

Multi Channel Rotary Joint || BN 635322



Annex: 635322-0E Issue D
 Product manual: M36066
 Application note: TD-00021

Radio frequency channel characteristics

Channel designation	Channel 1	Channel 2, 3	Channel 4, 5, 6
Interface type / material / surface finish	per CPR 284 G / aluminum alloy / chromated	N-f (50 Ω) / copper alloy / inner conductor: gold plated / outer conductor: chromium plated	N-f (50 Ω) / copper alloy / inner conductor: gold plated / outer conductor: chromium plated
Frequency range	2.7 to 2.9 GHz	2.7 to 2.9 GHz	25 to 35 MHz
Peak power capability	1.0 MW ^{RF1)}	1 kW	1 kW
Average power capability	1 kW 10 kW @ 1 ms; duty cycle 10%	50 W	20 W
VSWR, max.	1.2	1.4	1.4
VSWR variation over rotation, max.	0.05	0.05	0.05
Insertion loss, max.	0.2 dB	1.0 dB	0.2 dB
Insertion loss variation over rotation, max.	0.05 dB	0.05 dB	0.05 dB
Phase variation over rotation, max.	3 deg.	3 deg.	2 deg.
Isolation, min.	60 dB (between all channels)	50 dB (between all channels)	50 dB (between all channels)

^{RF1)} Conditions: - Waveguide pressurized with dry air or N₂ or SF₆ at absolute pressure, min. 0,2 MPa (2 bar)

Multi Channel Rotary Joint || BN 635322

Mechanical data

Differential operating pressure, max.	0.2 MPa (2 bar)
Leakage rate, max.	20 cm ³ /minute @ nominal differential pressure
Rotating speed, max. / nominal	60 rpm / 10 rpm
Rotating direction (view from the top)	both directions
Life, min.	3 x 10 ⁶ revolutions
Maintenance period	not required
Torque (room temperature), max.	5 Nm @ start-up 5 Nm @ rotation
Case material	aluminum alloy, sea water resistant
Case surface finish	chromate conversion coat per MIL-DTL-5541 type 1 or type 2 Painted 7021 (dark grey)
IP protection level	IP65 per EN 60529 (all interfaces connected with appropriate gaskets)
Weight, max.	20 kg
Marking	adhesive label

Environmental conditions

Operation	
Ambient temperature range	0 °C to +55 °C
Relative humidity, max.	95%
Salt fog	Standard exposure of 48h per MIL-STD-810G
Storage	
Ambient temperature range	-20 °C to +85 °C
Relative humidity, max.	95%

Further remarks

No environmental test will be performed. A CoC for guarantee will only be issued, when customer performs all of these tests at his side and at his own expenses