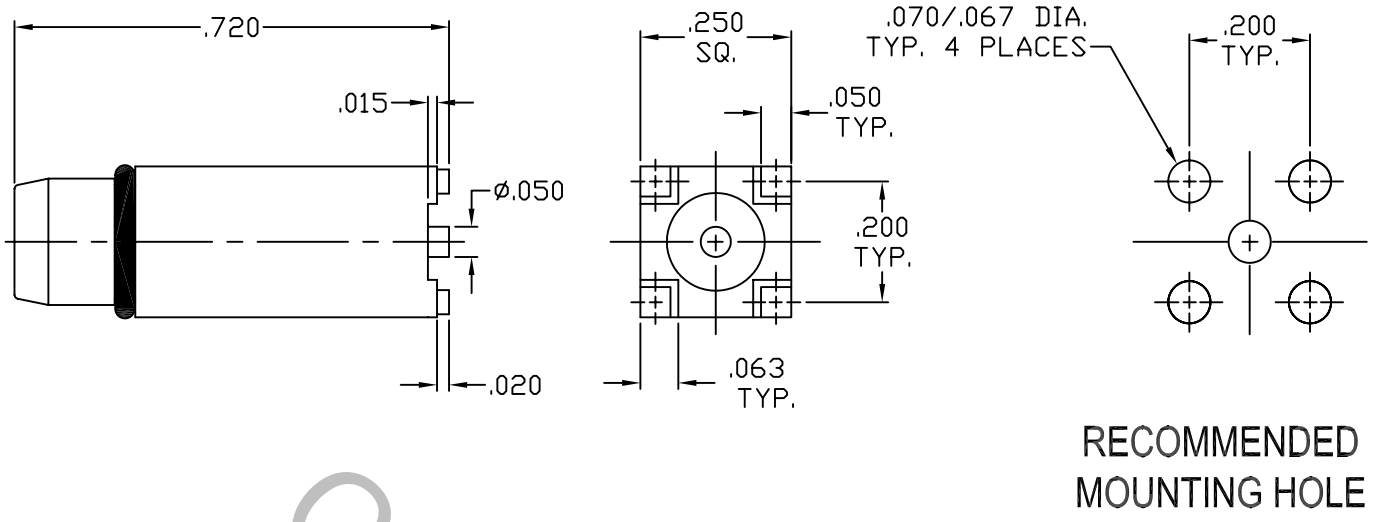
SPECIFICATION CONTROL DRAWING



RECOMMENDED
MOUNTING HOLE

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1. MATING INTERFACE DIMENSIONS PER MIL-STD-348 Fig. 321.1 (BMA PLUG)

2. ELECTRICAL

FREQUENCY RANGE GHz	DC TO 12.0 GHz.
VSWR (MAX.) ❋	SEE SHEET 3
INSERTION LOSS (dB MAX.)	
• BMA INTERFACE GAP (.000 TO .010)	.035 dB x $\sqrt{FGHz}$
• BMA INTERFACE GAP (.011 TO .030)	.050 dB x $\sqrt{FGHz}$
NOMINAL IMPEDANCE (OHMS)	50
VOLTAGE RATING (MAX. VRMS)	250
RF LEAKAGE (MIN. dB DOWN)	
• BMA INTERFACE BOTTOMED (.000 GAP)	−100 dB − FGHz
• BMA INTERFACE GAP (.001 TO .010)	−80 dB − FGHz
• BMA INTERFACE GAP (.011 TO .030)	−60 dB − FGHz
TEMPERATURE RATING (DEGREES CENTIGRADE)	−65°c TO + 165°c
DIELECTRIC WITHSTANDING VOLTAGE (MAX. VRMS)	750
INSULATION RESISTANCE (MIN. MEGOHMS)	5,000
CONTACT RESISTANCE	
• CENTER CONTACT (MAX. MILLIOHMS)	6.0
• OUTER CONTACT (MAX. MILLIOHMS)	2.0

❋ TERMINATED IN A 50 OHM LOAD

REV.	DCN NO.	DATE	APP.
AA	07-1683	7/7/07	TS

DIMENSIONS ARE IN INCHES
TOLERANCES

DECIMALS	FRACTIONAL	ANGULAR
.X ±.030 .XX ±.010 .XXX ±.005	±1/64	X °±1°0' X ° X' ± 15'

SURFACE ROUGHNESS 63 √ MIL-STD 10.

dynawave INCORPORATED
HAVERHILL MA. 01835

DRAWN: TS DATE: 7/7/07

APPD: DC DATE: 7/7/07

TITLE
BMA, PLUG
PC BOARD
SURFACE MOUNT

CODE IDENT. 2J899

SHEET 1 OF 3

DWG. NO. 2820-0031-2140

SPECIFICATION CONTROL DRAWING

3. MECHANICAL

CAPTIVATION–CENTER CONTACT
- MIN. AXIAL FORCE — 4.0 LBS.
- MIN. RADIAL TORQUE — N/A

BMA ENGAGEMENT FORCES
- INSERTION (MAX. OUNCES) — 48.0
- WITHDRAWAL (MIN. OUNCES) — 1.5

BMA DURABILITY (MIN. MATING) — 500

RECOMMENDED MATING TORQUE — N/A

4. ENVIRONMENTAL

TEMPERATURE CYCLING	MIL–STD–202, METHOD 102, COND. C (–65 ° c TO + 165 °c)
SHOCK	MIL–STD–202, METHOD 213, COND. I (100 G's)
VIBRATION	MIL–STD–202, METHOD 204, COND. D (20 G's)
MOISTURE RESISTANCE	MIL–STD–202, METHOD 106, LESS STEP 7b
CORROSION	MIL–STD–202, METHOD 101, COND. B (48 HOURS)
BAROMETRIC PRESSURE (ALTITUDE)	MIL–STD–202, METHOD 105, COND. C (70,000 FT.) (190 VRMS)

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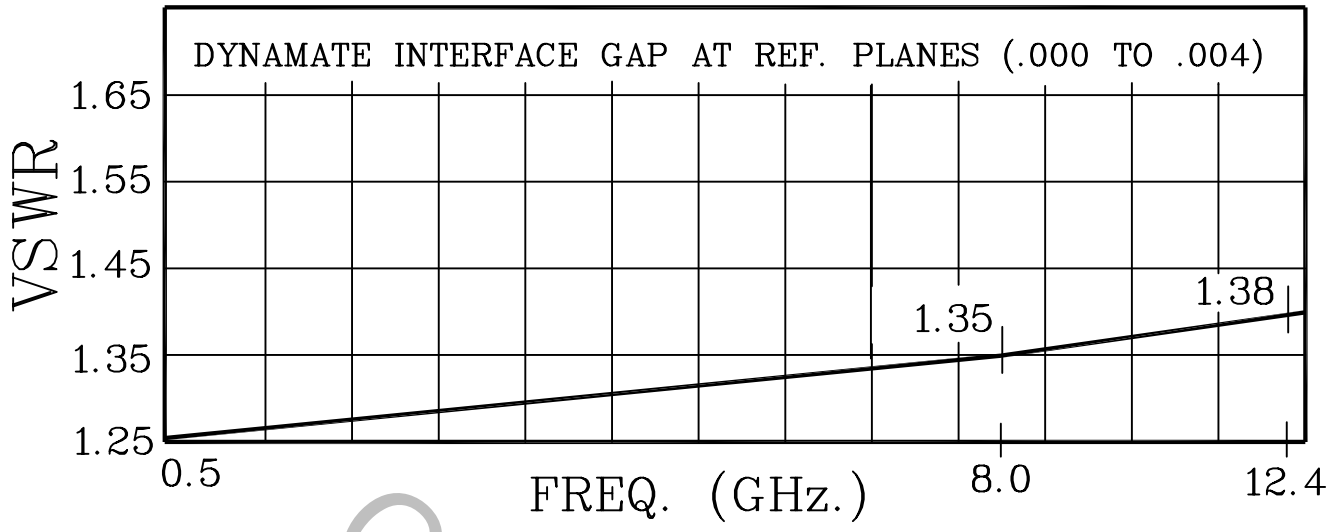
5. MATERIAL

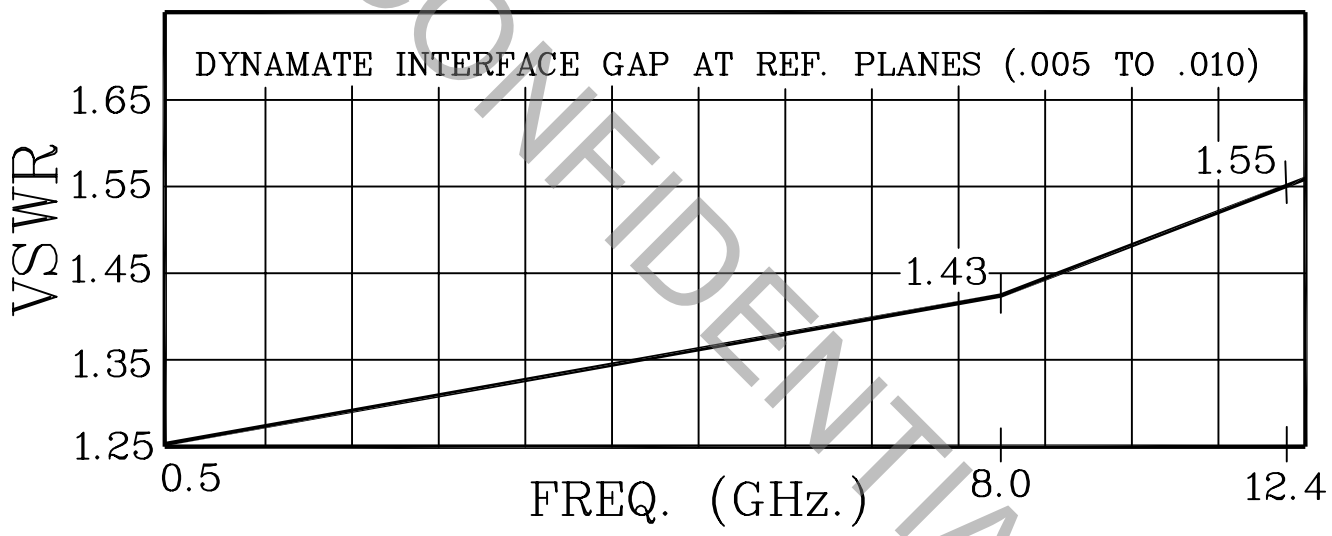
CONNECTOR BODY	BRASS PER ASTM B16, TEMPER H02, ALLOY C36000
CENTER CONTACT	BERYLLIUM COPPER PER ASTM B196/B, 196M–03, COPPER ALLOY No. UNS C17300, TEMPER TD04.
INSULATOR	TEFLON PER ASTM D–1710–02, TYPE 1, GRADE 1, CLASS B.
O'RING	NITRILE (BUNA–N)

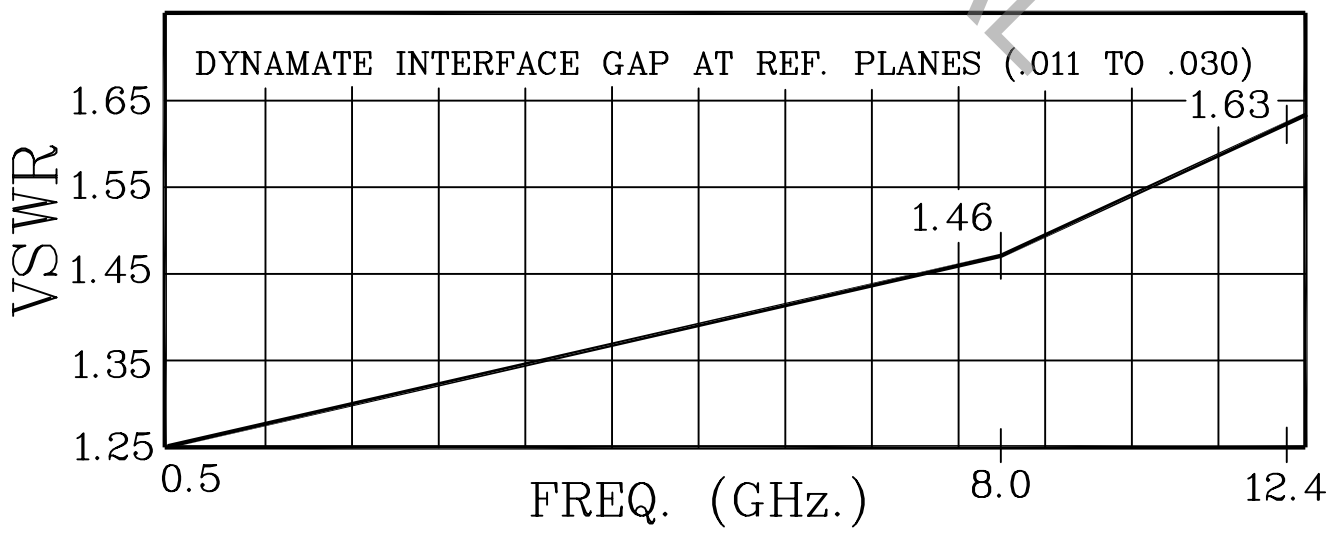
6. FINISH

CONNECTOR BODY	"TRI–M–M3" ALLOY 55%–60% COPPER, 25% TO 28% TIN AND 14%–18% ZINC. .0001 TO .0002 THICK.
CENTER CONTACT ASSEMBLY	GOLD PER ATSM–B–488, TYPE I, CODE C, CLASS 2.5 (.000100 MIN. THK.) OVER NICKEL PER QQ–N–290 (.000050 MIN. THK.) OVER COPPER PER MIL–C–14550 (.000010 MIN. THK.).
INSULATOR AND O'RING	N/A

SPECIFICATION CONTROL DRAWING







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