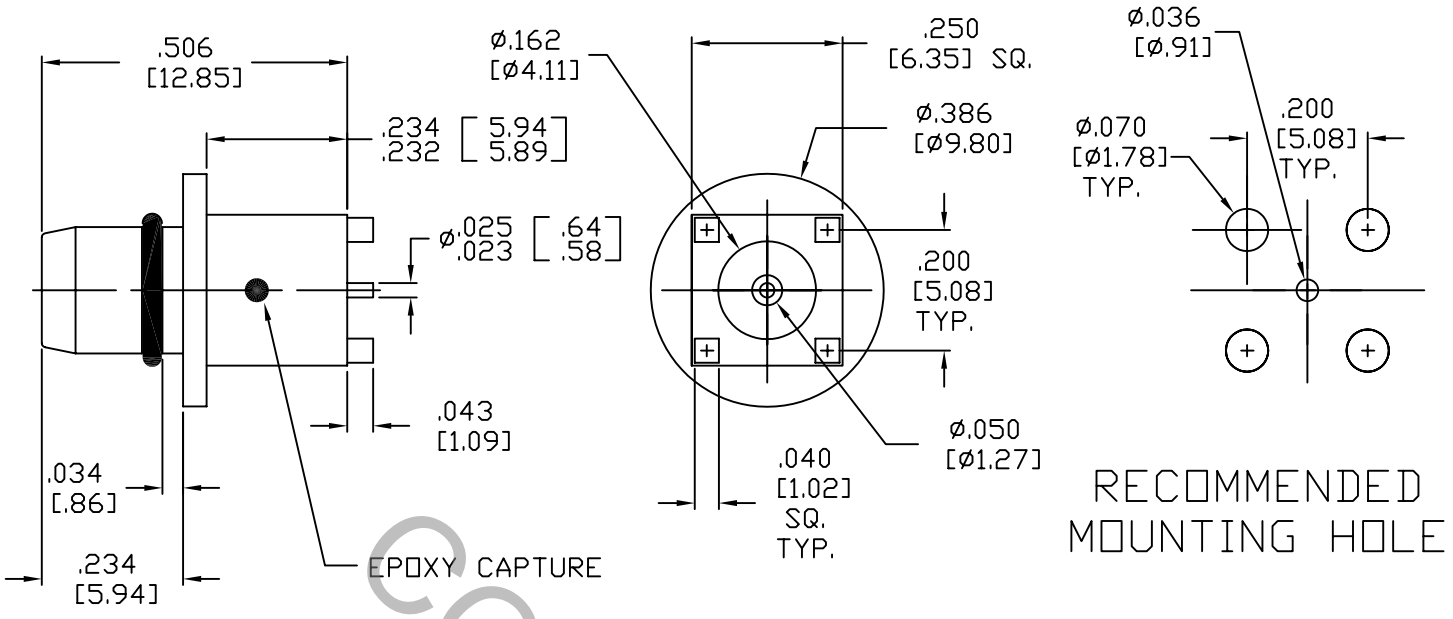
SPECIFICATION CONTROL DRAWING



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

2. ELECTRICAL

FREQUENCY RANGE GHz	DC TO 18.0 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)	500
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 (MIN. VRMS)	1,000
INSULATION RESISTANCE (MIN. MEGOHMS)	5,000
CONTACT RESISTANCE	
• CENTER CONTACT (MAX. MILLIOHMS)	2.0
• OUTER CONTACT (MAX. MILLIOHMS)	2.0

❋ TERMINATED IN A 50 OHM LOAD

REV.	DCN NO.	DATE	APP.
AA	07-2110	11/12/07	TS
AB	07-2147	11/28/07	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: 11/12/07

APPD: TS DATE: 11/12/07

TITLE
BMA, PLUG
PC BOARD
THRU HOLE MOUNT

CODE IDENT. 2J899

SHEET 1 OF 3

DWG. NO. 2820-0032-6400

SPECIFICATION CONTROL DRAWING

3. MECHANICAL

CAPTIVATION–CENTER CONTACT
- MIN. AXIAL FORCE — 6.0
- MIN. RADIAL TORQUE — 4.0 IN. OZ.

BMA ENGAGEMENT FORCES
- INSERTION (MAX. OUNCES) — N/A
- WITHDRAWAL (MIN. OUNCES) — N/A

BMA DURABILITY (MIN. MATING) — 500

RECOMMENDED MATING TORQUE — N/A

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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.) (335 VRMS)

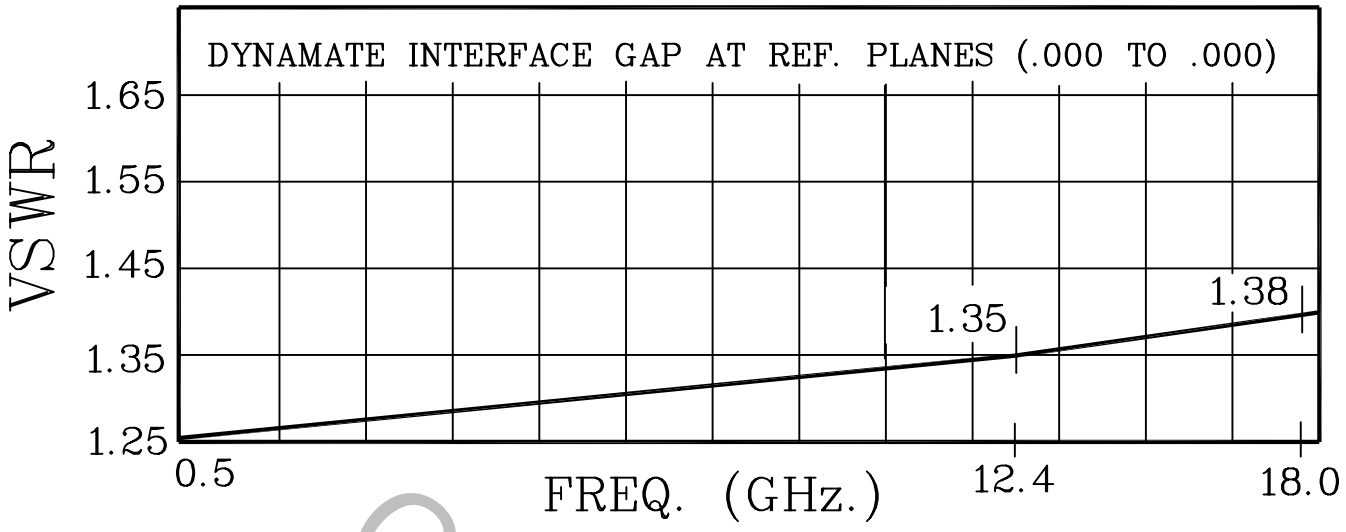
5. MATERIAL

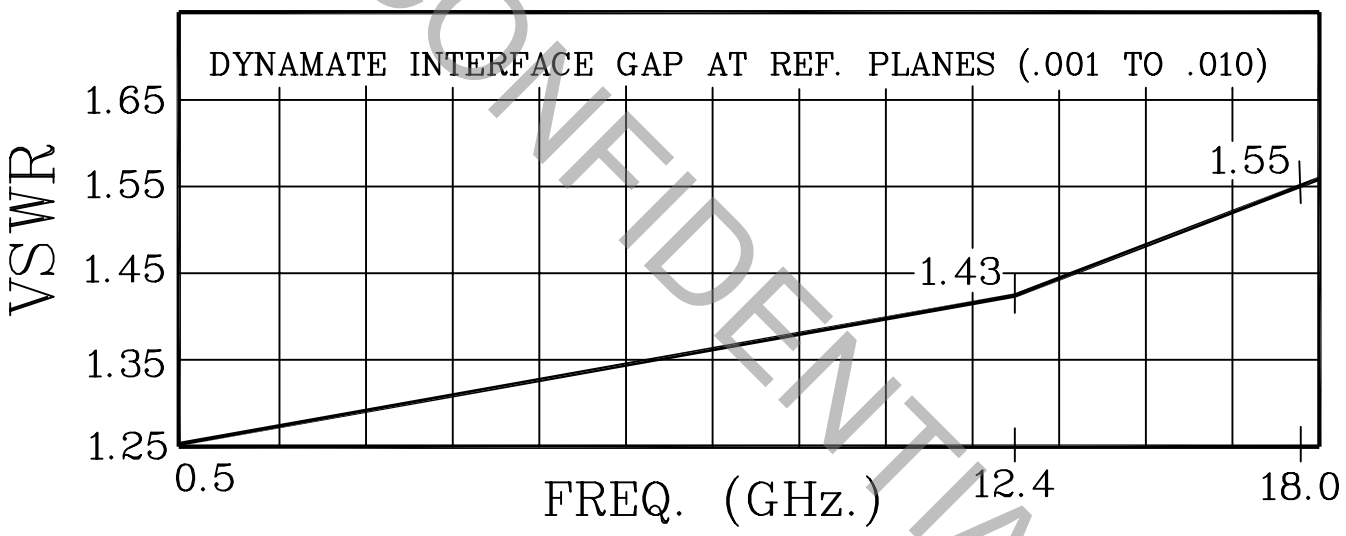
CONNECTOR BODY	STAINLESS STEEL PER ASTM–A–582, TYPE 303, COND. A
CENTER CONTACT	BERYLLIUM COPPER PER ASTM–B–196/B, 196M–03, COPPER ALLOY No. UNS C17300, TEMPER TD04.
INSULATOR	TEFLON PER ASTM–D–1710, TYPE 1, GRADE 1, CLASS B.
O'RING	NITRILE (BUNA–N)

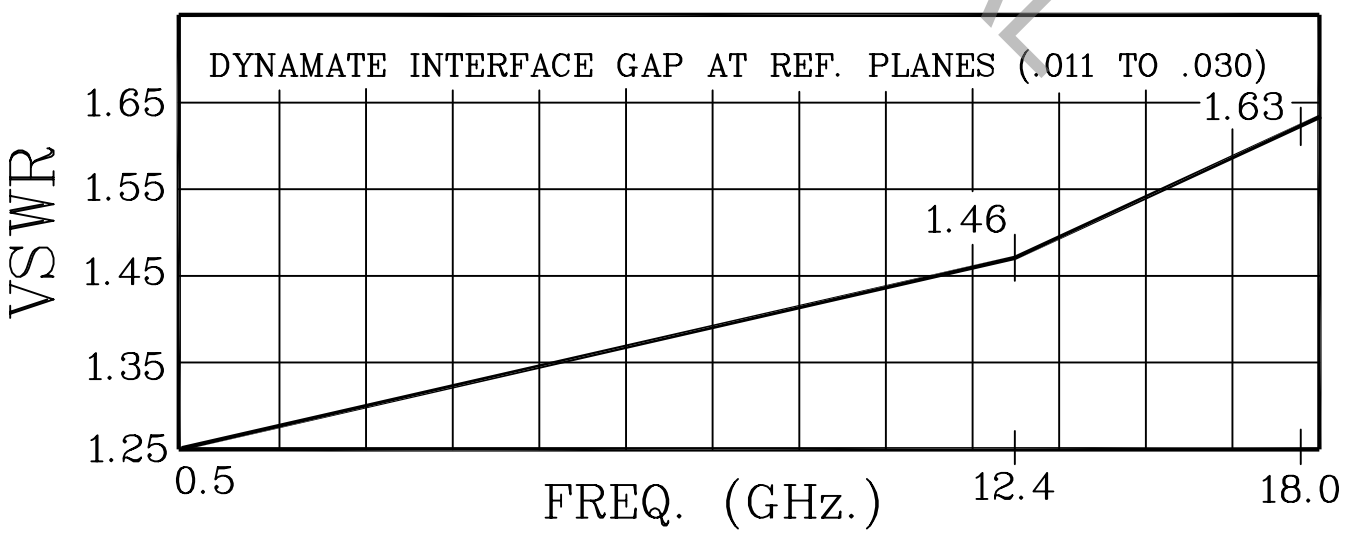
6. FINISH

CONNECTOR BODY	GOLD PER ATSM–B–488, TYPE I, CODE C, CLASS 1.25 (.000050 MIN. THK.) OVER NICKEL PER QQ–N–290 (.000050 MIN. THK.) OVER COPPER PER MIL–C–14550 (.000010 MIN. THK.).
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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dynawave INCORPORATED	SHEET 3 OF 3	DWG. NO. 2820-0032-6400	REV. AB