



NOTES:

1. HE LEAK TEST @ 1 ATM. 1×10^{-7} CC/SEC OR LESS. A GREEN PAINT DOT ON THE ATMOSPHERE SIDE INDICATES THE PART HAS PASSED THE TEST.
2. ALCOHOL OR FOMBLIN YVAC 3 MAY BE USED TO LUBRICATE O-RINGS FOR VACUUM HELIUM LEAK TESTING.
3. ALL TESTS ARE PERFORMED AT ROOM TEMPERATURE.
4. ALL PARTS MUST PASS ALL TESTS.
5. CABLE POSITIONING IS APPROXIMATE & VARIABLE, CABLE SHOULD NOT BE BENT IMMEDIATELY OUTSIDE EPOXY SEAL SURFACE.
6. COSMETIC SURFACE VOIDS NOT ON O-RING SEALING SURFACES ARE ACCEPTABLE BASED ON THE SEAL'S DIAMETER:
 $\leq .5$ [12.7] SEAL DIAMETER: $\phi .035$ [.89] MAX ALLOWED VOID SIZE
 $> .5$ [12.7] SEAL DIAMETER: $\phi .060$ [1.5] MAX ALLOWED VOID SIZE
7. REF-OPERATING TEMPERATURE RANGE -40°C TO 125°C .
8. DIMENSIONS ARE INCHES [millimeters].
9. PAVE-SEAL CAN BE A BI-DIRECTIONAL HERMETIC SEAL FOR VACUUM AND MOST PRESSURES. FOR PRESSURES ABOVE 150 PSI (10 BAR), CHECK WITH SALES ENGINEERING.
10. FREQUENCY RESPONSE-
 RETURN LOSS: >13 dB TO 52 GHz, >10 dB TO 65 GHz.
 INSERTION LOSS (TO ABOVE FREQUENCY LIMIT): <1.7 dB/ft @18 GHz, <2.1 dB/ft @27 GHz, <2.6 dB/ft @40 GHz, <3.2 dB/ft @65 GHz, <5.0 dB/ft @110 GHz (TYPICAL), $+0.3$ dB PER CONNECTOR.
11. CABLE MINIMUM INSIDE BEND RADIUS: .0625 [1.6] WITH SLOTTED MANDREL SPECIAL TOOLING, .125 [3.2] WITHOUT TOOLING.

5	1	8L5N-SS NUT	NUT VS12-SS
4	1	-116 VITON LT	O-RING -116 VITON LOW-TEMP 75
3	1	V047FF-30RD	COAX CABLE ASSEMBLY 1.85mm FEMALE TO 1.85mm FEMALE .047" SEMI-RIGID TIN-PLATED COPPER CABLE 30" OAL RoHS
2	A/R	PAVE-Seal 150	EPOXY BLACK
1	1	1180	HOUSING VS12L-SS
ITEM	QTY	PART NUMBER	DESCRIPTION

PAVE technology co.

2751 Thunderhawk Court
Dayton, OH 45414-3445
U.S.A.
tel (937) 890-1100
fax (937) 8905165
www.pavetechnologyco.com

DESCRIPTION
VS12L-SS-150-1-65GHZCOAX-F-30F

PART NUMBER
5251

MATERIAL NOTED

REVISION LEVEL -

PROJECTION

ALL DIMENSIONS AND TOLERANCES APPLY TO FINISHED PART IN INCHES.
 ALLOWABLE TOLERANCES UNLESS SPECIFIED OTHERWISE: NONE ± 0.5
 X.X DECIMAL ± 0.1 X.XX DECIMAL ± 0.02 X.XXX DECIMAL ± 0.005
 ANGLES ± 1 DEGREE. SURFACE FINISH 128 microinch RMS

Semi-Rigid Coaxial Cable

MECHANICAL CHARACTERISTICS

Outer Conductor Diameter, inch (mm)	0.047+0.002 / -0.001 (1.194+0.0508 /-0.0254)
Dielectric Diameter, inch (mm)	0.037 (0.94)
Center Conductor Diameter, inch (mm)	0.0113+/-0.0005 (0.287+/-0.0127)
Maximum Length, feet (meters)	20 (6.1)
Minimum Inside Bend Radius, inch (mm)	0.125 (3.175)
Weight, pounds/100 ft. (kg/100 meters)	0.48 (0.71)

ELECTRICAL CHARACTERISTICS

Impedance, ohms	50+/-2.5		
Frequency Range GHz	DC-20		
Velocity of Propagation %	70		
Capacitance, pF/ft. (pF/meter)	32.2 (105.6)		
Typical Insertion Loss, dB/ft. (dB/meter) and Average Power Handling, Watts CW at 20 degrees Celsius and Sea level	Frequency	Insertion Loss	Power
	0.5 GHz	0.28 (0.92)	45
	1.0 GHz	0.40 (1.31)	32
	5.0 GHz	0.90 (2.95)	13
	10.0 GHz	1.30 (4.27)	9
	20.0 GHz	1.90 (6.23)	6.5
Corona Extinction Voltage, VRMS @ 60 Hz	1000		
Voltage Withstand, VRMS @ 60 Hz	2000		

ENVIRONMENTAL CHARACTERISTICS

Outer Conductor Integrity Temperature, Deg Celsius	175
Maximum Operating Temperature, Deg Celsius	100

MATERIALS

Outer Conductor	Tin plated Copper
Dielectric	PTFE
Center Conductor	SPCW

CUTAWAY

