### ELECTRICAL SPECIFICATIONS

| | | |
|---|---|---|
| IMPEDANCE, NOMINAL: | 50 | OHMS |
| CAPACITANCE NOMINAL: | 29.40 | pf/FOOT |
| VELOCITY OF PROPAGATION, NOMINAL: | 70.7 | % |
| RELATIVE SHIELDING: | -100 | dB MIN. |
| INSULATION RESISTANCE: | 1000 | MEGOHMS MIN. |
| DIELECTRIC WITHSTANDING VOLTAGE: | 1000 | VRMS MIN. |
| ELECTRICAL DELAY: | 1.44 | ns/FOOT |
| ELECTRICAL DELAY: | 120 | ps/INCH |
| MAX. PULSE RF POWER: | 1250 | WATTS |
| (INTO A 50 OHM SYSTEM, WITH DUTY CYCLE LESS THAN CW RATING) | | |

| F (IN GHz) --------------> | 1 | 2 | 4 | 6 | 12 | 18 |
|---|---|---|---|---|---|---|
| MAX. CW WATTS ---> | 50 | 35 | 22 | 17 | 12 | 8 |
| PHASE STABILITY DEG | 0.2 | 0.3 | 0.7 | 1 | 2 | 3 |
| LOSS STABILITY dB | 0.01 | 0.01 | 0.01 | 0.02 | 0.03 | 0.05 |

CABLE FORMED 90 DEGREES ON A .55 INCH RADIUS

### MECHANICAL SPECIFICATIONS:

| | | |
|---|---|---|
| CABLE MAX. DIAMETER: | 0.180 | INCHES |
| MIN. BEND RADIUS: | 0.18 | INCHES |
| PREFERRED BEND RADIUS: | 0.55 | INCHES |
| CONNECTOR RETENTION: | 50 | POUNDS MIN. |
| TEMPERATURE RANGE: | -50 / +85 | DEGREES C |
| MATING TORQUE: | 7-10 | INCH POUNDS |
| SMA CONNECTOR INTERFACE: | MIL-STD-348 | PAGE 310.3 |
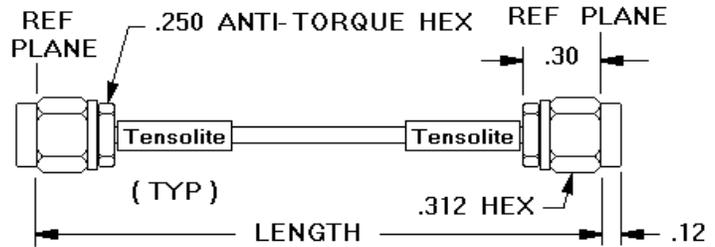


### MATERIALS AND FINISHES

| DESCRIPTION | MATERIAL | FINISH OR COLOR |
|---|---|---|
| CABLE JACKET (SEE NOTE): | POLYURETHANE | GREY TINT |
| OUTER CONDUCTOR: | HIGH STRENGTH COPPER BRAID | TIN COATED |
| MARKER | MIL-I-23053/5 | GRAY |
| SOLDER: | QQ-S-571 | NONE |
| FLUX: | MIL-F-14256, RMA | NONE |
| INSULATORS: | ASTM D1457 PTFE | NONE |
| SMA BODY | ASTM A 582 303 STAINLESS STEEL | MIL-G-45204 GOLD PLATED |
| SMA NUT | ASTM A 582 303 STAINLESS STEEL | QQ-P-35 PASSIVATED |
| SMA GASKET | ZZ-R-765 SILICON RUBBER | RED |
| SOLVENTS: | NO OZONE DEPLETING MATERIALS ARE USED | |

| ITEM INFORMATION | | MECHANICAL CHARACTERISTICS | | | S11 AND S22 CHARACTERISTICS | | | | | | S21 AND S12 CHARACTERISTICS | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PART NUMBER | | LENGTH | + - | WEIGHT | MAXIMUM VSWR :1 AT FREQUENCY (IN GHz.) | | | | | | MAXIMUM INSERTION LOSS IN dB AT FREQ. (IN GHz.) | | | | | | NOM DELAY | LENGTH |
| | | INCHES | LENGTH | OUNCES | UP TO 1 | 1 TO 2 | 2 TO 4 | 4 TO 6 | 6 TO 12 | 12 TO 18 | UP TO 1 | 1 TO 2 | 2 TO 4 | 4 TO 6 | 6 TO 12 | 12 TO 18 | nS | CM |
| 1-3636-621- 5202 | | 2.0 | 0.05 | 0.2 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.08 | 0.10 | 0.15 | 0.17 | 0.25 | 0.33 | 0.24 | 5.08 |
| 1-3636-621- 5203 | | 3.0 | 0.05 | 0.3 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.09 | 0.12 | 0.17 | 0.20 | 0.29 | 0.39 | 0.36 | 7.62 |
| 1-3636-621- 5204 | D | 4.0 | 0.05 | 0.3 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.10 | 0.14 | 0.20 | 0.23 | 0.34 | 0.45 | 0.48 | 10.2 |
| 1-3636-621- 5205 | D | 5.0 | 0.05 | 0.4 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.11 | 0.15 | 0.22 | 0.27 | 0.39 | 0.51 | 0.60 | 12.7 |
| 1-3636-621- 5206 | D | 6.0 | 0.10 | 0.4 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.13 | 0.17 | 0.24 | 0.30 | 0.43 | 0.57 | 0.72 | 15.2 |
| 1-3636-621- 5207 | D | 7.0 | 0.10 | 0.4 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.14 | 0.18 | 0.27 | 0.33 | 0.48 | 0.63 | 0.84 | 17.8 |
| 1-3636-621- 5208 | D | 8.0 | 0.10 | 0.5 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.15 | 0.20 | 0.29 | 0.36 | 0.53 | 0.69 | 0.96 | 20.3 |
| 1-3636-621- 5209 | D | 9.0 | 0.10 | 0.5 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.16 | 0.22 | 0.31 | 0.39 | 0.57 | 0.75 | 1.08 | 22.9 |
| 1-3636-621- 5210 | D | 10.0 | 0.10 | 0.5 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.17 | 0.23 | 0.34 | 0.42 | 0.62 | 0.82 | 1.20 | 25.4 |
| 1-3636-621- 5211 | D | 11.0 | 0.10 | 0.6 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.18 | 0.25 | 0.36 | 0.45 | 0.67 | 0.88 | 1.32 | 27.9 |
| 1-3636-621- 5212 | D | 12.0 | 0.15 | 0.6 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.19 | 0.26 | 0.39 | 0.48 | 0.71 | 0.94 | 1.44 | 30.5 |
| 1-3636-621- 5213 | | 13.0 | 0.15 | 0.6 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.20 | 0.28 | 0.41 | 0.51 | 0.76 | 1.00 | 1.56 | 33.0 |
| 1-3636-621- 5214 | | 14.0 | 0.15 | 0.7 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.21 | 0.30 | 0.43 | 0.54 | 0.81 | 1.06 | 1.68 | 35.6 |
| 1-3636-621- 5215 | | 15.0 | 0.15 | 0.7 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.22 | 0.31 | 0.46 | 0.57 | 0.86 | 1.12 | 1.80 | 38.1 |
| 1-3636-621- 5216 | | 16.0 | 0.15 | 0.7 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.23 | 0.33 | 0.48 | 0.60 | 0.90 | 1.18 | 1.92 | 40.6 |
| 1-3636-621- 5217 | | 17.0 | 0.15 | 0.8 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.24 | 0.34 | 0.51 | 0.63 | 0.95 | 1.24 | 2.04 | 43.2 |
| 1-3636-621- 5218 | D | 18.0 | 0.15 | 0.8 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.26 | 0.36 | 0.53 | 0.66 | 1.00 | 1.30 | 2.16 | 45.7 |
| 1-3636-621- 5219 | | 19.0 | 0.15 | 0.8 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.27 | 0.38 | 0.55 | 0.69 | 1.04 | 1.36 | 2.28 | 48.3 |
| 1-3636-621- 5220 | | 20.0 | 0.15 | 0.9 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.28 | 0.39 | 0.58 | 0.72 | 1.09 | 1.42 | 2.40 | 50.8 |
| 1-3636-621- 5221 | | 21.0 | 0.15 | 0.9 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.29 | 0.41 | 0.60 | 0.75 | 1.14 | 1.48 | 2.52 | 53.3 |
| 1-3636-621- 5222 | | 22.0 | 0.15 | 0.9 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.30 | 0.42 | 0.62 | 0.78 | 1.18 | 1.54 | 2.64 | 55.9 |
| 1-3636-621- 5223 | | 23.0 | 0.15 | 1.0 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.31 | 0.44 | 0.65 | 0.81 | 1.23 | 1.61 | 2.76 | 58.4 |
| 1-3636-621- 5224 | D | 24.0 | 0.15 | 1.0 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.32 | 0.46 | 0.67 | 0.84 | 1.28 | 1.67 | 2.88 | 61.0 |
| 1-3636-621- 5225 | | 25.0 | 0.15 | 1.0 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.33 | 0.47 | 0.70 | 0.87 | 1.32 | 1.73 | 3.00 | 63.5 |
| 1-3636-621- 5226 | | 26.0 | 0.15 | 1.1 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.34 | 0.49 | 0.72 | 0.90 | 1.37 | 1.79 | 3.12 | 66.0 |
| 1-3636-621- 5227 | | 27.0 | 0.15 | 1.1 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.35 | 0.50 | 0.74 | 0.93 | 1.42 | 1.85 | 3.24 | 68.6 |
| 1-3636-621- 5228 | | 28.0 | 0.15 | 1.1 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.36 | 0.52 | 0.77 | 0.96 | 1.46 | 1.91 | 3.36 | 71.1 |
| 1-3636-621- 5229 | | 29.0 | 0.15 | 1.2 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.37 | 0.54 | 0.79 | 0.99 | 1.51 | 1.97 | 3.48 | 73.7 |
| 1-3636-621- 5230 | | 30.0 | 0.15 | 1.2 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.39 | 0.55 | 0.82 | 1.02 | 1.56 | 2.03 | 3.60 | 76.2 |
| 1-3636-621- 5232 | | 32.0 | 0.15 | 1.3 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.41 | 0.58 | 0.86 | 1.09 | 1.65 | 2.15 | 3.83 | 81.3 |
| 1-3636-621- 5234 | | 34.0 | 0.15 | 1.3 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.43 | 0.62 | 0.91 | 1.15 | 1.74 | 2.27 | 4.07 | 86.4 |
| 1-3636-621- 5236 | | 36.0 | 0.15 | 1.4 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.45 | 0.65 | 0.96 | 1.21 | 1.84 | 2.40 | 4.31 | 91.4 |
| 1-3636-621- 5239 | | 39.0 | 0.15 | 1.5 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.48 | 0.70 | 1.03 | 1.30 | 1.98 | 2.58 | 4.67 | 99.1 |
| 1-3636-621- 5242 | | 42.0 | 0.15 | 1.6 | 1.06 | 1.10 | 1.14 | 1.17 | 1.20 | 1.30 | 0.52 | 0.74 | 1.10 | 1.39 | 2.12 | 2.76 | 5.03 | 106.7 |
| 1-3636-621- 5245 | | 45.0 | 0.15 | 1.7 | 1.10 | 1.15 | 1.20 | 1.25 | 1.30 | 1.35 | 0.55 | 0.79 | 1.17 | 1.48 | 2.26 | 2.94 | 5.39 | 114.3 |
| 1-3636-621- 5248 | | 48.0 | 0.20 | 1.8 | 1.10 | 1.15 | 1.20 | 1.25 | 1.30 | 1.35 | 0.58 | 0.84 | 1.24 | 1.57 | 2.40 | 3.13 | 5.75 | 121.9 |
| 1-3636-621- 5254 | | 54.0 | 0.20 | 2.0 | 1.10 | 1.15 | 1.20 | 1.25 | 1.30 | 1.35 | 0.65 | 0.93 | 1.39 | 1.75 | 2.68 | 3.49 | 6.47 | 137 |
| 1-3636-621- 5260 | | 60.0 | 0.20 | 2.2 | 1.10 | 1.15 | 1.20 | 1.25 | 1.30 | 1.35 | 0.71 | 1.03 | 1.53 | 1.94 | 2.96 | 3.86 | 7.19 | 152 |
| 1-3636-621- 5266 | | 66.0 | 0.20 | 2.5 | 1.10 | 1.15 | 1.20 | 1.25 | 1.30 | 1.35 | 0.78 | 1.13 | 1.67 | 2.12 | 3.24 | 4.22 | 7.91 | 168 |
| 1-3636-621- 5272 | | 72.0 | 0.20 | 2.7 | 1.10 | 1.15 | 1.20 | 1.25 | 1.30 | 1.35 | 0.84 | 1.22 | 1.82 | 2.30 | 3.52 | 4.59 | 8.63 | 183 |
| 1-3636-621- 5284 | | 84.0 | 0.20 | 3.1 | 1.10 | 1.15 | 1.20 | 1.25 | 1.30 | 1.35 | 0.97 | 1.41 | 2.10 | 2.67 | 4.08 | 5.31 | 10.07 | 213 |
| 1-3636-621- 5288 | | 88.0 | 0.20 | 3.2 | 1.10 | 1.15 | 1.20 | 1.25 | 1.30 | 1.35 | 1.01 | 1.48 | 2.20 | 2.79 | 4.27 | 5.56 | 10.55 | 224 |
| 1-3636-621- 5292 | | 92.0 | 0.20 | 3.3 | 1.10 | 1.15 | 1.20 | 1.25 | 1.30 | 1.35 | 1.06 | 1.54 | 2.29 | 2.91 | 4.45 | 5.80 | 11.03 | 234 |
| 1-3636-621- 5296 | | 96.0 | 0.20 | 3.5 | 1.10 | 1.15 | 1.20 | 1.25 | 1.30 | 1.35 | 1.10 | 1.60 | 2.39 | 3.03 | 4.64 | 6.04 | 11.50 | 244 |
| 1-3636-621- 5299 | | 99.0 | 0.20 | 3.6 | 1.10 | 1.15 | 1.20 | 1.25 | 1.30 | 1.35 | 1.13 | 1.65 | 2.46 | 3.12 | 4.78 | 6.23 | 11.86 | 251 |
| 2-3636-621- 5209 | | 108.0 | 0.20 | 3.9 | 1.10 | 1.15 | 1.20 | 1.25 | 1.30 | 1.35 | 1.23 | 1.80 | 2.67 | 3.39 | 5.20 | 6.77 | 12.94 | 274 |
| 2-3636-621- 5210 | | 120.0 | 0.20 | 4.3 | 1.10 | 1.15 | 1.20 | 1.25 | 1.30 | 1.35 | 1.36 | 1.99 | 2.96 | 3.76 | 5.76 | 7.50 | 14.38 | 305 |
| 2-3636-621- 5212 | | 144.0 | 0.20 | 5.1 | 1.10 | 1.15 | 1.20 | 1.25 | 1.30 | 1.35 | 1.62 | 2.37 | 3.53 | 4.49 | 6.89 | 8.96 | 17.26 | 366 |
| 2-3636-621- 5215 | | 180.0 | 0.20 | 6.4 | 1.10 | 1.15 | 1.20 | 1.25 | 1.30 | 1.35 | 2.01 | 2.95 | 4.39 | 5.58 | 8.57 | 11.15 | 21.57 | 457 |
| 2-3636-621- 5216 | | 192.0 | 0.20 | 6.8 | 1.10 | 1.15 | 1.20 | 1.25 | 1.30 | 1.35 | 2.14 | 3.14 | 4.68 | 5.95 | 9.13 | 11.88 | 23.01 | 488 |
| 2-3636-621- 5220 | | 240.0 | 0.20 | 8.4 | 1.10 | 1.15 | 1.20 | 1.25 | 1.30 | 1.35 | 2.66 | 3.90 | 5.82 | 7.40 | 11.37 | 14.80 | 28.76 | 610 |

D  = DISTRIBUTOR ITEM          MAXIMUM SPECIFICATIONS ARE PRODUCT MAXIMUM PLUS MEASURING SYSTEM UNCERTAINTY

NOTE:  PRODUCT SPECIFICATIONS ARE VERIFIED AT 73 DEG. F, SEA LEVEL AND 20 TO 80% RELATIVE HUMIDITY.

PRODUCT SPECIFICATIONS APPLY AT  5 TO 99% (NON CONDENSING) RELATIVE HUMIDITY, CONSULT FACTORY FOR PRODUCT CHARACTERISTICS AT OTHER CONDITIONS.

SEMI-FLEX IS A REGISTERED TRADEMARK OF TENSOLITE CO.

VISIT OUR WEB SITE AT http://www.tensolite.com