

**SPECIFICATIONS:**

	CHΣ	CH1	CH2	CH3	CH4
Freq.:	2.85-3.15 GHz	2.85-3.15 GHz	2.85-3.15 GHz	0.9-1.2 GHz	0.9-1.2 GHz
VSWR:	1.15:1 max.	1.25 max.	1.25 max.	1.25 max.	1.25 max.
VSWR WOW:	±0.025 max.	±0.025 max.	±0.025 max.	-	-
Ins. Loss:	0.2 dB	0.75 dB	1.0 dB	1.0 dB	1.0 dB
Ins. Loss WOW:	.1 dB max.	10% of Absolute Value	10% of Absolute Value	-	-
Pulse Width:	45 μS max.	45 μS max.	45 μS max.	2 μS max.	2 μS max.
Peak Power (at 0.7 relative bar):	1 MW max. 8 KW max. (at load VSWR 1.5 max.)	10 KW max. (at load VSWR 2 max.)	10 KW max. (at load VSWR 2 max.)	5 KW max. (at load VSWR 2 max.)	5 KW max. (at load VSWR 2 max.)
Average Power:	1.5 max.	30 W max.	30 W max.	30 W max.	30 W max.
Phase Variation (during rotation):	2.5° max.	2.5° max.	2.5° max.	-	-
Isolation:	60 dB min.	60 dB min.	60 dB min.	60 dB min.	60 dB min.
Pressurization:	1 Bar relative (normal); 2 Bar for 15 min. (testing)	-	-	-	-
Impedance:	-	50 ohms	50 ohms	50 ohms	50 ohms
Connectors:	284 W/G Cover Flange	Type N - Female	Type N - Female	Type N - Female	Type N - Female

**MECHANICAL:**

Leak Rate: 20 cc/min max.  
 Torque: 2 ft.-lbs. max.  
 Rotation Rate: 6 RPM  
 Weight: 132 lbs [60 Kg] (max.)  
 Finish: TBD  
 Paint: TBD  
 Markings: To include as a minimum: Diamond Part # and Serial #

**ENVIRONMENTAL:**

Operating Temperature: -30° to +55°C  
 Storage Temperature: -40° to +70°C  
 Relative Humidity: 95% at 40°C  
 Atmospheric Pressure: 700 to 1100 mbar (260 mbar for aerial transport)  
 Other Conditions: It shall be able to withstand saline fog and sandy wind (exposed parts only)

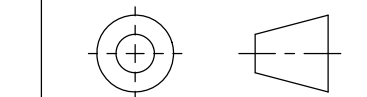
**ROLL-RING SPECIFICATIONS:**

Rings:  
 1) AC Power Circuits: -Rated Voltage: 220/380V, 50 Hz  
 (5 Rings, Rings 1-5) -Rated Current: 10A  
 2) DC Circuits: -Rated Voltage: 100V  
 (12 Rings, Rings 6-17) -Rated Current: 1 mA to 1A  
 3) Data Circuits: -Rated Voltage: 100V  
 (9 Rings, Rings 18-26) -Rated Current: 1 mA to 0.5A  
 -VSWR (10 KHz to 3 MHz) - 1.1:1 max.  
 (3 MHz to 10 MHz) - 1.3:1 max.  
 Impedance: 75 Ohm ± 5% In the band  
 Cross-talk Between Pairs: 50 dB } 10 KHz to  
 Mode of Transmission: Differential } 10 MHz

**CHARACTERISTICS COMMON TO ALL RINGS:**

Contact Resistance: 6 mohm max. for Rings 1-5  
 15 mohm max. for Rings 6-17  
 Circuit Resistance: J1, J4: 30 mohm max.  
 (between connectors) J2, J5: 200 mohm max.  
 J3, J6: 60 mohm max.  
 Base Noise @ 6 RPM: 50 mohms max.  
 Insulation Resistance: 1000 Mohm min. at 500V DC  
 between adjacent rings  
 Dielectric Strength: J1, J4: 2000V eff. 50 Hz, 1 sec.  
 J2, J5: 2000V eff. 50 Hz, 1 sec.  
 J3, J6: 1000V eff. 50 Hz  
 Life: 10,000 hours min.

**THIRD ANGLE PROJECTION**



DIMENSIONS ARE IN INCHES.  
 REMOVE ALL BURRS AND SHARP EDGES .005 MAX.  
 UNLESS OTHERWISE SPECIFIED. SURF. FINISH 63/  
 TOLERANCES ARE:  
 FRACTIONS DECIMALS ANGLES  
 2/164 2 PLACES ±.010 ±1/2

**DIAMOND ANTENNA & MICROWAVE CORP**  
 LITTLETON, MA 01460

TITLE: **5 CHANNEL ROTARY JOINT WITH 26 RING ROLL-RING**

SIZE: **D** CAGE CODE: **01882** DRAWING NUMBER: **CAT 2521-0**

SCALE: **1:2** WEIGHT (EST.): SHEET **1** OF **1**

INTERPRET DIMENSIONS & TOLERANCES PER ASME Y14.5M