NJT1946A

X-Band Radar Front End

NJT1946A is designed for the front end of marine radar system. It features a small size and a lightweight operable at any frequency between 9.345GHz and 9.475GHz

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

FET monitoring circuit is included to monitor FET 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.

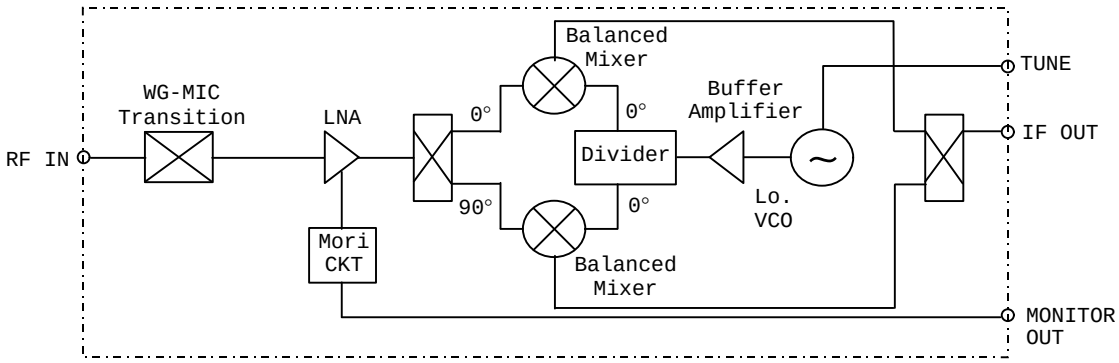
---- ELECTRICAL ---- <at 25 degree centigrade>

	Min	Typical	Max	Unit
Operating Voltage	4.8	5.0	5.2	V
Operating current	-	-	80	mA
Local frequency VT = 4V	-	-	9.38	GHz
VT = 24V	9.56	-	-	GHz
Noise figure	-	-	3.5	dB
Conversion gain	3.0	-	7.0	dB
1dB Gain compression point(RF Port)	-10	-8	-	dBm
Monitor voltage	-	50	-	mV
RF single pulse burnout(Note1)	-	-	600	mW
RF repetitive Pulse burnout(Note2)	-	-	400	mW

Notes:

1. f=9.41GHz, Pd=10nsec
2. f=9.41GHz, Pd=1us, 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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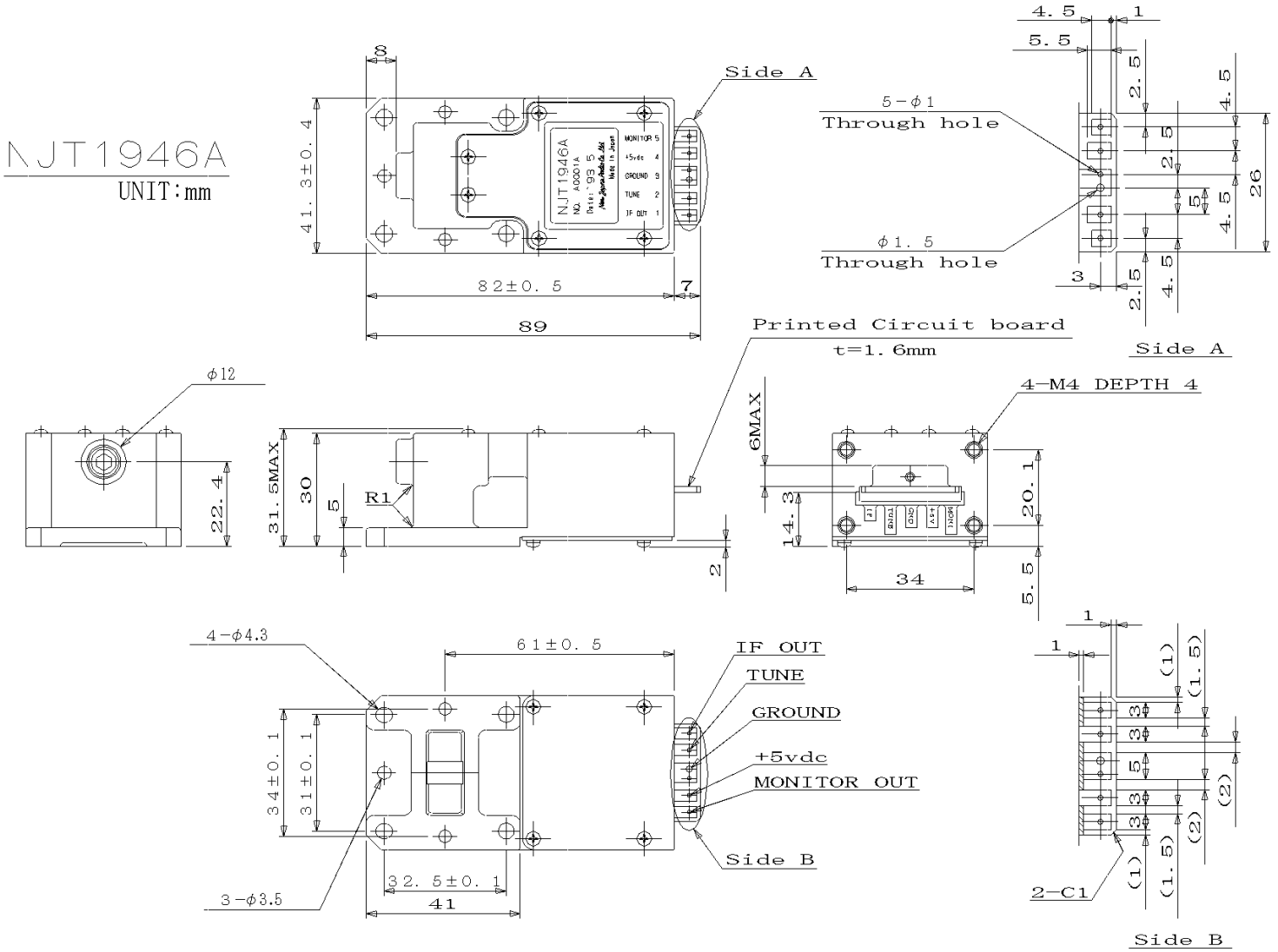
UNIT:mm



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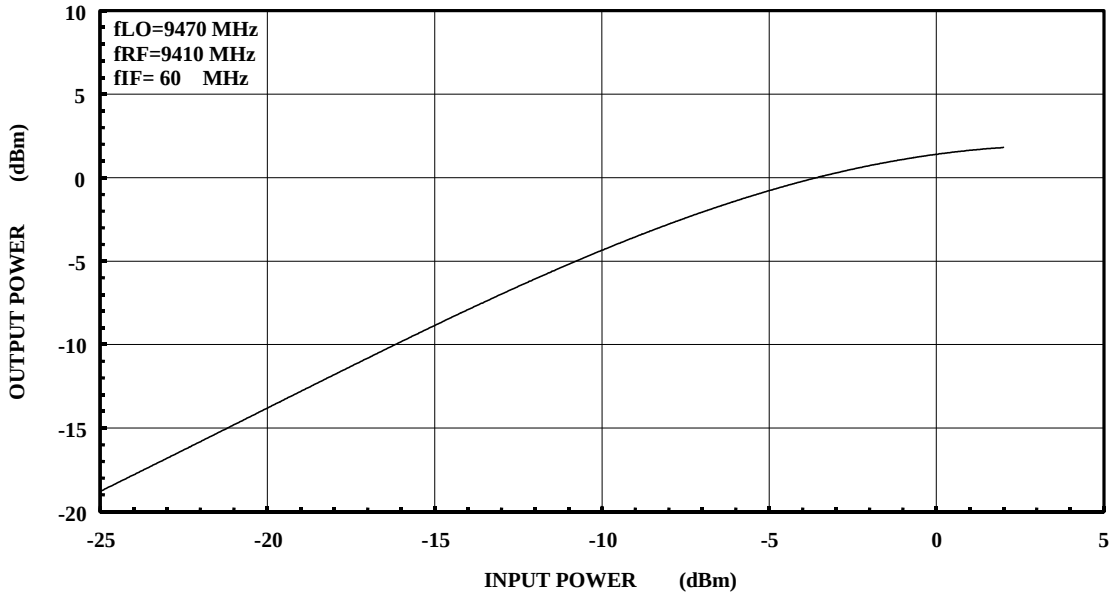
(1) Input power level vs. output power level characteristic (P1dB)



(2) Tuning frequency characteristic