

# VERO ARC

Flexible low profile RF cable

### Features

- Flexible
- Low Profile
- Low Loss

### Typical Applications

- Board to Board Interconnection
- Point to Point Interconnection between RF Modules
- Flexible replacement for semi-rigid RF cable



### Cable Structure

#### VEROARC I

##### Features & Benefits

- 76% Vp PTFE Tape + SPC Wire
- Low loss, Three layers of shielding
- Anti twist, Anti tensile, High reliability

Center Conductor	Dielectric	Outer Conductor	Middle Layer	Outer Shield	Jacket
Silver Plated Copper	LD PTFE	Flat Wire Silver Plated	Aluminum Foil	Stainless Steel Wire	Transparent Violet FEP

#### VEROARC II

##### Features & Benefits

- 76% Vp solid dielectric + multi-layer shielding
- Excellent bending stability

Center Conductor	Dielectric	Outer Conductor	Middle Layer	Outer Shield	Jacket
Silver Plated Copper	LD PTFE	Flat Wire Silver Plated	Aluminum Foil	Stainless Steel Wire	Transparent Violet FEP

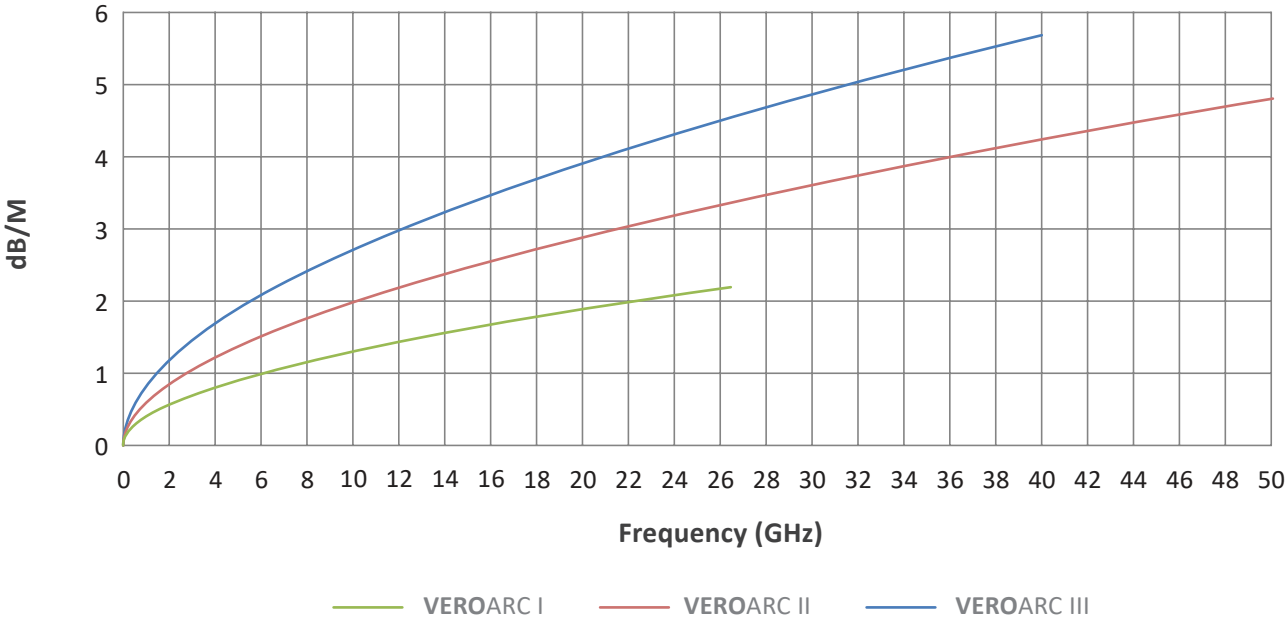
#### VEROARC III

##### Features & Benefits

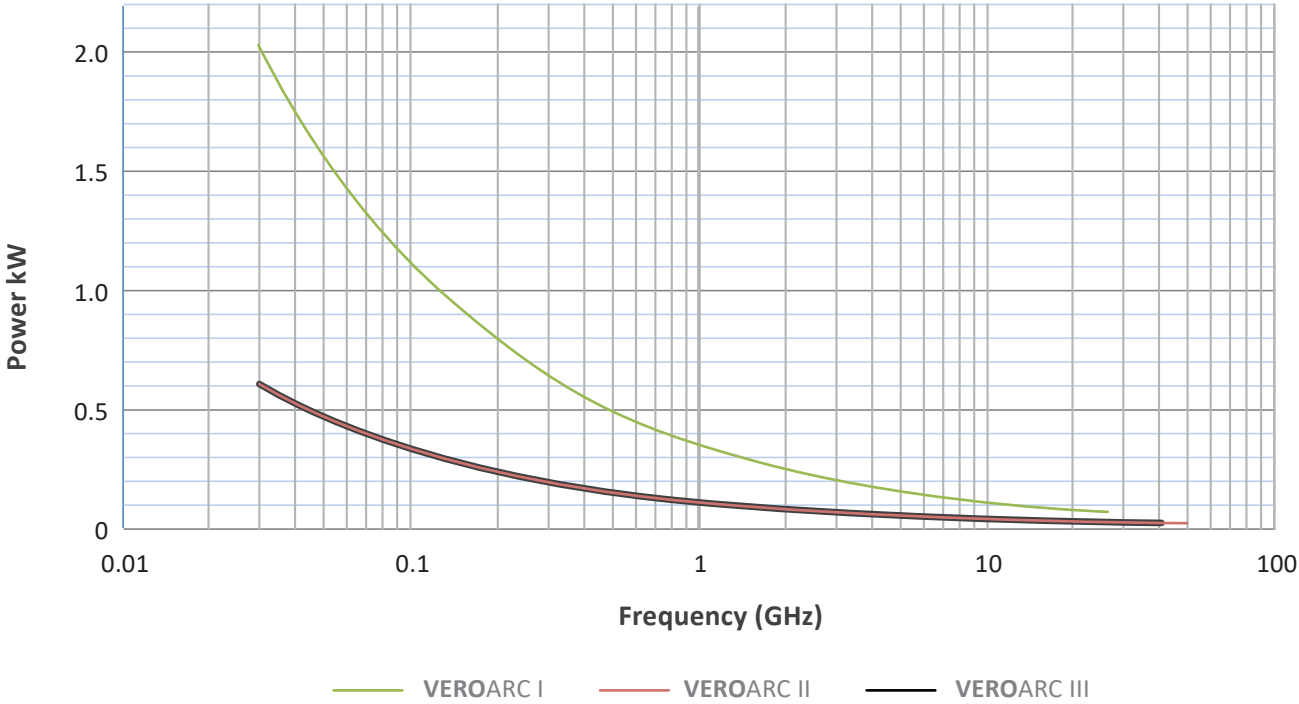
- 70% Vp solid dielectric + multi-layer shielding
- Excellent bending stability

Center Conductor	Dielectric	Outer Conductor	Middle Layer	Outer Shield	Jacket
Silver Plated Copper	Solid PTFE	Flat Wire Silver Plated	Aluminum Foil	Stainless Steel Wire	Transparent Violet FEP

### VEROARC Attenuation



### VEROARC Average Power



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# VERO ARC



## Specifications

Cable	VEROARC I		VEROARC II		VEROARC III	
	mm	inch	mm	inch	mm	inch
Center Conductor (mm)	0.91	0.036	0.56	0.022	0.51	0.020
Dielectric	2.72	0.107	1.70	0.067	1.65	0.065
Inner Shield	2.79	0.110	1.85	0.073	1.82	0.072
Inner layer	3.02	0.119	1.98	0.078	1.90	0.075
Outer Shield	3.20	0.126	2.24	0.088	2.12	0.083
Jacket	3.61	0.142	2.64	0.104	2.50	0.098
Minimum Bend Radius for +/-180°	8.4	0.331	5.08	0.200	5.08	0.200
Bend Radius: Repeated	36	1.417	26.4	1.039	25	0.984
Impedance	50 ohms		50 ohms		50 ohms	
Operation Frequency	26.5 GHz		50 GHz		40 GHz	
Velocity of Propagation	76%		76%		70%	
Dielectric Constant	1.73		1.73		2.04	
Shielding Effectiveness	90 dB		90 dB		90 dB	
Capacitance	26.70	pF/ft	26.70	pF/ft	29.00	pF/ft
Weight	31.00	g/m	17.00	g/m	18.00	g/m

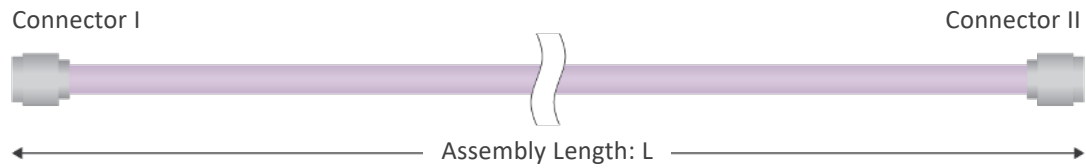
**Attenuation** (Typical @25°C & VSWR = 1:1)  
**& Power** (VSWR = 1:1; 40°C; Sea Level)

Frequency (MHz)	VEROARC I		VEROARC II		VEROARC III	
	Attenuation (dB/100m)	Average Power (kW)	Attenuation (dB/100m)	Average Power (kW)	Attenuation (dB/100m)	Average Power (kW)
300	21.64	0.637	32.6	0.190	45.1	0.190
1000	39.8	0.346	60.1	0.103	82.91	0.103
2000	56.67	0.243	85.8	0.072	118.02	0.073
4000	80.9	0.17	122.8	0.050	168.42	0.051
6000	99.8	0.138	151.9	0.041	207.71	0.041
8000	115.94	0.119	176.8	0.035	241.23	0.036
10000	130.31	0.106	199.0	0.031	271.1	0.032
12000	143.42	0.096	219.4	0.028	298.31	0.029
14000	155.59	0.089	238.28	0.026	323.57	0.026
18000	177.8	0.078	272.9	0.023	369.65	0.023
26500	218.77	0.063	337.2	0.018	454.6	0.019
40000			424.0	0.015	568.16	0.015
50000			480.9	0.013		

Calculate Attenuation =  $K1 \cdot \sqrt{FMHz} + K2 \cdot FMHz$

	VEROARC I	VEROARC II	VEROARC III
K1	1.2380700	1.8600000	2.5808091
K2	0.0006499	0.0013000	0.0013000

## Selecting The Suitable Cable: Part Number Construction



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

### VA01-01000 KMM KMM-N



1	Cable Type	Cable Code
	VEROARC I	VA01
	VEROARC II	VA02
	VEROARC III	VA03

2	Length Requirement	Length Code
	1000mm	01000

3	Connector (I)	Connector Code
	2.92mm (Male)	KMM

4	Connector (II)	Connector Code
	2.92mm (Male)	KMM

5	With Armor	No Armor
	A	N

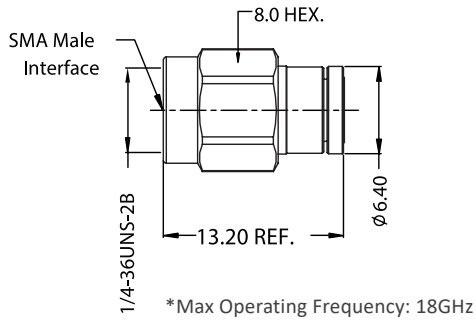
## Criteria for Connector Selection

Connector Type	Mate	Connector Code			Max Operating Frequency (GHZ)	veroARC I	veroARC II	veroARC III
SMA	M	S	M	M	18.0	●	●	●
SMA	M	E	S	M	26.5	●	●	●
N Type	M	N	N	M	18.0		●	
2.92mm	M	K	M	M	40.0		●	●
2.4mm	M	L	M	M	50.0		●	
2.4mm	F	L	M	F	50.0		●	

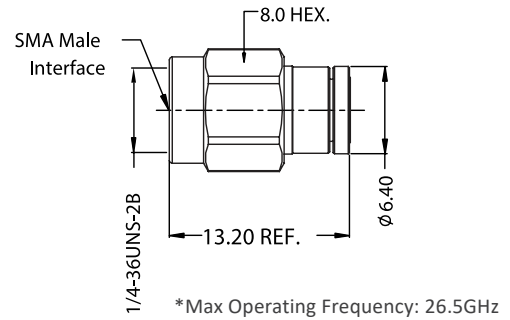
## Available Standard Connectors

### VEROARC I

Type	SMA Male	Code	SMM
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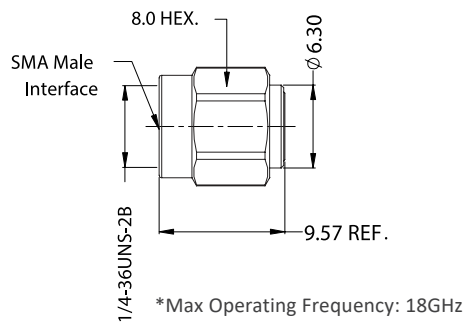


Type	SMA	Code	ESM
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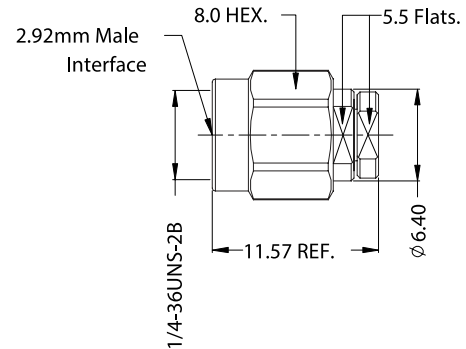


### VEROARC II

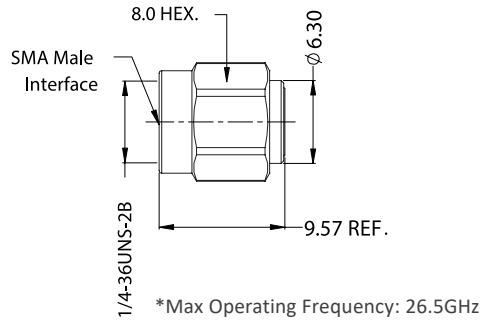
Type	SMA Male	Code	SMM
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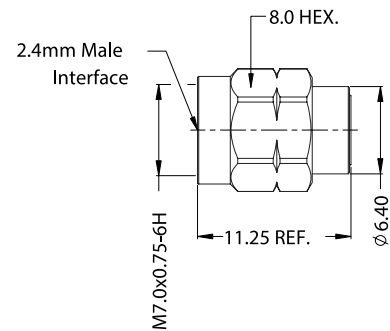
Type	2.92mm Male	Code	KMM
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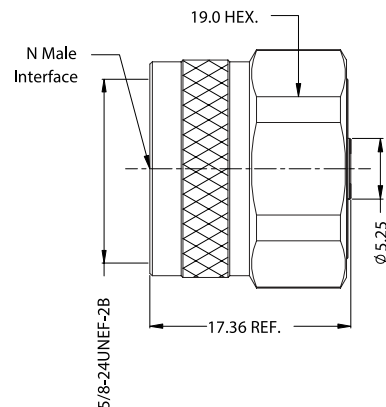
Type	SMA Male	Code	ESM
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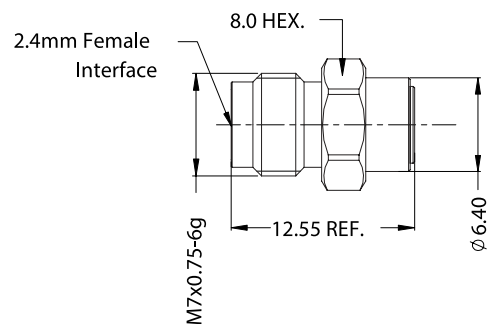
Type	2.4mm Male	Code	LMM
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Type	N Type Male	Code	NNM
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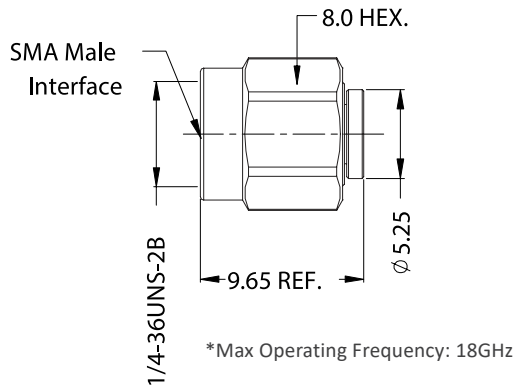


Type	2.4mm Female	Code	LMF
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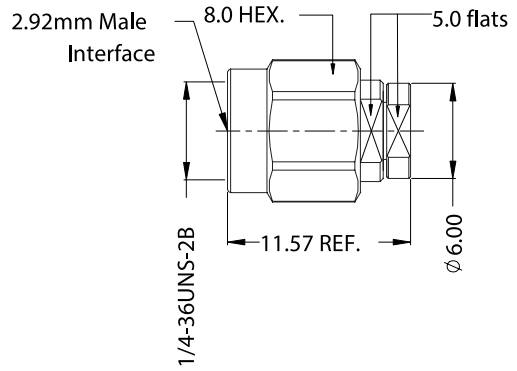


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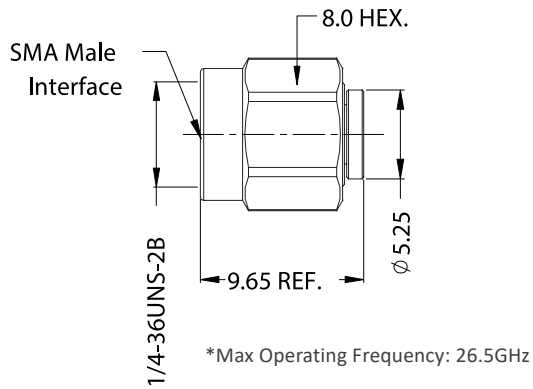
Type	SMA Male	Code	SMM
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Type	2.92mm Male	Code	KMM
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Type	SMA Male	Code	ESM
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