

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.	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:	8 KW max. (at load VSWR 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.

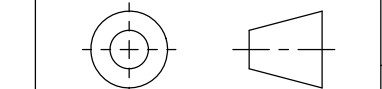
Base Noise @ 6 RPM: 50 mohms max.

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 3 PLACES ±.010 ±.012

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