

## Flexible Ultra Low Loss Coax Cable Assembly

S1/SMA Right Angle Male /N Male/DC-18 GHz

Model: S1-SMAWMNM-L

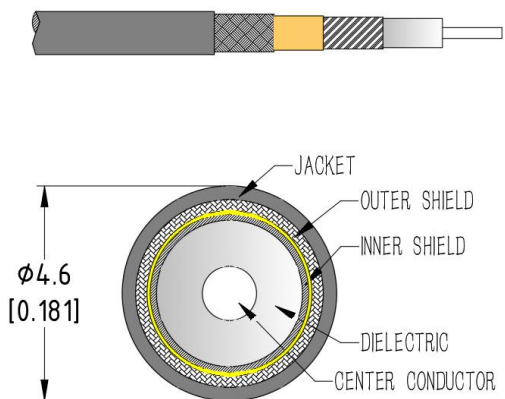
### Features:

- Max Frequency 18 GHz
- VSWR max of 1.30
- Velocity of Propagation of 76%

### Applications:

- Test & Measurement equipment
- Manufacturing lab
- WAN system equipment

### Cable Cross Section:



### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency Range	DC		18	GHz
VSWR		1.25	1.3	:1
Velocity of propagation		76%		
Shielding Effectiveness	90			dB
Capacitance			87.7	pF/m
Phase Stability Vs. Flexure@18GHz		$\pm 3$		$^{\circ}$
Amplitude Stability Vs. Flexure@18GHz		$\pm 0.03$		dB
Phase Stability Vs. Temperature		1000		PPM

### Environmental And Physical Characteristics:

Description	Parameter	Units
Cable Diameter	4.6	mm
Cable Jacket	FEP	
Min. Bending Radius	23	mm
Typical Flex life	50000	
Operating Temperature	-55 to +165	$^{\circ}\text{C}$
Storage Temperature	-55 to +200	$^{\circ}\text{C}$

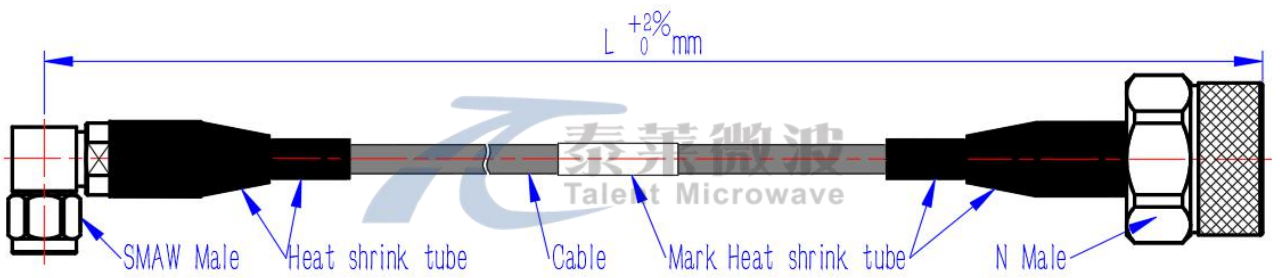
### Cable Performance By Frequency:

Frequency	1 GHz	2 GHz	4 GHz	6 GHz	8 GHz	12 GHz	16GHz	18 GHz
Insertion Loss (dB/m Max)	0.35	0.50	0.72	0.89	1.16	1.28	1.49	1.58
RF Power CW (W Max.)	569	400	280	227	174	158	136	127

### Connectors:

Description	Connector 1	Connector 2
Type	SMA Right Angle Male	N Straight Male
Contact Material And Plating	Beryllium Copper, Gold	Brass, Gold
Dielectric Type	PTFE	PTFE
Body Material And Plating	Passivated Stainless Steel	Passivated Stainless Steel
Insertion Loss (dB Max)	$0.05 * \sqrt{f\_GHz}$	$0.05 * \sqrt{f\_GHz}$

### Outline Drawing:



### Ordering Information:

Base Number	Length (meters)	(Unit)	Phase/delay Matched
S1-SMAWMNM	-L		LEAVE BLANK (NOT REQUIRED) -XXPS ( $\pm XX$ PS) -XX° ( $\pm XX^\circ$ )

### Typical Performance Data:

Model: S1-SMAWMNM-1m

Frequency	2 GHz		6 GHz		12 GHz		18 GHz	
	Typ	Max	Typ	Max	Typ	Max	Typ	Max
Insertion Loss (dB)	0.57	0.64	1.00	1.13	1.45	1.62	1.79	2.01
VSWR	1.03	1.05	1.05	1.10	1.15	1.20	1.20	1.25

