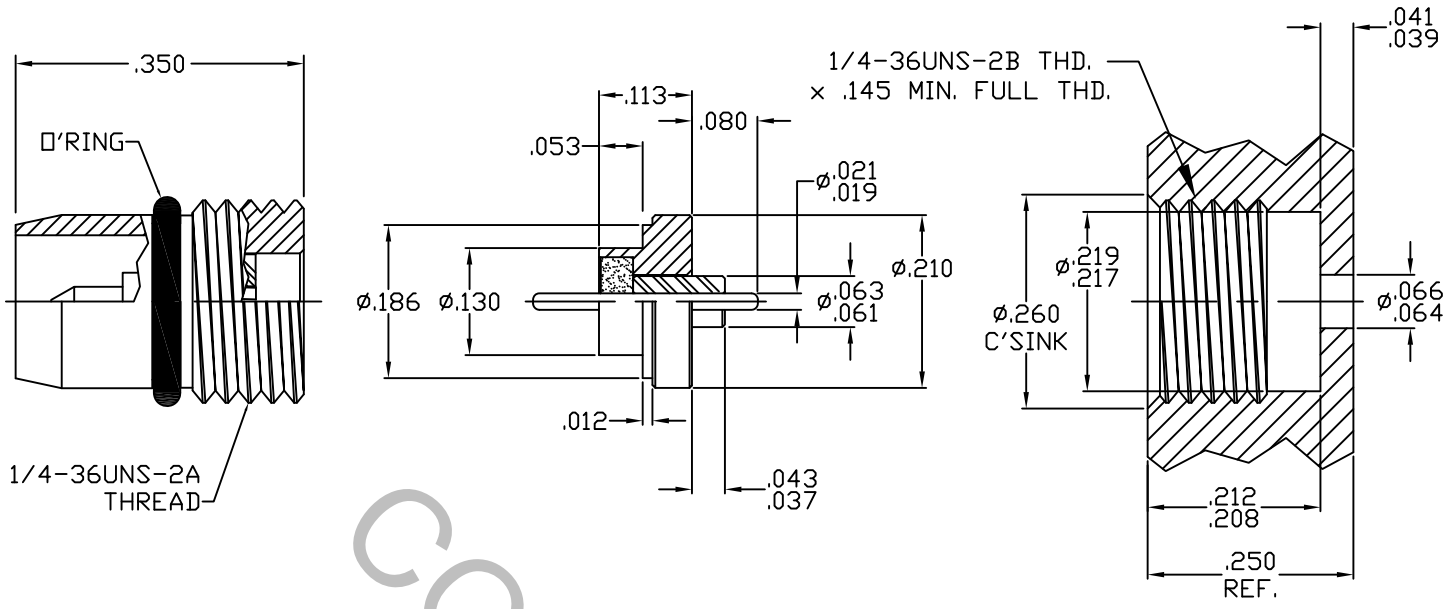
SPECIFICATION CONTROL DRAWING



CONFIDENTIAL

1. MATING

INTERFACE DIMENSIONS MIL-STD-348 Fig. 321.1 (BMA, PLUG).

2. ELECTRICAL

FREQUENCY RANGE GHz	DC TO 26.5 GHz
VSWR (MAX.) ❋	SEE SHEET 3
INSERTION LOSS (dB MAX.)	
• BMA INTERFACE GAP (.000 to .015)	.040 dB x $\sqrt{\text{FGHz}}$
• BMA INTERFACE GAP (.016 to .030)	.060 dB x $\sqrt{\text{FGHz}}$
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 .015)	90 dB – FGHz
• BMA INTERFACE GAP (.016 to .030)	75 dB – FGHz
TEMPERATURE RATING (DEGREES CENTIGRADE)	−65°c TO + 165°c
DIELECTRIC WITHSTANDING VOLTAGE (MAX. VRMS)	750
INSULATION RESISTANCE (MIN. MEGOHMS)	10,000
CONTACT RESISTANCE	
• CENTER CONTACT (MAX. MILLIOHMS)	12.0
• OUTER CONTACT (MAX. MILLIOHMS)	2.0

❋ TERMINATED IN A 50 OHM LOAD

RoHS COMPLIANT

This Document contains proprietary and confidential information.

REV.	DCN NO.	DATE	APP.
AA	17-1689	5/25/17	TS

DIMENSIONS ARE IN INCHES
TOLERANCES

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

dynawave INCORPORATED
HAVERHILL, MA 01835

DRAWN TS DATE 5/25/17

APPROVED DC DATE 5/25/17

TITLE
BMA, PLUG
HERMETICALLY SEALED
SPARK PLUG

CODE IDENT. 2J899

SHEET 1 OF 3

DWG. NO. 2830-0431-6203

SPECIFICATION CONTROL DRAWING

3. MECHANICAL

CAPTIVATION–CENTER CONTACT
- MIN. AXIAL FORCE — 4.5 LBS.
- MIN. RADIAL TORQUE — N/A

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

BMA DURABILITY (MIN. MATING) — 1,000

RECOMMENDED MATING TORQUE — N/A
- MIC PACKAGE (TORQUE) — 22–24 IN. LBS.

RECOMMENDED TORQUE TOOL : 28–TORQUE–22

4. ENVIRONMENTAL

TEMPERATURE CYCLING	MIL–STD–202, METHOD 102, COND. C (–65 ° c TO + 200 °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)
HERMETICITY	1×10^{-8} cc/SEC.

CONFIDENTIAL

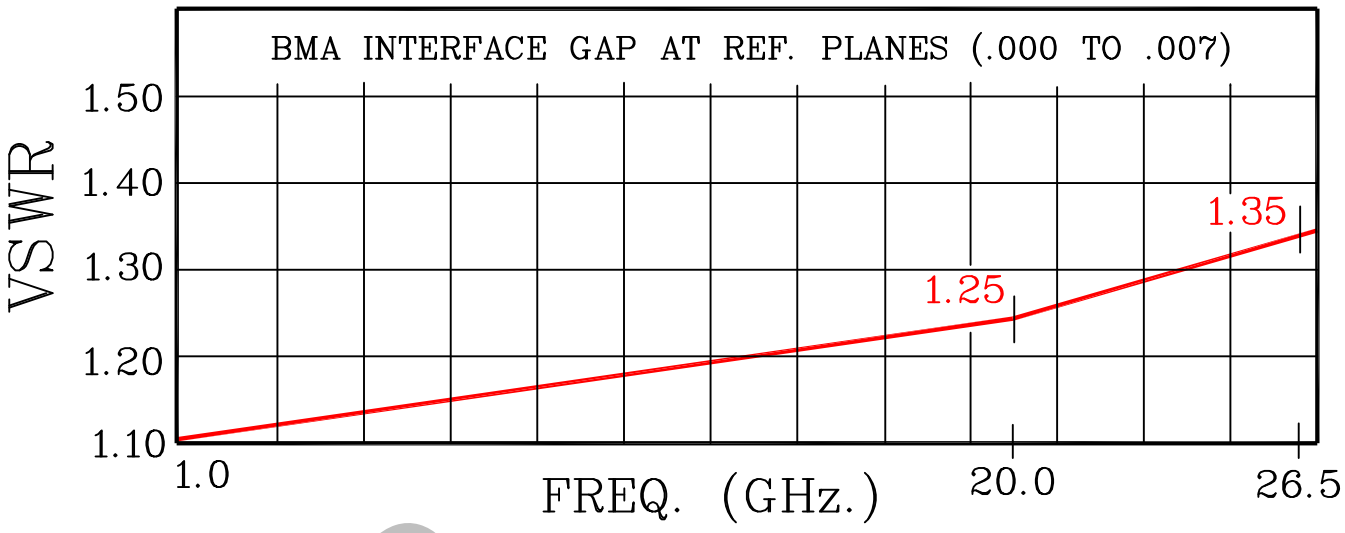
5. MATERIAL

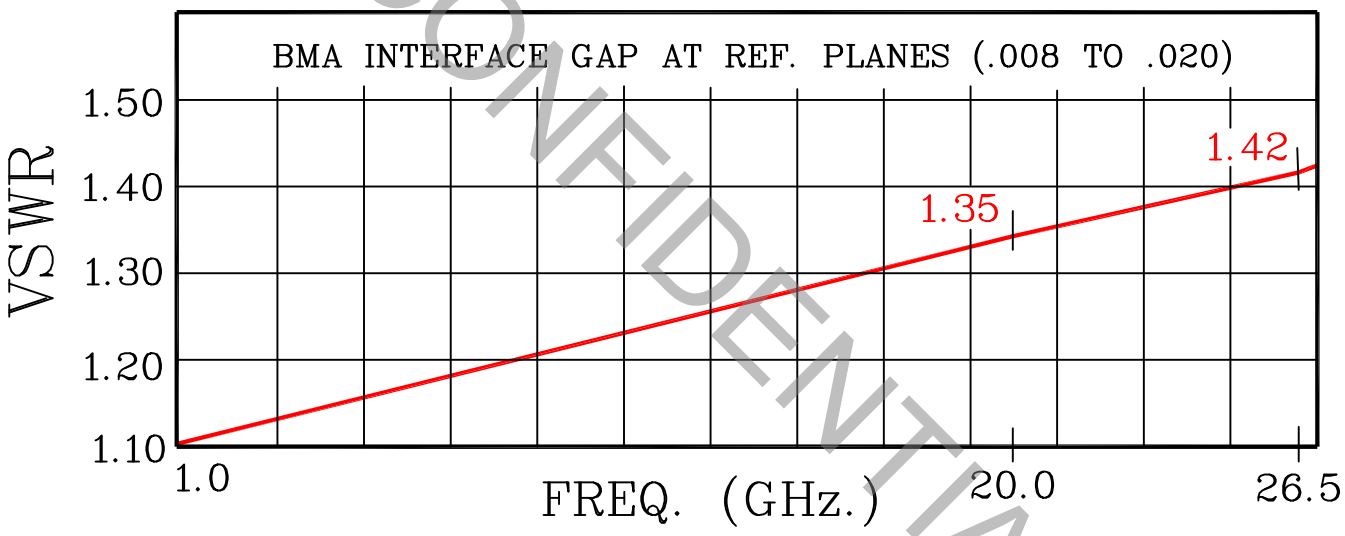
CONNECTOR BODY	STAINLESS STEEL PER ASTM A 582, TYPE 303, COND. A.
CENTER CONTACT	BERYLLIUM COPPER PER ASTM B196/B, 196M–03, COPPER ALLOY No. UNS C17300, TEMPER TD04.
GLASS	CORNING 7070
GLASS PIN	KOVAR PER MIL–I–23011
INSULATORS	TEFLON PER ASTM D 1710–02, TYPE 1, GRADE 1, CLASS B.
O'RING	SILICONE RUBBER PER ZZ–R–765, CLASS IIB

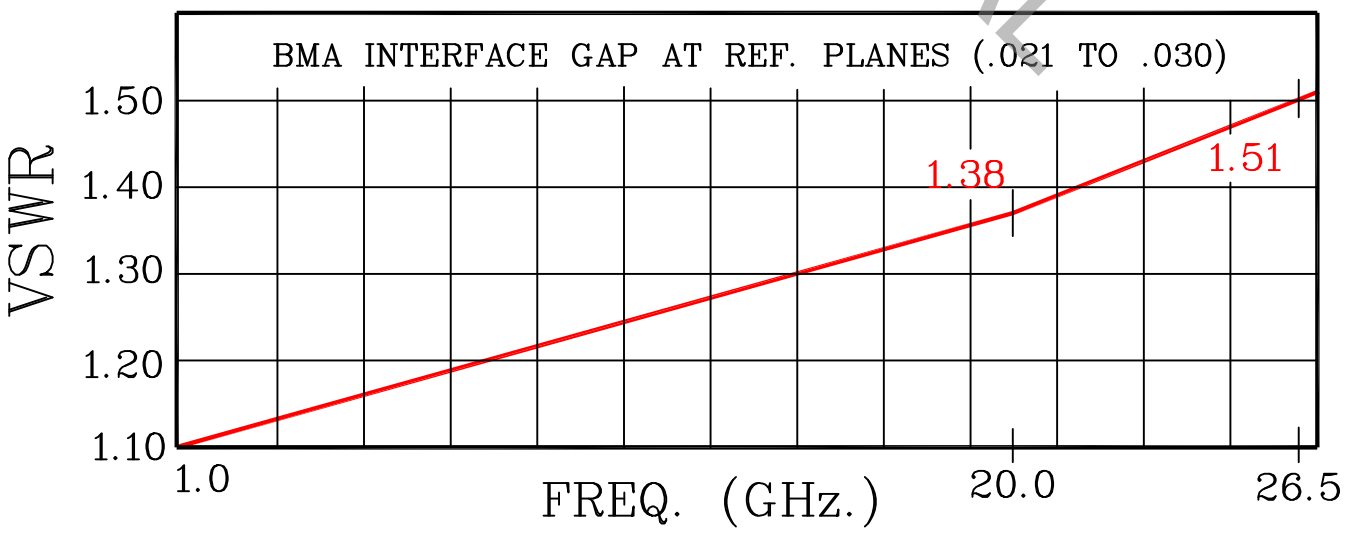
6. FINISH

CONNECTOR BODY	PASSIVATE PER AMS 2700, TYPE 2, CLASS 4.
CENTER CONTACT	GOLD PER ASTM B 488, TYPE 1, GRADE C, CLASS 1.25 (.000050 MIN. THK.) OVER NICKEL PER SAE AMS QQ–N–290, CLASS 1 (.000050 MIN. THK.) OVER COPPER PER AMS 2418 (.000010 MIN. THK.)
HERMETIC SUB–ASSEMBLY	GOLD PER ASTM B 488, TYPE 1, GRADE C, CLASS 0.30 (.000030 MIN. THK.) OVER NICKEL PER SAE AMS QQ–N–290, CLASS 1 (.000150 MIN. THK.) OVER COPPER PER AMS 2418 (.000010 MIN. THK.)
INSULATORS, O'RING AND GLASS	N/A

SPECIFICATION CONTROL DRAWING







CONFIDENTIAL

dynawave® INCORPORATED	Sheet 3 of 3	DWG. NO. 2830-0431-6203	REV. AA