

# Low Noise Amplifier (LNA)

**N-Type RF Connectors  
880 – 1880 MHz**

## General Description

The PH\_LNA0918\_20dB\_4 was specially designed for long cable loss suppression. The unit is fully matched for outdoor condition and includes a post mount kit. The typical suppression gain overcome is 150m LMR400 RF cable @ 900 MHz Band and 110m of LMR400 RF cable @ 1800 MHz band. The unit includes built-in filters for 4 cellular band results out-of-band high rejection. High linearity and stability make the unit suitable for many applications.

## System Features

- Good VSWR, 1.5:1 typ.
- High IP3, +20 dBm typ.
- 15 / 21 dB gain
- Sensitivity better than -105 dBm for all bands
- Noise Figure < 2 dB Max.
- SFDR 118 dB/1Hz
- DC Supply through RF connector using Bias-Tee
- N-Type Female connectors
- Built-in band pass filters
- 4 Frequency bands as the following:
  - 880-915 MHz
  - 925-960 MHz
  - 1710-1785 MHz
  - 1805-1880 MHz
- IP-65 Enclosure (Outdoor)
- Operating Temp.: -30°C - +80°C

## Application

- Cellular Uplink & Downlink
- Small signal amplifier
- Communications system

## Mechanical Data

- Dimensions - 175 x 95 x 27 mm
- Material – Sealed Milled Aluminum 6061T6

## Technical Specifications

T = 25°C, VDD = +12VDC, 50Ω

Frequency (MHz)		NOISE FIGURE (dB)	GAIN (dB) Flatness Max.	MAXIMUM POWER (dBm)		INTERCEPT POINT (dBm)	VSWR (:1) Typ.		DC POWER	
F Low	F High	Max.	Typ.	Input 1dB Comp.	Input no damage	IP3 Typ.	IN	OUT	Volt (V) Nom.	Current (mA) Max.
880-915		2	±2 dB	-1	+18	+20	1.5	1.5	12	700
925-960		2	±2 dB							
1710-1785		2	±2 dB	-1						
1805-1880		2	±2 dB							

## Absolute Maximum Rating

Parameter	Rating
Operating Temperature	-30°C to +80°C case -30°C to +65°C ambient
Storage Temperature	-55°C to +85°C
DC Voltage	+16V
Input RF Power	+18 dBm

\* Specifications are subject to change without prior notice  
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