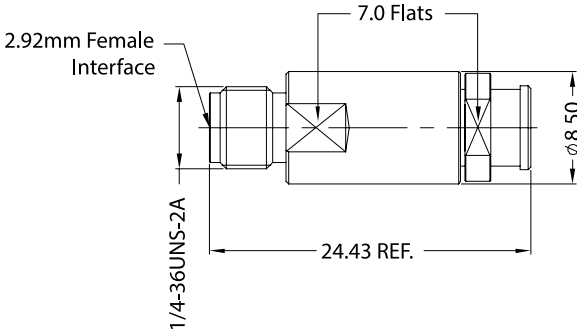
Type	2.92mm Male	Code	KMM
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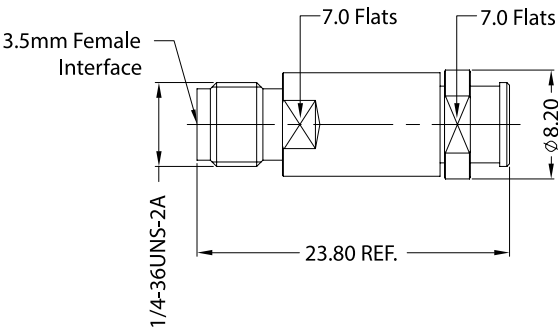
Type	3.5mm Male	Code	DMM
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Type	2.92mm Female	Code	KMF
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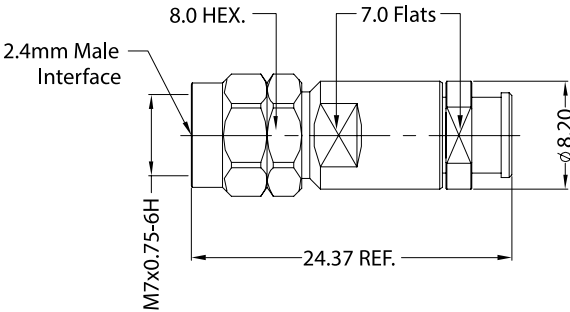


Type	3.5mm Female	Code	DMF
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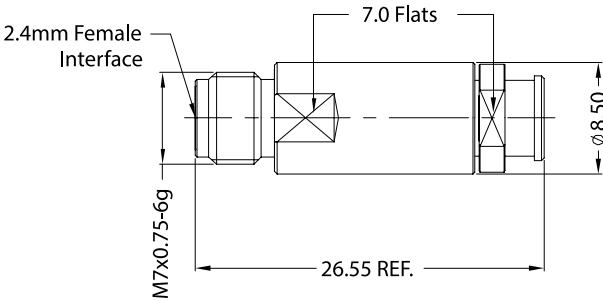


VT40

Type	2.4mm Male	Code	LMM
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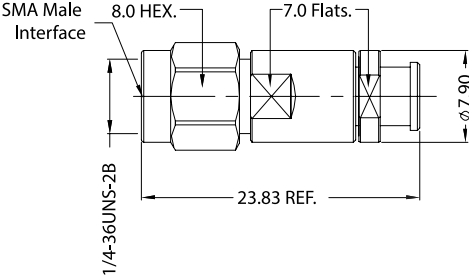


Type	2.4mm Female	Code	LMF
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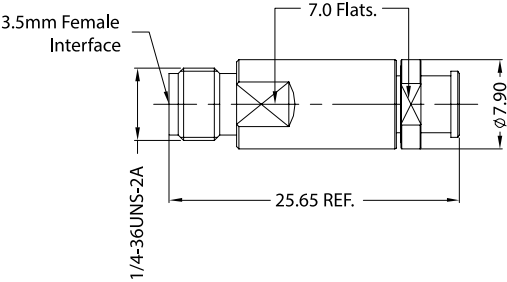


VT50

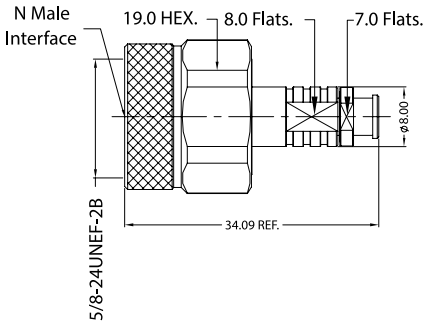
Type	SMA Male	Code	SMM
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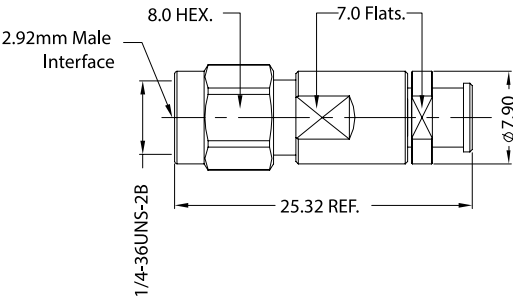
Type	3.5mm Female	Code	DMF
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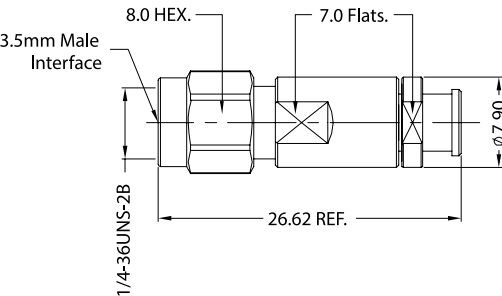
Type	N Male	Code	NNM
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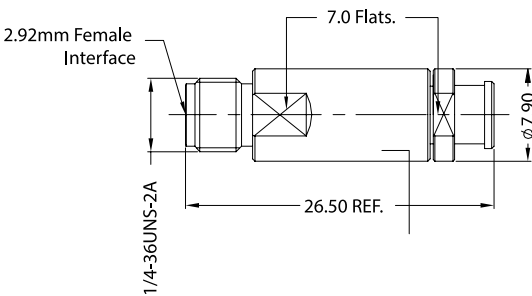
Type	2.92mm Male	Code	KMM
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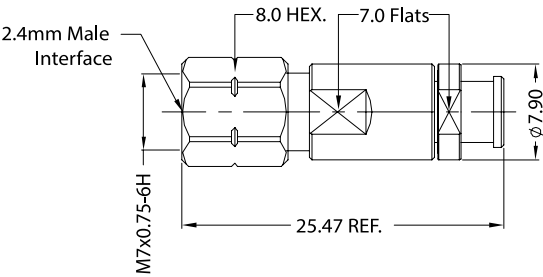
Type	3.5mm Male	Code	DMM
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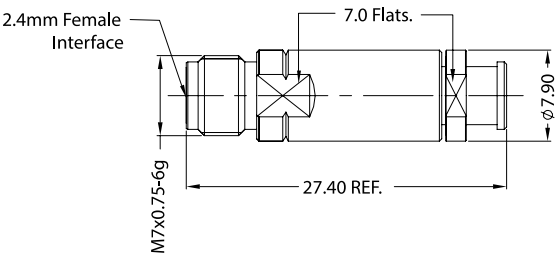
Type	2.92mm Female	Code	KMF
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Type	2.4mm Male	Code	LMM
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Type	2.4mm Female	Code	LMF
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