



# 76 GHz Transceiver Data Sheet

Norden Millimeter has designed a low cost antenna mounted 76 GHz transceiver for a fixed ground based Frequency Modulated Continuous-wave (FMCW) Radar. FMCW Radars are short range radars that can be used in a variety of commercial's applications. This transceiver was designed for low-cost high-volume manufacturing.

## Performance:

### Transmit Path

Frequency: 76 GHz to 77 GHz  
Transmit Power: 13.5 dBm  
Power Flatness:  $< \pm 0.5$  dB  
Out VSWR: 2.5:1

### Receive Path

Frequency: 76 GHz to 77 GHz  
RF to IF Gain: 20 dB  
NF: 20 dB Max  
Transmit Receive Isolation:  $> 45$  dB  
Input VSWR: 2.5:1  
Maximum Input Power: -15 dBm

## Performance:

### IF Port

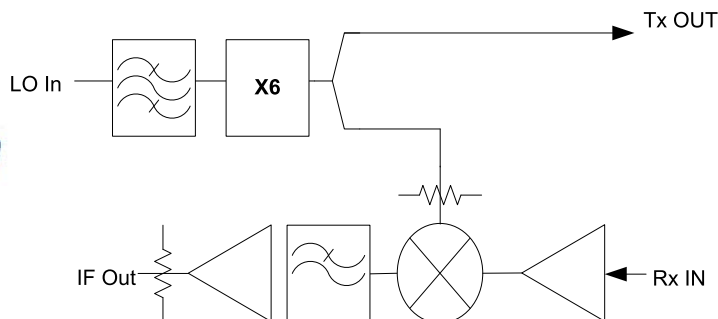
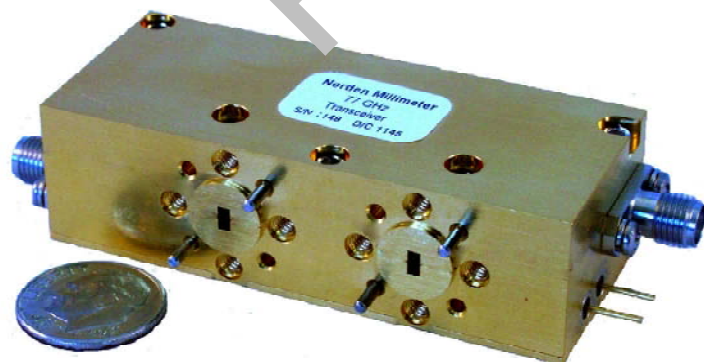
IF Bandwidth: 2 MHz  
IF Output: AC coupled

### LO Port

LO Frequency:  $9.6 \text{ GHz} \pm 150 \text{ MHz}$   
LO Drive Level: +10 dBm  
LO Port VSWR: 1.5:1

### General Performance:

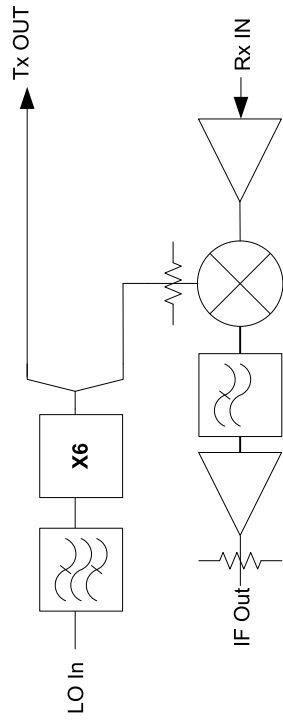
Power Supply Voltage:  $\pm 5$  Volts  
Power Consumption: 3.2 Watt Typical  
Operating Temperature:  $-30 \text{ }^\circ\text{C}$  to  $+70 \text{ }^\circ\text{C}$   
Storage Temperature:  $-55 \text{ }^\circ\text{C}$  to  $+85 \text{ }^\circ\text{C}$



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76 GHz to 77 GHz  
Transceiver

