Rotary Joint || BN 835068

Radio frequency characteristics

Interface type / material / surface finish	3.5-f (50 Ω) / copper alloy / gold plated
Interface orientation	style I
Frequency range	DC to 26.5 GHz
Peak power capability	3 kW @ sea level 90 W @ 55.000 feet
Average power capability	200 W @ 1 GHz 40 W @ 15 GHz 25 W @ 26.5 GHz
VSWR, max.	1.3 @ DC to 10 GHz 1.4 @ 10 to 18 GHz 1.7 @ 18 to 26.5 GHz
VSWR variation over rotation, max.	0.05 @ DC to 10 GHz 0.05 @ 10 to 18 GHz 0.1 @ 18 to 26.5 GHz
Insertion loss, max.	0.3 dB @ DC to 10 GHz 0.35 dB @ 10 to 18 GHz 0.7 dB @ 18 to 26.5 GHz (typ. 0.5 dB @ 18 to 26.5 GHz)
Insertion loss variation over rotation, max.	0.1 dB DC to 10 GHz 0.1 dB @ 10 to 18 GHz 0.2 dB @ 18 to 26.5 GHz
Phase variation over rotation, max.	1.0 deg. @ DC to 10 GHz 1.5 deg. @ 10 to 18 GHz 2.0 deg. @ 18 to 26.5 GHz
DC carrying capability	-

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Mechanical characteristics

Rotating speed, max. / nominal	200 / - rpm
Life, min.	5 x 10^6 revolutions
Torque (room / min. temperature), max.	0.5 Ncm / 0.5 Ncm @ start-up 0.5 Ncm / 0.5 Ncm @ rotation
Interface loads, max.	±1 N in axial direction ±1 N in radial direction
Case material	copper alloy
Case surface finish	silver plated
IP protection level	IP54
Weight, approx.	0.028 kg
Marking	adhesive label

Environmental conditions

Operation	
Ambient temperature range	-55 to +71°C
Relative humidity, max.	95% (non-condensing)
Storage	
Ambient temperature range	-55 to +85°C
Relative humidity, max.	95% (non-condensing)

Applicable Documents

Drawing	835068-0E Issue C
Technical information	“Rotary Joints – Glossary”, Technical Document TD-00021, Spinner GmbH