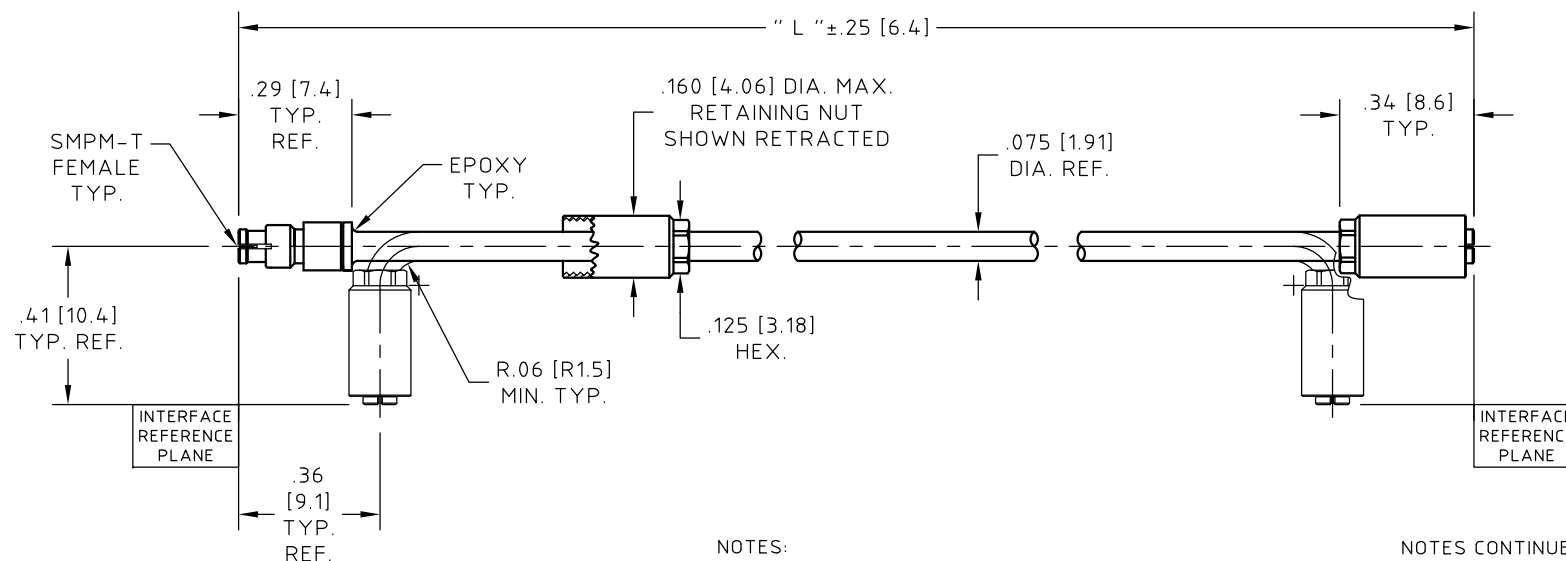


## CONTROL DRAWING

microbend 2MTR-XX

F



## NOTES:

## 1. DESCRIPTION,

CABLE ASSEMBLY, SMPM-T THREADED FEMALE TO SMPM-T THREADED FEMALE, RUGGEDIZED AND SUITABLE FOR COMPLEX, CONGESTED INSTALLATIONS. WHEN INSTALLED AND BEND AT THE MINIMUM BEND RADIUS, CABLE ASSEMBLY WILL TOLERATE MULTIPLE  $\pm 90^\circ$  ROTATIONS AT THE CABLE CONNECTOR JUNCTION. THE RETAINING NUT GUARANTEES FULL AND CONSTANT SMPM-T CONNECTOR MATING DURING VIBRATION AND SHOCK.

## 2. CABLE,

COAXIAL CABLE HUBER+SUHNER Astrolab P/N 32041E. MEETS OR EXCEEDS MIL-DTL-17. SEE HUBER+SUHNER Astrolab CONTROL DRAWING FOR MATERIALS AND FINISHES.

## 3. CONNECTOR -A-, SMPM-T THREADED FEMALE:

HUBER+SUHNER Astrolab P/N 29971TCR-32-41 INTERFACE DIMENSIONS IAW MIL-STD-348. SEE HUBER+SUHNER Astrolab CONTROL DRAWING FOR MATERIALS AND FINISHES.

## 4. CONNECTOR -B-, SMPM-T THREADED FEMALE:

SAME AS CONNECTOR -A-.

## NOTES CONTINUED:

## 5. MARKING:

ALL MARKING WILL BE DONE ON PACKAGING.

## 6. ELECTRICAL CHARACTERISTICS:

IMPEDANCE, 50.0 Ohms NOMINAL. FREQUENCY, INSERTION LOSS AND VSWR SEE CHART.

## 7. MECHANICAL:

OPERATING TEMPERATURE RANGE,  $-55^\circ\text{C}$  TO  $+125^\circ\text{C}$ . TORQUE RETAINING NUT TO  $22.0 \pm 2.0$  IN-Oz [ $0.155 \text{ Nm} \pm 0.014 \text{ Nm}$ ].

## 8. ATTENUATION FORMULAS:

8A. CALCULATE AT 18.0 GHz  
(dB) =  $1.46 \text{ dB/FT.} \times L(\text{ft.}) + .44 \text{ dB}$   
8B. CALCULATE AT 40.0 GHz  
(dB) =  $2.25 \text{ dB/FT.} \times L(\text{ft.}) + .80 \text{ dB}$

| HUBER+SUHNER<br>Astrolab<br>PART NUMBER | DIMENSION<br>"L" | 2.0 GHz |         | 12.0 GHz |         | 18.0 GHz |         | 40.0 GHz |         |
|-----------------------------------------|------------------|---------|---------|----------|---------|----------|---------|----------|---------|
|                                         |                  | VSWR    | I.L. dB | VSWR     | I.L. dB | VSWR     | I.L. dB | VSWR     | I.L. dB |
| microbend 2MTR-2                        | 2.00 [50.8]      | 1.25:1  | 0.29    | 1.35:1   | 0.55    | 1.50:1   | 0.66    | 1.65:1   | 1.18    |
| microbend 2MTR-2.5                      | 2.50 [63.5]      | 1.25:1  | 0.30    | 1.35:1   | 0.60    | 1.50:1   | 0.74    | 1.65:1   | 1.27    |
| microbend 2MTR-3                        | 3.00 [76.2]      | 1.25:1  | 0.32    | 1.35:1   | 0.65    | 1.50:1   | 0.81    | 1.65:1   | 1.36    |
| microbend 2MTR-3.5                      | 3.50 [88.9]      | 1.25:1  | 0.33    | 1.35:1   | 0.70    | 1.50:1   | 0.87    | 1.65:1   | 1.46    |
| microbend 2MTR-4                        | 4.00 [101.6]     | 1.25:1  | 0.35    | 1.35:1   | 0.75    | 1.50:1   | 0.93    | 1.65:1   | 1.55    |
| microbend 2MTR-4.5                      | 4.50 [114.3]     | 1.25:1  | 0.37    | 1.35:1   | 0.80    | 1.50:1   | 0.99    | 1.65:1   | 1.64    |
| microbend 2MTR-5                        | 5.00 [127.0]     | 1.25:1  | 0.39    | 1.35:1   | 0.85    | 1.50:1   | 1.05    | 1.65:1   | 1.74    |
| microbend 2MTR-5.5                      | 5.50 [139.7]     | 1.25:1  | 0.41    | 1.35:1   | 0.90    | 1.50:1   | 1.11    | 1.65:1   | 1.83    |
| microbend 2MTR-6                        | 6.00 [152.4]     | 1.25:1  | 0.43    | 1.35:1   | 0.95    | 1.50:1   | 1.17    | 1.65:1   | 1.93    |
| microbend 2MTR-6.5                      | 6.50 [165.1]     | 1.25:1  | 0.45    | 1.35:1   | 1.00    | 1.50:1   | 1.23    | 1.65:1   | 2.02    |
| microbend 2MTR-7                        | 7.00 [177.8]     | 1.25:1  | 0.47    | 1.35:1   | 1.04    | 1.50:1   | 1.29    | 1.65:1   | 2.11    |
| microbend 2MTR-8                        | 8.00 [203.2]     | 1.25:1  | 0.51    | 1.35:1   | 1.14    | 1.50:1   | 1.41    | 1.65:1   | 2.30    |
| microbend 2MTR-9                        | 9.00 [228.6]     | 1.25:1  | 0.55    | 1.35:1   | 1.24    | 1.50:1   | 1.54    | 1.65:1   | 2.49    |
| microbend 2MTR-10                       | 10.00 [254.0]    | 1.25:1  | 0.58    | 1.35:1   | 1.34    | 1.50:1   | 1.66    | 1.65:1   | 2.68    |
| microbend 2MTR-11                       | 11.00 [279.4]    | 1.25:1  | 0.62    | 1.35:1   | 1.43    | 1.50:1   | 1.78    | 1.65:1   | 2.86    |
| microbend 2MTR-12                       | 12.00 [304.8]    | 1.25:1  | 0.66    | 1.35:1   | 1.53    | 1.50:1   | 1.90    | 1.65:1   | 3.05    |
| microbend 2MTR-                         |                  | 1.25:1  |         | 1.35:1   |         | 1.50:1   |         | 1.65:1   |         |

SEE NOTE 8

UNLESS OTHERWISE SPECIFIED  
CONCENTRICITY .004 T.I.R.  
CORNERS AND FILLETS .005  
MAX. RADIUS OR CHAMFER.  
SURFACE FINISH 63 RMS  
MICROINCHES OR BETTER.

|                      |               |
|----------------------|---------------|
| FRACTIONS            | $\pm 1/16$    |
| X                    | $\pm .030$    |
| XX                   | $\pm .015$    |
| XXX                  | $\pm .005$    |
| ANGLES               | $\pm 1^\circ$ |
| DO NOT SCALE DRAWING |               |

| NAME      | DATE     |
|-----------|----------|
| PREP. GSG | 02/27/09 |
| ELEC. RF  | 06/13/11 |
| MECH. AW  | 03/03/09 |
| Q.C.      |          |



THIS DRAWING CONTAINS PATENTABLE AND PROPRIETARY INFORMATION. THE DESIGN CANNOT BE USED WITHOUT WRITTEN PERMISSION OF HUBER + SUHNER ASTROLAB.

| TITLE                                                            | SCALE | CODE IDENT. | DWG NO.           | REV |
|------------------------------------------------------------------|-------|-------------|-------------------|-----|
| CABLE ASSEMBLY, SMPM-T THREADED FEMALE TO SMPM-T THREADED FEMALE | 2:1   | 16301       | microbend 2MTR-XX | F   |

THDS. TO BE IN ACCORD WITH U.S.  
DEPT. OF COMM. SCREW THD. STDS.  
FOR FEDERAL SERVICES 1950 SUPL.  
TO HANDBOOK H 28.

ROHS 6 COMPLIANT

| F    | ECN No. 15903 | 10/29/13 | EB |          |
|------|---------------|----------|----|----------|
| REV. | DESCRIPTION   | DATE     | BY | APPROVED |