

**Released**

# X-band Radar Front End

## Model No. NJT1968D

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Microwave Business Headquarters**

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## ■ GENERAL DESCRIPTION

NJT1968D is designed for the front end of marine radar system.

It features a small size and a light weight operable at any frequency between 9.40GHz and 9.42GHz.

This front end module consists of PIN diode Limiter, GaAs FET low noise amplifier, Image rejection mixer, Local VCO with buffer amplifier.

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.



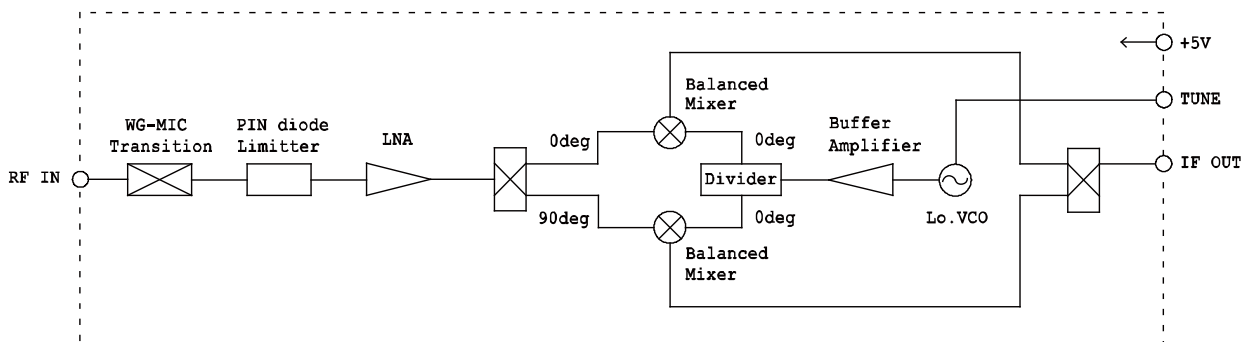
## ■ ELECTRICAL CHARACTERISTICS < at 25 °C >

PARAMETERS		MINIMUM	TYPICAL	MAXIMUM	UNITS
Operating voltage		4.8	5.0	5.2	V
Operating current		-	90	120	mA
Tuning Voltage	(Note1)	5.0	5.5	6.0	V
Local frequency	VT= 4V	-	-	9.46	GHz
	VT=24V	9.48	-	-	GHz
Noise figure		-	-	7.5	dB
Conversion gain		-7.0	-	-	dB
1dB Gain compression point	(RF Port)	-8.0	-5.0	-	dBm
RF repetitive pulse burnout	(Note2)	-	-	800	W

Note1:  $f_{LO}=9.47\text{GHz}$

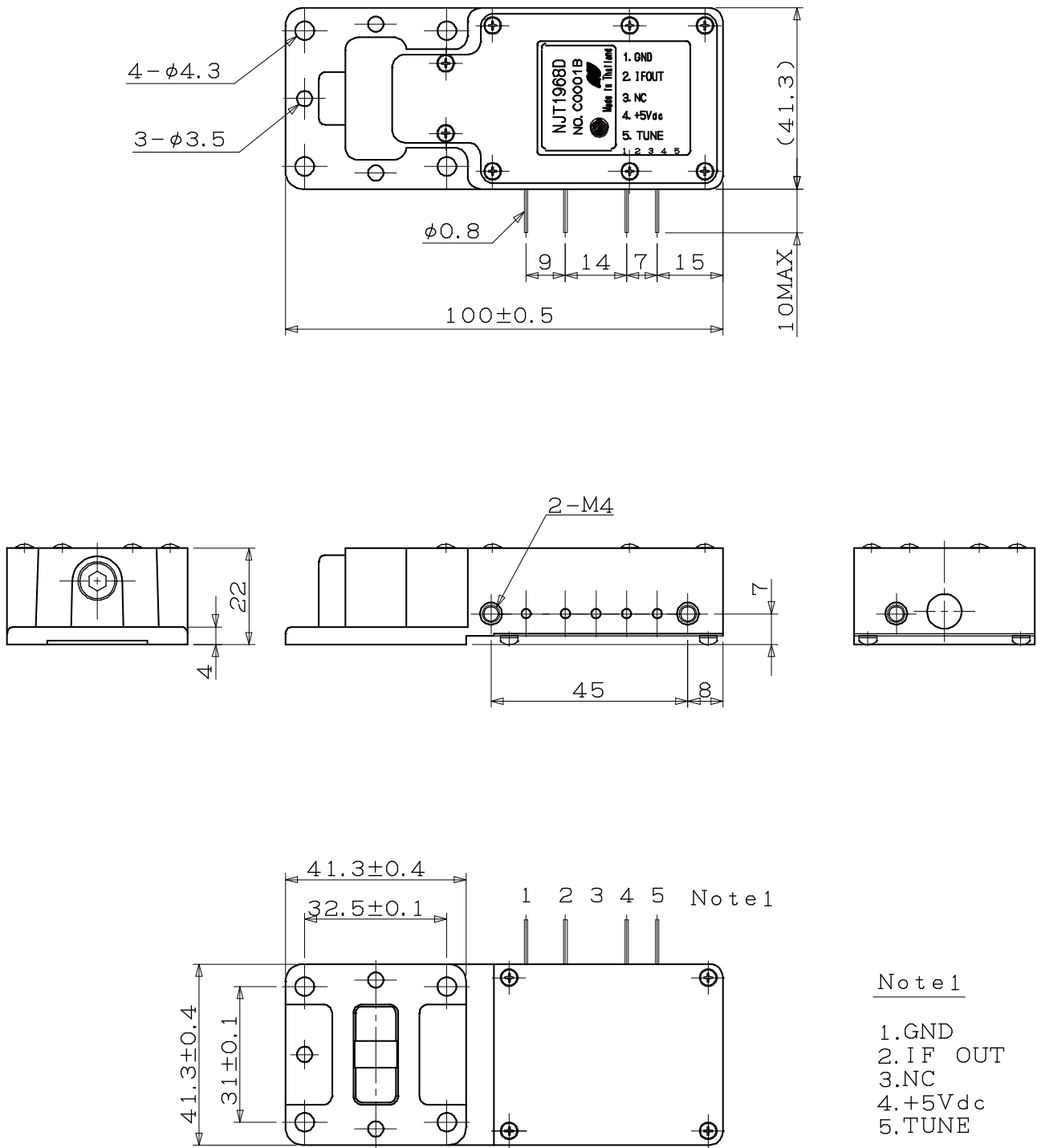
Note2:  $f_{RF}=9.41\text{GHz}$ ,  $P_d=1\mu\text{sec}$ ,  $\text{Duty}=0.001$

## ■ BLOCK DIAGRAM



\* Above Specifications are subject to change without notice.

## ■ OUTLINE



(Dimensions are expressed in "mm".)

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