

!! WARNING !! EXPORT CONTROLLED INFORMATION: THIS TECHNICAL DATA IS SUBJECT TO US EXPORT CONTROL LAWS. THIS DOCUMENT, INCLUDING ANY ATTACHMENTS AND EXHIBITS HERETO, CONTAINS TECHNICAL DATA SUBJECT TO THE US INTERNATIONAL TRAFFIC ARMS REGULATIONS (ITAR) OR THE EXPORT ADMINISTRATION REGULATIONS (EAR). AN EXPORT LICENSE OR OTHER AUTHORIZATION MAY BE REQUIRED BEFORE THE DATA CAN BE EXPORTED, RE-EXPORTED, RELEASED OR DISCLOSED TO FOREIGN PERSONS INSIDE OR OUTSIDE THE US.

minibend W-XX

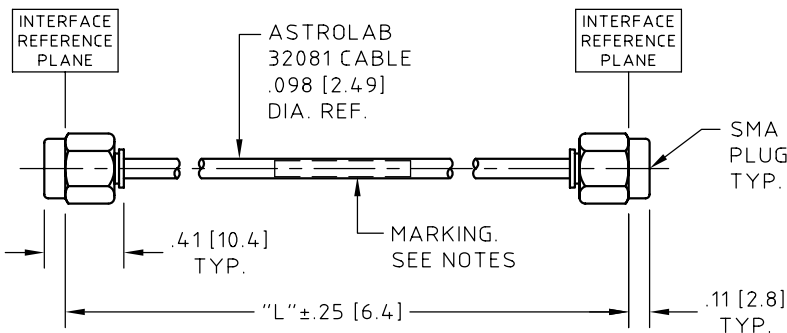
W

| ASTROLAB PART NUMBER | DIMENSION "L" IN | 2.0 GHz | | 12.4 GHz | | 18.0 GHz | | 26.5 GHz | |
|-------------------------|---------------------|---------|---------|----------|---------|----------|---------|----------|---------|
| | | VSWR | I.L. dB | VSWR | I.L. dB | VSWR | I.L. dB | VSWR | I.L. dB |
| minibend W-2 | 2.00 [50.8] | 1.20:1 | 0.17 | 1.25:1 | 0.31 | 1.35:1 | 0.44 | 1.45:1 | 0.53 |
| minibend W-2.5 | 2.50 [63.5] | 1.20:1 | 0.18 | 1.25:1 | 0.36 | 1.35:1 | 0.50 | 1.45:1 | 0.60 |
| minibend W-3 | 3.00 [76.2] | 1.20:1 | 0.19 | 1.25:1 | 0.40 | 1.35:1 | 0.55 | 1.45:1 | 0.66 |
| minibend W-3.5 | 3.50 [88.9] | 1.20:1 | 0.21 | 1.25:1 | 0.44 | 1.35:1 | 0.60 | 1.45:1 | 0.72 |
| minibend W-4 | 4.00 [101.6] | 1.20:1 | 0.23 | 1.25:1 | 0.48 | 1.35:1 | 0.65 | 1.45:1 | 0.78 |
| minibend W-4.5 | 4.50 [114.3] | 1.20:1 | 0.24 | 1.25:1 | 0.54 | 1.35:1 | 0.70 | 1.45:1 | 0.84 |
| minibend W-5 | 5.00 [127.0] | 1.20:1 | 0.26 | 1.25:1 | 0.57 | 1.35:1 | 0.75 | 1.45:1 | 0.90 |
| minibend W-5.5 | 5.50 [139.7] | 1.20:1 | 0.27 | 1.25:1 | 0.62 | 1.35:1 | 0.80 | 1.45:1 | 0.96 |
| minibend W-6 | 6.00 [152.4] | 1.20:1 | 0.29 | 1.25:1 | 0.65 | 1.35:1 | 0.85 | 1.45:1 | 1.02 |
| minibend W-6.5 | 6.50 [165.1] | 1.20:1 | 0.30 | 1.25:1 | 0.70 | 1.35:1 | 0.90 | 1.45:1 | 1.08 |
| minibend W-7 | 7.00 [177.8] | 1.20:1 | 0.32 | 1.25:1 | 0.74 | 1.35:1 | 0.95 | 1.45:1 | 1.15 |
| minibend W-8 | 8.00 [203.2] | 1.20:1 | 0.35 | 1.25:1 | 0.82 | 1.35:1 | 1.05 | 1.45:1 | 1.27 |
| minibend W-9 | 9.00 [228.6] | 1.20:1 | 0.38 | 1.25:1 | 0.91 | 1.35:1 | 1.15 | 1.45:1 | 1.39 |
| minibend W-10 | 10.00 [254.0] | 1.20:1 | 0.41 | 1.25:1 | 0.98 | 1.35:1 | 1.24 | 1.45:1 | 1.51 |
| minibend W-11 | 11.00 [279.4] | 1.20:1 | 0.44 | 1.25:1 | 1.07 | 1.35:1 | 1.34 | 1.45:1 | 1.63 |
| minibend W-12 | 12.00 [304.8] | 1.20:1 | 0.47 | 1.25:1 | 1.15 | 1.35:1 | 1.42 | 1.45:1 | 1.76 |
| minibend W-13 | 13.00 [330.2] | 1.20:1 | 0.50 | 1.25:1 | 1.23 | 1.35:1 | 1.53 | 1.45:1 | 1.88 |
| minibend W-14 | 14.00 [355.6] | 1.20:1 | 0.53 | 1.25:1 | 1.30 | 1.35:1 | 1.62 | 1.45:1 | 2.00 |
| minibend W-15 | 15.00 [381.0] | 1.20:1 | 0.57 | 1.25:1 | 1.40 | 1.35:1 | 1.73 | 1.45:1 | 2.12 |
| minibend W-16 | 16.00 [406.4] | 1.20:1 | 0.60 | 1.25:1 | 1.47 | 1.35:1 | 1.82 | 1.45:1 | 2.24 |
| minibend W-17 | 17.00 [431.8] | 1.20:1 | 0.63 | 1.25:1 | 1.55 | 1.35:1 | 1.92 | 1.45:1 | 2.36 |
| minibend W-18 | 18.00 [457.2] | 1.20:1 | 0.66 | 1.25:1 | 1.64 | 1.35:1 | 2.02 | 1.45:1 | 2.49 |
| minibend W-19 | 19.00 [482.6] | 1.20:1 | 0.69 | 1.25:1 | 1.72 | 1.35:1 | 2.12 | 1.45:1 | 2.61 |
| minibend W-20 | 20.00 [508.0] | 1.20:1 | 0.72 | 1.25:1 | 1.80 | 1.35:1 | 2.22 | 1.45:1 | 2.73 |
| minibend W-21 | 21.00 [533.4] | 1.20:1 | 0.75 | 1.25:1 | 1.88 | 1.35:1 | 2.32 | 1.45:1 | 2.85 |
| minibend W-22 | 22.00 [558.8] | 1.20:1 | 0.78 | 1.25:1 | 1.96 | 1.35:1 | 2.42 | 1.45:1 | 2.97 |
| minibend W-23 | 23.00 [584.2] | 1.20:1 | 0.81 | 1.25:1 | 2.04 | 1.35:1 | 2.52 | 1.45:1 | 3.09 |
| minibend W-24 | 24.00 [609.6] | 1.20:1 | 0.84 | 1.25:1 | 2.12 | 1.35:1 | 2.62 | 1.45:1 | 3.21 |
| minibend W- | | | | | | | | | |

NOTES:

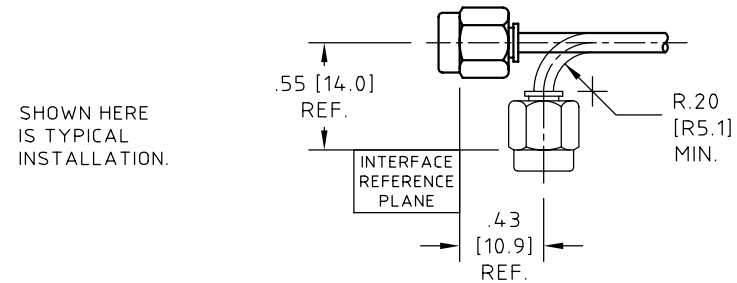
- DESCRIPTION,
WEATHERIZED CABLE ASSEMBLY, minibend TYPE,
SMA PLUG TO SMA PLUG.
- CABLE,
COAXIAL CABLE ASTROLAB P/N 32081
MEETS OR EXCEEDS MIL-DTL-17
SEE ASTROLAB CONTROL DRAWING
FOR MATERIALS AND FINISHES.
- CONNECTOR -A-, SMA PLUG:
ASTROLAB P/N 29094CW-32-81
IAW MIL-STD-348.
SEE ASTROLAB CONTROL DRAWING
FOR MATERIALS AND FINISHES.
- CONNECTOR -B-, SMA PLUG:
SAME AS CONNECTOR -A-.
- MARKING:
MARKING APPROXIMATELY CENTERED DIRECTLY
ON CABLE AS FOLLOWS:
"minibend W-XX YYWW"
NO MARKING ON CABLE ASSEMBLIES "minibend W-2.0" OR SHORTER.
MARKING ON PACKING ONLY.
- ELECTRICAL CHARACTERISTICS:
IMPEDANCE,
50.0 Ohms NOMINAL.
FREQUENCY, INSERTION LOSS AND VSWR
SEE CHART.
- ENVIRONMENTAL LIMITS:
TEMPERATURE / HUMIDITY RANGE, -45°C TO 85°C / FROM 0 TO 100% RH
MOISTURE RESISTANCE, PER MIL-STD-202, METHOD 106.
THERMAL SHOCK, PER MIL-STD-202, METHOD 107, TEST CONDITION A
VIBRATION, PER MIL-STD-202, METHOD 214, TEST CONDITION B
SHOCK, PER MIL-STD-202, METHOD 213, TEST CONDITION A, 40Gs
PULL STRENGTH TO 15 Lbs [66.7N].

ALL minibend CABLE ASSEMBLIES ARE 99.9% LEAD FREE BY WEIGHT.



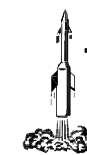
CONTROL DRAWING

| INCH [mm] | |
|---|--------|
| 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 | |



SHOWN HERE IS TYPICAL INSTALLATION.

| NAME | DATE |
|-----------|----------|
| PREP. GSG | 10/16/98 |
| ELEC. RF | 10/21/98 |
| MECH. DPD | 10/16/98 |
| Q.C. | |



ASTROLAB® INC.
WARREN, NJ
THIS DRAWING CONTAINS PATENTABLE AND PROPRIETARY INFORMATION. THE DESIGN CANNOT BE USED WITHOUT WRITTEN PERMISSION OF ASTROLAB

CABLE ASSEMBLY, WEATHERIZED.

| W | ECN No. 12460 | 03/06/09 | GSG | | THDS. TO BE IN ACCORD WITH U.S. DEPT. OF COMM. SCREW THD. STDS. FOR FEDERAL SERVICES 1950 SUPL. TO HANDBOOK H 28. | SCALE 1:1 | CODE IDENT. 16301 | DWG NO. minibend W-XX | REV W |
|------|---------------|----------|-----|----------|---|-----------|-------------------|-----------------------|-------|
| REV. | DESCRIPTION | DATE | BY | APPROVED | | | | | |