

X-Band Radar Front End

NJT1969

NJT1969 is designed for the front end of marine radar system.

It features a small size and a light weight operable at any frequency between 9.38GHz and 9.44GHz.

This front end module consists of HEMT low noise amplifier, Image rejection mixer, Local VCO with buffer amplifier.

A HEMT monitoring circuit is included in the design to monitor HEMT drain current.

The stability of the local VCO frequency by the input RF power is increased effectively by the buffer amplifier which is located between image rejection mixer and local VCO.

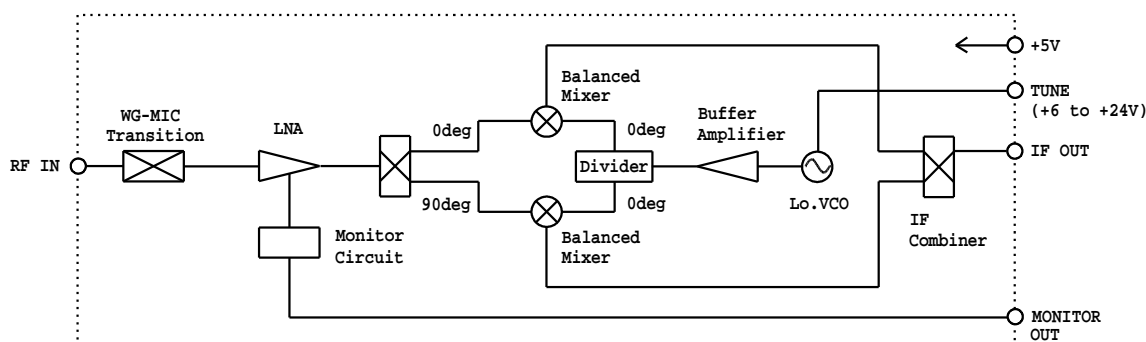
-- ELECTRICAL -- < at 25 degree >

	Min	Typical	Max	Unit
Operating voltage	4.8	5.0	5.2	V
Operating current	-	70	100	mA
Local frequency	VT= 6V	-	9.41	GHz
	VT=24V	9.53	-	GHz
Noise figure	-	2.5	3.5	dB
Conversion gain	4.0	6.5	8.0	dB
Monitor voltage	30	50	70	mV
RF single pulse burnout(Note1)	-	-	600	mW
RF repetitive pulse burnout(Note2)	-	-	400	mW

Note1: f=9.41GHz, Pd=10nsec

Note2: f=9.41GHz, Pd=1μsec, Duty=0.001

-- BLOCK DIAGRAM --

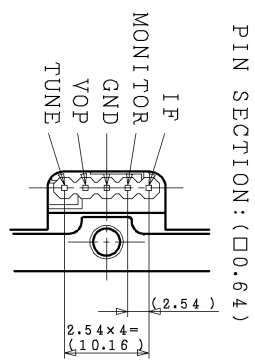
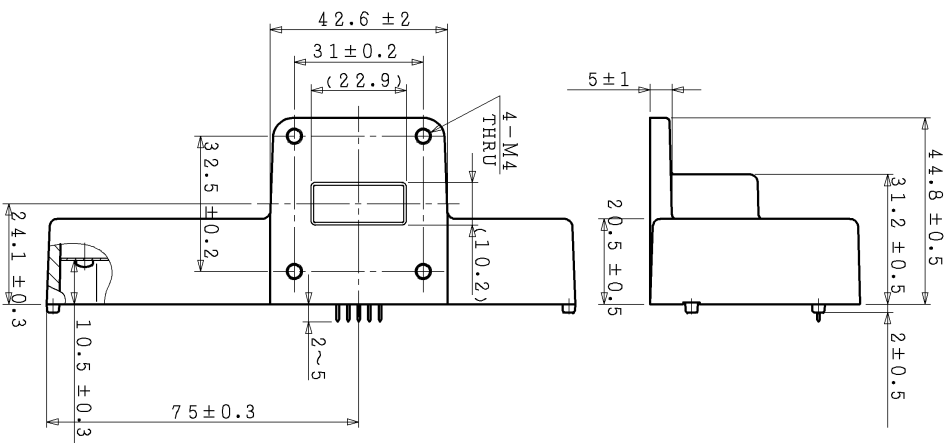
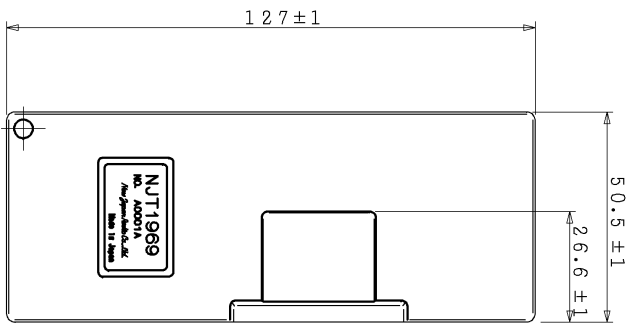


For further information on the use of the front end, please contact New JRC.

New JRC reserves the right to change the specification of goods without notice.

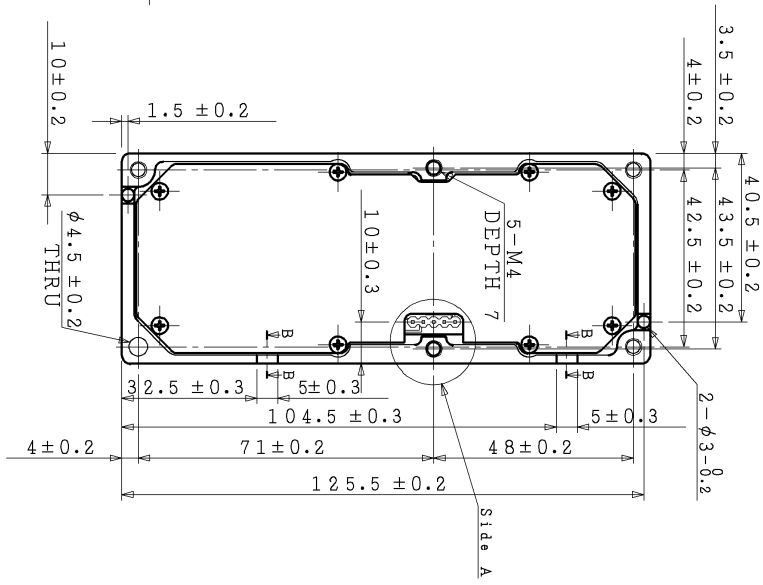
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UNIT: mm



Side A 2:1

SECTION B-B



Side A