

PART NUMBER	ITEM 1 BODY	ITEM 2 CONTACT	ITEM 3 INSULATOR
142-1701-821	BRASS GOLD PL .00001 MIN OVER NICKEL PL .00005 MIN OVER COPPER PL .00005 MIN	BERYLLIUM COPPER GOLD PL .00005 MIN OVER NICKEL PL .00005 MIN OVER COPPER PL .00005 MIN	TEFLON

ZONE	REV	ECO	DESCRIPTION	APPR.	DATE
	1	53056		TAK	10/13/09
	1A	53965		TAK	1/16/12

NOTES: UNLESS OTHERWISE SPECIFIED.

1. SPECIFICATIONS:

ELECTRICAL:

IMPEDANCE: 50 OHMS

FREQUENCY RANGE: 0-26.5 GHz

VSWR: 1.05+.02F(GHz) MAX AT 0-18 GHz, TYPICALLY < 1.50 AT 18-26.5 GHz

WORKING VOLTAGE: 170 VRMS MAX AT SEA LEVEL

DIELECTRIC WITHSTANDING VOLTAGE: 500 VRMS MIN AT SEAL LEVEL

INSULATION RESISTANCE: 1000 MEGOHMS

CONTACT RESISTANCE: CENTER CONTACT - INITIAL 3.0 MILLIOHMS MAX,
AFTER ENVIRONMENTAL - 4.0 MILLIOHMS MAX
OUTER CONDUCTOR - INITIAL 2.0 MILLIOHMS MAX
AFTER ENVIRONMENTAL - N/A

CORONA LEVEL: 125 VOLTS MIN AT 70,000 FEET

INSERTION LOSS: N/A (DEPENDANT UPON APPLICATION)

RF HIGH POTENTIAL WITHSTANDING VOLTAGE: 335 VRMS MIN AT 4 AND 7 MHz

MECHANICAL:

ENGAGEMENT/DISENGAGEMENT TORQUE: 2 INCH POUNDS MAX

MATING TORQUE: 7-10 INCH POUNDS WHEN BODY SUPPORTED WITH WRENCH

CONTACT RETENTION: 6 LBS MIN AXIAL FORCE
4 OZ-IN MIN RADIAL TORQUE

DURABILITY: 500 CYCLES MIN

ENVIRONMENTAL:

(MEETS OR EXCEEDS THE APPLICABLE PARAGRAPH OF MIL-PRF-39012)

THERMAL SHOCK: MIL-STS-202, METHOD 107, CONDITION B
EXCEPT 115°C HIGH TEMP

OPERATING TEMPERATURE: -65°C TO 165°C

CORROSION: MIL-STD-202, METHOD 101, CONDITION B

SHOCK: MIL-STD-202, METHOD 213, CONDITION I

VIBERATION: MIL-STD-202, METHOD 204, CONDITION D

MOISTURE RESISTANCE: MIL-STD-202, METHOD 106

2. ALL HOLES PLATED THRU ENTIRE CIRCUIT BOARD STACKUP.

3. HOLE PATTERNS SYMMETRICAL ABOUT CENTER OF CPW TRACE.

4. FOR OPTIMUM CIRCUIT BOARD HIGH FREQUENCY PROFORMANCE:

A. MAINTAIN SOLID GROUND PLANE BELOW HIGH FREQUENCY SUBSTRATE.

B. CONTROL PULLBACK OF TRACE AND GROUND FROM BOARD EDGE.

C. CONTINUE GROUNDED COPLANAR LINE BEYOND GROUND PADS.

D. PLACE 16 MIL DIA GROUND VIAS ON BOTH SIDES OF COPLANAR WAVEGUIDE LINE AT 50 MIL INTERVALS ALONG ENTIRE LENGTH.

E. IMMERSION GOLD PLATE (ENIG) ALL CONDUCTORS PER IPC-4552.

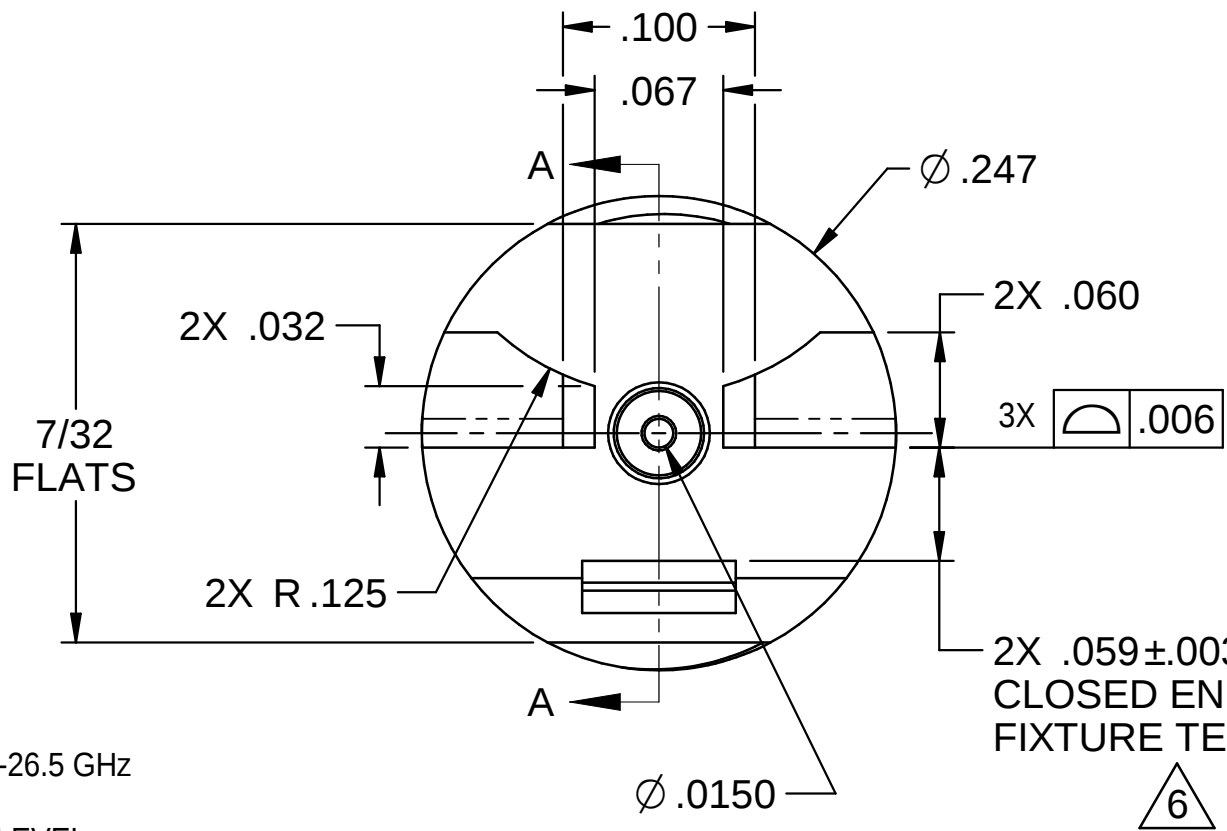
5. REFERENCE DIMENSIONS FOR 50 OHM GROUNDED CPW LINE, USING ROGERS R04003, 16 MIL HIGH FREQUENCY CIRCUIT BOARD SUBSTRATE:

TRACE WIDTH - 28.5 MILS

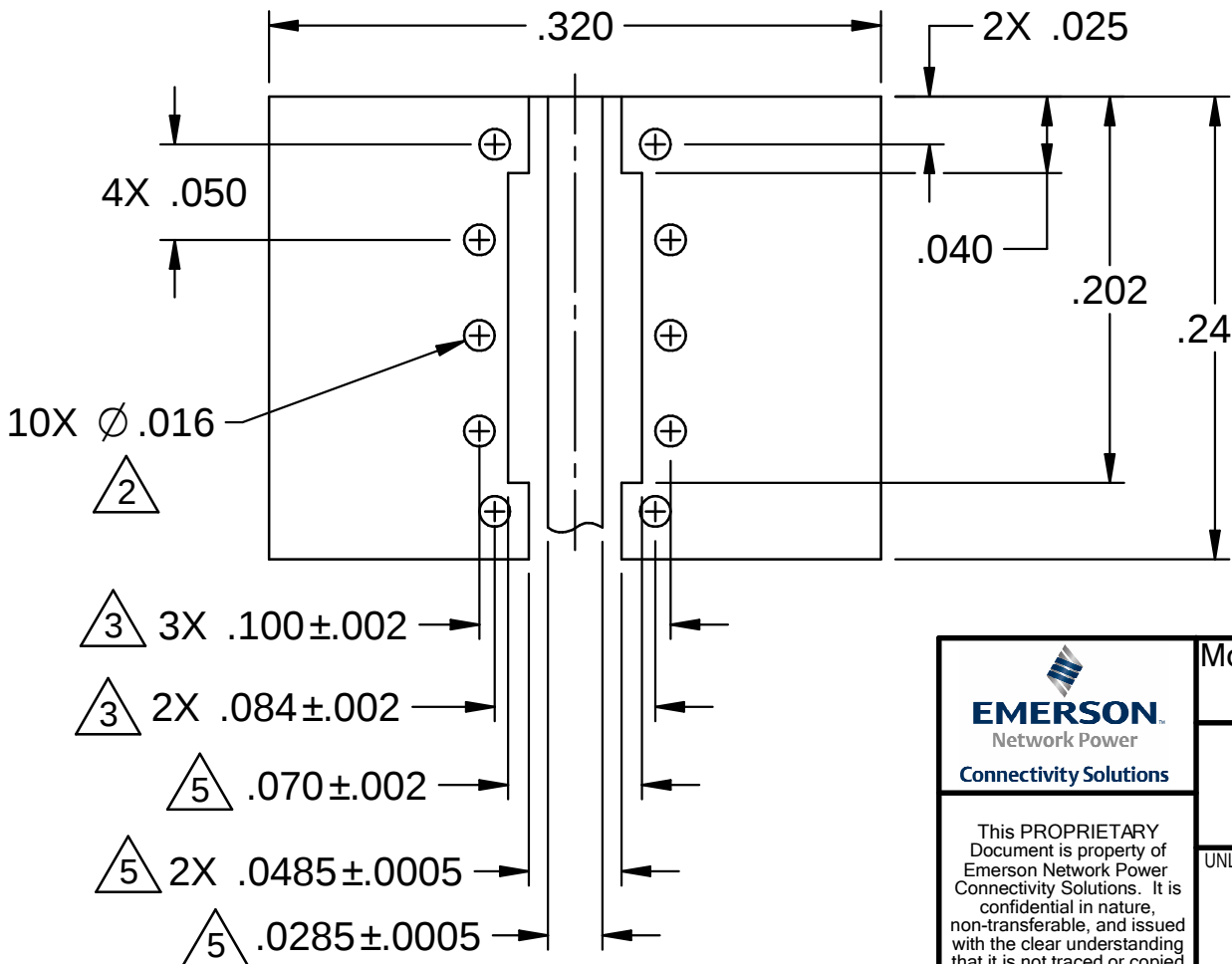
GROUND GAPS - 10 MILS

CONDUCTOR THICKNESS - 1.4 MIL (INCLUDES PLATING)

6. ALL TERMINALS SHALL BE SOLDERED TO CIRCUIT BOARD.



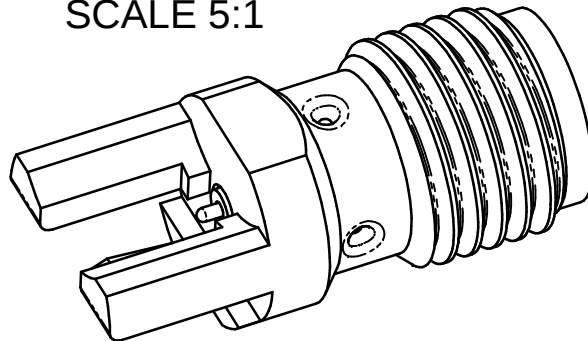
TRACE LAYOUT
(TOP VIEW)
SCALE 10:1



TYPICAL MICROSTRIP TOPSIDE LAYOUT

.062" THICK BOARD
FR4 BOARD
DOUBLE SIDED 1 OZ COPPER
FULL UNDERSIDE GROUND PLANE
ALL DIMENSIONS ARE REFERENCE
APPLICATIONS REQUIRE OPTIMIZATION

SCALE 5:1



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	Cage Code 34078		Title SMA JACK SELF FIXTURE END LAUNCH		Material
	3RD ANGLE PROJECTION 		Drawing No. 142-1701-821/830		Rev. Finish
	UNLESS OTHERWISE SPECIFIED UNITS: INCHES .XX ±.01 .XXX ±.003 .XXXX ±.0010 ANGLES ±1°00'	Drawn by TAK	Date 9/13/09	Size C	DO NOT SCALE DRAWING
Approved by TAK		Date 10/13/09	Scale 10:1	Sheet 1 of 2	