

# VEROFLEX

The preferred high flexibility RF Cable

### Features

- High Flexible
- Low Insertion Loss

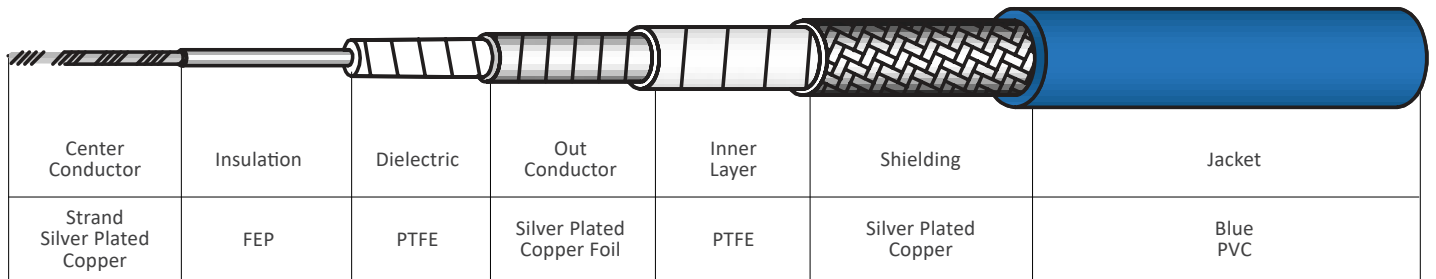
### Typical Applications

- RF Module
- Anechoic Test Chambers
- Automated Test Equipment
- Wireless Telecommunication Module Testing

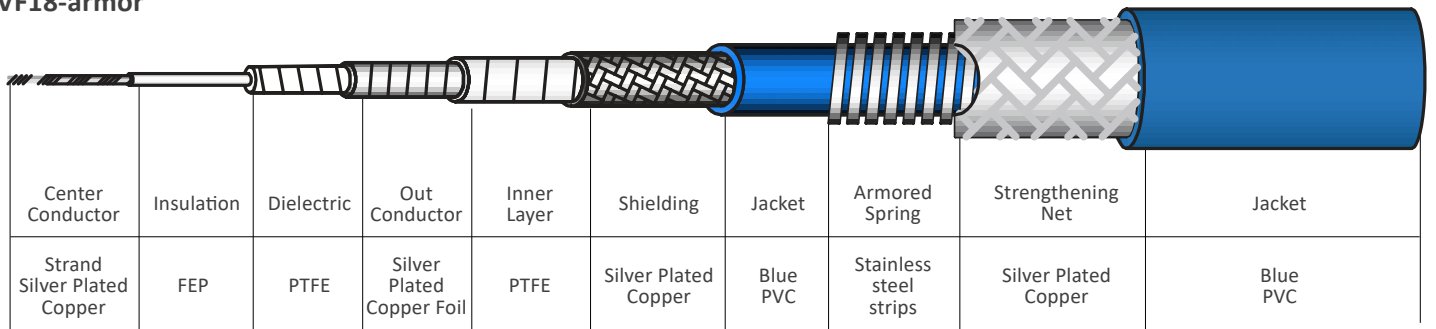


### Cable Structure

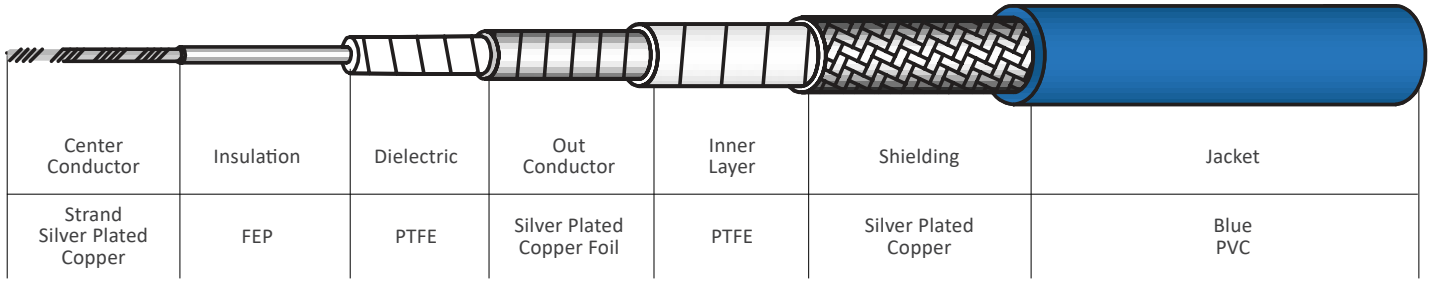
#### VF18



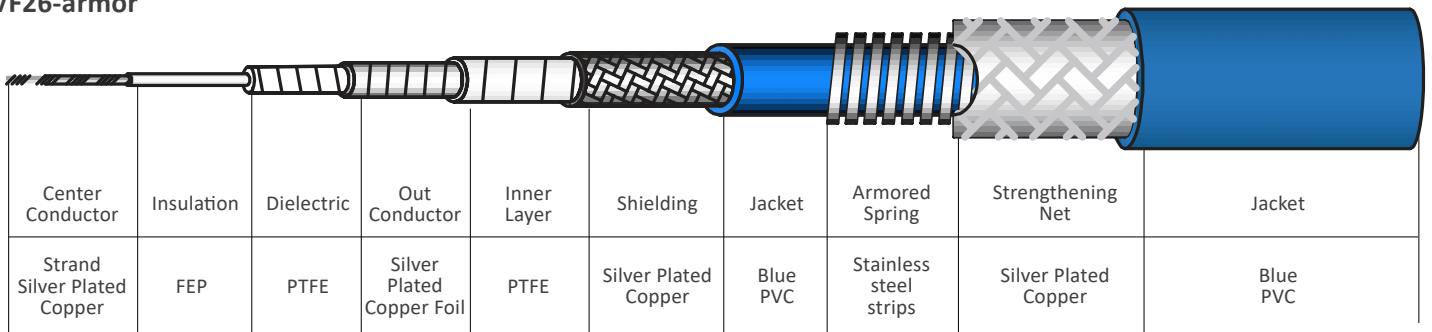
#### VF18-armor



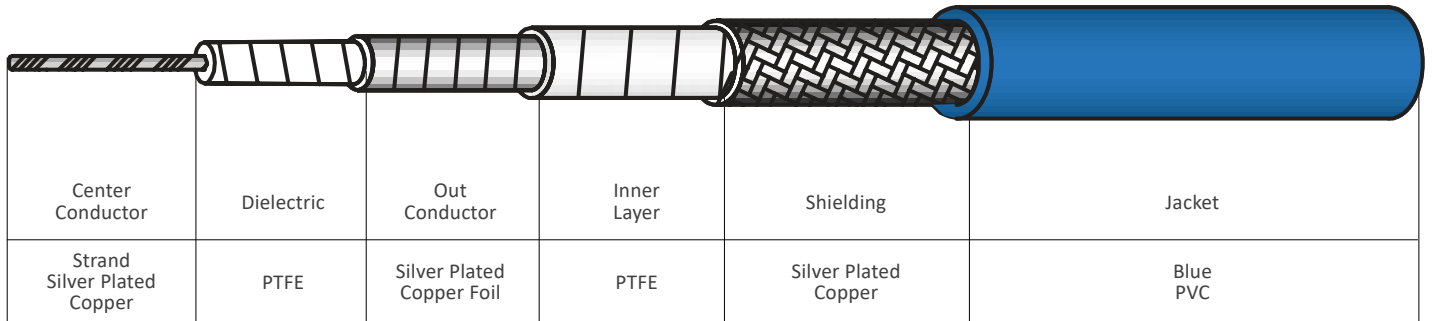
## VF26



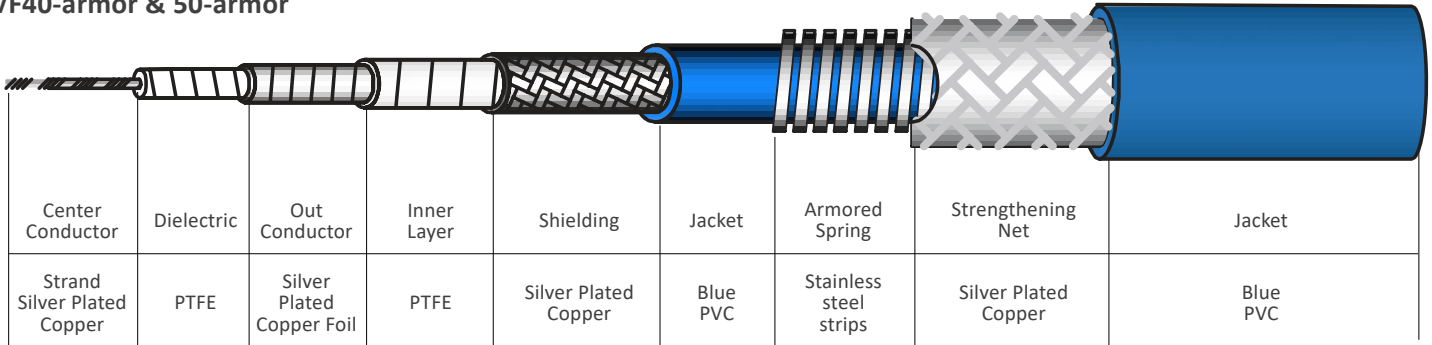
## VF26-armor



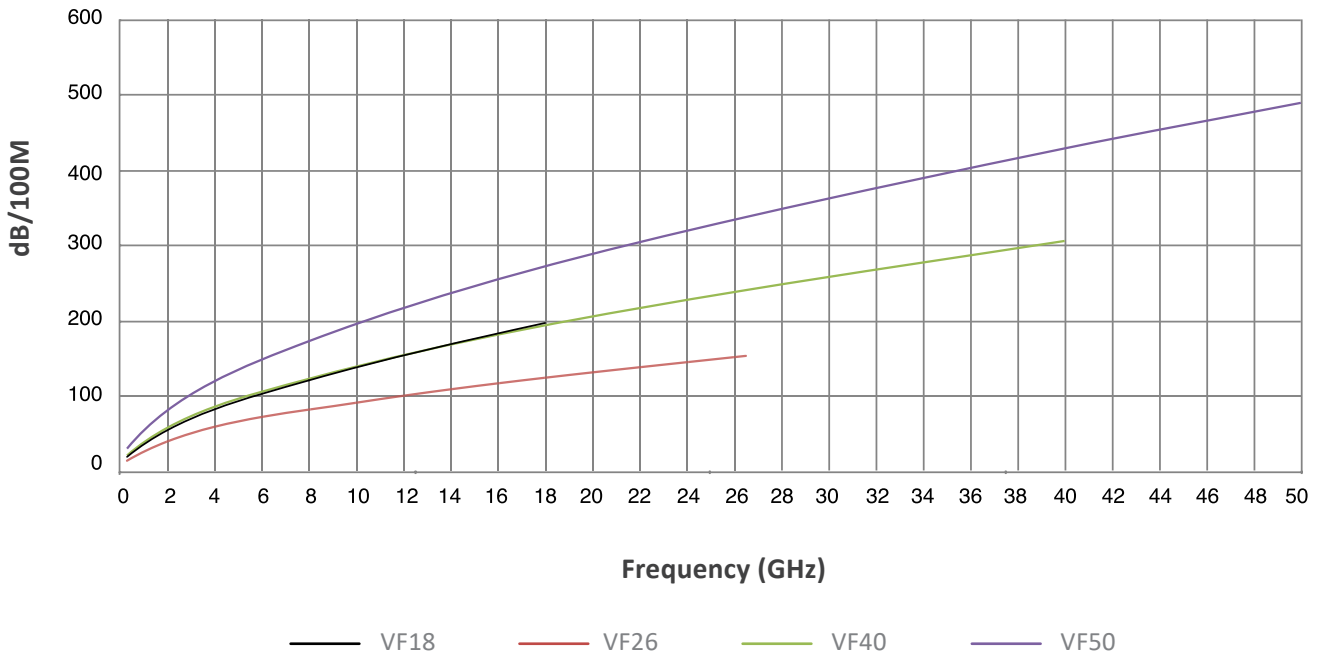
## VF40 & VF50



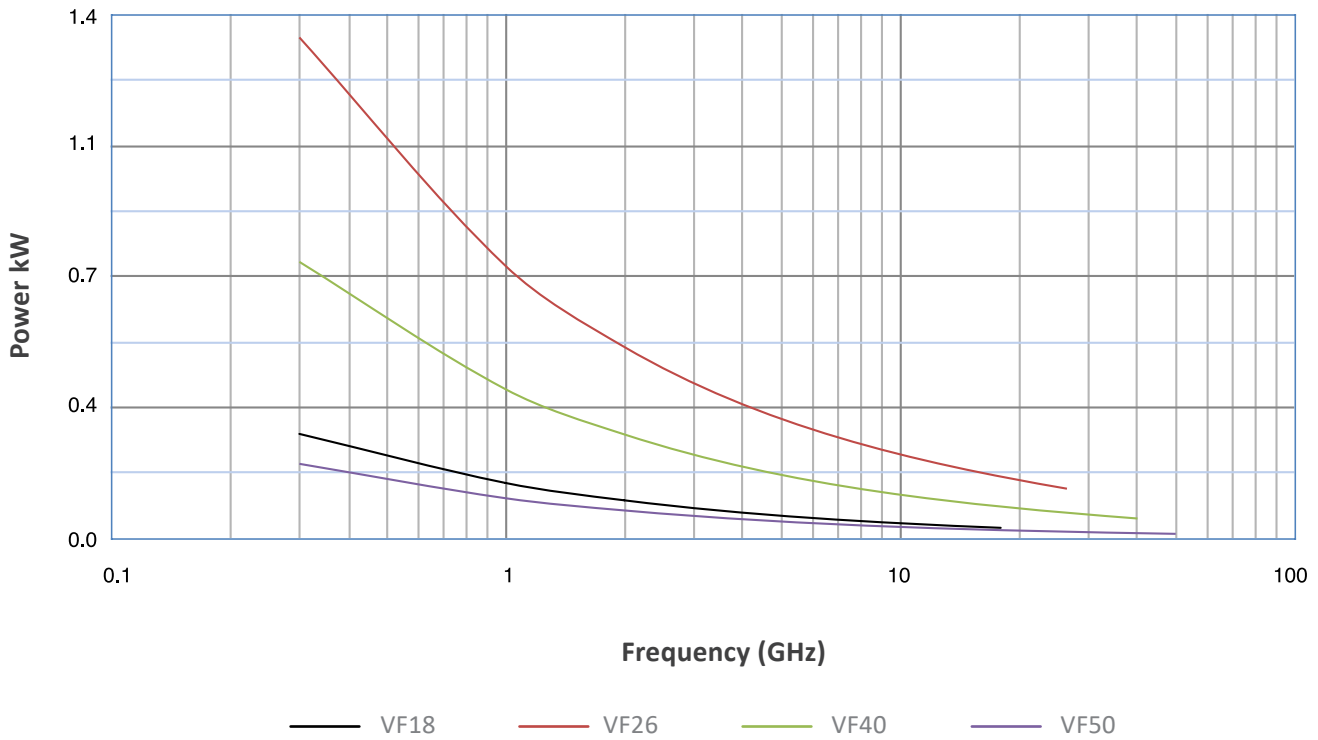
## VF40-armor & 50-armor

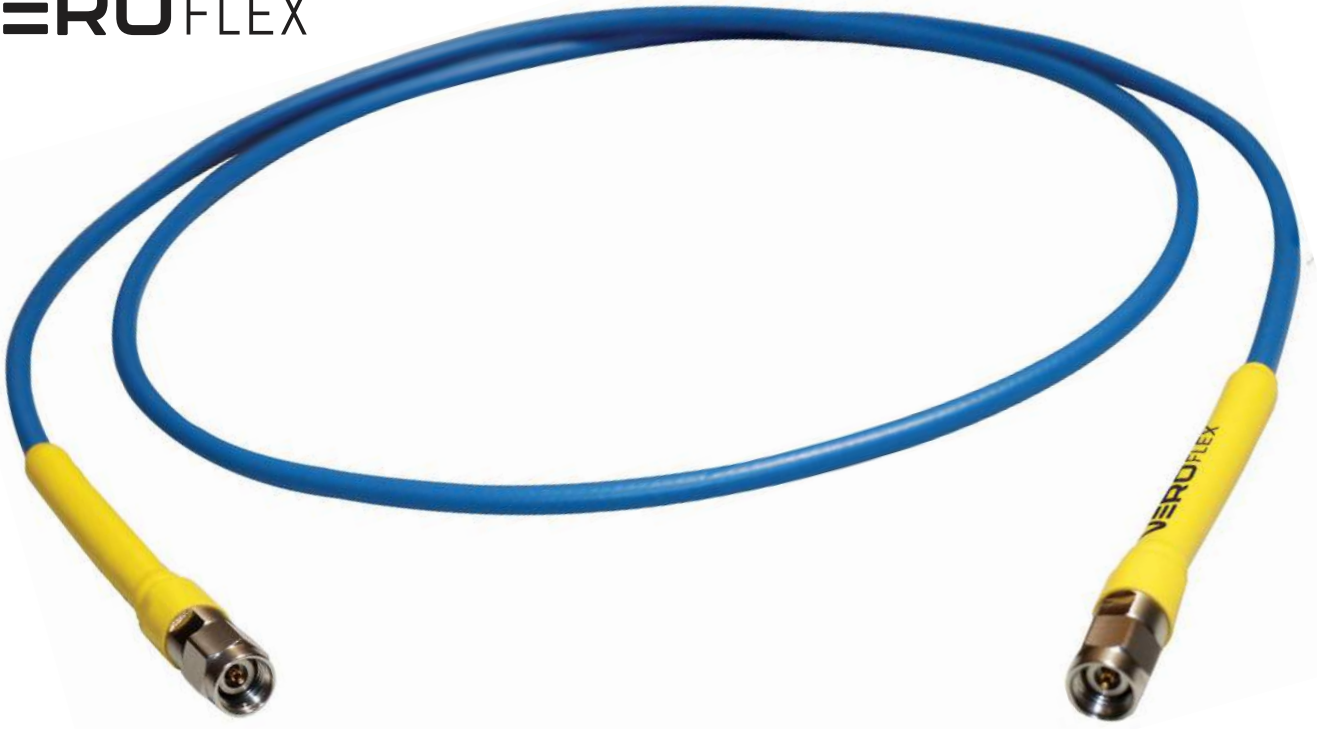


### VEROFLEX Attenuation



### VEROFLEX Average Power

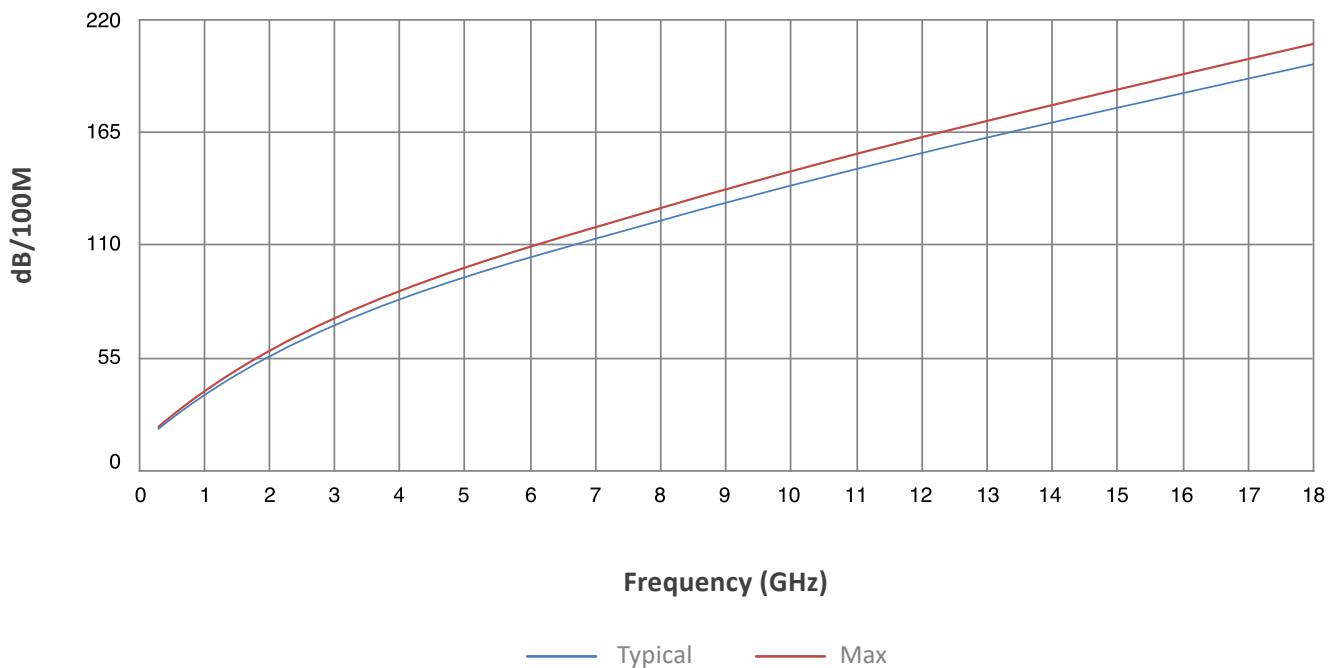




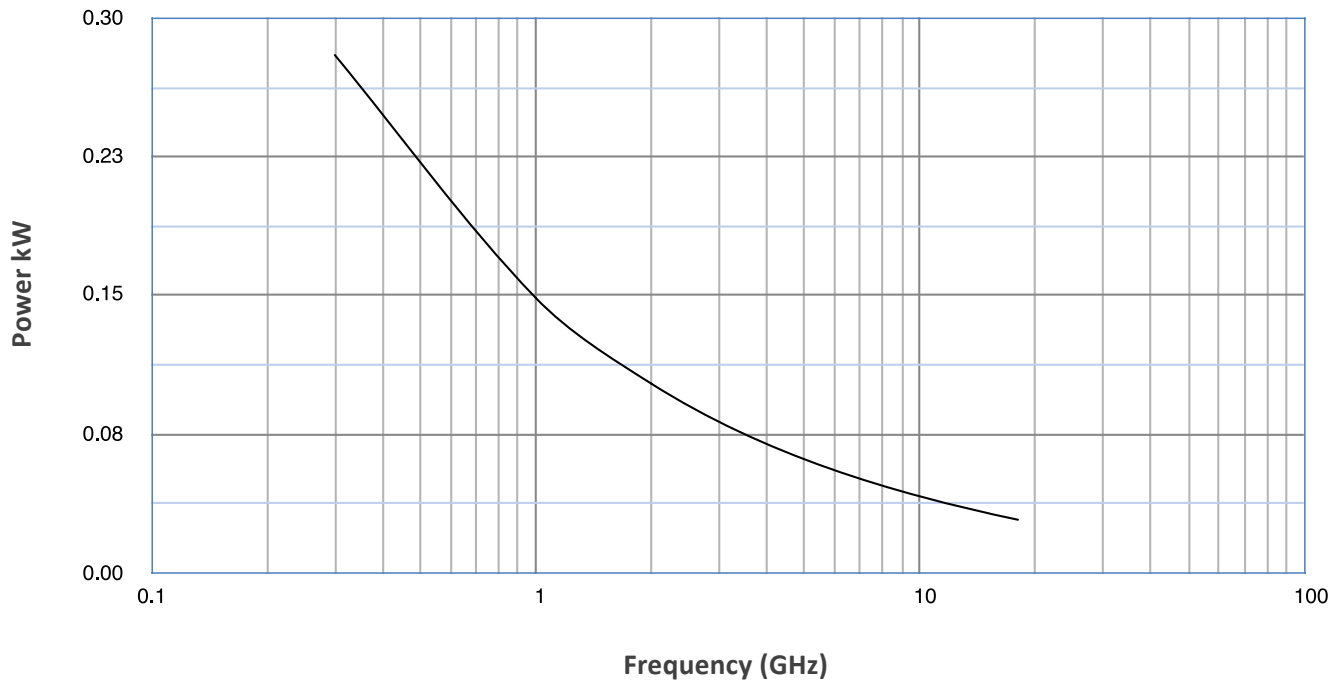
## Specifications

Cable	VF18	VF18-armor	VF26	VF26-armor	VF40	VF40-armor	VF50	VF50-armor
Center Conductor	Stranded		Stranded		Stranded		Stranded	
Overall Diameter (mm)	5.2	9.0	5.5	9.0	4.0	6.0	4.0	6.0
Nominal Weight (g/m)	55	174	58	177	30	105	32	107
Minimum Bend Radius (mm)	20	20	22	40	18	25	14	25
Max Flex Cycles	200,000		200,000		200,000		200,000	
Temperature Range (°C)	-40/85		-40/85		-40/85		-40/85	
Maximum Frequency (GHz)	18.0		26.5		40		50	
Typical VSWR	1.19:1		1.22:1		1.25:1		1.25:1	
Maximum VSWR	1.3		1.30:1		1.35:1		1.40:1	
Max. Insertion Loss (dB/m)	1.98		1.6		3.07		4.9	
Impedance (Nominal) (Ohms)	50		50		50		50	
Phase Stability vs. Flexure	±5.0		±6.0		±6.0		±8.0	
Amplitude Stability vs. Bending(dB)	< ±0.1		< ±0.1		< ±0.15		< ±0.15	
Amplitude Stability vs. Shaking(dB)	< ±0.1		< ±0.1		< ±0.15		< ±0.15	
Dielectric Constant (Nominal)	1.83		1.45		1.52		1.83	
Velocity of Propagation (Nominal) (%)	74		83		81		74	
Time Delay (Nominal)(ns/cm)	0.045		0.0401		0.041		0.045	

### VF18 Attenuation

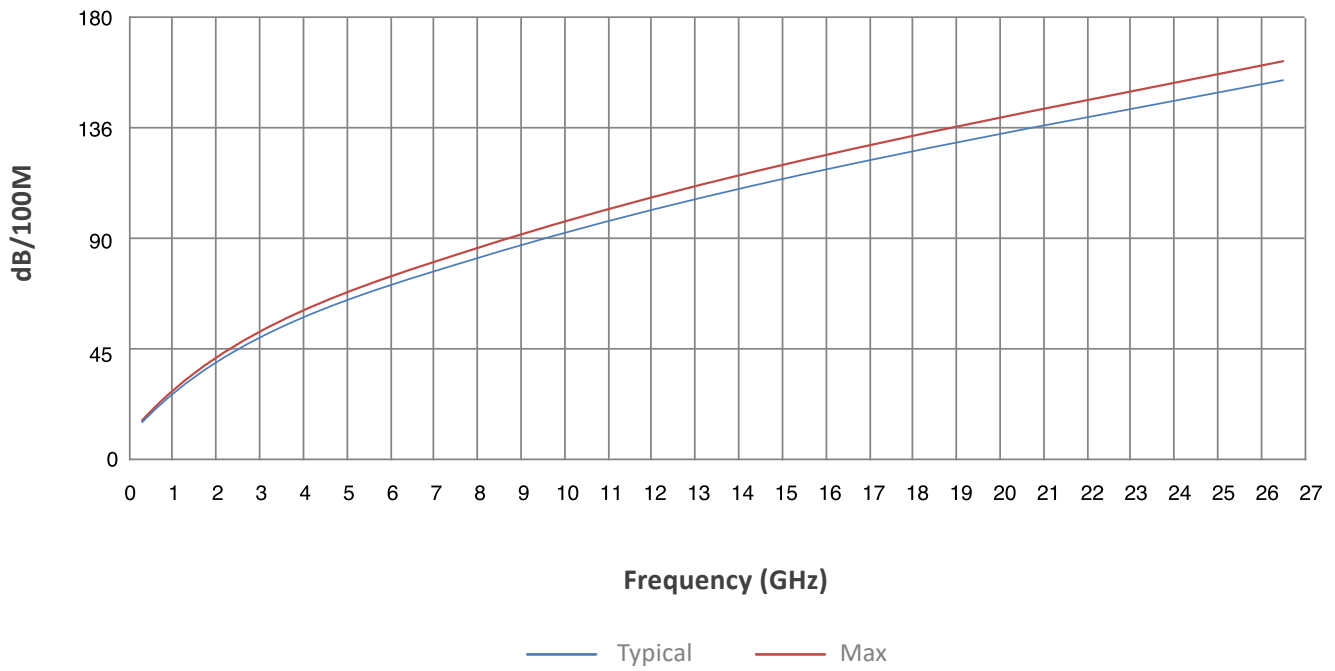


### VF18 Average Power

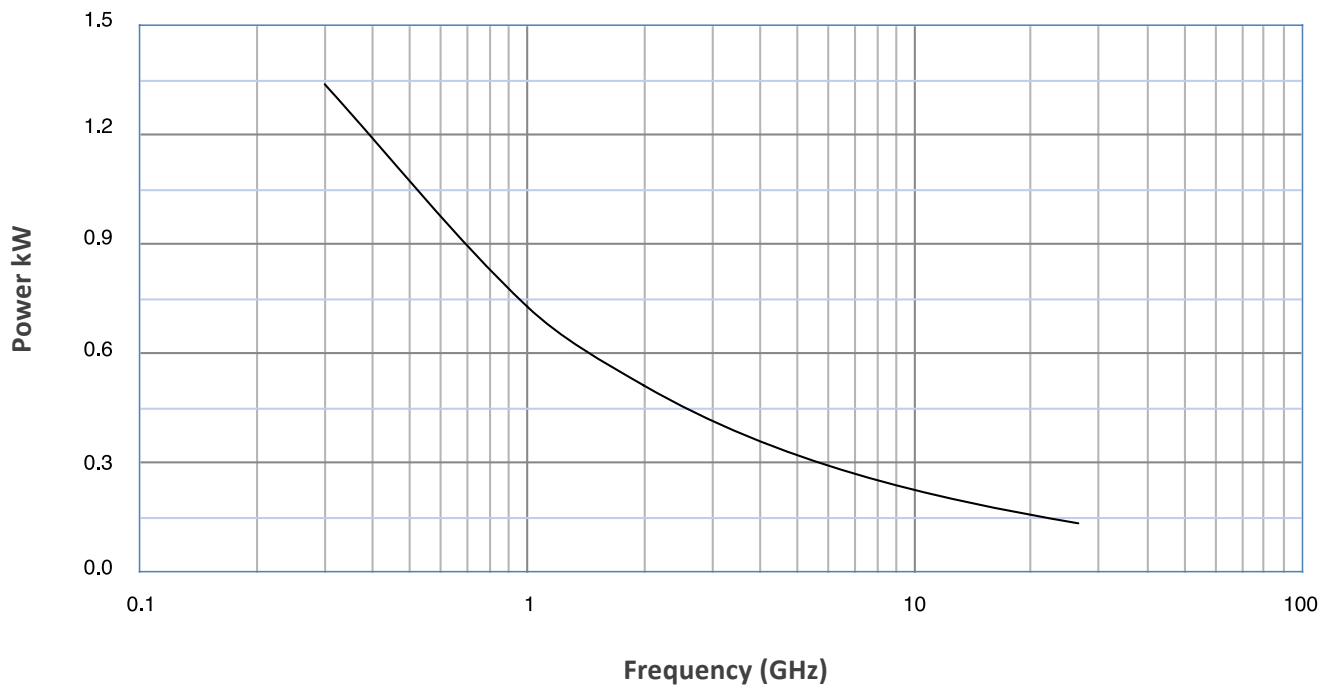


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### VF26 Attenuation

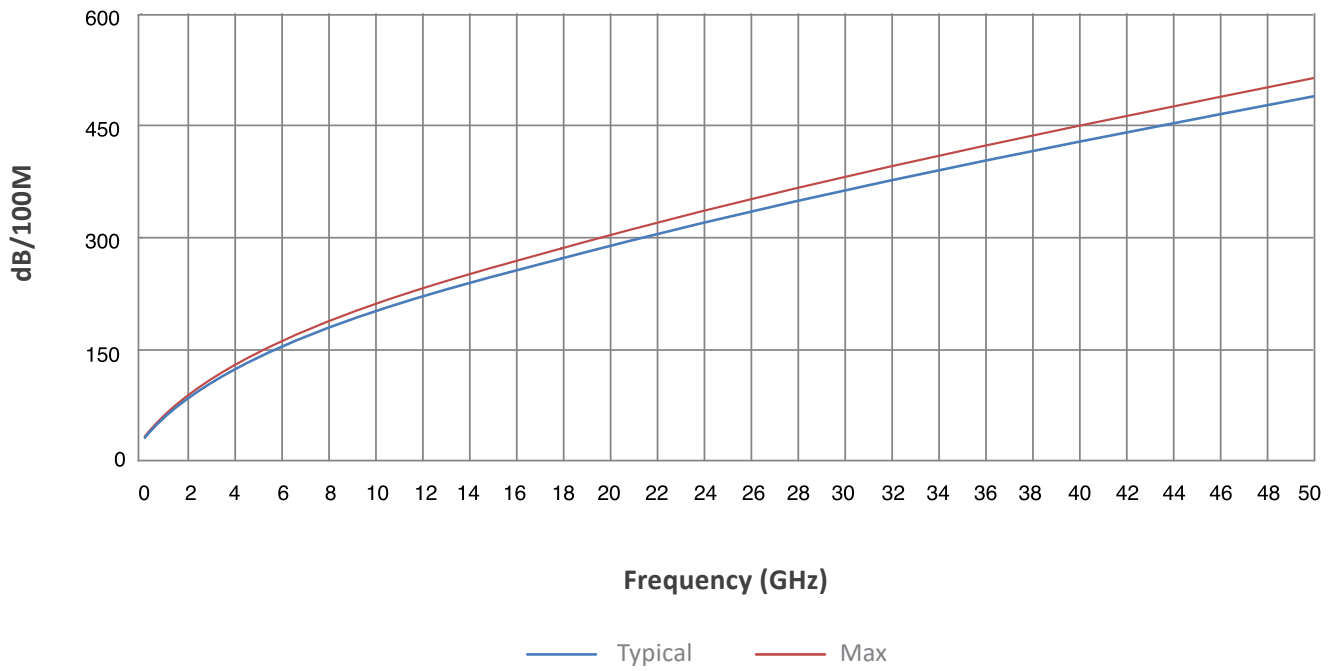


### VF26 Average Power

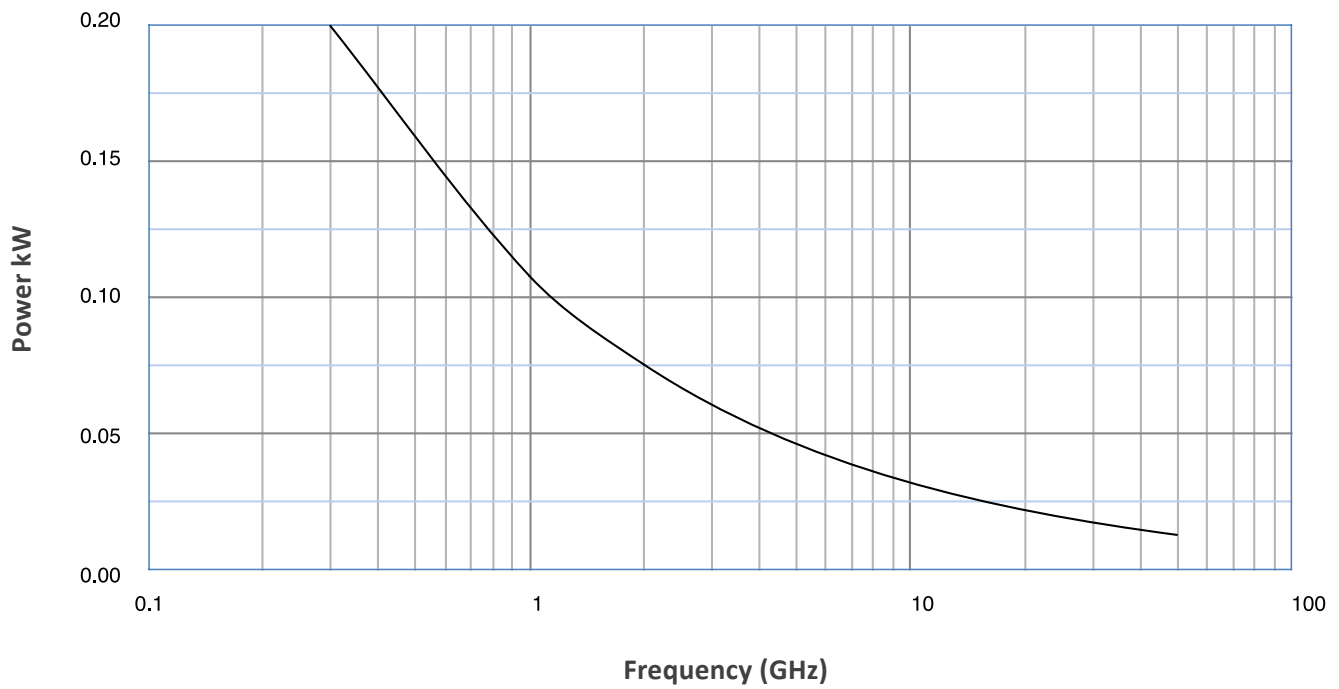




### VF50 Attenuation



### VF50 Average Power





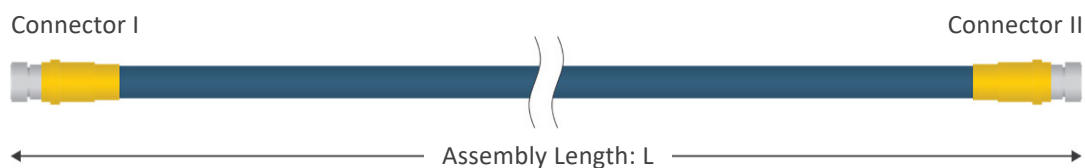
**Attenuation (Typical @25°C & VSWR = 1.0)  
& Power (VSWR = 1.0; 40°C; Sea Level)**

Frequency (MHz)	VF18/VF18 armor		VF26/VF26 armor		VF40/VF40 armor		VF50/VF50 armor	
	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	20.45	0.890	15.39	0.800	22.33	0.740	31.38	0.200
1000	38.49	0.473	28.28	0.435	41.37	0.399	58.13	0.108
3000	69.87	0.261	49.50	0.249	73.36	0.225	103.01	0.061
4000	82.03	0.222	57.39	0.214	85.42	0.193	119.93	0.052
6000	103.25	0.176	70.74	0.174	106.10	0.156	148.92	0.042
8000	121.94	0.149	82.13	0.150	123.96	0.133	173.93	0.036
10000	139.00	0.131	92.26	0.133	140.00	0.118	196.40	0.032
12000	154.91	0.118	101.50	0.121	154.77	0.107	217.07	0.029
14000	169.95	0.107	110.06	0.112	168.57	0.098	236.38	0.027
18000	198.08	0.092	125.68	0.098	193.99	0.085	271.94	0.023
24000			146.46	0.084	228.33	0.072	319.93	0.020
26500			154.43	0.080	241.64	0.068	338.54	0.019
29000					254.50	0.065	356.50	0.018
32000					269.41	0.061	377.32	0.017
40000					306.88	0.054	429.63	0.015
50000							490.06	0.013

**Calculate Attenuation = K1\*VFMHz + K2\*FMHz**

	VF18/VF18 armor	VF26/VF26 armor	VF40/VF40 armor	VF50/VF50 armor
K1	1.1370000	0.8811000	1.2657000	1.7798616
K2	0.0025300	0.0004150	0.0013435	0.0018415

## Selecting The Suitable Cable: Part Number Construction



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

**VF01-01000 SMM SMM-N**



1	<b>Cable Type</b>	<b>Cable Code</b>	2	<b>Length Requirement</b>	<b>Length Code</b>			
	VEROFlex Operating@Max 18GHz	VF18		1000mm	01000			
3	<b>Connector (I)</b>	<b>Connector Code</b>	4	<b>Connector (II)</b>	<b>Connector Code</b>	5	<b>With Armor</b>	<b>No Armor</b>
	SMA Male	SMM		SMA Male	SMM		A	N

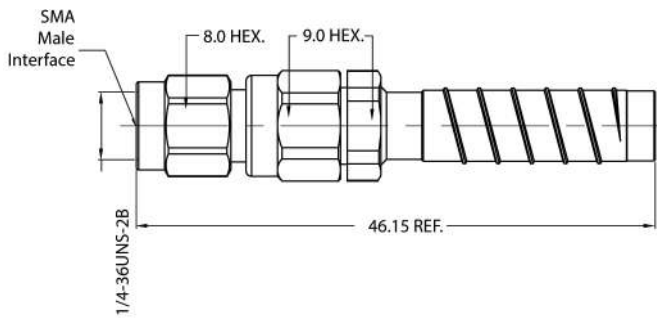
## Criteria for Connector Selection

Connector Type	Mate	Connector Code			Max Operating Frequency (GHZ)	VF18/ VF18-armor	VF26/ VF26-armor	VF40/ VF40-armor	VF50/ VF50-armor
SMA	M	S	M	M	26.5	●	●	●	
SMA RA	M	A	S	M	18.0	●			
SMA	F	S	M	F	18.0	●			
N Type	M	N	N	M	18.0	●	●		
TNC	M	T	N	M	18.0	●			
3.5mm	M	D	M	M	26.5		●		
2.92mm	M	K	M	M	40.0			●	
2.92mm RA	M	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			●	

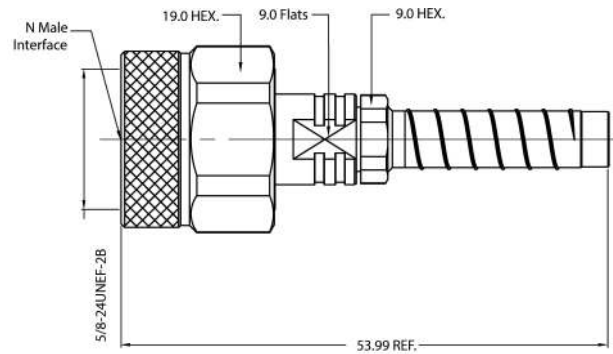
## Available Standard Connectors

### VF18

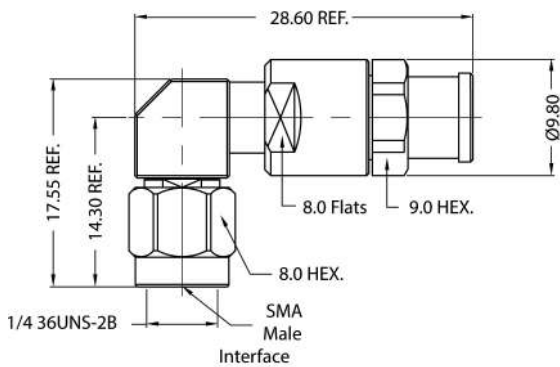
Type SMA Male Code SMM



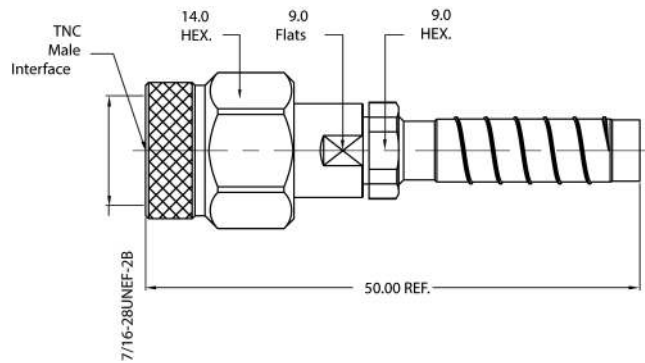
Type N Male Code NNM



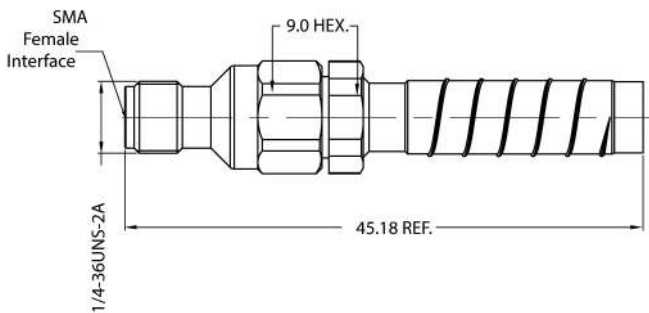
Type SMA Male RA Code ASM



Type TNC Male Code TNM



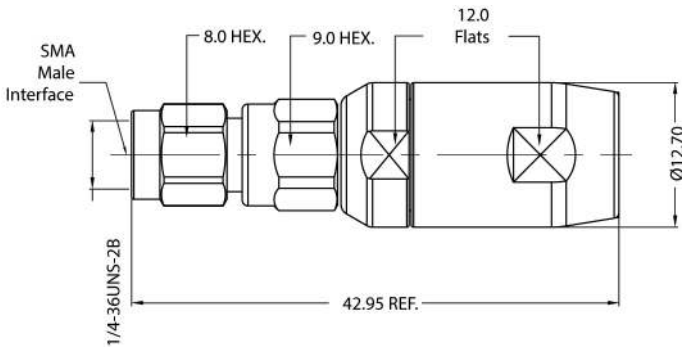
Type SMA Female Code SMF



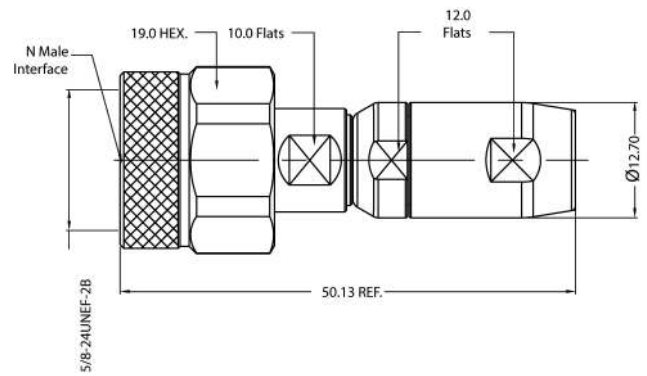
## Available Standard Connectors

### VF18-armor

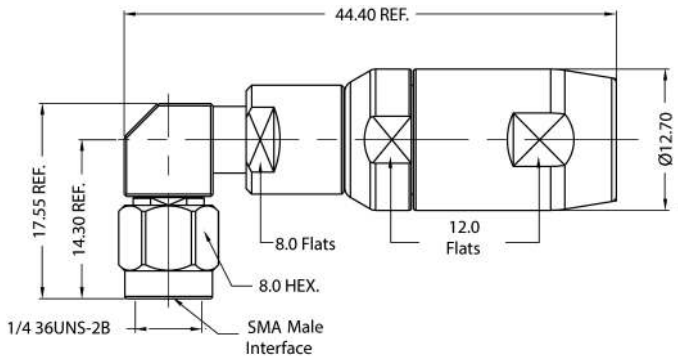
Type SMA Male Code SMM



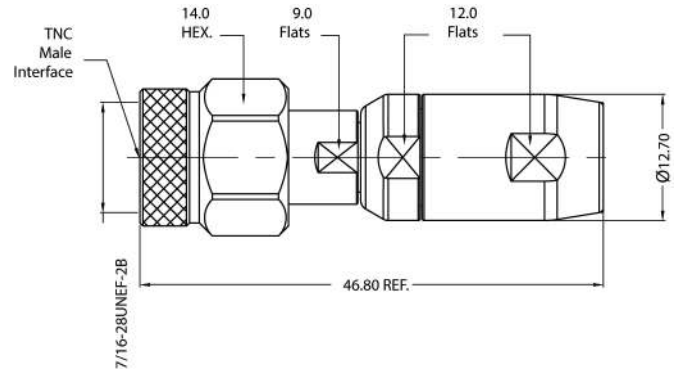
Type N Male Code NNM



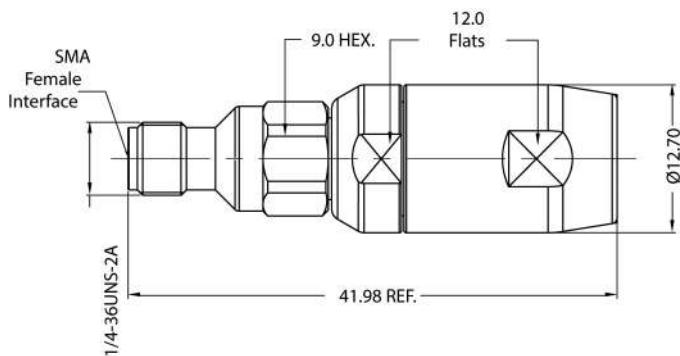
Type SMA Male RA Code ASM



Type TNC Male Code TNM



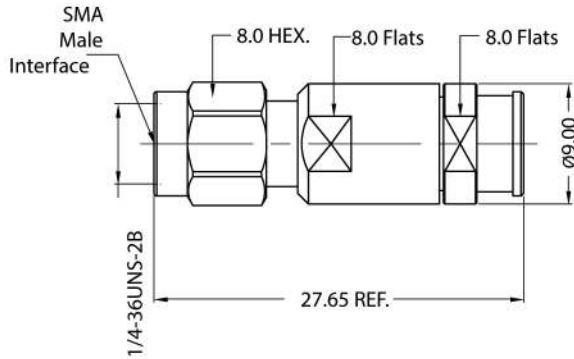
Type SMA Female Code SMF



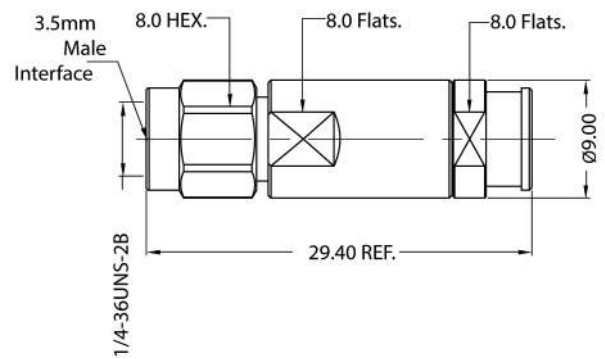
## Available Standard Connectors

### VF26

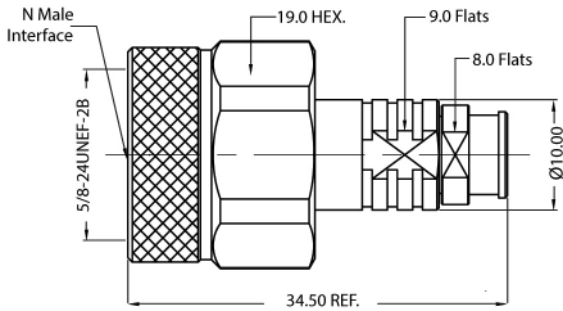
Type SMA Male Code SMM



Type 3.5mm Male Code DMM

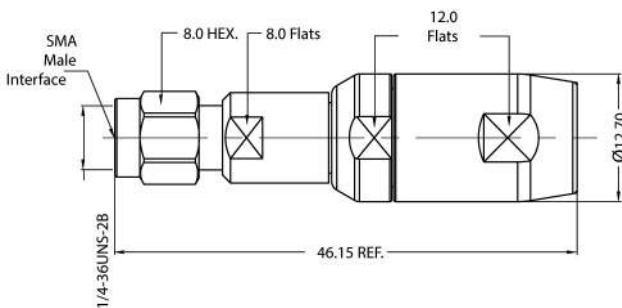


Type N Male Code NNM

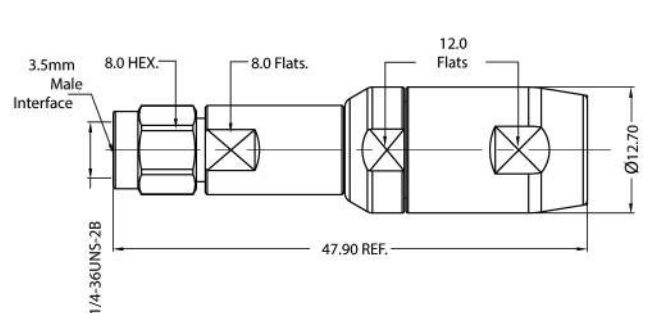


### VF26-armor

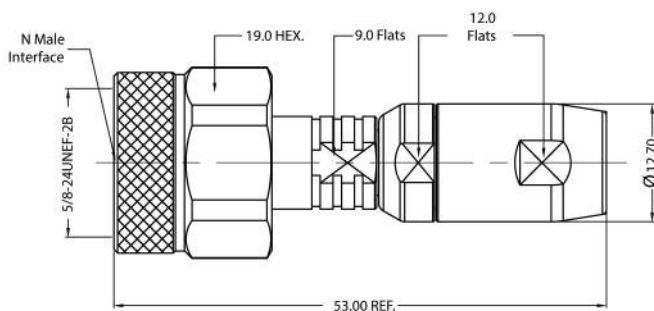
Type SMA Male Code SMM



Type 3.5mm Male Code DNM



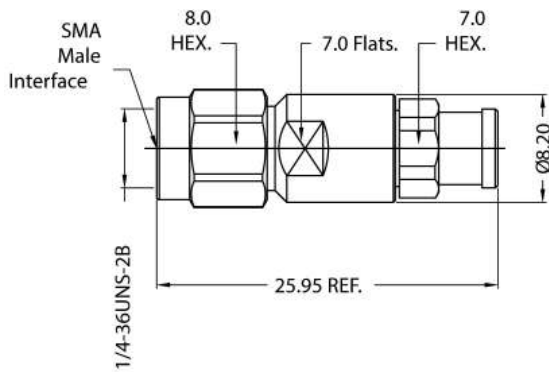
Type N Male Code NNM



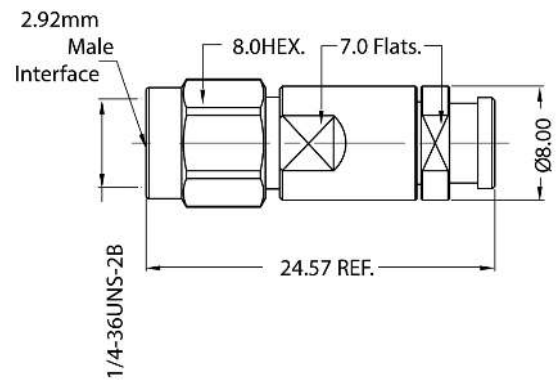
## Available Standard Connectors

### VF40

Type SMA Male Code SMM

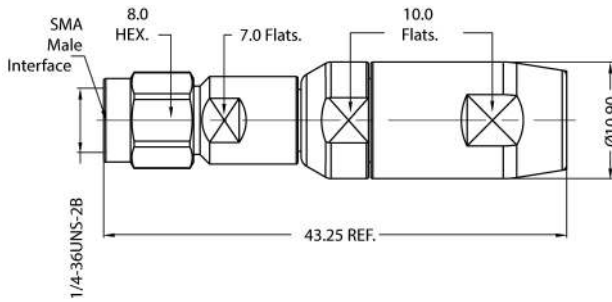


Type 2.92mm Male Code KMM

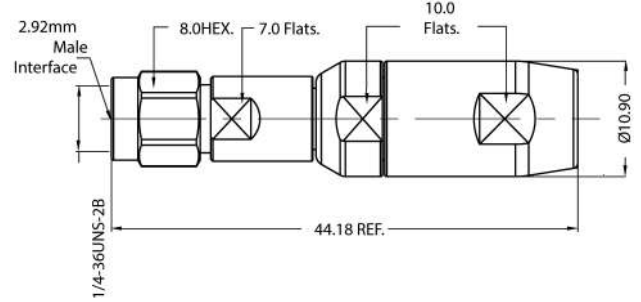


### VF40-armor

Type SMA Male Code SMM



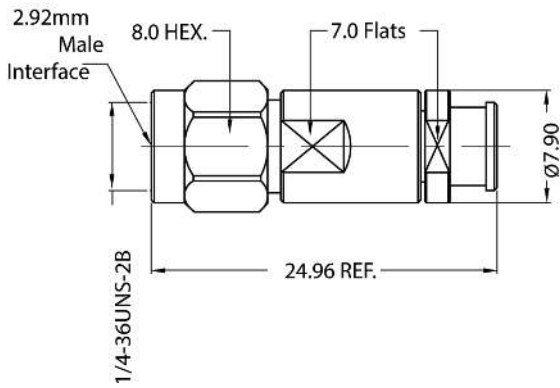
Type 2.92mm Male Code KMM



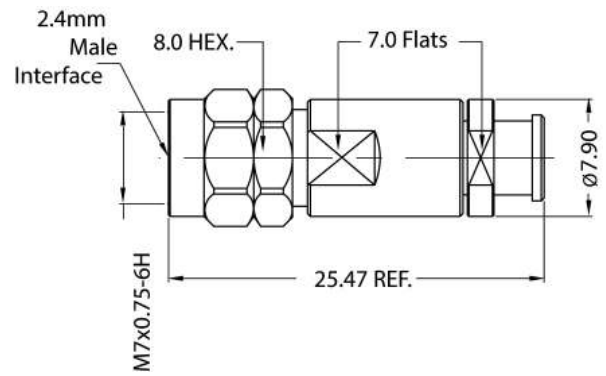
## Available Standard Connectors

VF50

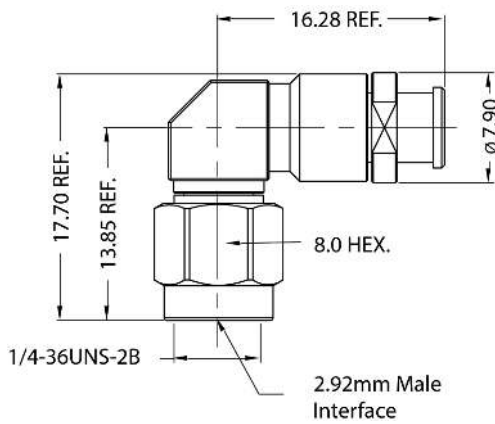
Type 2.92mm Male Code KMM



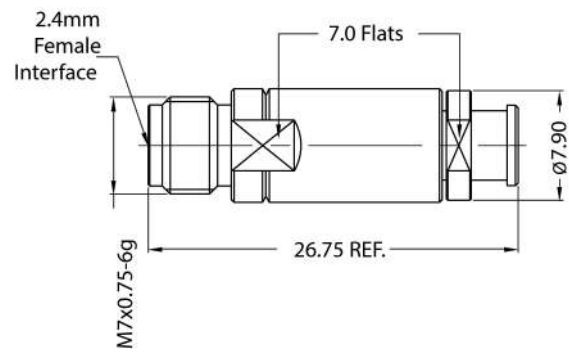
Type 2.4mm Male Code LMM



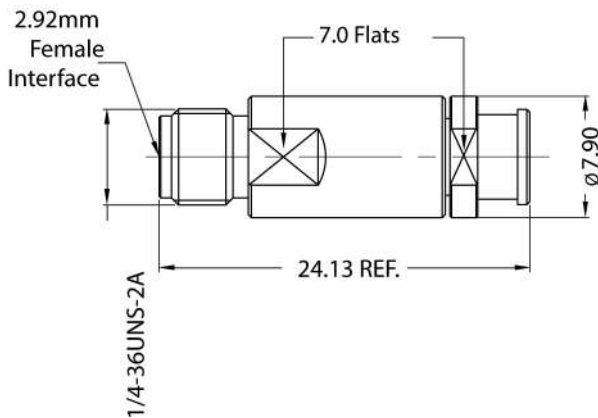
Type 2.92mm Male RA Code RKM



Type 2.4mm Female Code LMF



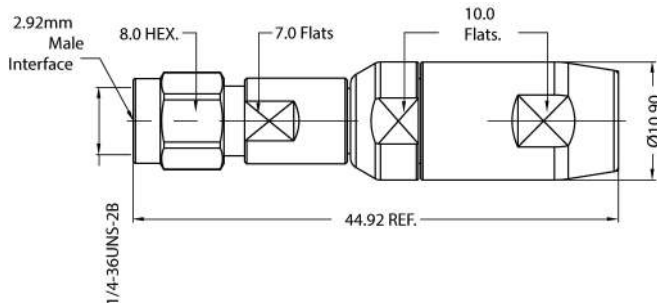
Type 2.92mm Female Code KMF



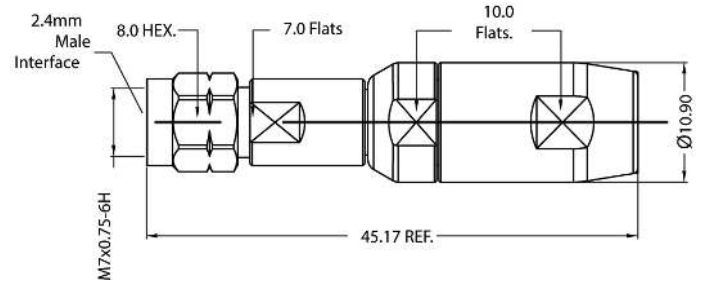
## Available Standard Connectors

### VF50-armor

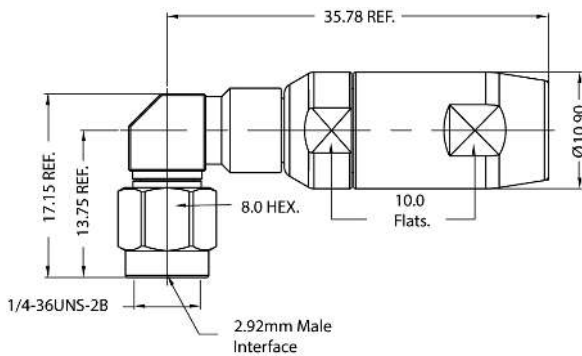
Type 2.92mm Male Code KMM



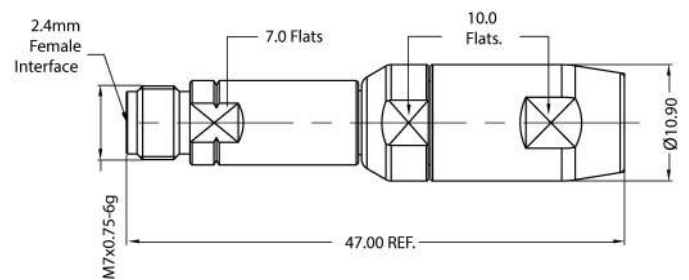
Type 2.4mm Male Code LMM



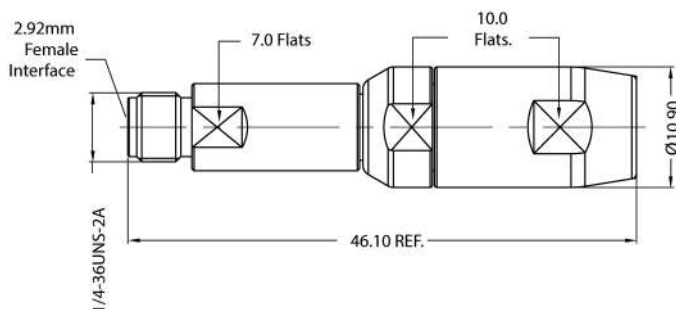
Type 2.92mm Male RA Code RKM



Type 2.4mm Female Code LMF



Type 2.92mm Female Code KMF



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