

N459AS LR2021 PA Module, +37dBm



N459AS Module introduction

N459AS radio module based TI LR2021 transceiver, PA, LNA and TCXO crystal.

N459AS LR2021 transceiver module designed for 169M, 433M, 868M and 915 Mhz LoRa band.

N459AS has +37 dBm output power and the sensitivity down to -126 dBm, WMBUS and Arduinio support.

N459AS module has SMD and plug-

in installation mode. The module use narrowband FSK modulation. N459AS FSK module occupyes very little band width.

N459AS hardware is designed for maximum range 20000 m + Range (Line of Sight).

N459AS Module Parameters

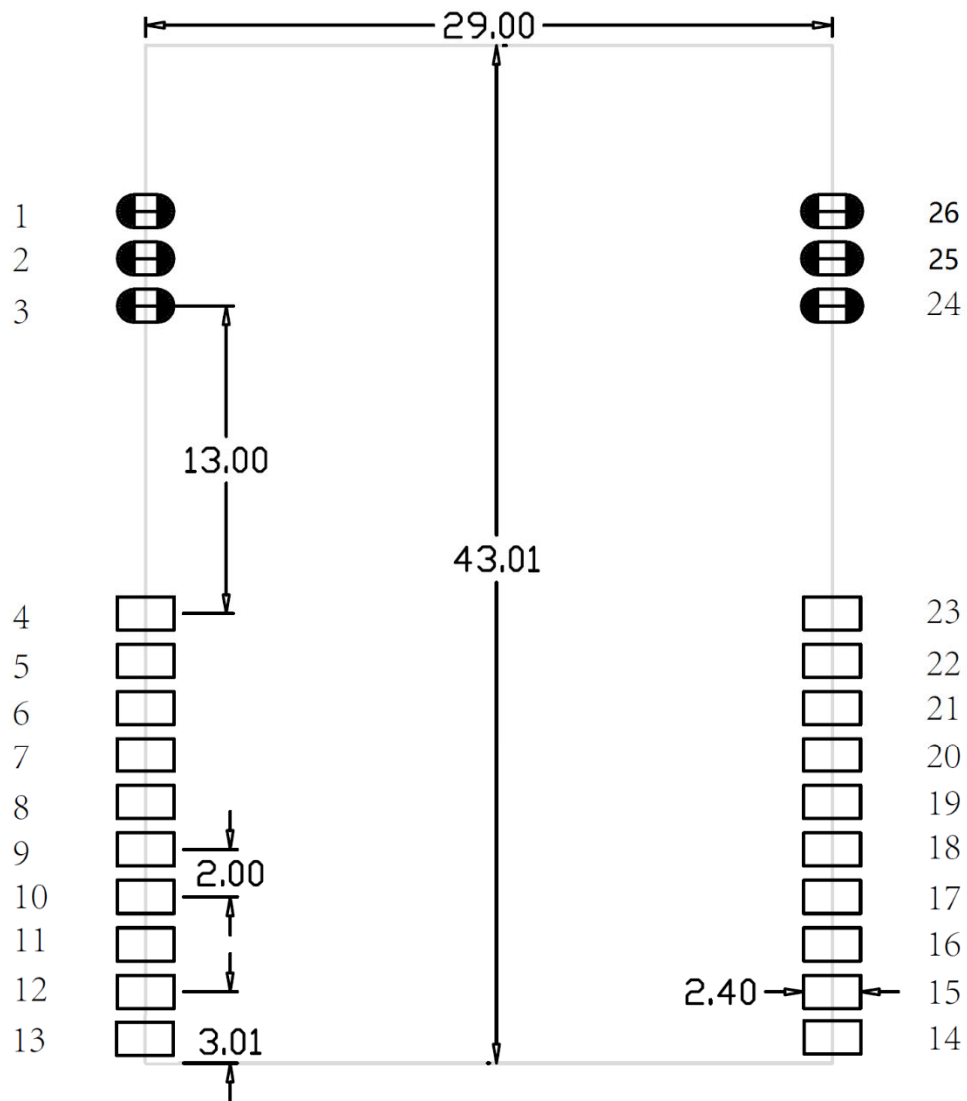
Module	Introduce
Interface	SPI
Frequency	169M, 433M, 868M and 915Mhz

RF Data Rate	0 - 2600 kbps
TX Power	+37dBm
RX Sensitivity	-126 dBm
TX Current	2500 mA
RX Current	15 mA
Frequency Deviation	+/- 1 Khz
Communication Distance	10 - 10000 m (Visual distance)
Antenna Interface	RF pin, SMA
Installation Mode	SMD, plug-in
Volume (mm)	43 mm x 29 mm x 3 mm
Operating Voltage	2 - 3.6 V
PA Operating Voltage	4.5 – 5.5 V, type 5V
Working Temperature and Humidity Environment	Temperature: -40 - 80°C; Humidity 10 - 95 %RH
Storage Temperature and Humidity Environment	Temperature: -40 - 80°C; Humidity 10 - 95 %RH
Weight (kg)	≈10g

N459AS pinout Description

	Pin name	Description		Pin name	Description
1	GND	Ground	14	VTCXO	Power of TCXO
2	GND	Ground	15	RESET	RESET
3	GND	Ground	16	BUSY	MCU I/O
4	VCCPA	5v	17	DIO11	MCU I/O
5	VCCPA	5v	18	DIO8	MCU I/O
6	GND	Ground	19	MOSI	SPI
7	GND	Ground	20	SCK	SPI
8	RXEN	MCU I/O	21	MISO	SPI
9	TXEN	MCU I/O	22	DIO7	MCU I/O
10	LNAEN	MCU I/O	23	CS	SPI
11	VCC	3V	24	GND	GND
12	GND	Ground	25	RF	RF PIN
13	GND	Ground	26	GND	Ground

N459AS Module Package



N459AS Ordering Information

N459AS-169M	LR2021+PA	+37 dBm, 160 - 180 MHz
N459AS-400M	LR2021+PA	+37 dBm, 400 - 410 MHz
N459AS-868M	LR2021+PA	+37 dBm, 860 - 880 MHz
N459AS-915M	LR2021+PA	+37 dBm, 910 - 960 MHz