

X-Band Radar Front End

NJT1027

NJT1027 is designed for the front end of marine radar system.

It features a small size and a light weight operable at any frequency between 9.415GHz and 9.475GHz. This front end module consists of HEMT low noise amplifier, Single balance 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 -- <at 25 degree >

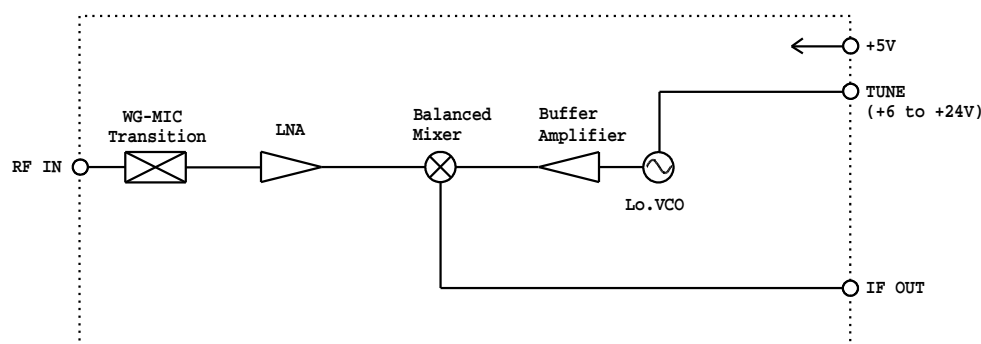
| Min | Typical | Max | Unit | | |
|------------------------------------|---------|-------|------|-------|-----|
| Operating voltage | | 4.8 | 5.0 | 5.2 | V |
| Operating current | | - | 70 | 90 | mA |
| Local frequency | VT= 6V | - | - | 9.475 | GHz |
| | VT=24V | 9.535 | - | - | GHz |
| Noise figure(Note1) | | - | 1.5 | 4.0 | dB |
| Conversion gain(Note1) | | 7.0 | 10.0 | 12.0 | dB |
| RF single pulse burnout(Note2) | | - | - | 600 | mW |
| RF repetitive pulse burnout(Note3) | | - | - | 400 | mW |

Note1: Double sideband measurement

Note2: f=9.445GHz, Pd=10nsec

Note3: f=9.445GHz, Pd=1μsec, Duty=0.001

-- BLOCK DIAGRAM --



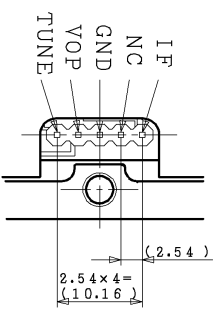
For further information on the use of the front end, please contact New JRC.

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

NUT1027

UNIT:mm

PIN SECTION:(□0.64)



Side A 2:1

SECTION B-B

