

# iCALIBER TYPE N CABLE ASSEMBLY

**DC - 18 GHz**  
**100 W @ 18 GHz**

**api**   
**technologies corp.**  
INMET

MODELS: ICAL18-NM-XXXXY

## SPECIFICATIONS:

### Electrical:

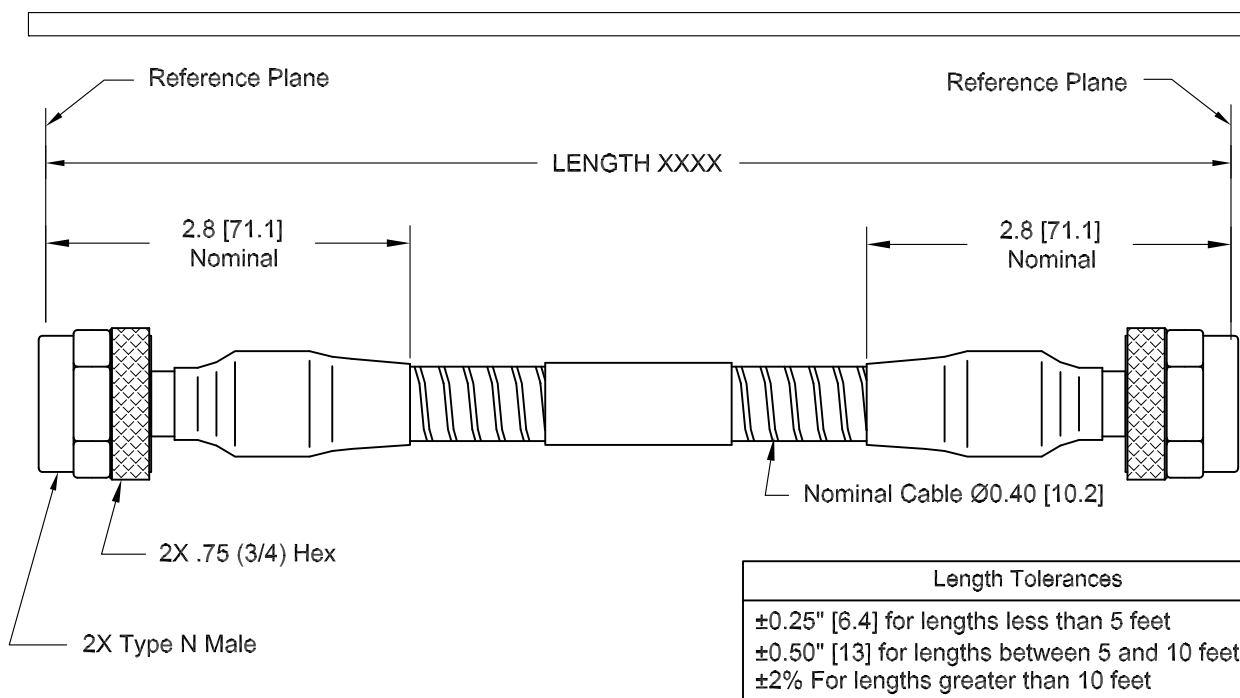
Frequency Range \_\_\_\_\_ DC - 18 GHz  
Impedance \_\_\_\_\_ 50 Ohms  
Velocity of Propagation \_\_\_\_\_ 77 %  
Insulation Resistance \_\_\_\_\_ > 5000 M Ohm  
Dielectric Withstanding Voltage \_\_\_\_\_ 2500 V rms  
Power Handling \_\_\_\_\_ 100 Watts at 18 GHz  
Temperature Range \_\_\_\_\_ -55°C to +105 °C

Frequency (GHz)	Return Loss (dB) Min	Cable Loss * (dB/ft) Nom
DC - 2.0	30	0.13
2.0 - 4.0	28	0.19
4.0 - 6.0	25	0.23
6.0 - 12.0	21	0.33
12.0 - 18.0	19	0.41

### Physical & Mechanical:

Preferred Bending Radius \_\_\_\_\_ 4.0 inch  
Connector Retention Force \_\_\_\_\_ > 200 N  
Connectors \_\_\_\_\_ Passivated Stainless Steel  
(Mates with Type N IAW MIL-STD-348A)  
Center Conductors \_\_\_\_\_ Gold Plated Beryllium Copper  
Armored Jacket \_\_\_\_\_ Passivated Stainless Steel  
Insulators \_\_\_\_\_ PTFE

\*Cable Assembly Insertion Loss Calculation =  $L * [(0.0864 * \text{SQRT}(F)) + (0.00216 * F)] + (0.097 * \text{SQRT}(F))$   
( Where "F" = Frequency in GHz and "L" = Length in Feet )



## HOW TO ORDER:

Model Number: **ICAL18-NM-XXXXY**

Base Model Number  
18 = 18 GHz  
NM = Type N Male Connectors

Y = UNIT OF MEASURE  
BLANK (Default) = INCHES  
M = METERS  
(HALF METER INCREMENTS)

XXXX = LENGTH

### Ordering Examples:

Standard Model Numbers:  
ICAL18-NM-24 = 24 INCH CABLE  
ICAL18-NM-36 = 36 INCH CABLE  
ICAL18-NM-48 = 48 INCH CABLE

Model Number: **ICAL18-SM-1.5M**  
1.5 METERS, 18 GHz, TYPE N MALE ASSY

Note: Dimensions in Brackets are Expressed in Millimeters and are for Reference Only.  
Design specifications are subject to change without notice.  
Contact factory for technical specifications before purchasing or use.