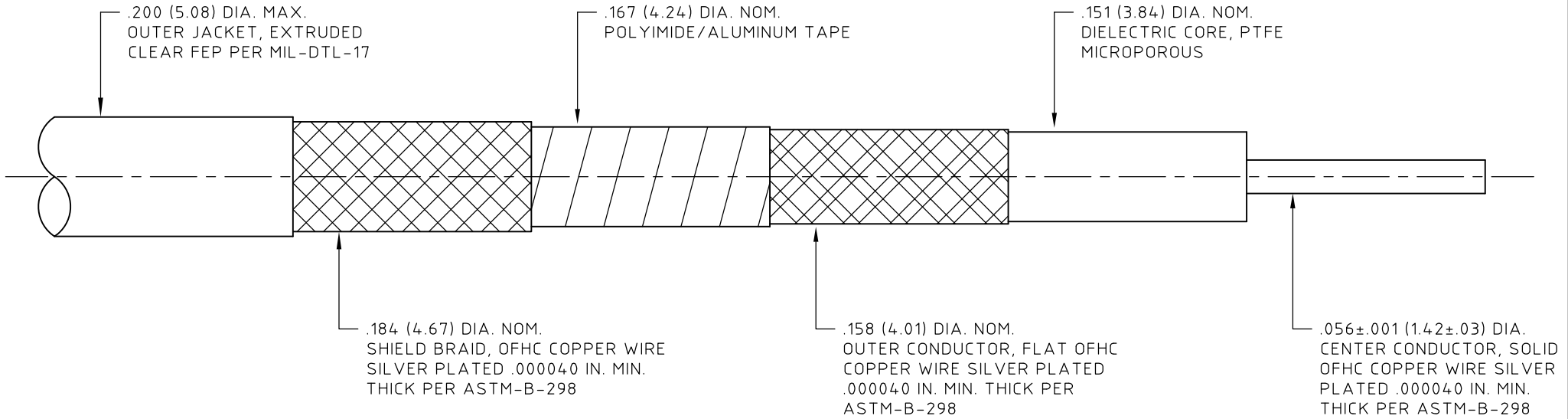


CONTROL DRAWING

32288

B



CHARACTERISTICS:

- OPERATING TEMPERATURE: -55° C TO +200° C
- IMPEDANCE: 50 Ohms. NOM.
- OPERATING FREQUENCY: 29.0 GHz. MAX.
- VELOCITY: 82.0% NOM.
- SHIELDING: >110 dB
- CAPACITANCE: 25.1 pF/ft. NOM.
- STATIC BEND RADIUS: .90 [22.9] MIN.
- DYNAMIC BEND RADIUS: 2.76 [70.1] MIN.
- WEIGHT: 4.1 LBS./100 ft. NOM.
- INSERTION LOSS: 11 dB/100 ft. MAX. AT 2 GHz.
35 dB/100 ft. MAX. AT 18 GHz.

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. GS | 08/29/14 |
| ELEC. MG | 08/29/14 |
| MECH. GSG | 08/29/14 |
| Q.C. | |

HUBER+SUHNER

Astrolab

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

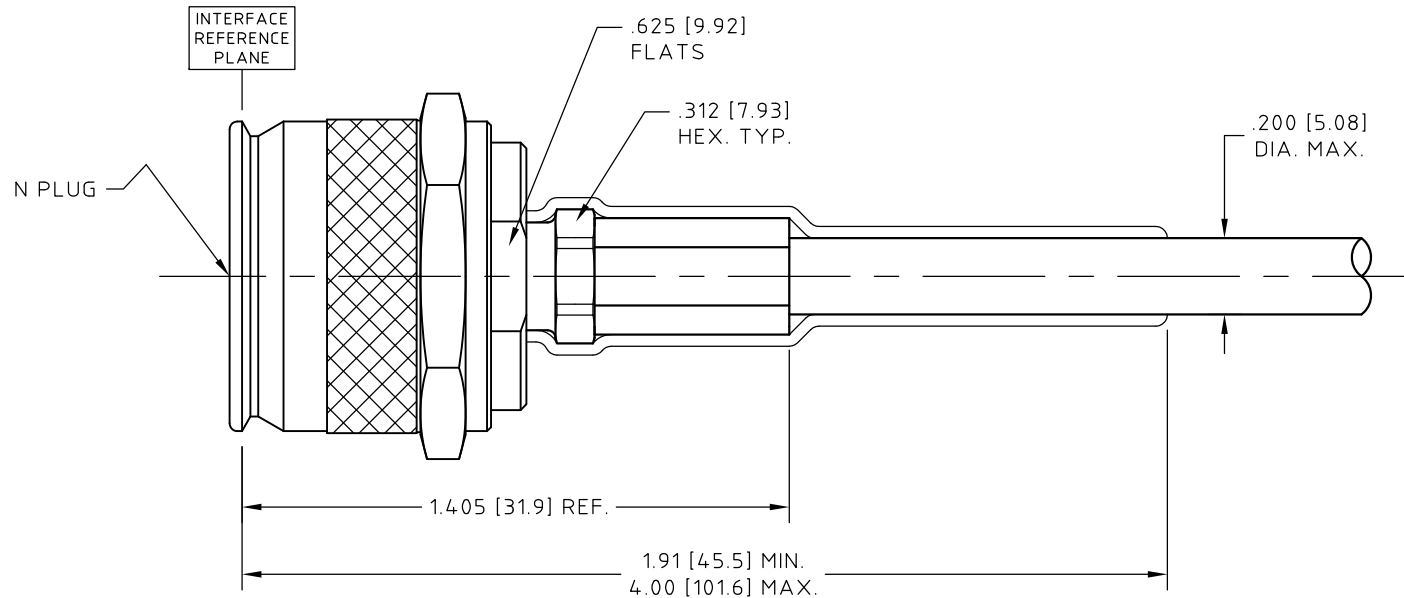
CABLE, COAXIAL, SUCOFLEX 229

| | | | | | | | | | |
|------|-----------------------------------|----------|----|----------|---|-------|-------------|---------|-----|
| REV. | DESCRIPTION | DATE | BY | APPROVED | 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 |
| | DYNAMIC BEND RAD. 2.76 MIN. ADDED | 10/17/14 | EB | | | 4:1 | 16301 | 32288 | B |

CONTROL DRAWING

29080-32288

A



NOTES:

1. DESCRIPTION
CONNECTOR, TNC PLUG, OPTIMIZED
FOR HUBER+SUHNER Astrolab
astro-boa-flex VII SERIES CABLE 32288.
2. MATERIALS AND FINISHES
BODY, NUT AND SOLDER BUSHING,
STEEL, CORROSION RESISTANT PER ASTM A-582,
UNS No. S30300, COND. A, NON MAGNETIC,
PASSIVATED PER SAE-AMS-2700.
NO DICHROMATE SOLUTIONS USED.
SOLDER BUSHING IS
NICKEL PLATED 100 µIN (2.54 µM) MIN. THK.
PER SAE-AMS-C-26074 OR
ASTM B-733 SC1, TYPE II CLASS 3
CENTER CONDUCTOR,
BERYLLIUM COPPER ALLOY PER ASTM B-196,
UNS No. C17300, TEMPER TD04(H),
GOLD PLATED 50 µIN (1.27 µM) MIN. THK.
PER ASTM B-488, CODE C, TYPE II, CLASS 1.27
OVER
NICKEL PLATE, 50 µIN (1.27 µM) MIN. THK.
PER SAE-AMS-QQ-N-290, CLASS 1.
DIELECTRIC,
POLYTETRAFLUOROETHYLENE (PTFE) PER ASTM D-1710,
OR ASTM D-4894, TYPE I, GRADE 1, CLASS A.

NOTES CONTINUED:

- RETAINING RING,
BERYLLIUM COPPER, PER ASTM B-197
UNS No. C17200 TEMPER TD04(H)
- GASKET,
SILICONE RUBBER PER GSA CID A-A-59588-2B
AND SAE-AMS-3304.
- FERRULE,
SEAMLESS BRASS TUBING, PER ASTM B-135,
UNS ALLOY No. C26000.
NICKEL PLATED 100 µIN (2.54 µM) MIN. THK.
PER SAE-AMS-C-26074 OR ASTM B-733.
- STRAIN RELIEF,
HEAT SHRINKABLE SLEEVING PER
SAE-AMS-DTL-23053.


NOTES CONTINUED:

3. ELECTRICAL CHARACTERISTICS:
IMPEDANCE
50.0 Ohms NOMINAL.
FREQUENCY
18.0 GHz MAX.
4. SMA PLUG INTERFACE MEETS MIL-STD-348.
CONNECTOR MATERIALS AND FINISHES MEET
REQUIREMENTS OF MIL-PRF-39012
5. OPERATING TEMPERATURE RANGE
-55° C TO +125° C.

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. GS | 08/28/14 |
| ELEC. | |
| MECH. | |
| Q.C. | |



HUBER+SUHNER
Astrolab

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

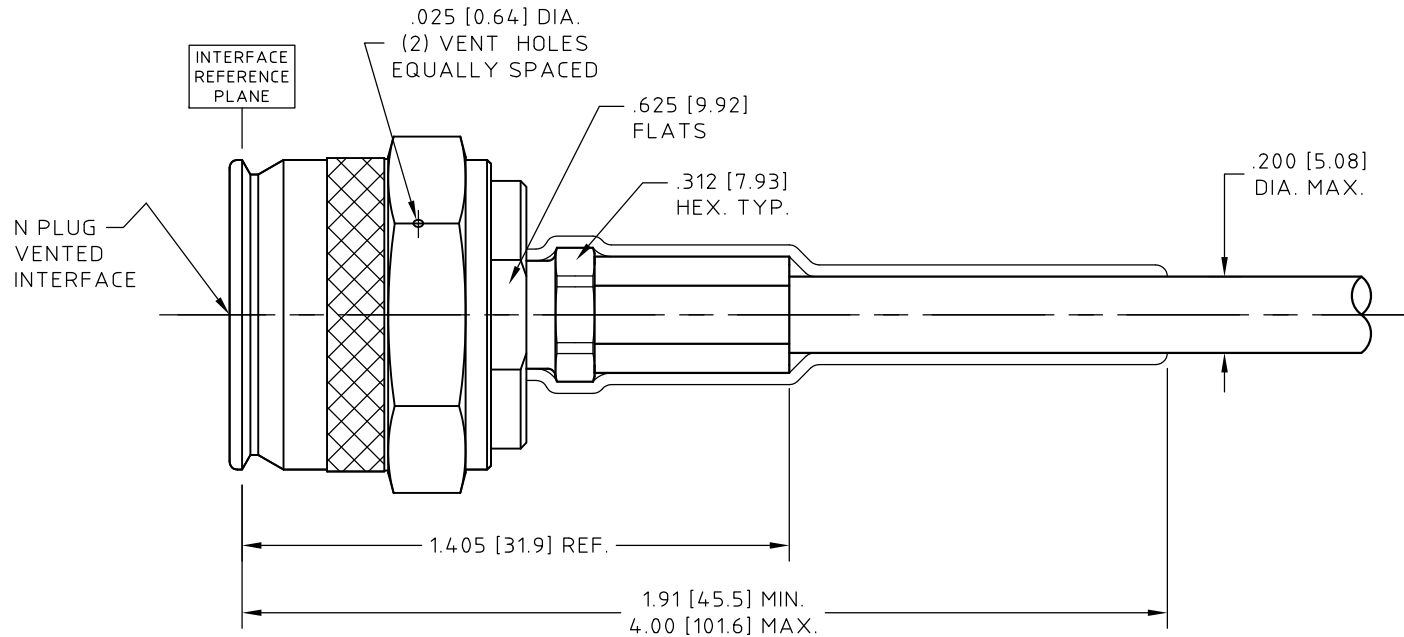
| | | | | |
|--|-------|--------------------------|-------------|-----|
| TITLE | | CONNECTOR, N PLUG | | |
| THDS. TO BE IN ACCORD WITH U.S. DEPT. OF COMM. SCREW THD. STDS. FOR FEDERAL SERVICES 1950 SUPL. TO HANDBOOK H 28. | SCALE | CODE IDENT. | DWG NO. | REV |
| | 2:1 | 16301 | 29080-32288 | A |

| | | | | |
|------|---------------|----------|----|----------|
| A | ECN No. 16515 | 08/28/14 | GS | |
| REV. | DESCRIPTION | DATE | BY | APPROVED |

CONTROL DRAWING

29080PV-32288

A



NOTES:

1. DESCRIPTION
CONNECTOR, N PLUG, LOW-OUTGASSING
POSITELY VENTED.
CONNECTOR IS OPTIMIZED FOR HUBER+SUHNER Astrolab
32288 COAXIAL CABLE.
2. MATERIALS AND FINISHES
BODY, NUT AND SOLDER BUSHING,
STEEL, CORROSION RESISTANT PER ASTM A-582,
UNS No. S30300, COND. A, NON MAGNETIC,
PASSIVATED PER SAE-AMS-2700.
NO DICHROMATE SOLUTIONS USED.
SOLDER BUSHING IS
NICKEL PLATED 100 µIN (2.54 µM) MIN. THK.
PER SAE-AMS-C-26074 OR
ASTM B-733 SC1, TYPE II CLASS 3
CENTER CONDUCTOR,
BERYLLIUM COPPER ALLOY PER ASTM B-196,
UNS No. C17300, TEMPER TD04(H),
GOLD PLATED 50 µIN (1.27 µM) MIN. THK.
PER ASTM B-488, CODE C, TYPE II, CLASS 1.27
OVER
NICKEL PLATE, 50 µIN (1.27 µM) MIN. THK.
PER SAE-AMS-QQ-N-290, CLASS 1.
DIELECTRIC,
POLYTETRAFLUOROETHYLENE (PTFE) PER ASTM D-1710,
OR ASTM D-4894, TYPE I, GRADE 1, CLASS A.

NOTES CONTINUED:

- RETAINING RING,
BERYLLIUM COPPER, PER ASTM B-197 OR B-441,
UNS No. C17200 TEMPER TD04(H)
- GASKET,
NONE USED.
- FERRULE,
SEAMLESS BRASS TUBING, PER ASTM B-135,
UNS ALLOY No. C26000.
NICKEL PLATED 100 µIN (2.54 µM) MIN. THK.
PER SAE-AMS-C-26074 OR ASTM B-733.
- STRAIN RELIEF,
HEAT SHRINKABLE SLEEVING PER SAE-AMS-DTL-23053.
- OUTGASSING,
ASSEMBLY MEETS OR EXCEEDS NASA
LOW OUTGASSING REQUIREMENTS.


NOTES CONTINUED:

3. ELECTRICAL CHARACTERISTICS:
IMPEDANCE
50.0 Ohms NOMINAL.
FREQUENCY
18.0 GHz MAX.
4. SMA PLUG INTERFACE MEETS MIL-STD-348.
CONNECTOR MATERIALS AND FINISHES MEET
REQUIREMENTS OF MIL-PRF-39012
5. OPERATING TEMPERATURE RANGE
-55° C TO +125° C.

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. GS | 08/28/14 |
| ELEC. | |
| MECH. | |
| Q.C. | |



HUBER+SUHNER
Astrolab

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

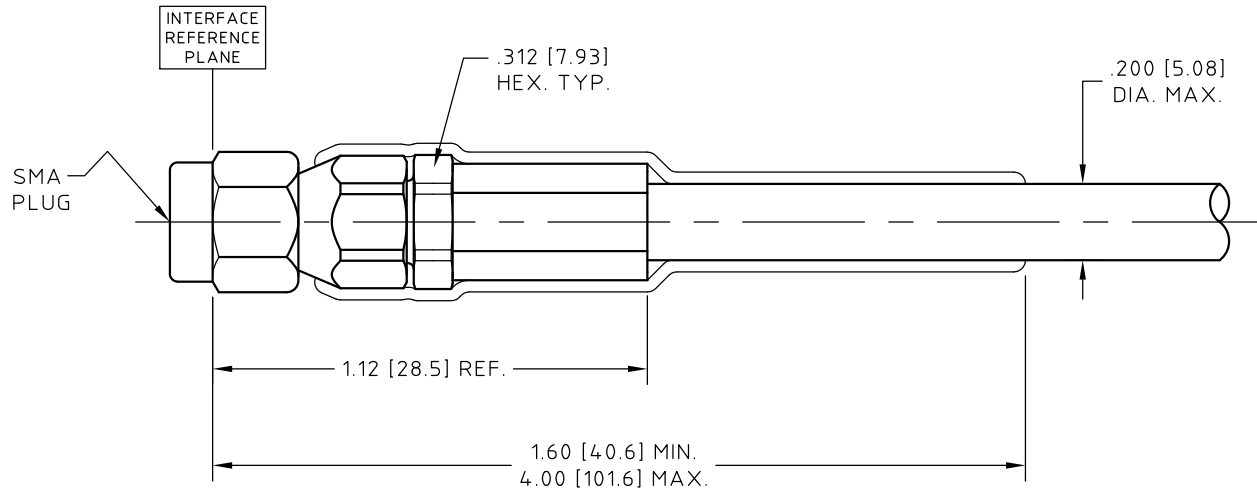
CONNECTOR, N PLUG, POSITIVE VENT-LOW OUTGASSING

| | | | | | | | | | |
|------|---------------|----------|----|----------|--|--------------|----------------------|--------------------------|----------|
| A | ECN No. 16515 | 08/28/14 | GS | | THDS. TO BE IN ACCORD WITH U.S. DEPT. OF COMM. SCREW THD. STDS. FOR FEDERAL SERVICES 1950 SUPL. TO HANDBOOK H 28. | SCALE 2:1 | CODE IDENT. 16301 | DWG NO. 29080PV-32288 | REV A |
| REV. | DESCRIPTION | DATE | BY | APPROVED | | | | | |

CONTROL DRAWING

29094-32288

B



NOTES:

1. DESCRIPTION
CONNECTOR, SMA PLUG, OPTIMIZED FOR HUBER+SUHNER Astrolab astro-boa-flex VII SERIES CABLE 32288.
2. MATERIALS AND FINISHES
BODY, NUT AND SOLDER BUSHING, STEEL, CORROSION RESISTANT PER ASTM A-582, UNS No. S30300, COND. A, NON MAGNETIC, PASSIVATED PER SAE-AMS-2700. NO DICHROMATE SOLUTIONS USED.
SOLDER BUSHING IS, NICKEL PLATED 100 µIN (2.54 µM) MIN. THK. PER SAE-AMS-C-26074 OR ASTM B-733 SC1, TYPE II CLASS 3
CENTER CONDUCTOR, BERYLLIUM COPPER ALLOY PER ASTM B-196, UNS No. C17300, TEMPER TD04(H), GOLD PLATED 50 µIN (1.27 µM) MIN. THK. PER ASTM B-488, CODE C, TYPE II, CLASS 1.27 OVER NICKEL PLATE, 50 µIN (1.27 µM) MIN. THK. PER SAE-AMS-QQ-N-290, CLASS 1.
DIELECTRIC, POLYTETRAFLUOROETHYLENE (PTFE) PER ASTM D-1710, OR ASTM D-4894, TYPE I, GRADE 1, CLASS A.

NOTES CONTINUED:

- RETAINING RING, BERYLLIUM COPPER, PER ASTM B-197 UNS No. C17200 TEMPER TD04(H)
- GASKET, SILICONE RUBBER PER GSA CID A-A-59588-2B AND SAE-AMS-3304.
- FERRULE, SEAMLESS BRASS TUBING, PER ASTM B-135, UNS ALLOY No. C26000. NICKEL PLATED 100 µIN (2.54 µM) MIN. THK. PER SAE-AMS-C-26074 OR ASTM B-733.
- STRAIN RELIEF, HEAT SHRINKABLE SLEEVING PER SAE-AMS-DTL-23053.

NOTES CONTINUED:

3. ELECTRICAL CHARACTERISTICS:
IMPEDANCE 50.0 Ohms NOMINAL.
FREQUENCY 26.5 GHz MAX.
4. SMA PLUG INTERFACE MEETS MIL-STD-348. CONNECTOR MATERIALS AND FINISHES MEET REQUIREMENTS OF MIL-PRF-39012
5. OPERATING TEMPERATURE RANGE -55° C TO +125° C.

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 | 04/03/12 |
| ELEC. RF | 04/04/12 |
| MECH. AW | 04/04/12 |
| Q.C. | |

HUBER+SUHNER
Astrolab

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

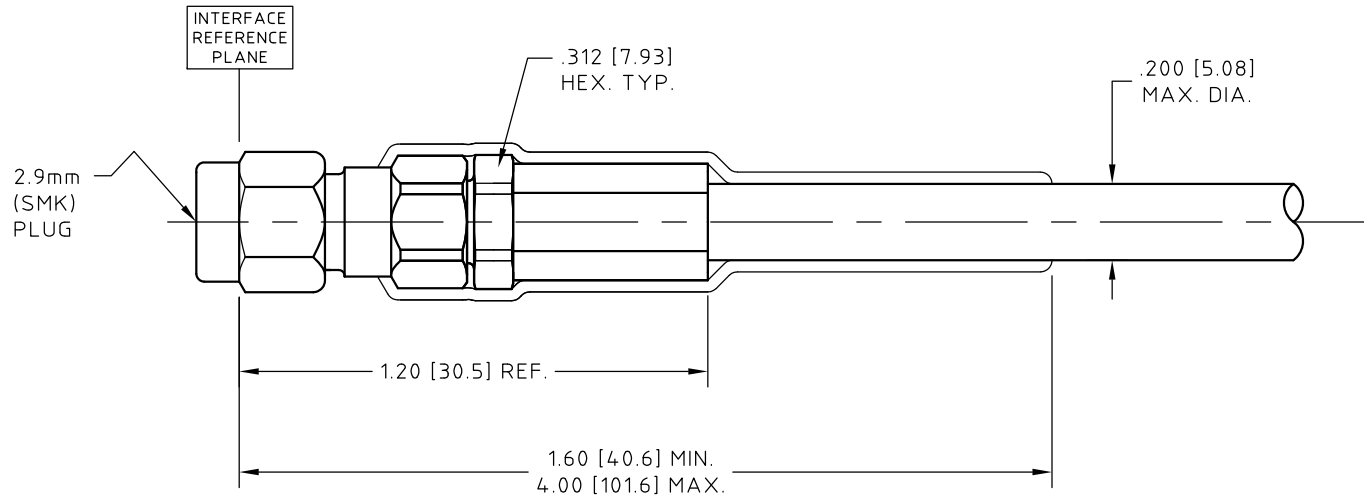
| | |
|-------|---------------------|
| TITLE | CONNECTOR, SMA PLUG |
|-------|---------------------|

| | | | | | | | | | | |
|------|---------------------|----------|----|----------|--|---|-------|-------------|---------|-----|
| REV. | DESCRIPTION | DATE | BY | APPROVED | | 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 |
| B | COMPANY LOGO UPDATE | 08/27/14 | GS | | | 2:1 | 16301 | 29094-32288 | B | |

CONTROL DRAWING

29094K-32288

A



NOTES:

1. DESCRIPTION
CONNECTOR, 2.9mm (SMK) PLUG, OPTIMIZED FOR HUBER+SUHNER Astrolab astro-boa-flex VII SERIES CABLE 32288.
2. MATERIALS AND FINISHES
BODY, NUT AND SOLDER BUSHING, STEEL, CORROSION RESISTANT PER ASTM A-582, UNS No. S30300, COND. A, NON MAGNETIC, PASSIVATED PER SAE-AMS-2700. NO DICHROMATE SOLUTIONS USED.
SOLDER BUSHING IS NICKEL PLATED 100 µIN (2.54 µM) MIN. THK. PER SAE-AMS-C-26074 OR ASTM B-733 SC1, TYPE II CLASS 3
CENTER CONDUCTOR, BERYLLIUM COPPER ALLOY PER ASTM B-196, UNS No. C17300, TEMPER TD04(H), GOLD PLATED .000050 IN (1.27 µM) MIN. THK. PER ASTM B-488, CODE C, TYPE II, CLASS 1.27 OVER
NICKEL PLATE, .000050 IN (1.27 µM) MIN. THK. PER SAE-AMS-QQ-N-290, CLASS 1.
DIELECTRIC, POLYETHERIMIDE RESIN (PEI) (G.E. ULTEM®) PER ASTM D-5205 AND POLYTETRAFLUOROETHYLENE (PTFE) PER ASTM D-1710, OR ASTM D-4894, TYPE I, GRADE 1, CLASS A.

NOTES CONTINUED:

- RETAINING RING, BERYLLIUM COPPER, PER ASTM B-197 OR B-441, UNS No. C17200 TEMPER TD04(H)
GASKET, SILICONE RUBBER PER GSA CID A-A-59588-2B AND SAE-AMS-3304.
FERRULE, SEAMLESS BRASS TUBING, PER ASTM B-135, UNS ALLOY No. C26000.
NICKEL PLATED 100 µIN (2.54 µM) MIN. THK. PER SAE-AMS-C-26074 OR ASTM B-733.
STRAIN RELIEF, HEAT SHRINKABLE SLEEVING PER SAE-AMS-DTL-23053.


NOTES CONTINUED:

3. ELECTRICAL CHARACTERISTICS:
IMPEDANCE 50.0 Ohms NOMINAL.
FREQUENCY 29.0 GHz MAX. (LIMITED BY CABLE)
4. SMA PLUG INTERFACE MEETS MIL-STD-348. CONNECTOR MATERIALS AND FINISHES MEET REQUIREMENTS OF MIL-PRF-39012
5. OPERATING TEMPERATURE RANGE -55° C TO +125° C.

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. GS | 08/28/14 |
| ELEC. | |
| MECH. | |
| Q.C. | |



HUBER+SUHNER
Astrolab

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

| | | | |
|---|-------|------------------------------------|--------------|
| TITLE | | CONNECTOR, 2.9mm (SMK) PLUG | |
| 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. |
| | 2:1 | 16301 | 29094K-32288 |

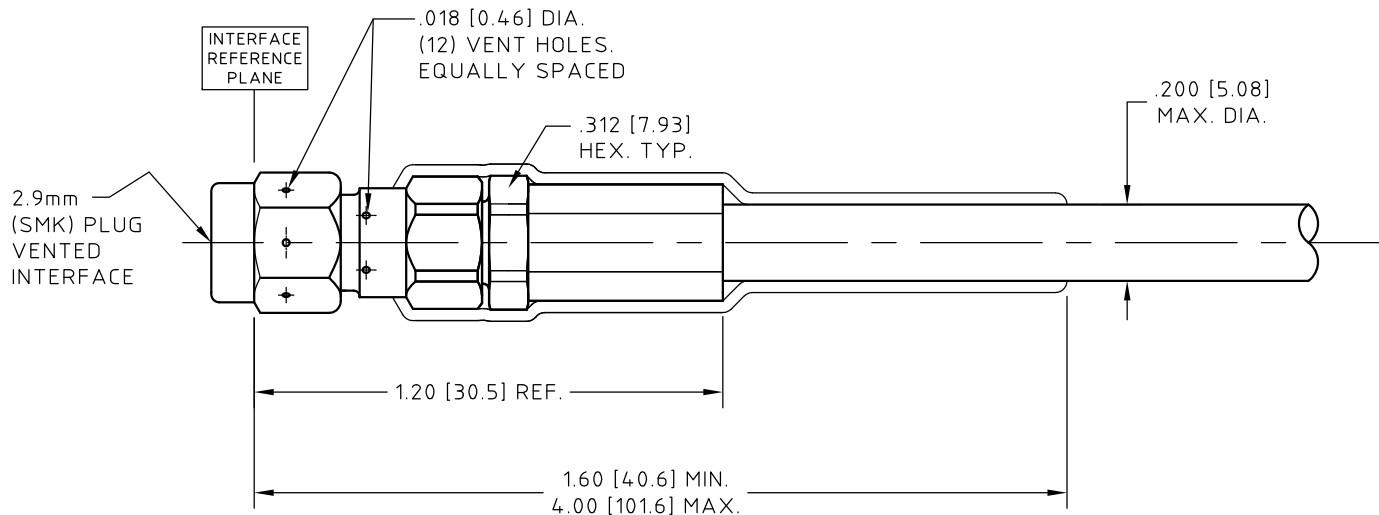
| | | | | |
|------|---------------|----------|----|----------|
| A | ECN No. 16515 | 08/28/14 | GS | |
| REV. | DESCRIPTION | DATE | BY | APPROVED |

REV
A

CONTROL DRAWING

29094KPV-32288

A



NOTES:

1. DESCRIPTION
 CONNECTOR, 2.9mm (SMK) PLUG, LOW-OUTGASSING POSITELY VENTED.
 CONNECTOR IS OPTIMIZED FOR HUBER+SUHNER Astrolab astro-boa-flex VII SERIES CABLE 32288.

2. MATERIALS AND FINISHES
 BODY, NUT AND SOLDER BUSHING, STEEL, CORROSION RESISTANT PER ASTM A-582, UNS No. S30300, COND. A, NON MAGNETIC, PASSIVATED PER SAE-AMS-2700. NO DICHROMATE SOLUTIONS USED.
 SOLDER BUSHING IS NICKEL PLATED 100 μIN (2.54 μM) MIN. THK. PER SAE-AMS-C-26074 OR ASTM B-733 SC1, TYPE II CLASS 3
 CENTER CONDUCTOR, BERYLLIUM COPPER ALLOY PER ASTM B-196, UNS No. C17300, TEMPER TD04(H), GOLD PLATED .000050 IN (1.27 μM) MIN. THK. PER ASTM B-488, CODE C, TYPE II, CLASS 1.27 OVER
 NICKEL PLATE, .000050 IN (1.27 μM) MIN. THK. PER SAE-AMS-QQ-N-290, CLASS 1.
 DIELECTRIC, POLYETHERIMIDE RESIN (PEI) (G.E. ULTEM®) PER ASTM D-5205 AND POLYTETRAFLUOROETHYLENE (PTFE) PER ASTM D-1710, OR ASTM D-4894, TYPE I, GRADE 1, CLASS A.

NOTES CONTINUED:

RETAINING RING, BERYLLIUM COPPER, PER ASTM B-197 OR B-441, UNS No. C17200 TEMPER TD04(H)
 GASKET, NONE USED.
 FERRULE, SEAMLESS BRASS TUBING, PER ASTM B-135, UNS ALLOY No. C26000.
 NICKEL PLATED 100 μIN (2.54 μM) MIN. THK. PER SAE-AMS-C-26074 OR ASTM B-733.
 STRAIN RELIEF, HEAT SHRINKABLE SLEEVING PER SAE-AMS-DTL-23053.
 OUTGASSING, ASSEMBLY MEETS OR EXCEEDS NASA LOW OUTGASSING REQUIREMENTS.


NOTES CONTINUED:

3. ELECTRICAL CHARACTERISTICS:
 IMPEDANCE 50.0 Ohms NOMINAL.
 FREQUENCY 29.0 GHz MAX. (LIMITED BY CABLE)
 4. SMA PLUG INTERFACE MEETS MIL-STD-348. CONNECTOR MATERIALS AND FINISHES MEET REQUIREMENTS OF MIL-PRF-39012
 5. OPERATING TEMPERATURE RANGE -55° C TO +125° C.

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. GS | 08/28/14 |
| ELEC. | |
| MECH. | |
| Q.C. | |



HUBER+SUHNER
Astrolab

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

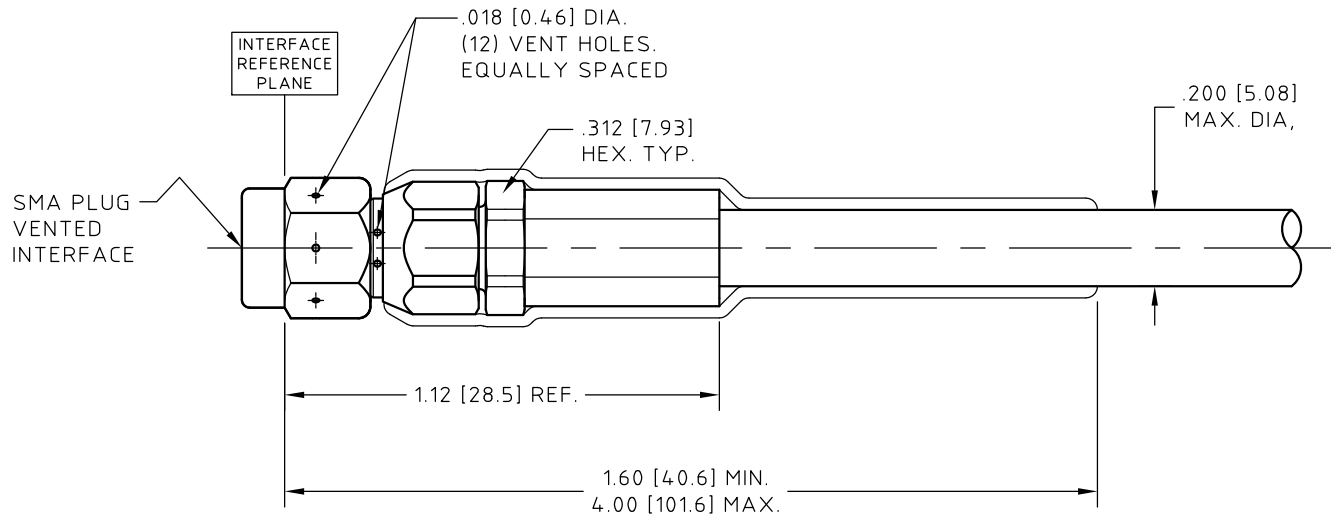
TITLE
 CONNECTOR, 2.9mm (SMK) PLUG, POSITIVE VENT-LOW OUTGASSING

| | | | | | | | | | | |
|------|---------------|----------|----|----------|--|---|-----------|-------------------|------------------------|-------|
| A | ECN No. 16515 | 08/28/14 | GS | | | | | | | |
| REV. | DESCRIPTION | DATE | BY | APPROVED | | | | | | |
| | | | | | | THDS. TO BE IN ACCORD WITH U.S. DEPT. OF COMM. SCREW THD. STDS. FOR FEDERAL SERVICES 1950 SUPL. TO HANDBOOK H 28. | SCALE 2:1 | CODE IDENT. 16301 | DWG NO. 29094KPV-32288 | REV A |

CONTROL DRAWING

29094PV-32288

A



NOTES:

1. DESCRIPTION

CONNECTOR, SMA PLUG, LOW-OUTGASSING POSITELY VENTED. CONNECTOR IS OPTIMIZED FOR HUBER+SUHNER Astrolab astro-boa-flex VII SERIES CABLE 32288.

2. MATERIALS AND FINISHES

BODY, NUT AND SOLDER BUSHING, STEEL, CORROSION RESISTANT PER ASTM A-582, UNS No. S30300, COND. A, NON MAGNETIC, PASSIVATED PER SAE-AMS-2700. NO DICHROMATE SOLUTIONS USED. SOLDER BUSHING IS NICKEL PLATED 100 µIN (2.54 µM) MIN. THK. PER SAE-AMS-C-26074 OR ASTM B-733 SC1, TYPE II CLASS 3 CENTER CONDUCTOR, BERYLLIUM COPPER ALLOY PER ASTM B-196, UNS No. C17300, TEMPER TD04(H), GOLD PLATED 50 µIN (1.27 µM) MIN. THK. PER ASTM B-488, CODE C, TYPE II, CLASS 1.27 OVER NICKEL PLATE, 50 µIN (1.27 µM) MIN. THK. PER SAE-AMS-QQ-N-290, CLASS 1. DIELECTRIC, POLYTETRAFLUOROETHYLENE (PTFE) PER ASTM D-1710, OR ASTM D-4894, TYPE I, GRADE 1, CLASS A.

NOTES CONTINUED:

RETAINING RING, BERYLLIUM COPPER, PER ASTM B-197 OR B-441, UNS No. C17200 TEMPER TD04(H)
 GASKET, NONE USED.
 FERRULE, SEAMLESS BRASS TUBING, PER ASTM B-135, UNS ALLOY No. C26000.
 NICKEL PLATED 100 µIN (2.54 µM) MIN. THK. PER SAE-AMS-C-26074 OR ASTM B-733.
 STRAIN RELIEF, HEAT SHRINKABLE SLEEVING PER SAE-AMS-DTL-23053.
 OUTGASSING, ASSEMBLY MEETS OR EXCEEDS NASA LOW OUTGASSING REQUIREMENTS.


NOTES CONTINUED:

- 3. ELECTRICAL CHARACTERISTICS:
 IMPEDANCE 50.0 Ohms NOMINAL.
 FREQUENCY 26.5 GHz MAX.
- 4. SMA PLUG INTERFACE MEETS MIL-STD-348. CONNECTOR MATERIALS AND FINISHES MEET REQUIREMENTS OF MIL-PRF-39012
- 5. OPERATING TEMPERATURE RANGE -55° C TO +125° C.

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. GS | 08/28/14 |
| ELEC. | |
| MECH. | |
| Q.C. | |



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

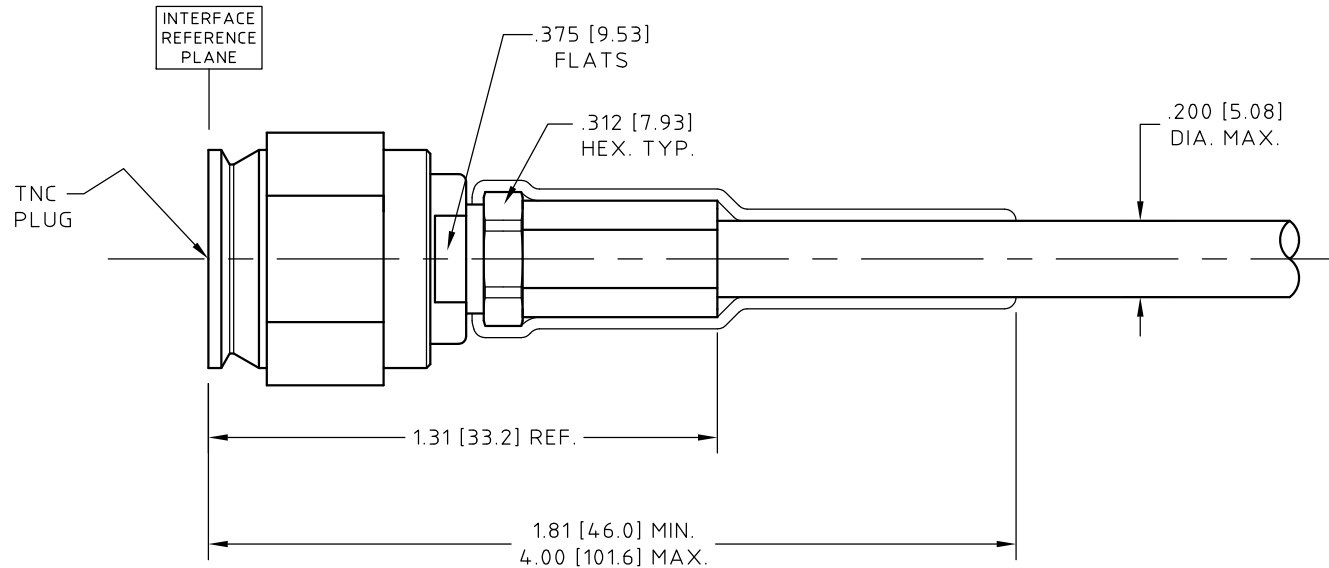
| | | | |
|---|-------|--|---------------|
| TITLE | | CONNECTOR, SMA PLUG POSITIVE VENT-LOW OUTGASSING | |
| THDS. TO BE IN ACCORD WITH U.S. DEPT. OF COMM. SCREW THD. STDS. FOR FEDERAL SERVICES 1950 SUPL. TO HANDBOOK H 28. | SCALE | CODE IDENT. | DWG NO. |
| | 2:1 | 16301 | 29094PV-32288 |
| REV | A | | |

| | | | | |
|------|---------------|----------|----|----------|
| A | ECN No. 16515 | 08/28/14 | GS | |
| REV. | DESCRIPTION | DATE | BY | APPROVED |

CONTROL DRAWING

29714-32288

A



NOTES:

1. DESCRIPTION
CONNECTOR, TNC PLUG, OPTIMIZED FOR HUBER+SUHNER Astrolab astro-boa-flex VII SERIES CABLE 32288.
2. MATERIALS AND FINISHES
BODY, NUT AND SOLDER BUSHING, STEEL, CORROSION RESISTANT PER ASTM A-582, UNS No. S30300, COND. A, NON MAGNETIC, PASSIVATED PER SAE-AMS-2700. NO DICHROMATE SOLUTIONS USED. SOLDER BUSHING IS NICKEL PLATED 100 μIN (2.54 μM) MIN. THK. PER SAE-AMS-C-26074 OR ASTM B-733 SC1, TYPE II CLASS 3
CENTER CONDUCTOR, BERYLLIUM COPPER ALLOY PER ASTM B-196, UNS No. C17300, TEMPER TD04(H), GOLD PLATED 50 μIN (1.27 μM) MIN. THK. PER ASTM B-488, CODE C, TYPE II, CLASS 1.27
OVER NICKEL PLATE, 50 μIN (1.27 μM) MIN. THK. PER SAE-AMS-QQ-N-290, CLASS 1.
DIELECTRIC, POLYTETRAFLUOROETHYLENE (PTFE) PER ASTM D-1710, OR ASTM D-4894, TYPE I, GRADE 1, CLASS A.

NOTES CONTINUED:

- RETAINING RING, BERYLLIUM COPPER, PER ASTM B-197 UNS No. C17200 TEMPER TD04(H)
GASKET, SILICONE RUBBER PER GSA CID A-A-59588-2B AND SAE-AMS-3304.
FERRULE, SEAMLESS BRASS TUBING, PER ASTM B-135, UNS ALLOY No. C26000. NICKEL PLATED 100 μIN (2.54 μM) MIN. THK. PER SAE-AMS-C-26074 OR ASTM B-733.
STRAIN RELIEF, HEAT SHRINKABLE SLEEVING PER SAE-AMS-DTL-23053.

NOTES CONTINUED:

3. ELECTRICAL CHARACTERISTICS:
IMPEDANCE 50.0 Ohms NOMINAL.
FREQUENCY 18.0 GHz MAX.
4. SMA PLUG INTERFACE MEETS MIL-STD-348. CONNECTOR MATERIALS AND FINISHES MEET REQUIREMENTS OF MIL-PRF-39012
5. OPERATING TEMPERATURE RANGE -55° C TO +125° C.

| NAME | DATE |
|----------|----------|
| PREP. GS | 08/28/14 |
| ELEC. | |
| MECH. | |
| Q.C. | |

HUBER+SUHNER
Astrolab

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

| | |
|--|--------|
| 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 | |

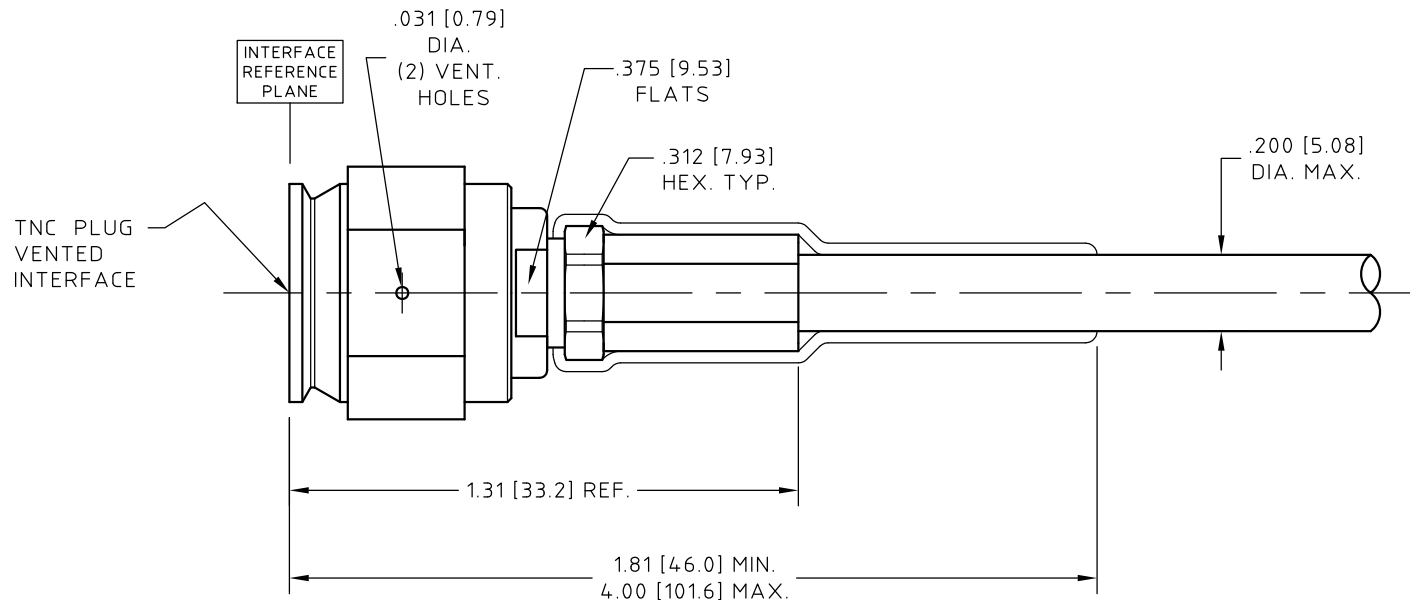
| | | | |
|---|---------------|----------------------------|-------------|
| TITLE | | CONNECTOR, TNC PLUG | |
| THDS. TO BE IN ACCORD WITH U.S. DEPT. OF COMM. SCREW THD. STDS. FOR FEDERAL SERVICES 1950 SUPL. TO HANDBOOK H 28. | SCALE | CODE IDENT. | DWG NO. |
| | 2:1 | 16301 | 29714-32288 |
| REV. | DESCRIPTION | DATE | BY |
| A | ECN No. 16515 | 08/28/14 | GS |

REV
A

CONTROL DRAWING

29714PV-32288

A



NOTES:

- 1. DESCRIPTION
CONNECTOR, TNC PLUG, LOW-OUTGASSING POSITELY VENTED.
CONNECTOR IS OPTIMIZED FOR HUBER+SUHNER Astrolab astro-boa-flex VII SERIES CABLE 32288.
- 2. MATERIALS AND FINISHES
BODY, NUT AND SOLDER BUSHING, STEEL, CORROSION RESISTANT PER ASTM A-582, UNS No. S30300, COND. A, NON MAGNETIC, PASSIVATED PER SAE-AMS-2700. NO DICHROMATE SOLUTIONS USED.
SOLDER BUSHING IS NICKEL PLATED 100 µIN (2.54 µM) MIN. THK. PER SAE-AMS-C-26074 OR ASTM B-733 SC1, TYPE II CLASS 3
CENTER CONDUCTOR, BERYLLIUM COPPER ALLOY PER ASTM B-196, UNS No. C17300, TEMPER TD04(H), GOLD PLATED 50 µIN (1.27 µM) MIN. THK. PER ASTM B-488, CODE C, TYPE II, CLASS 1.27
OVER NICKEL PLATE, 50 µIN (1.27 µM) MIN. THK. PER SAE-AMS-QQ-N-290, CLASS 1.
DIELECTRIC, POLYTETRAFLUOROETHYLENE (PTFE) PER ASTM D-1710, OR ASTM D-4894, TYPE I, GRADE 1, CLASS A.

NOTES CONTINUED:

- RETAINING RING, BERYLLIUM COPPER, PER ASTM B-197 UNS No. C17200 TEMPER TD04(H)
- GASKET, NONE USED.
- FERRULE, SEAMLESS BRASS TUBING, PER ASTM B-135, UNS ALLOY No. C26000. NICKEL PLATED 100 µIN (2.54 µM) MIN. THK. PER SAE-AMS-C-26074 OR ASTM B-733.
- STRAIN RELIEF, HEAT SHRINKABLE SLEEVING PER SAE-AMS-DTL-23053.

NOTES CONTINUED:

- 3. ELECTRICAL CHARACTERISTICS:
IMPEDANCE 50.0 Ohms NOMINAL.
FREQUENCY 18.0 GHz MAX.
- 4. SMA PLUG INTERFACE MEETS MIL-STD-348. CONNECTOR MATERIALS AND FINISHES MEET REQUIREMENTS OF MIL-PRF-39012
- 5. OPERATING TEMPERATURE RANGE -55° C TO +125° C.

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. GS | 08/28/14 |
| ELEC. | |
| MECH. | |
| Q.C. | |

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

| | | | | | | |
|---|--|---|--------------|----------------------|--------------------------|----------|
| TITLE CONNECTOR, TNC PLUG, POSITIVE VENT-LOW OUTGASSING | | THDS. TO BE IN ACCORD WITH U.S. DEPT. OF COMM. SCREW THD. STDS. FOR FEDERAL SERVICES 1950 SUPL. TO HANDBOOK H 28. | SCALE 2:1 | CODE IDENT. 16301 | DWG NO. 29714PV-32288 | REV A |
|---|--|---|--------------|----------------------|--------------------------|----------|

| | | | | |
|------|---------------|----------|----|----------|
| A | ECN No. 16515 | 08/28/14 | GS | |
| REV. | DESCRIPTION | DATE | BY | APPROVED |