



New Japan Radio Co., Ltd.

Technical
Information

Rev. 1

New Product Bulletin

Circulator NJC3901M

NJC3901M is a waveguide type circulator, designed for X-band Marine Radar.

NJC3901M circulate microwave lower insertion loss at the broad band.

This product is adapted on RoHS directive.

ABSOLUTE MAXIMUM RATINGS

	f	P _{peak}	P _{AV}	T _{stg}	T _a	t _p	Duty	Humidity
unit	GHz	kW	W	Degrees C	Degrees C	μ s	-	%
Maximum	10.8	30	30	100	85	1.3	0.001	90
Minimum	8.5	-	-	-40	-30	-	-	-

ELECTRICAL CHARACTERISTICS

Items	Test Conditions		Code	Limit		
				Min.	Max.	unit
High Power Input	port①→②	f=9.4GHz; P _o =30kW; t _p =1.3 μ s; f _p =1000pps;	hp	30	-	kW
V.S.W.R.	port① port② port③	f=8.8GHz	σ	-	1.4	-
		f=9.3GHz		-	1.2	-
		f=9.4GHz		-	1.2	-
		f=9.5GHz		-	1.2	-
		f=10.8GHz		-	1.6	-
Insertion loss	port①→② port②→③ port③→①	f=8.8GHz	Li	-	0.5	dB
		f=9.3GHz		-	0.3	dB
		f=9.4GHz		-	0.3	dB
		f=9.5GHz		-	0.3	dB
		f=10.8GHz		-	0.7	dB
Isolation	port②→① port③→② port①→③	f=8.8GHz	Iso	15	-	dB
		f=9.3GHz		25	-	dB
		f=9.4GHz		25	-	dB
		f=9.5GHz		25	-	dB
		f=10.8GHz		15	-	dB

σ, Li, and Iso are measured at Frequency 8.8~10.8GHz, input signal 0.1mW CW



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Outline (Unit : mm)

