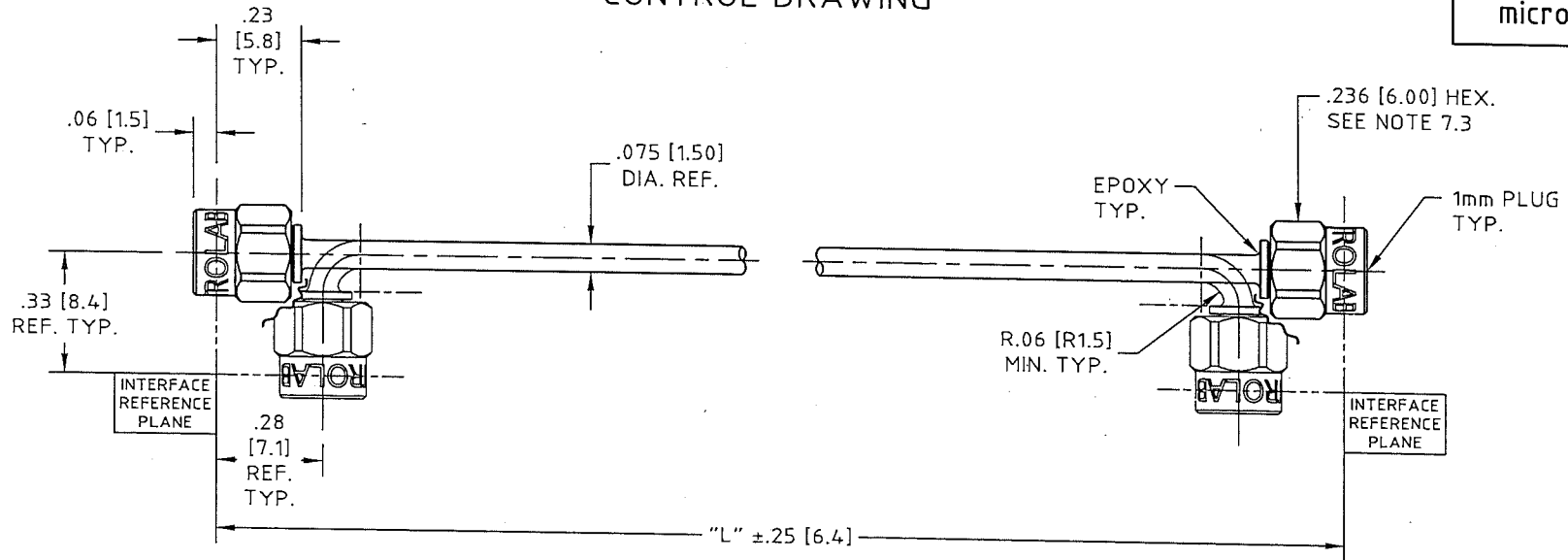


# CONTROL DRAWING

microbend 1R-xx

B



## ROHS 5/6 COMPLIANT

| H+S Astrolab<br>PART NUMBER | DIMENSION<br>"L" | 12.4 GHz |         | 40.0 GHz |         | 65.0 GHz |         | 85.0 GHz |         |
|-----------------------------|------------------|----------|---------|----------|---------|----------|---------|----------|---------|
|                             |                  | VSWR     | I.L. dB | VSWR     | I.L. dB | VSWR     | I.L. dB | VSWR     | I.L. dB |
| microbend 1R-2.5            | 2.50 (63.5)      | 1.27:1   | 0.52    | 1.50:1   | 0.99    | 1.60:1   | 1.28    | 1.80:1   | 1.47    |
| microbend 1R-3              | 3.00 (76.2)      | 1.27:1   | 0.57    | 1.50:1   | 1.08    | 1.60:1   | 1.40    | 1.80:1   | 1.61    |
| microbend 1R-3.5            | 3.50 (88.9)      | 1.27:1   | 0.61    | 1.50:1   | 1.18    | 1.60:1   | 1.52    | 1.80:1   | 1.76    |
| microbend 1R-4              | 4.00 (101.6)     | 1.27:1   | 0.66    | 1.50:1   | 1.27    | 1.60:1   | 1.65    | 1.80:1   | 1.90    |
| microbend 1R-4.5            | 4.50 (114.3)     | 1.27:1   | 0.71    | 1.50:1   | 1.36    | 1.60:1   | 1.77    | 1.80:1   | 2.04    |
| microbend 1R-5              | 5.00 (127.0)     | 1.27:1   | 0.76    | 1.50:1   | 1.46    | 1.60:1   | 1.89    | 1.80:1   | 2.19    |
| microbend 1R-5.5            | 5.50 (139.7)     | 1.27:1   | 0.81    | 1.50:1   | 1.55    | 1.60:1   | 2.02    | 1.80:1   | 2.33    |
| microbend 1R-6              | 6.00 (152.4)     | 1.27:1   | 0.86    | 1.50:1   | 1.65    | 1.60:1   | 2.14    | 1.80:1   | 2.48    |
| microbend 1R-7              | 7.00 (177.8)     | 1.27:1   | 0.96    | 1.50:1   | 1.83    | 1.60:1   | 2.39    | 1.80:1   | 2.76    |
| microbend 1R-8              | 8.00 (203.2)     | 1.27:1   | 1.06    | 1.50:1   | 2.02    | 1.60:1   | 2.63    | 1.80:1   | 3.05    |
| microbend 1R-9              | 9.00 (228.6)     | 1.27:1   | 1.16    | 1.50:1   | 2.21    | 1.60:1   | 2.88    | 1.80:1   | 3.34    |
| microbend 1R-10             | 10.00 (254.0)    | 1.27:1   | 1.25    | 1.50:1   | 2.40    | 1.60:1   | 3.13    | 1.80:1   | 3.63    |
| microbend 1R-11             | 11.00 (279.4)    | 1.27:1   | 1.35    | 1.50:1   | 2.58    | 1.60:1   | 3.37    | 1.80:1   | 3.91    |
| microbend 1R-12             | 12.00 (304.8)    | 1.27:1   | 1.45    | 1.50:1   | 2.77    | 1.60:1   | 3.62    | 1.80:1   | 4.20    |
| microbend 1R-13             | 13.00 (330.20)   | 1.27:1   | 1.55    | 1.50:1   | 2.96    | 1.60:1   | 3.87    | 1.80:1   | 4.49    |
| microbend 1R-14             | 14.00 (355.60)   | 1.27:1   | 1.65    | 1.50:1   | 3.15    | 1.60:1   | 4.11    | 1.80:1   | 4.78    |
| microbend 1R-15             | 15.00 (381.00)   | 1.27:1   | 1.75    | 1.50:1   | 3.33    | 1.60:1   | 4.36    | 1.80:1   | 5.06    |
| microbend 1R-16             | 16.00 (406.40)   | 1.27:1   | 1.84    | 1.50:1   | 3.52    | 1.60:1   | 4.61    | 1.80:1   | 5.35    |
| microbend 1R-               |                  |          |         |          |         |          |         |          |         |

### NOTES:

- DESCRIPTION:  
CABLE ASSEMBLY, 1 mm PLUG TO 1 mm PLUG.  
THE CABLE ASSEMBLY IS, RUGGEDIZED AND SUITABLE FOR COMPLEX, CONGESTED INSTALLATIONS.  
WHEN INSTALLED AND BENT AT THE MINIMUM BEND RADIUS, microbend 1R WILL TOLERATE MULTIPLE ±90° ROTATIONS AT THE CABLE-CONNECTOR JUNCTION.
- CABLE:  
COAXIAL CABLE H+S Astrolab P/N 32041E.  
(HIGH PERFORMANCE) astro - STEEL - flex I.  
MEETS OR EXCEEDS MIL-DTL-17.  
SEE H+S Astrolab CONTROL DRAWING FOR MATERIALS AND FINISHES.
- CONNECTOR -A-, 1mm PLUG:  
H+S Astrolab P/N 29840CR-32-41  
INTERFACE IS COMPATIBLE WITH IEEE P287 SPECIFICATION FOR 1 mm GPC.
- CONNECTOR -B-, 1 mm PLUG:  
SAME AS CONNECTOR -A-.

### NOTES CONTINUED:

- MARKING:  
DIRECTLY ON CABLE, NONE.  
ALL MARKING WILL BE DONE ON PACKAGING.
- ELECTRICAL CHARACTERISTICS:  
IMPEDANCE  
50.0 Ohms NOMINAL.  
FREQUENCY  
85.0 GHz MAX.  
(TESTED UP TO 67.0 GHz)  
INSERTION LOSS AND VSWR,  
SEE CHART.
- MECHANICAL:  
7.1 OPERATING TEMPERATURE RANGE,  
-55° C TO +125° C.  
7.2 MECHANICAL PERFORMANCE,  
GUARANTEED 10.0 LBS.  
[45.0 N] PULL FORCE.  
7.3 MATE AND TORQUE TO  
4.0±.5 IN-LBS. [0.45±0.05Nm].

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

|                      |        |
|----------------------|--------|
| FRACTIONS            | ± 1/16 |
| X                    | ± .030 |
| XX                   | ± .015 |
| XXX                  | ± .005 |
| ANGLES               | ± 1°   |
| DO NOT SCALE DRAWING |        |

| NAME      | DATE     |
|-----------|----------|
| PREP. GSG | 10/24/11 |
| ELEC. RF  | 10/26/11 |
| MECH. AW  | 10/27/11 |
| Q.C.      |          |



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

|   |       |                                       |                 |     |  |
|---|-------|---------------------------------------|-----------------|-----|--|
| TITLE   |       | 1 mm PLUG TO 1 mm PLUG microbend TYPE |                 |     |  |
| THDS. TO BE IN ACCORD WITH U.S. DEPT. OF COMM. SCREW THD. STDS. FOR FEDERAL SERVICES 1950 SUPL. TO HANDBOOK H 28. | SCALE | CODE IDENT.                           | DWG NO.         | REV |  |
|   | 2:1   | 16301                                 | microbend 1R-xx | B   |  |

|      |                      |          |    |          |
|------|----------------------|----------|----|----------|
| B    | COMPANY LOGO UPDATED | 01/15/13 | BY | APPROVED |
| REV. | DESCRIPTION          | DATE     | BY | APPROVED |