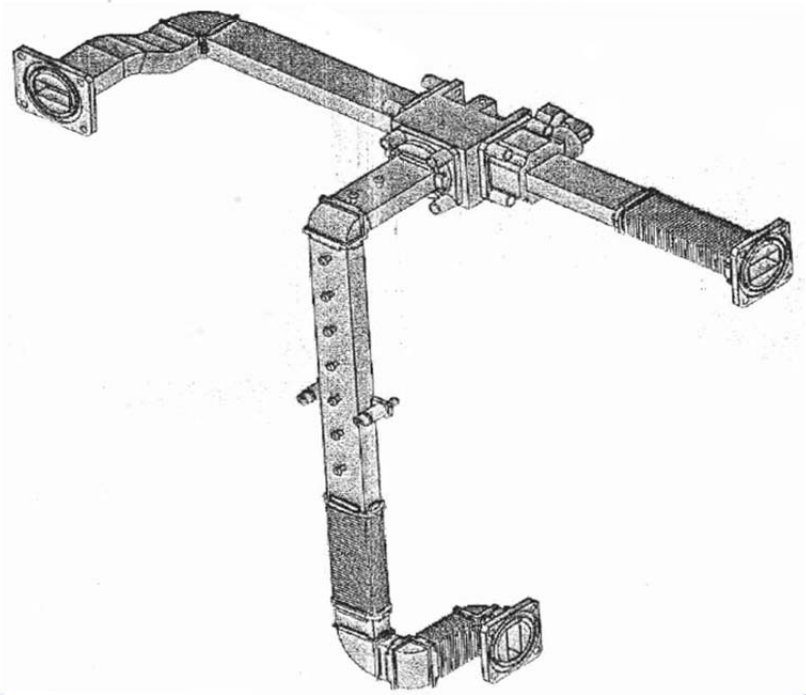
Waveguide Plumbing, 9-10GHz
WR90 Package, 5 Kilowatts Peak @ 10% duty cycle

No.	Item	Quantity
1	Circulator	1
2	Waveguide Flex./Rigid Tx to Circulator	1
3	Waveguide circulator to Antenua	1
4	W/G Bandpass Filter Flex./Rigid Front End to Circulator or Choke type flange	1
5	Flange Choke Butt	2
6	Captive Screw	10
7	Helical Coil insert	8
8	Helical Coil insert (metric)	6
9	Tube fitting 90° Elbow	1



Order Examples: **RWP-9-10-WR90-5kW Pk-q21**

Description: *(Waveguide Plumbing, 9-10 GHz, WR90 Package, 5 Kilowatts Peak @ 10% duty cycle)*

WORLD HQ: 1702L Meridian Ave. Suite 127, San Jose, Ca 95125, U.S.A.
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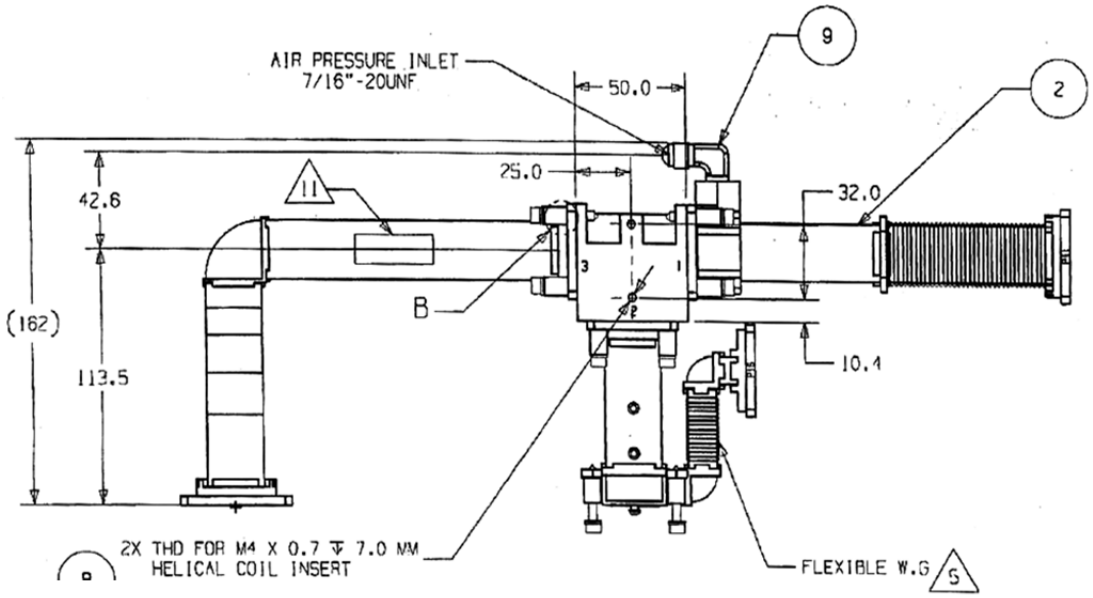

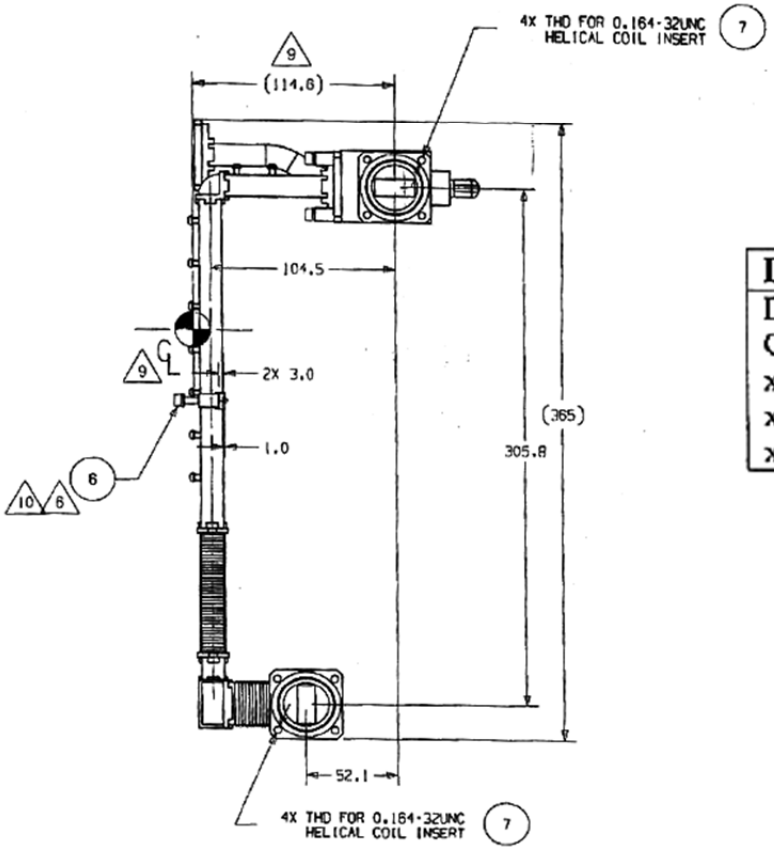

Dimensions and Tolerances	
Dimension in mm	
General Tolerences	
x	±0.5
x.x	± 0.5
x.xx	±0.1

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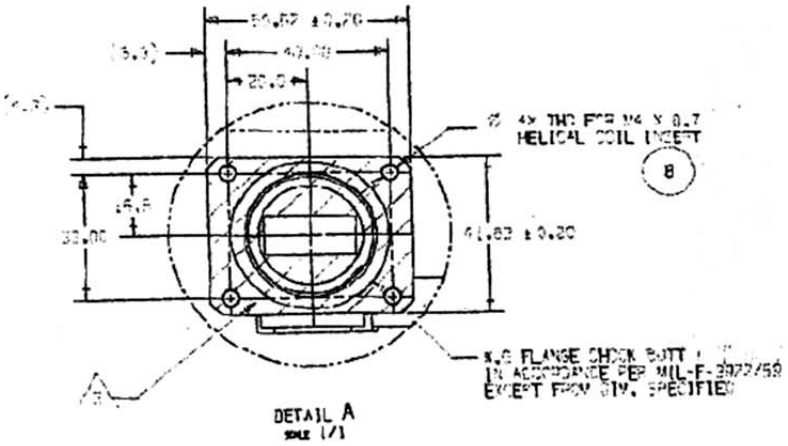

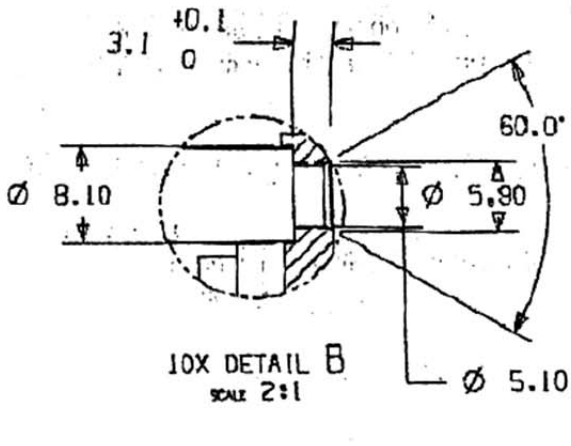

Notes:

1	Not Applicable
2	Finish : Chemical conversion coating IAW MIL-DTL-5541F, Type I or Type II, Class 1A
3	Cross Hatched area to be copper plating
4	Paint: PRIMER Application of Fluid – Resistant Epoxy Primer. P.S 243900. Thickness: 15-25 Microns. Top Coat: Application of Camouflage, High solids Polyurethane Coating. Thickness: 40-50 Microns. Colour: Gray, Per FED-STD-595B
5	Flexible seamless waveguide segment with silicon Rubber (Black) Mold Application per ZZ-R-765B
6	Install Captive Screws and Swage it as shown in detail B
7	Pressurization: The assembly shall be subjected to an internal Air pressure, of 30 PSI while immersed in water. Any bubbles seen coming from within the Assembly shall be considered as leakage
8	Manufacturing and Testing as per specification
9	Not Applicable
10	Tightening Torque values for Screws and Bolts #8 (0.164") - 32UNC to 20.7 lb-in
11	Identification marking should specify: Part No: , Date(week/Year) and Serial Number

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Waveguide part of the plumbing:

Sl No:	Parameters	Values
1.	Frequency	9-10GHz
2.	Waveguide	WR-90
3.	Attenuation. (dB/FT .Max)	≤ 0.02
4.	VSWR	≤1.1 max
5.	Power Rating	≥5KW peak @ 10% duty
6.	Waveguide Material	Aluminium 6061

RF filter in the plumbing should be replaced with waveguide straight section.

Waveguide section at circulator junction must have choke type flange.

Weight of the waveguide plumbing: ≤ 1Kg

Environmental Specifications:

1. Temperature (operational) : -40°C to +65°C
2. Temperature (Storage) : -55°C to +85°C
3. Altitude : 60,000 feet
4. Humidity : 30°C to 60°C, RH : 85% to 95%
5. Vibration : Random Vibration : 20-1000 Hz - 0.04 g^2/Hz (PSD)
   : 1000-2000 Hz – 6 dB / octave
6. Acceleration Test : Functional:
   Severity : Up 18.81g, Down 10.98g, Lat L & Lat R 4.65g, Fore 4g & Aft 11.79g
   Structural: Severity: 1.5 times the levels given above
   Duration: 1 min along each direction
7. Shock :**Functional:**
   Severity: 20g, 11msec Pulse : Half sine pulse
   Number of shocks: 3 shocks in each of 6 directions
   Total 18 shocks
   Crash safety: Severity: 30g, 11 msec
   Pulse: Half sine pulse
   Number of shocks: 2 shocks in each of 6 directions
   Total of 12 shocks

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