

## 78-86GHz E2 Receiver, High Gain, NF=6dB

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### Product Overview

AT-ERX-7886SIR-ISC is high gain E-Band image rejection receiver. The receiver is integrated with High Performance GaAs MMIC chips, with Gain=18dB, NF=6dB. RF frequency range is 78-86GHz, LO range is 11.3-14.4GHz with x6 time inside. IF frequency range is 2.5-8.5GHz with 90 degree hybrid inside to combine IQ together.

The receiver is with compact size. LO/IF port is with SMA, and RF port is with standard WR-12.

More information, please visit [www.atmicrowave.com](http://www.atmicrowave.com)

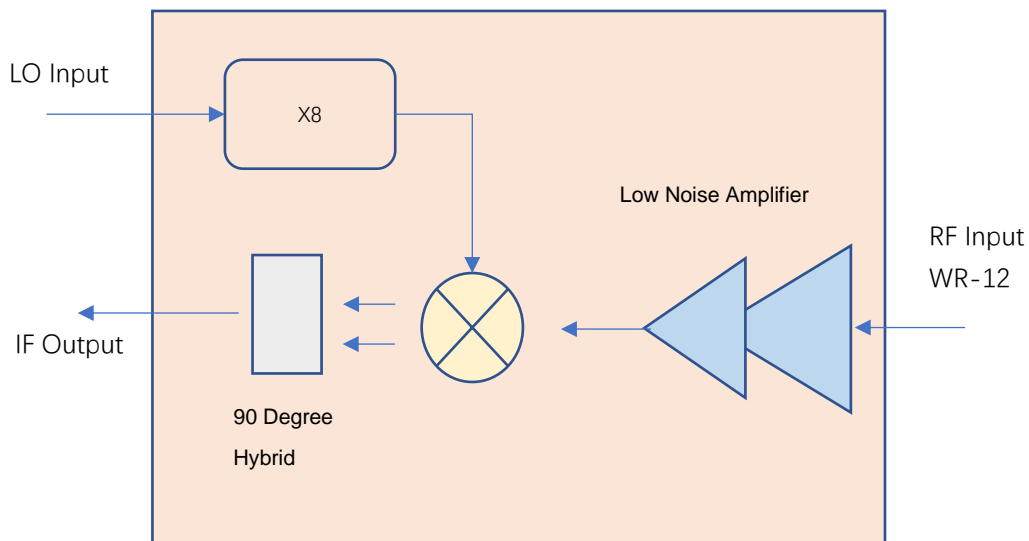
### Feature

- ✓ Frequency: 78-86GHz
- ✓ Gain: 18dB typical
- ✓ NF: 6dB
- ✓ IF Range: 2.5-8.5GHz
- ✓ Single Power Supply

### Application

- ✓ E band Imaging
- ✓ FOD (Foreigner Objects Debris)
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

### Diagram Block





# AT-ERX-7886SIR-ISC

Image Rejection Receiver, 78-86GHz, Gain 18dB

## Key Features

Parameter	Min	Typical	Max
RF Frequency		78-86GHz	
Input Power		-40 dBm	-15dBm
Input P1dB		-30dBm	
LO Frequency	11.3GHz		14.4GHz
LO Multiplier Factor		X6	
LO Power	+4	+5dBm	+8dBm
IF Frequency		2.5-8.5GHz	
RF to IF Gain	15	18 dB	
NF		6 dB	8dB
Image Rejection	15	20dB	
Drain Power Supply		+5	+8V
Current		300mA	
Spec Temp		+25C	

Note:

- ✓ Low LO application only, which means LO frequency must be always lower than RF Frequency as there is 88 degree at IF port to achieve imaging rejection.
- ✓ High LO module is available according to request.

## Mechanical Information

Item	Description
RF Port	WR-12
IF Port	SMA Female
LO Port	SMA Female
Finish	Gold Plated
Weight (Without Heatsink)	225g
Size:	75x40x20mm



## Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+9V
RF Input Power	+10 dBm
LO Input Power	+15dBm
Operating Temperature	0 to +50C
Storage Temperature	-65 to +150C

## Notes:

1. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
2. This data is only for reference, not for guaranteed specifications.
3. Please contact AT Microwave team to make sure you have the most current data.

## Dimension (unit mm)

