VERO VNA

High performance phase and amplitude stable test port cable

Features

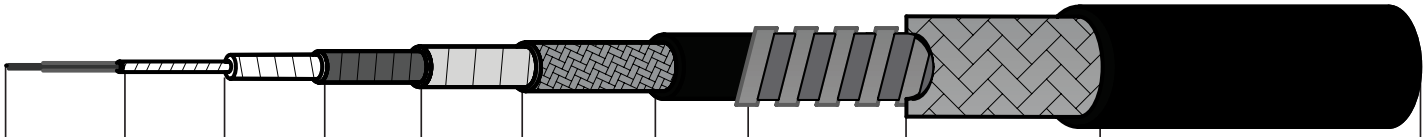
- Repeatable measurement results
- Excellent Phase & amplitude stability
- Excellent Flexibility
- Low VSWR
- Robust Cable, high precision connectors
- Standard lengths: short delivery times

Typical Applications

- Vector Network Analyzer
- Laboratory Test
- Critical Test & Measurement
- Repeatable Accurate Measurement

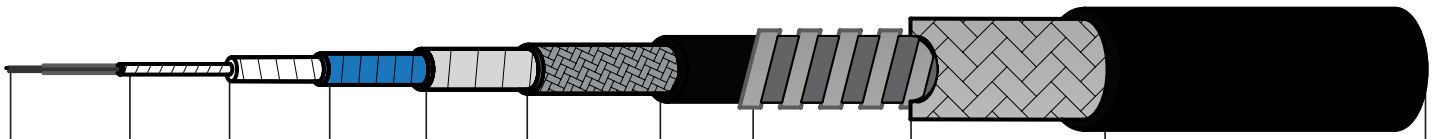
Cable Structure

VN18 - VN50



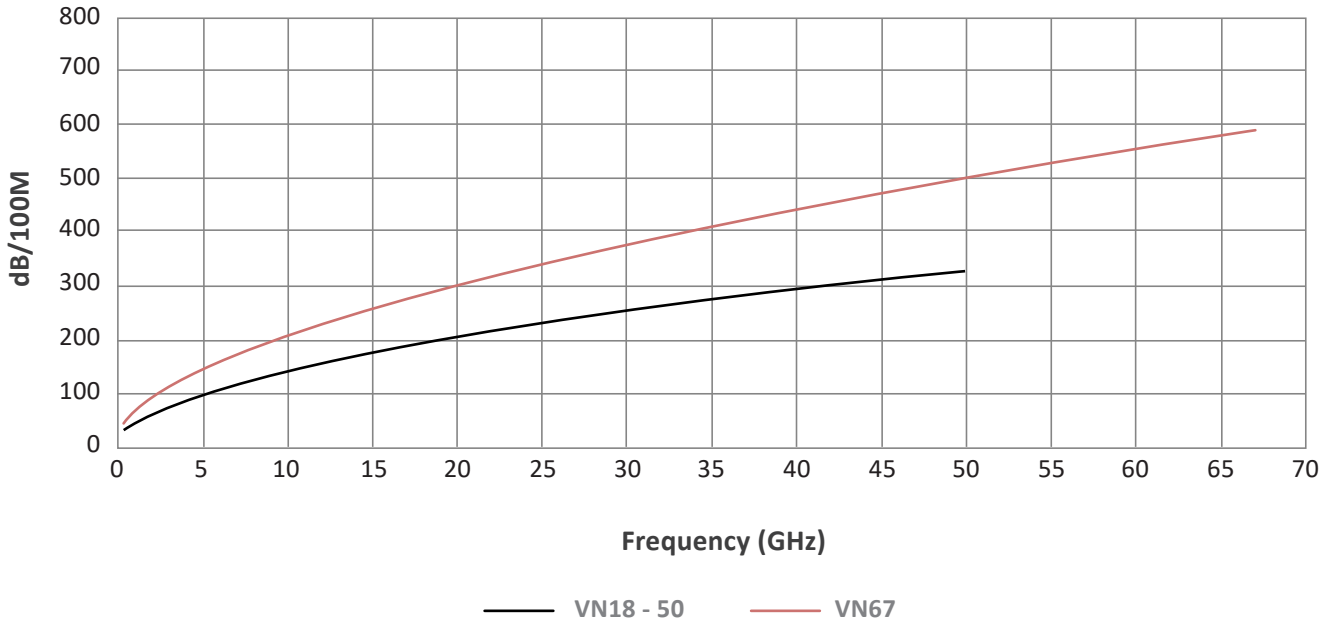
Center Conductor	Dielectric	Out Conductor	Protective Layer	Inner Layer	Shielding	Jacket	Armored Spring	Strengthening Net	Jacket
Silver Plated Copper	PTFE	Silver Plated Copper Foil	PET	PTFE	Silver Plated Copper	Black FEP	Stainless Steel Double Tube	Stainless Steel Wire	Black Nylon Sleeve

VN67

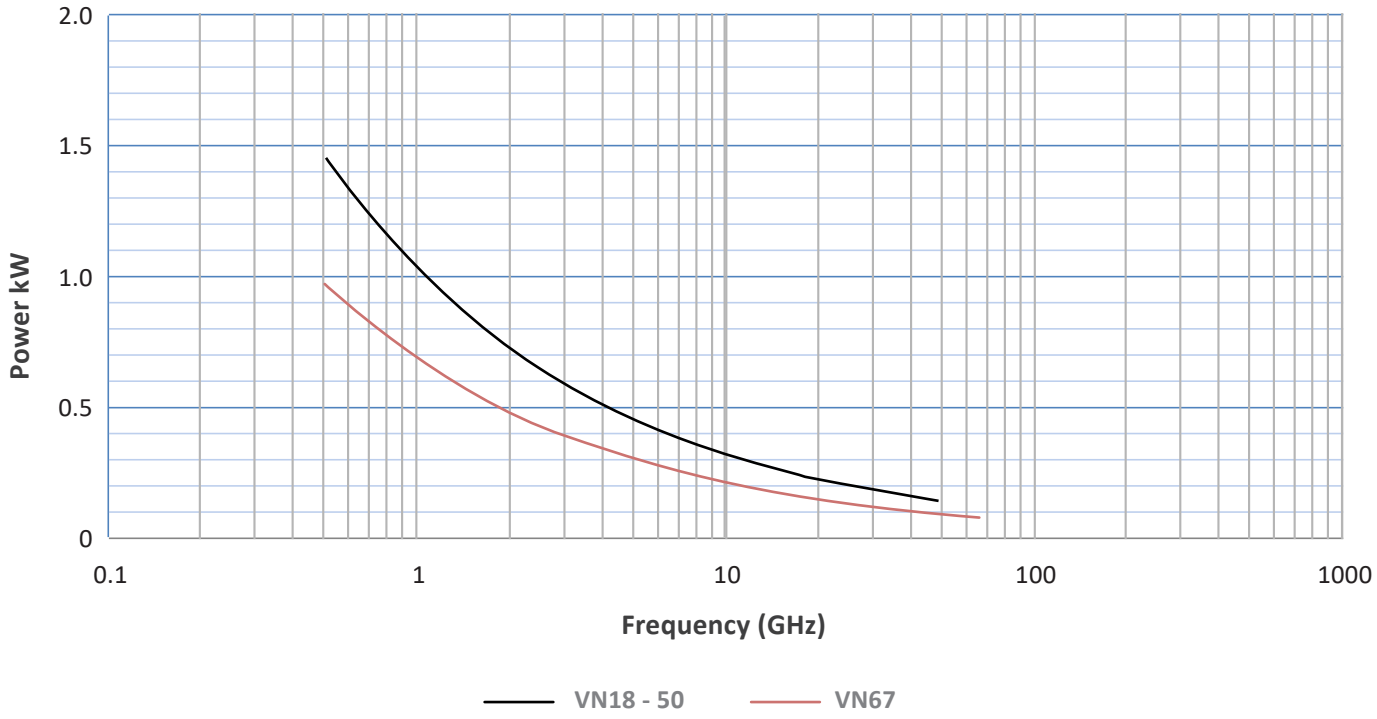


Center Conductor	Dielectric	Out Conductor	Protective Layer	Inner Layer	Shielding	Jacket	Armored Spring	Strengthening Net	Jacket
Silver Plated Copper	PTFE	Silver Plated Copper Foil	Aluminium -Mylar Laminated Tape	PTFE	Silver Plated Copper	Black FEP	Stainless Steel Double Tube	Stainless Steel Wire	Black Nylon Sleeve

VEROVNA Attenuation



VEROVNA Average Power

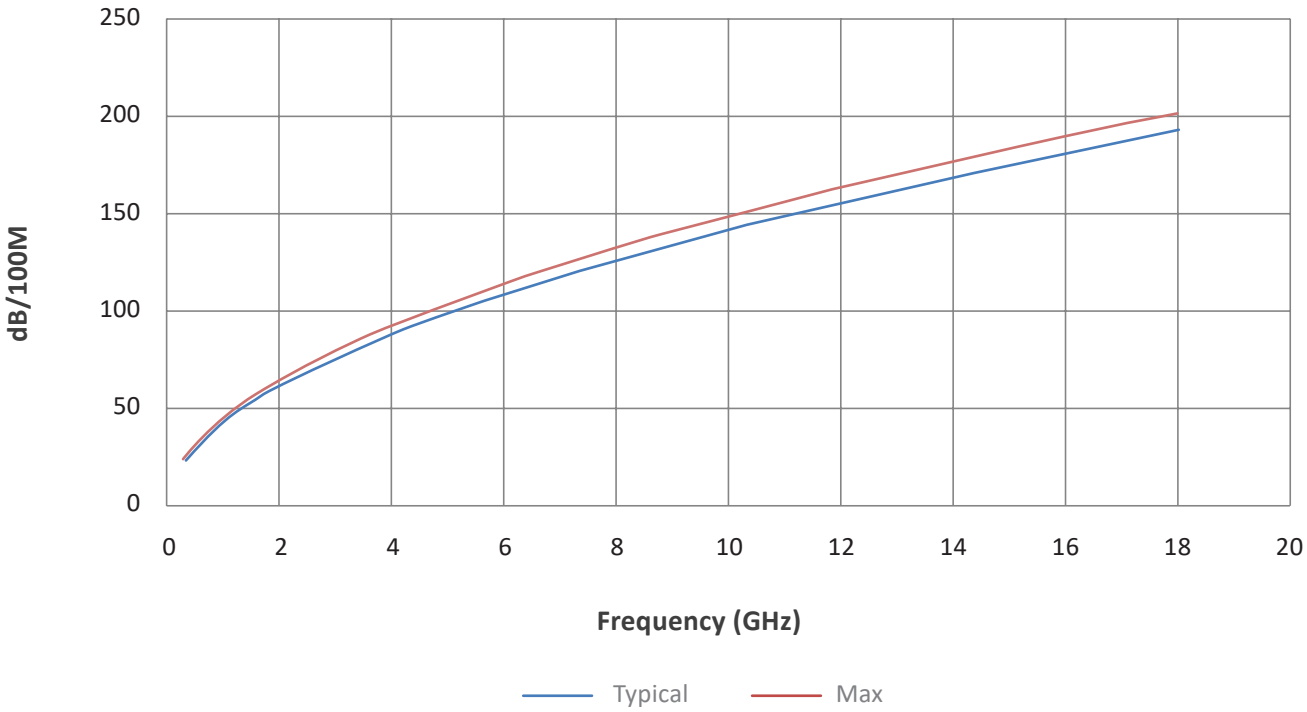


VERO VNA

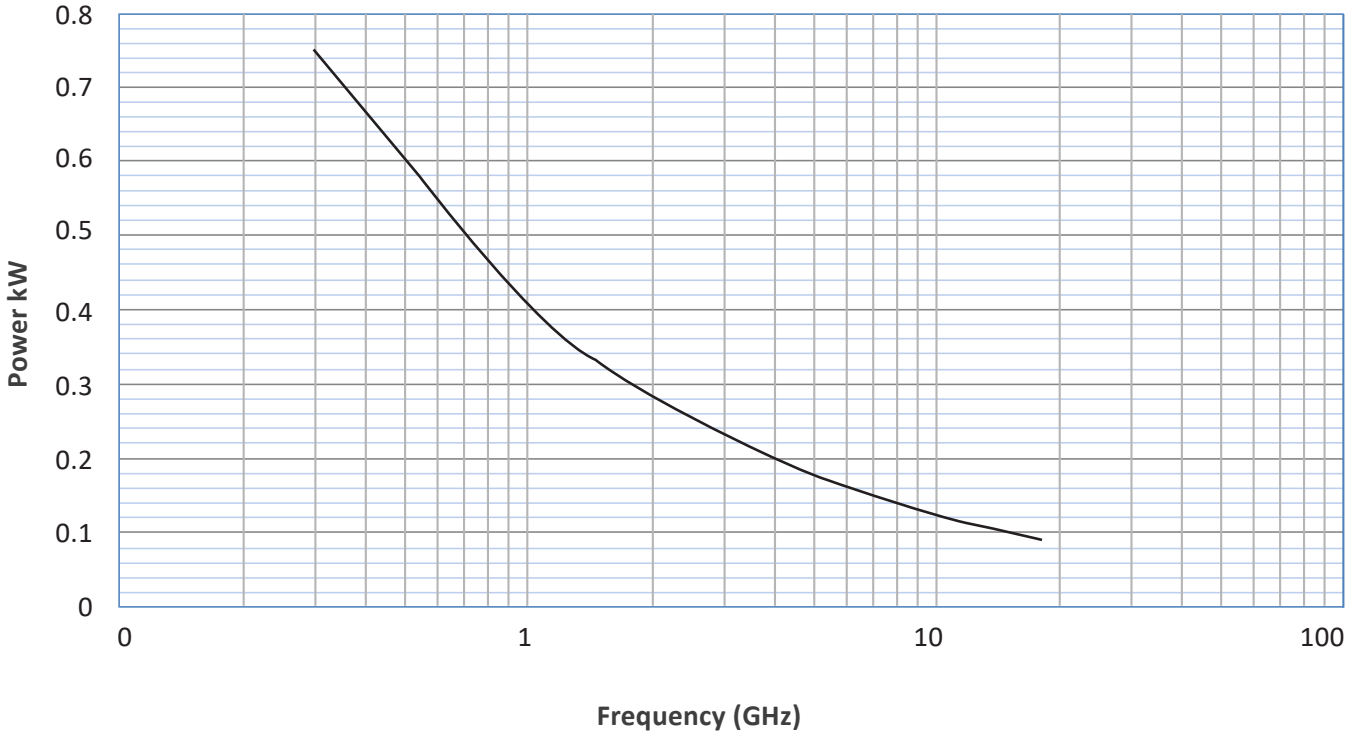
Specifications

Cable	VN18			VN26			VN40			VN50			VN67		
Center Conductor	Solid			Solid			Solid			Solid			Solid		
Overall Diameter (mm)	14.80			14.80			14.80			14.80			14.80		
Length (Inch)	25	38	48	25	38	48	25	38	48	25	38	48	25	38	48
Nominal Weight (g/m)	315	385	455	315	385	455	315	385	455	315	385	455	315	385	455
Minimum Bend Radius (mm)	74			74			74			74			74		
Max Flex Cycles	50,000			50,000			50,000			50,000			50,000		
Temperature Range (˚C)	-40~+85			-40~+85			-40~+85			-40~+85			-40~+85		
Crush Resistance (kgf/cm)	150			150			150			150			150		
Maximum Frequency (GHz)	18			26.5			40			50			67		
Typical VSWR	1.18:1			1.18:1			1.25:1			1.25:1			1.35:1		
Maximum VSWR	1.25:1			1.25:1			1.32:1			1.35:1			1.40:1		
Typical Insertion Loss	1.42	2.05	2.54	1.75	2.53	3.12	2.17	3.13	3.88	2.45	3.53	4.36	4.27	6.21	7.70
Maximum Insertion Loss	1.77	2.41	2.90	2.16	2.93	3.53	2.66	3.62	4.37	2.98	4.07	4.90	4.59	6.54	8.03
Impedance (Norminal) (Ohms)	50			50			50			50			50		
Typical Amplitude Stability (dB)	±0.02	±0.02	±0.03	±0.01	±0.02	±0.03	±0.02	±0.02	±0.03	±0.01	±0.03	±0.03	±0.02	±0.02	±0.04
Maximum Amplitude Stability (dB)	±0.08	±0.1	±0.1	±0.08	±0.1	±0.1	±0.08	±0.1	±0.1	±0.08	±0.10	±0.13	±0.10	±0.13	±0.20
Typical Phase Stability (Degree)	±2.0	±2.0	±3.0	±2.0	±2.0	±3.0	±1.5	±3.0	±3.0	±1.5	±4.0	±4.0	±4.0	±5.0	±7.0
Maximum Phase Stability (Degree)	±2.5	±4.0	±4.0	±2.7	±5.5	±5.5	±3	±6	±6	±3.5	±8	±8	±8.5	±10.5	±10.5
Maximum Amplitude Stability (dB)	1.83			1.83			1.83			1.83			1.83		
Typical Phase Stability (Degree)	74			74			74			74			74		
Maximum Phase Stability (Degree)	4.5			4.5			4.5			4.5			4.5		

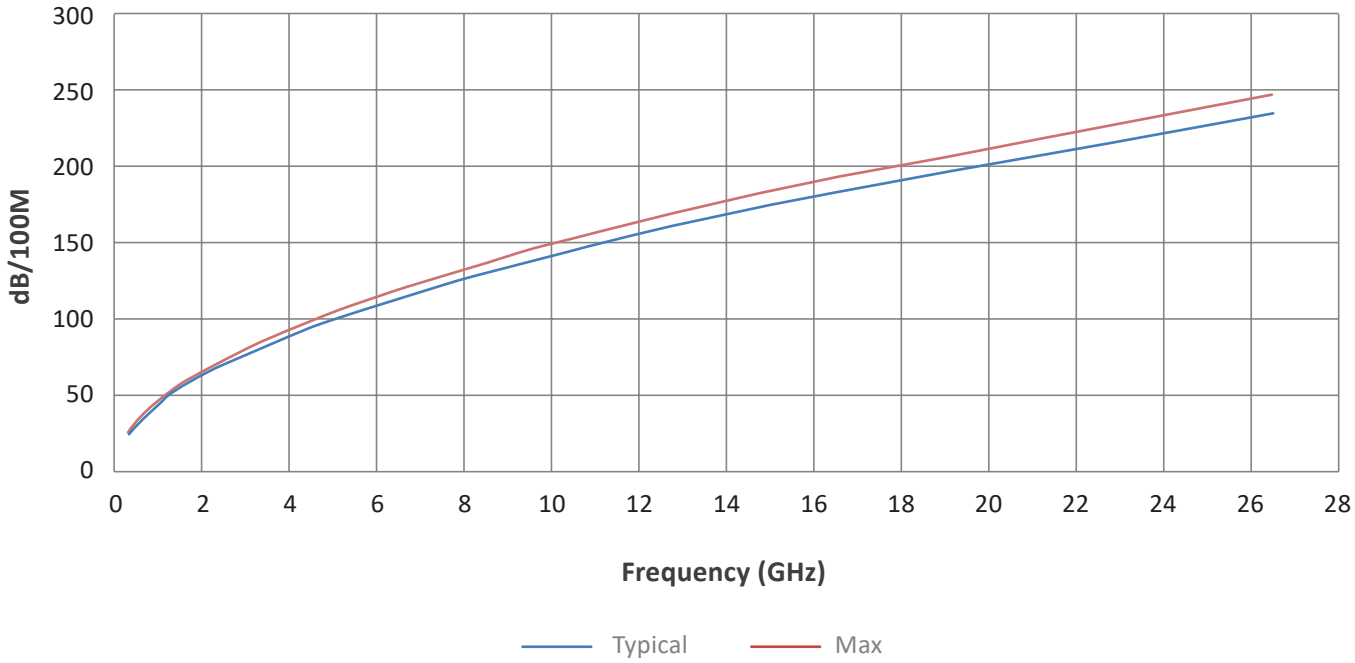
VN18 Attenuation



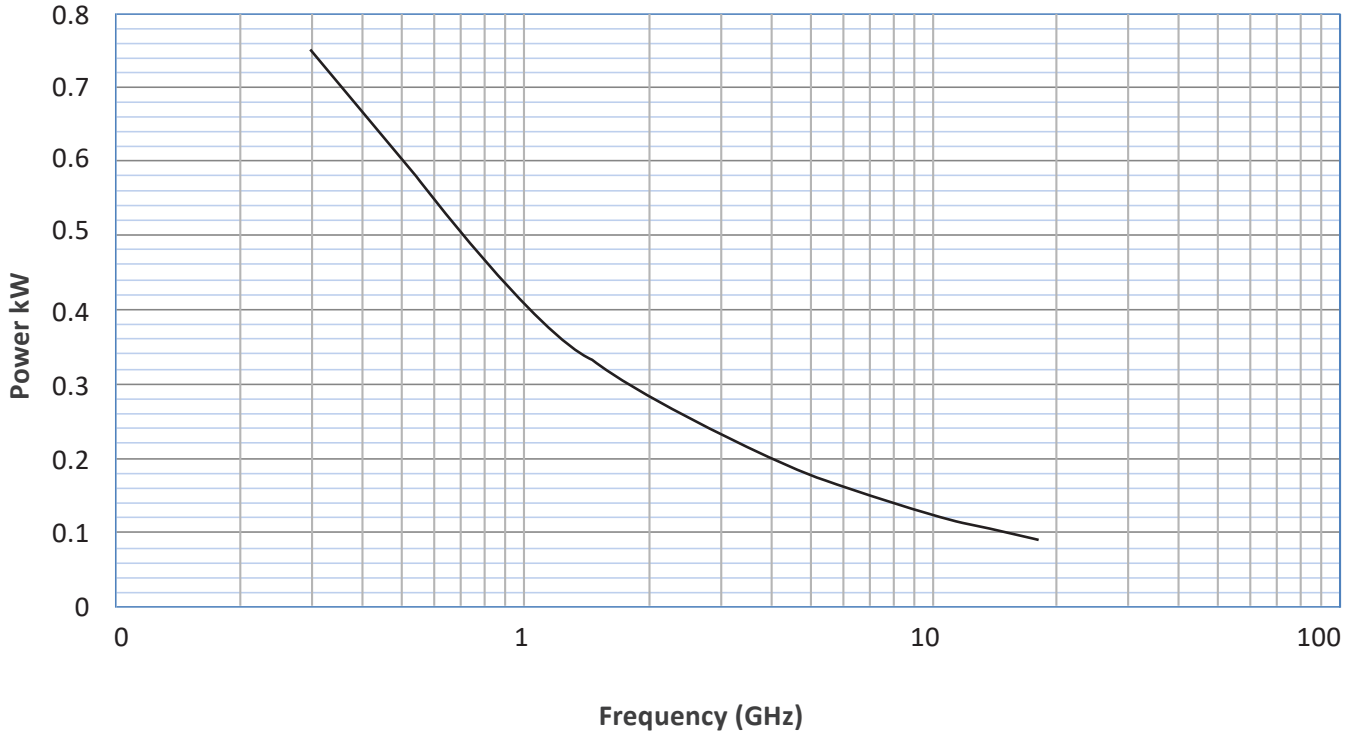
VN18 Average Power



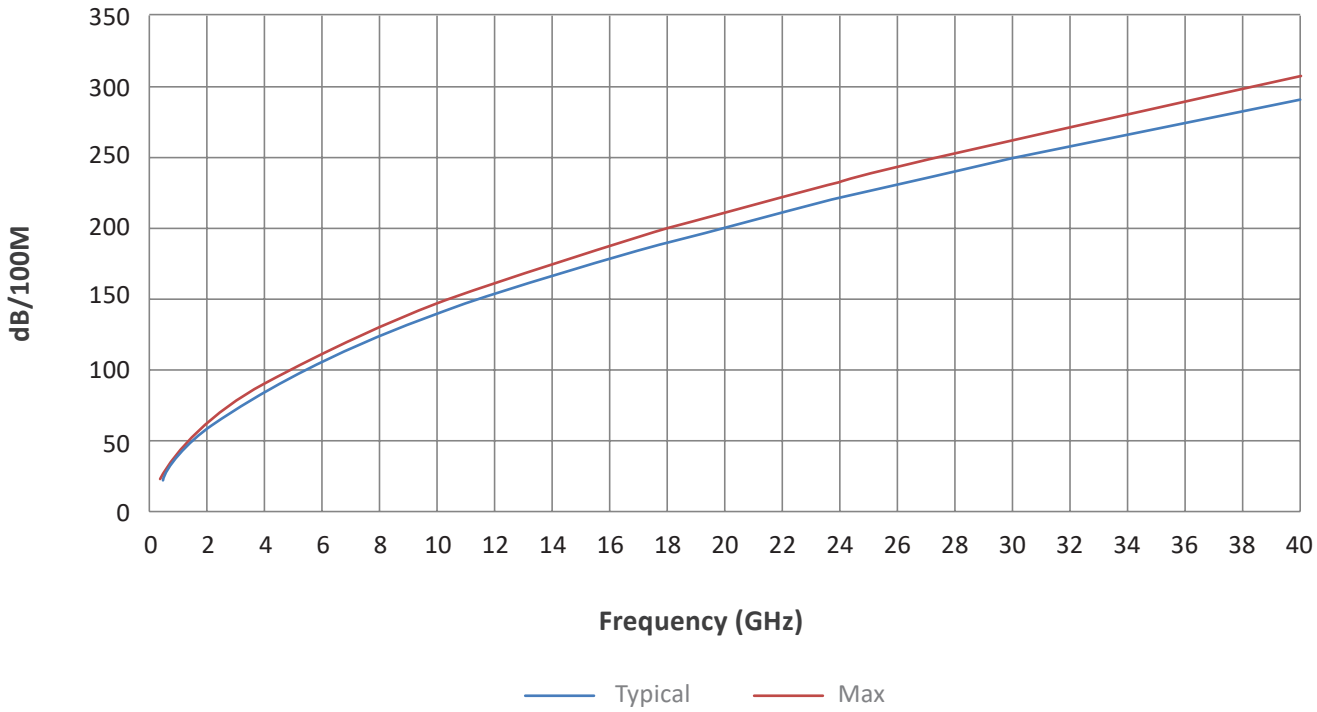
VN26 Attenuation



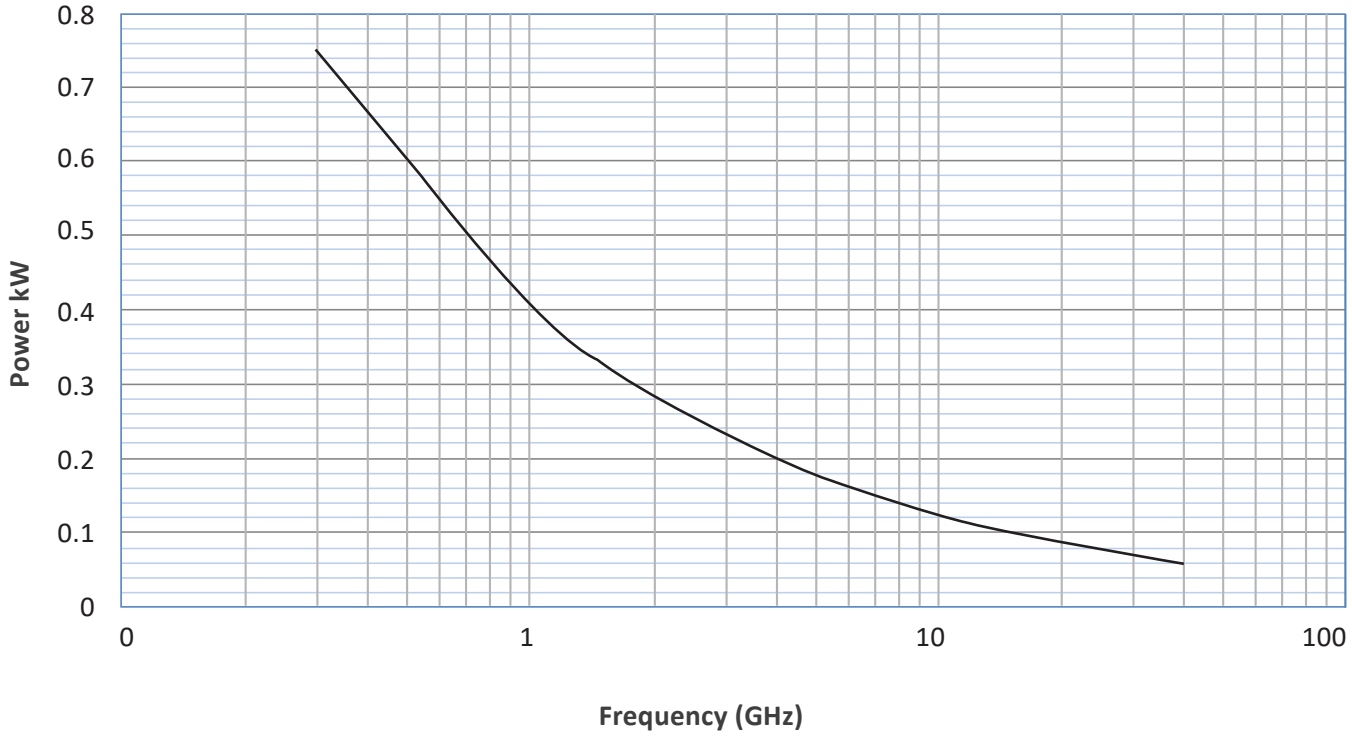
VN26 Average Power



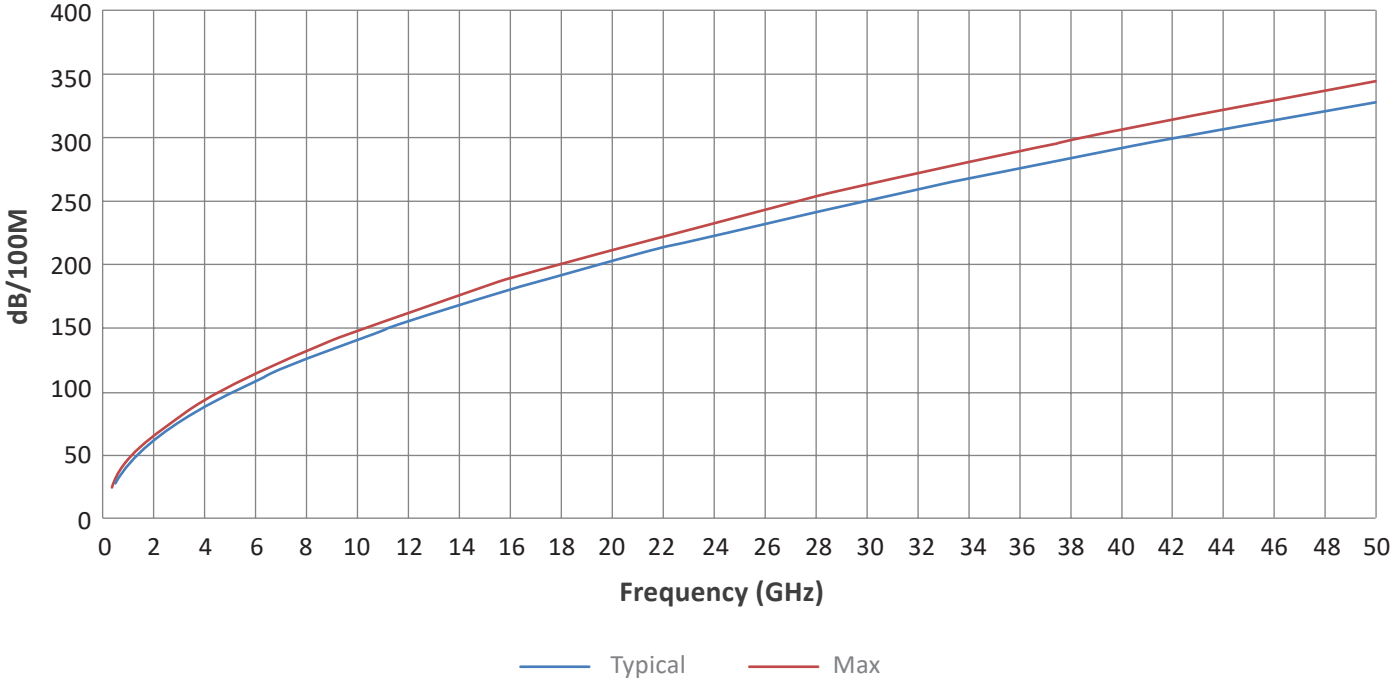
VN40 Attenuation



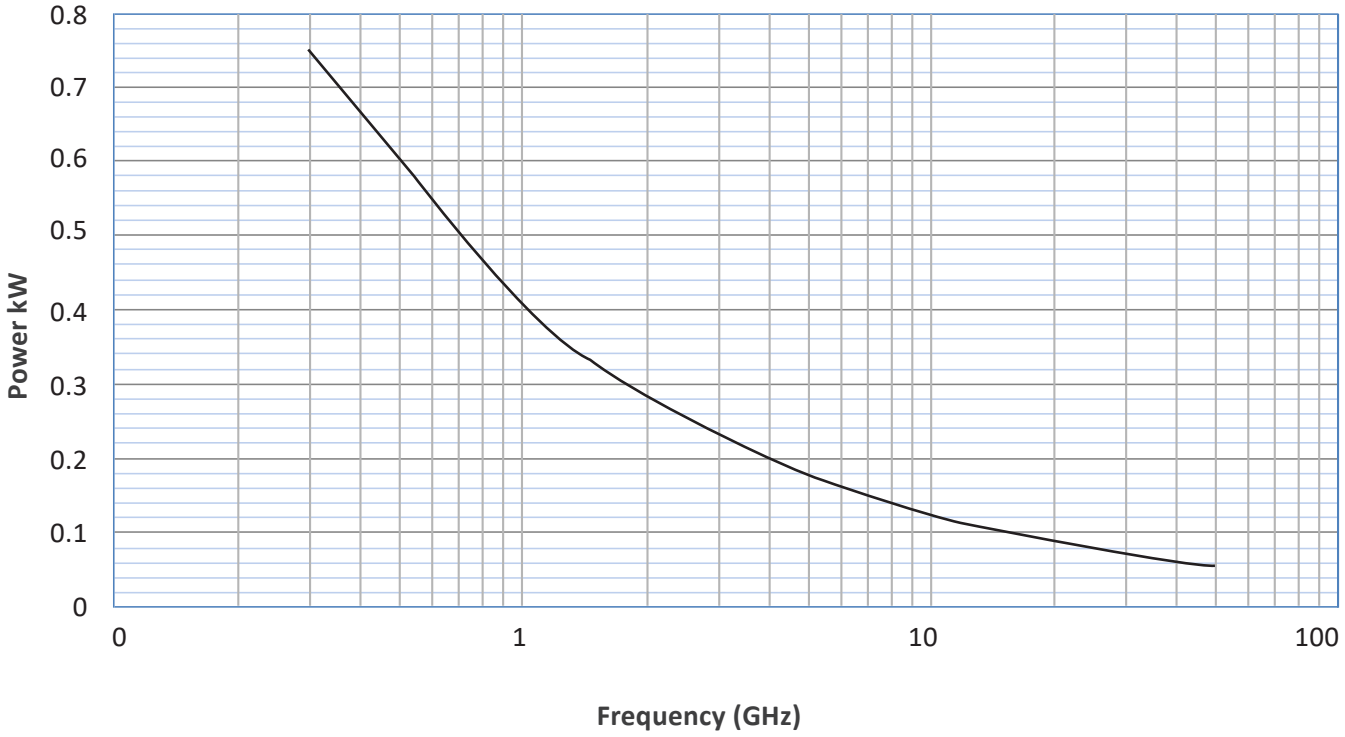
VN40 Average Power



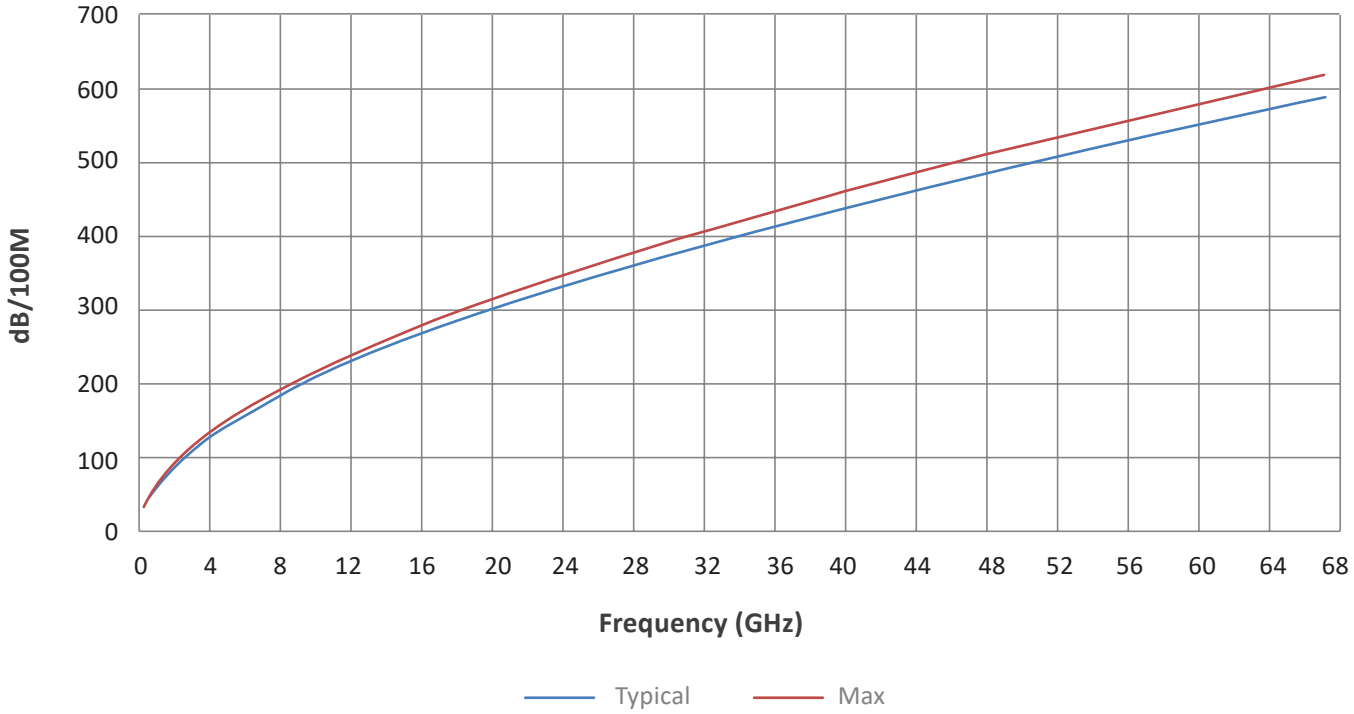
VN50 Attenuation



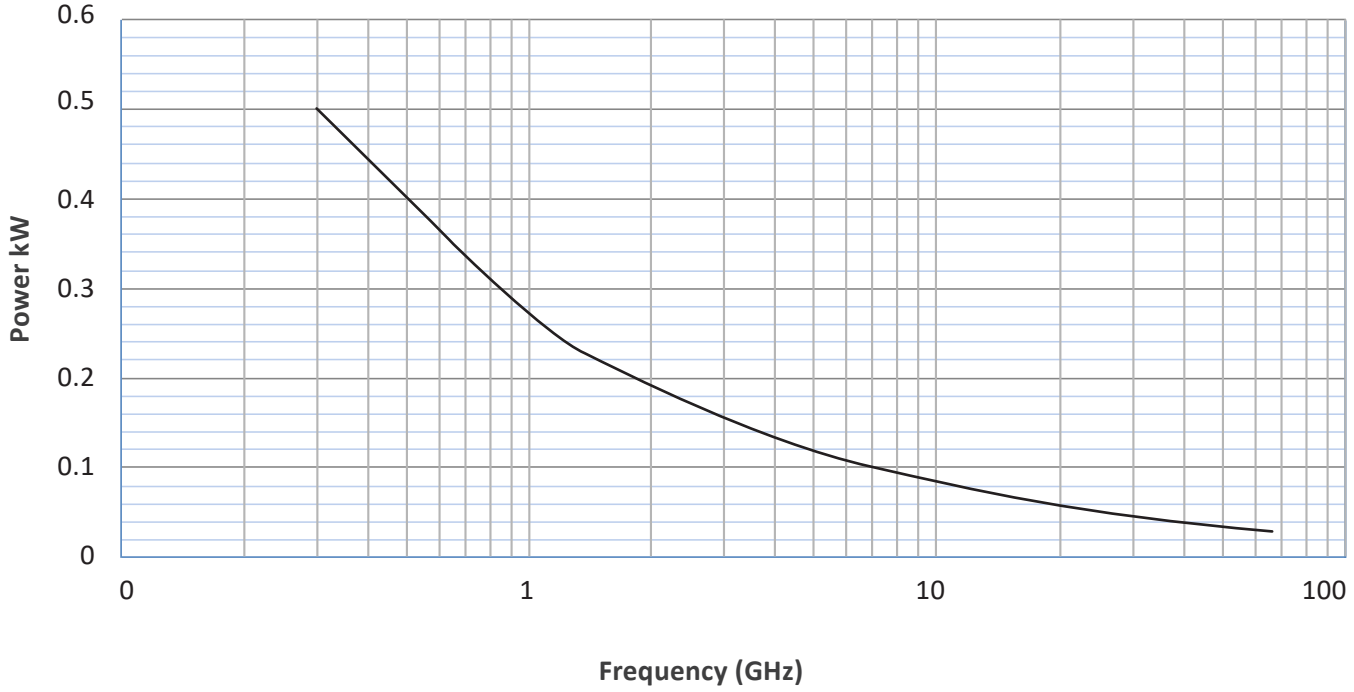
VN50 Average Power



VN67 Attenuation



VN67 Average Power



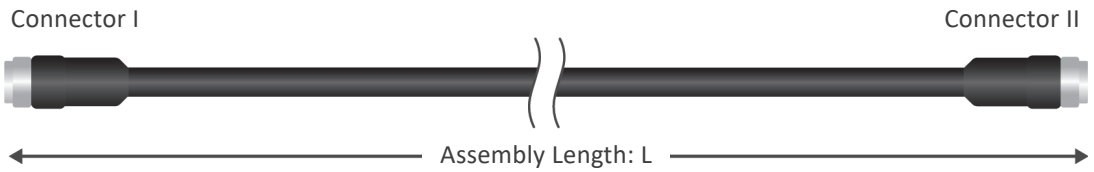
Attenuation (Typical @25˚C & VSWR = 1.0)
& Power (VSWR = 1.0; 40˚C; Sea Level)

Frequency (MHz)	VN18		VN26		VN40		VN50		VN67	
	Attenuation (dB/100m)	Average Power (kW)	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	23.87	0.750	23.87	0.750	23.87	0.750	23.87	0.750	34.20	0.500
1000	43.79	0.409	43.79	0.409	43.79	0.409	43.79	0.409	63.00	0.271
2000	62.18	0.288	62.18	0.288	62.18	0.288	62.18	0.288	89.81	0.190
4000	88.45	0.202	88.45	0.202	88.45	0.202	88.45	0.202	128.43	0.133
6000	108.82	0.165	108.82	0.165	108.82	0.165	108.82	0.165	158.64	0.108
8000	126.12	0.142	126.12	0.142	126.12	0.142	126.12	0.142	184.48	0.093
10000	141.47	0.127	141.47	0.127	141.47	0.127	141.47	0.127	207.55	0.082
12000	155.44	0.115	155.44	0.115	155.44	0.115	155.44	0.115	228.63	0.075
14000	168.35	0.106	168.35	0.106	168.35	0.106	168.35	0.106	248.21	0.069
16000	180.43	0.099	180.43	0.099	180.43	0.099	180.43	0.099	266.61	0.064
18000	191.82	0.093	191.82	0.093	191.82	0.093	191.82	0.093	284.03	0.060
26500			234.80	0.076	234.80	0.076	234.80	0.076	350.30	0.049
40000					291.75	0.061	291.75	0.061	439.44	0.039
50000							328.51	0.055	497.73	0.034
60000									551.61	0.031
67000									587.27	0.029

Calculate Attenuation = K1*√FMHz + K2*FMHz

	VN18	VN26	VN40	VN50	VN67
K1	1.3707349	1.3707349	1.3707349	1.3707349	1.9537172
K2	0.0004400	0.0004400	0.0004400	0.0004400	0.0012174

Selecting The Suitable Cable:
Part Number Construction



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

VN26-00635 NDM NDF-A

1 2 3 4 5

1

Cable Type	Cable Code
VEROVNA Operating @ Max 26.5GHz	VN26

2

Length Requirement	Length Code
635mm	00635

3

Connector (I)	Connector Code
NMD 3.5mm Male	NDM

4

Connector (II)	Connector Code
NMD 3.5mm Female	NDF

5

With Armor	No Armor
A	Not Applicable

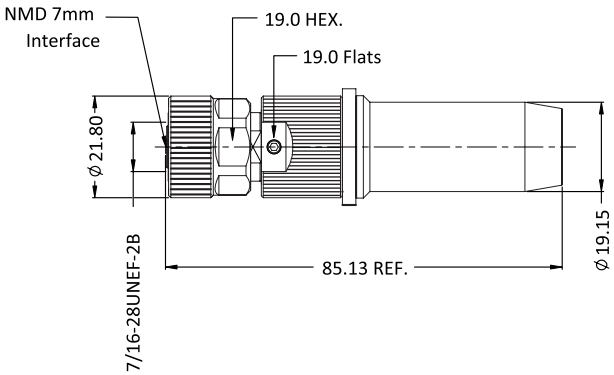
Criteria for Connector Selection

Connector Type	Mate	Connector Code			Max Operating Frequency (GHZ)	VN18	VN26	VN40	VN50	VN67
NMD 7mm	-	N	7	0	18.0	●				
NMD 3.5mm	M	N	D	M	26.5		●			
APC 3.5mm	F	D	M	F	26.5		●			
NMD 3.5mm	F	N	D	F	26.5		●			
NMD 2.92mm	M	N	K	M	40.0			●		
APC 2.92mm	F	K	M	F	40.0			●		
NMD 2.92mm	F	N	K	F	40.0			●		
NMD 2.4mm	M	N	L	M	50.0				●	
APC 2.4mm	F	L	M	F	50.0				●	
NMD 2.4mm	F	N	L	F	50.0				●	
NMD 1.85mm	M	N	V	M	67.0					●
APC 1.85mm	F	V	M	F	67.0					●
NMD 1.85mm	F	N	V	F	67.0					●

Available Standard Connectors

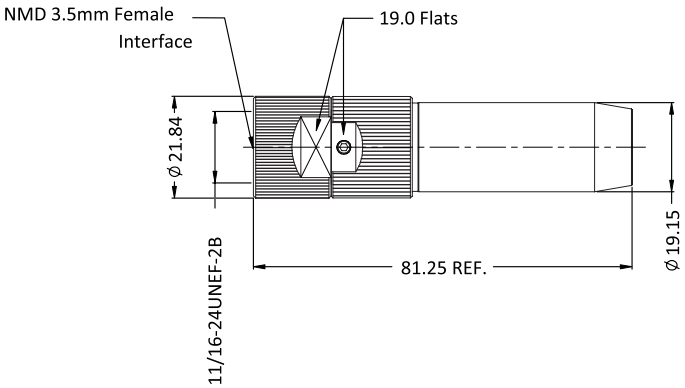
VN18

Type	NMD 7mm	Code	N70

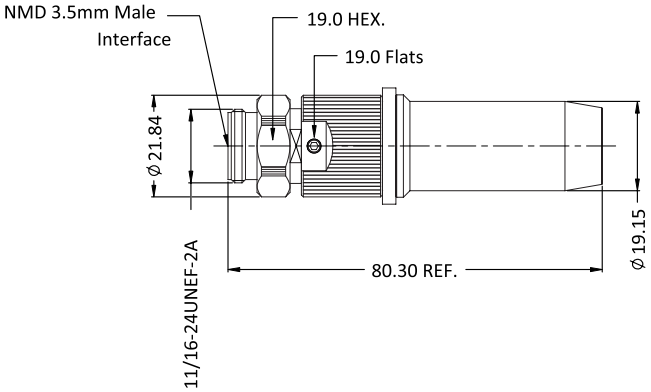


VN26

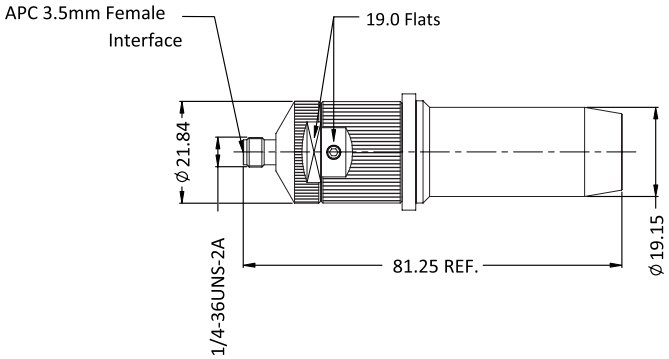
Type	NMD 3.5mm Female	Code	NDF



Type	NMD 3.5mm Male	Code	NDM

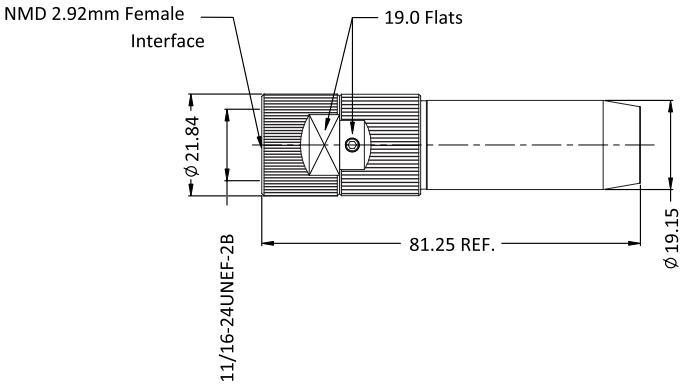


Type	APC 3.5mm Female	Code	DMF

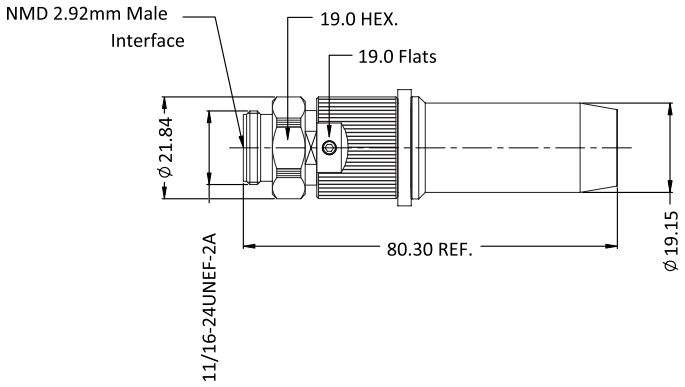


VN40

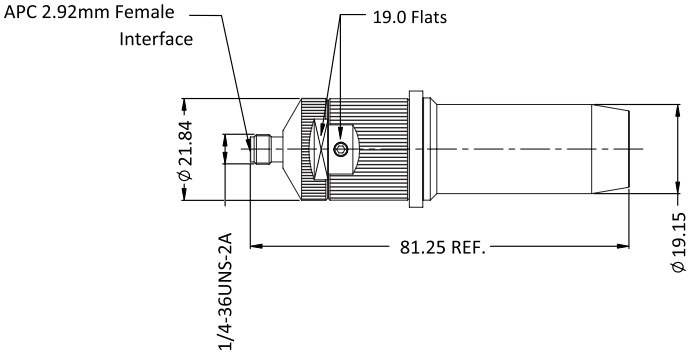
Type	NMD 2.92mm Female	Code	NKF



Type	NMD 2.92mm Male	Code	NKM

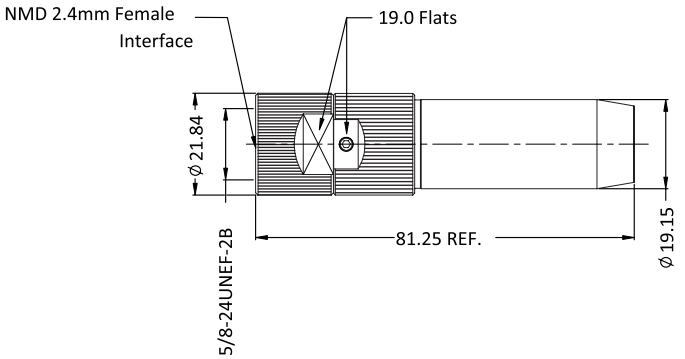


Type	APC 2.92mm Female	Code	KMF

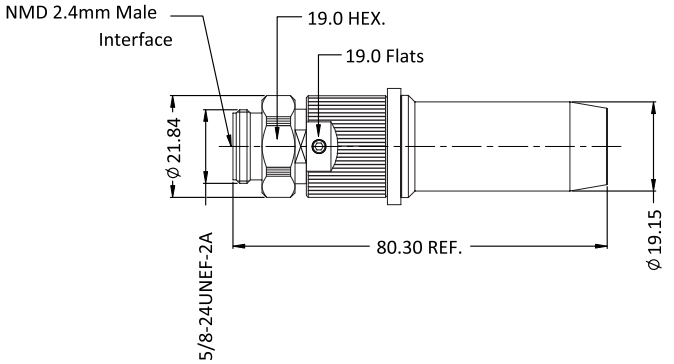


VN50

Type	NMD 2.4mm Female	Code	NLF

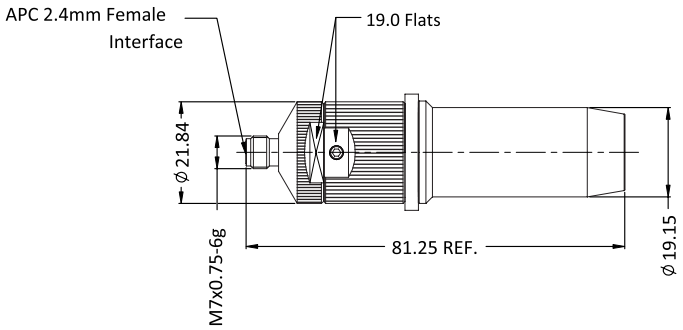


Type	NMD 2.4mm Male	Code	NLM



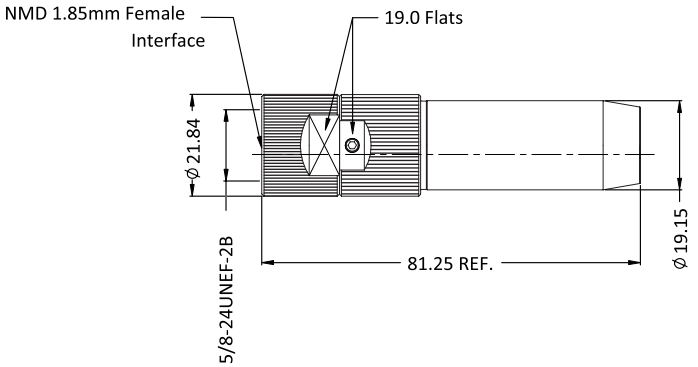
VN50

Type	APC 2.4mm Female	Code	LMF

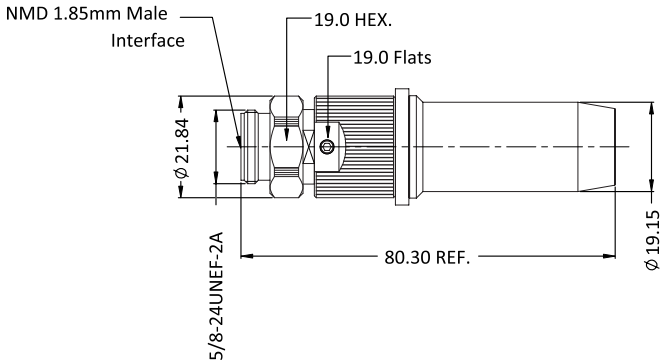


VN67

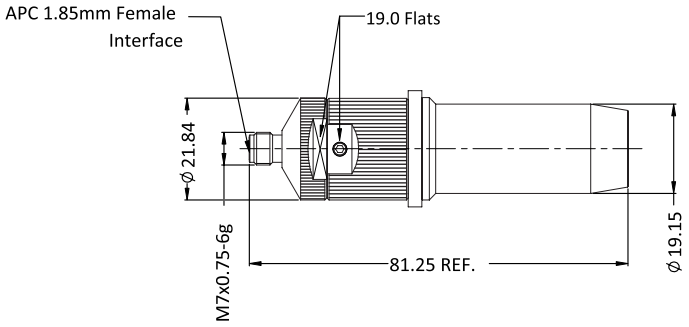
Type	NMD 1.85mm Female	Code	NVF



Type	NMD 1.85mm Male	Code	NVM



Type	APC 1.85mm Female	Code	VMF



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