

Luda Technology (Shenzhen) Co., Ltd
PRODUCT BROCHURE

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Company Profile |

Luda Technology (Shenzhen) Co., Ltd. is a national high-tech enterprise with millimeter wave radar technology as a platform, specializing in the design, development, production and sales of radar products and solutions at 24GHz, 77GHz, 80GHz and 120GHz. It has set up a team of high-level scientific research talents with professional radar industry background, and has owned a number of patents, software copyrights and other scientific research and technological achievements.

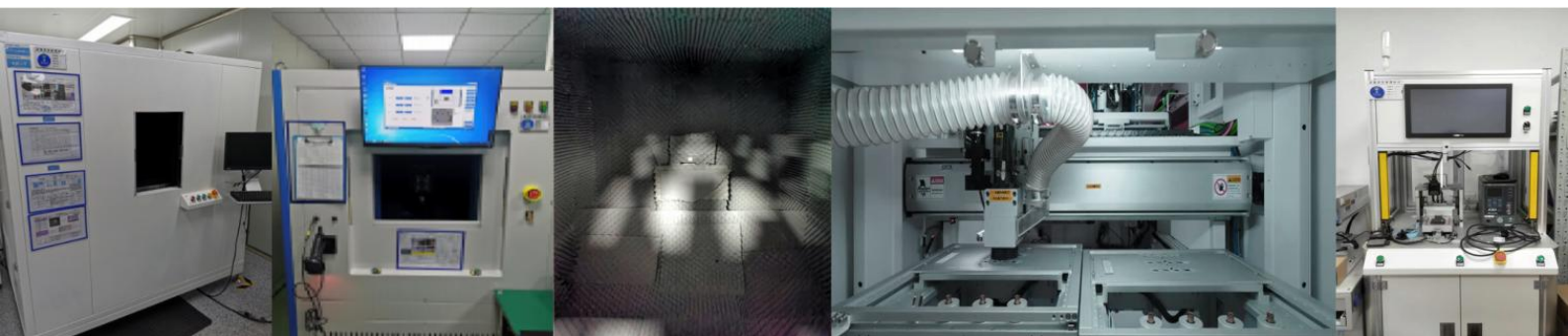
We have from the algorithm to high-frequency hardware, software and complete system design capabilities and production process core technology, access to a number of independent intellectual property rights, has developed a number of series of high-performance radar products, mainly for:

Speed measurement applications (water speed measurement, speed reminder signs, speed enforcement, speed measurement of special equipment, speed detection of traffic equipment itself, etc.);

Distance measurement applications (liquid level meter, level meter, car park gate anti-smash, parking space monitoring, etc.);

Multi-target radar applications (in-vehicle blind spot detection, forward collision warning, intelligent traffic with traffic flow, emergency lane parking, random lane change, etc., security monitoring, people flow monitoring, automatic driving core sensors, etc.).

Luda Technology is committed to become one of the outstanding commercial radar suppliers in China.



Self developed product | LDRR03 120GHz Level Radar Sensor (with dome)

LDRR03 120GHz The level radar module adopts FMCW frequency modulated continuous wave mode, with microstrip array antenna and independent replaceable dome antenna focusing.

Alternative for laser radars and industrial ultrasonic ranging radars. The product has small size and compact structure, suitable for various ranging applications. The 120GHz ranging radar can accurately measure the distance of stationary or moving target, and the output of the sensor can be configured through filtering results of range or signal strength.

Features

- ★ FMCW continuous wave mode with high stability
- ★ Millimeter level high-precision distance measurement
- ★ Far ranging 20m
- ★ Compact structure($\Phi 66\text{mm} \times 93\text{mm}$) , easy installation
- ★ Non-contact measurement, effectively reducing interference from harsh environments and maintenance free



Side View



Front View



Back View



Self Developed Product | LDRR04 80GHz Level Radar Sensor

LDRR04 80GHz The level radar module is specially designed for hydrological application, it adopts FMCW frequency modulated continuous wave mode . It has non-contact installation design, compact structure, small size, high accuracy, low power consumption, strong anti-interference ability. It is suitable for water level monitoring of lakes and rivers, mountain flood warning, reservoir and sewage pipe network.

Features

- ★ FMCW continuous wave mode with high stability
- ★ Millimeter level high-precision distance measurement
- ★ Far ranging 40m
- ★ Small size ($\Phi 74\text{mm} \times 29.7\text{mm}$) , easy to install
- ★ Non-contact measurement, effectively reducing interference from harsh environments and maintenance free



Front View Side view Back View



Self Developed Product |

LDRR04B 80GHz Level Radar Sensor (With dome)

LDRR04B 80GHz The level radar module adopts FMCW frequency modulated continuous wave mode . It has non-contact installation design, compact structure, small size, high accuracy, low power consumption, strong anti-interference ability. It is suitable for water level monitoring of lakes and rivers, mountain flood warning, reservoir and sewage pipe network.

Features

- ★ FMCW continuous wave mode with high stability
- ★ Millimeter level high-precision distance measurement
- ★ Far ranging 40m
- ★ Small size ($\Phi 74\text{mm} \times 29.7\text{mm}$) , easy to install
- ★ Non-contact measurement, effectively reducing interference from harsh environments and maintenance free

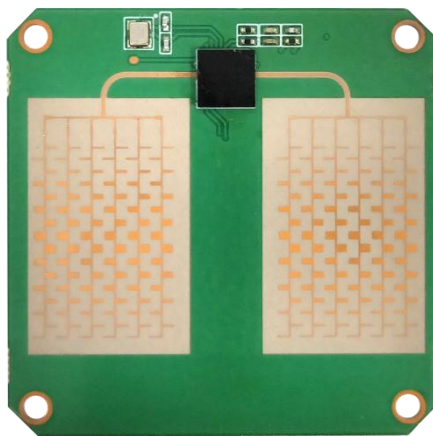


Self Developed Product | LDRR04M 80GHz Level Radar Sensor Module

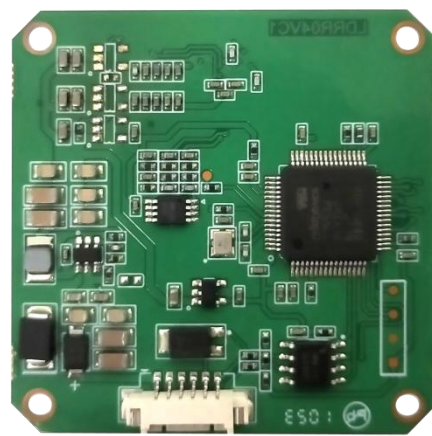
LDRR04M 80GHz The level radar module adopts FMCW frequency modulated continuous wave mode . It has non-contact installation design, compact structure, small size, high accuracy, low power consumption, strong anti-interference ability. It is suitable for water level monitoring of lakes and rivers, mountain flood warning, reservoir and sewage pipe network.

Features

- ★FMCW continuous wave mode with high stability
- ★Millimeter level high-precision distance measurement
- ★Far ranging 40m
- ★Small size (45.2 x45.2 x 1.3 mm), easy installation
- ★ Non-contact measurement, effectively reducing interference from harsh environments and maintenance free



Front View



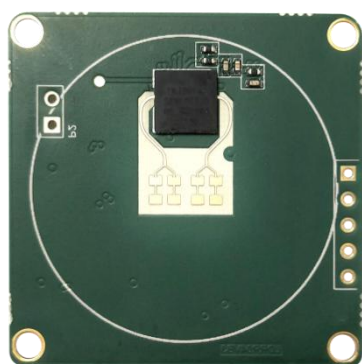
Back View

Self Developed Product | LDRR04S 80GHz Level radar sensor module

LDRR04S 80GHz The level radar module is specially designed for hydrological application, it adopts FMCW frequency modulated continuous wave mode . It has non-contact installation design, compact structure, small size, high accuracy, low power consumption, strong anti-interference ability. It is suitable for water level monitoring of lakes and rivers, mountain flood warning, reservoir and sewage pipe network.

Features

- ★FMCW continuous wave mode with high stability
- ★UART interface
- ★ Range measurement with millimeter-level accuracy, with an external dome antenna the beam angle could be small to 6°
- ★**Far range 40m**
- ★Small size (35 x 35 x 1.2 mm) , easy installation
- ★ Non-contact measurement, effectively reducing interference from harsh environments and maintenance free



Front View



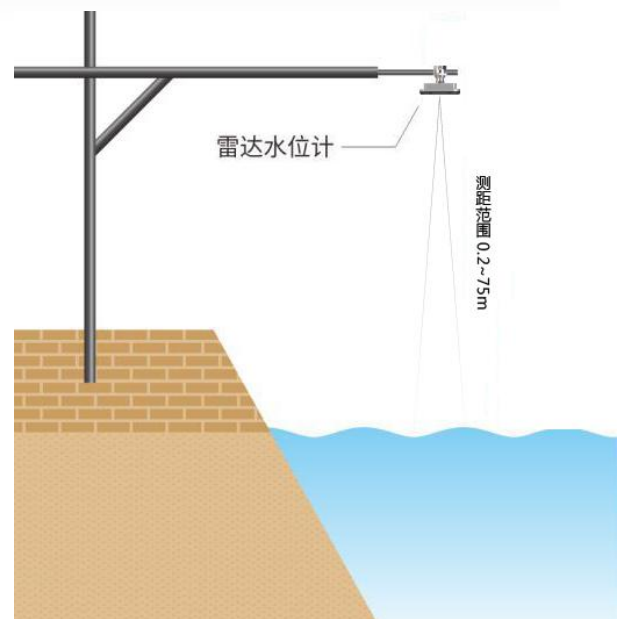
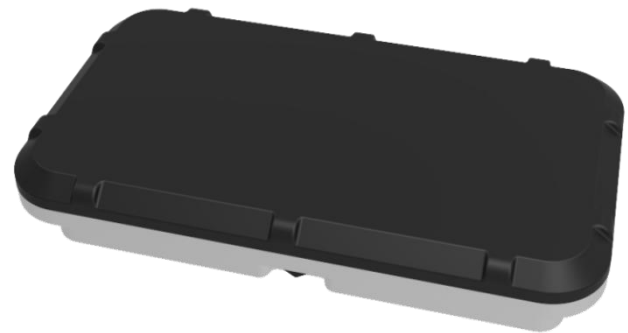
Back View

Self Developed Product | LDRR08 24GHz Level Sensor Radar

LDRR08 Millimeter wave is a K-band ranging radar specially designed for the application of water level height and liquid level measurement. The product adopts non-contact installation design, microstrip array antenna design, small size, compact structure. High precision, low power consumption, strong anti-interference ability!

Features

- ★ FMCW mode ranging
- ★ Flat panel design, high-cost performance
- ★ Centimeter-level accuracy
- ★ **Far Range 75m**
- ★ High signal-to-noise ratio, strong anti-interference ability
- ★ Ultra-low power consumption, suitable for solar power supply
- ★ Non-contact measurement, not affected by silt and plants
- ★ Not affected by temperature, condensation, spider webs
- ★ IP67 protection level, safe and reliable

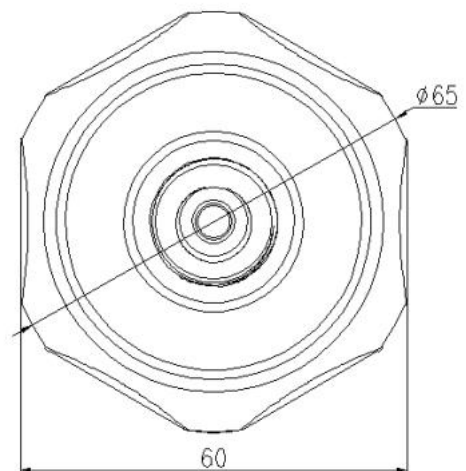
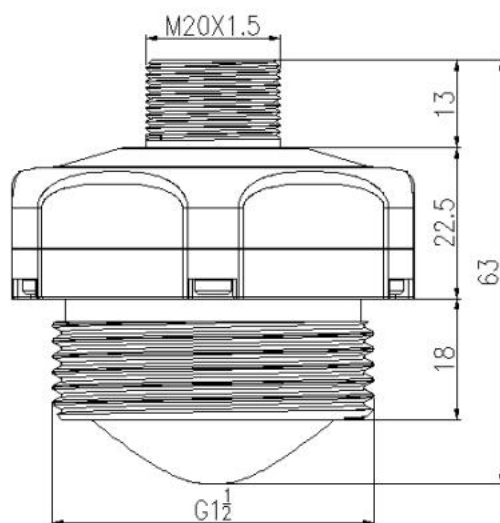


Self Developed Product | LDRR10 80GHz Level Sensor Radar

LDRR10 series radar sensors are radar modules designed specifically for hydrological detection. The module adopts FMCW mode, non-contact installation design, small size and compact structure. With high accuracy, low power consumption and strong anti-interference ability, it is suitable for water level monitoring in lakes and rivers, flash flood warning, water storage ponds, sewage pipe networks and so on.

Features

- ★ UART output (optional RS485 communication version), default baud rate 115200, ASCII/Modbus protocol can be switched freely.
- ★ Centimeter-level accuracy
- ★ **Far Range 20m**
- ★ Small size(65*63mm), easy installation
- ★ Non-contact measurement, not affected by silt and plants

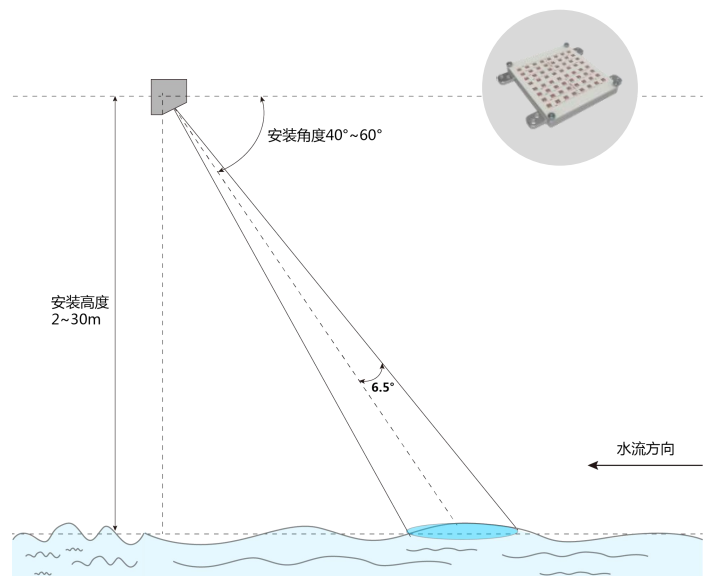


Self Developed Product | LDSR08 24GHz Current Meter

LDSR08 It is a radar current meter integrating microstrip antenna, RF circuit and signal processing circuit, direct output of target velocity information, used for river and underground pipe network velocity measurement. With imported German integrated chip, pre-low noise amplifier, ultra-high sensitivity.

Feature

- ★ Frequency: 24GHz
- ★ Modulation Mode : CW
- ★ Interface: RS485
- ★ Velocity Measuring Range : 0.1m/s-20m/s
- ★ Velocity Measurement Accuracy : 0.02m/s
- ★ Voltage : 9-24V Current: 98mA@12V
- ★ Output (EIRP) : 20dBm (adjustable)
- ★ Antenna Angle : 26°X13°
- ★ Dimensions: 107X87X45mm



Self Developed Product | LDFM02 Radar Flowmeter

LDFM02 is a radar flowmeter module based on microwave technology integrating level measurement and flow rate measurement. It can be used for non-contact flow measurement in nullahs, rivers, irrigation canals, underground drainage networks, flood control and early warning.

The product is characterized by low power consumption, compact size, high reliability and easy maintenance; the measurement process is not affected by temperature, sediment, river pollutants, water surface floating objects and other factors.

Features

- ★ Non-contact measurement, combined with cross-section parameters to calculate the flow rate, not affected by wind, temperature, haze, sediment, water surface floating objects, and so on;
- ★ Applicable to a variety of measurement conditions, can output flow rate, water level, flow measurement data;
- ★ Low power consumption, compact size, high reliability, easy maintenance;

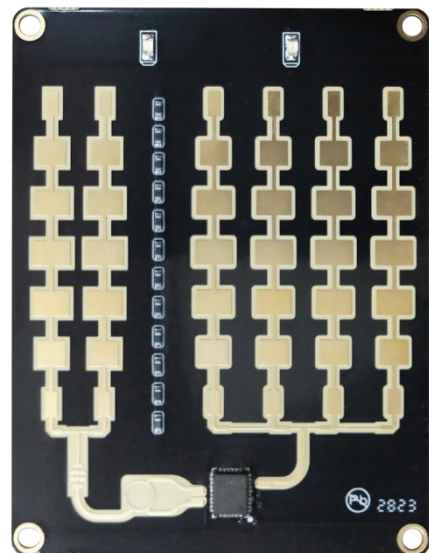


Self Developed Product | LDTR20 24GHz Speed Measurement Radar Module

LDTR20 24 GHz is a speed measuring radar module which integrates microstrip antenna, radio frequency circuit and signal processing circuit, and directly outputs target speed information. It can be used for long-distance vehicle speed measurement far father than 180 meters. Using integrated RF chip, high frequency stability, speed measurement accuracy of 1KM/h. It is widely used in speed warning of highway, urban trunk line, city-county level highway, urban and rural trunk road and other roads, as well as road curve and intersection warning.

Features

- ★ K-band RF integrated circuit design
- ★ Frequency: 24.125GHz
- ★ Modulation mode : CW detection of moving vehicles, detection distance ≥ 180 meters
- ★ Support RS485 and TTL interface (Baud rate 9600bps)
- ★ Speed measuring range : 1KM/H~240KM/H
- ★ The speed measurement error is less than ± 1 KM/H
- ★ Voltage: 9~24V, Current ≤ 95 mA@12V
- ★ Output (EIRP) : 20dBm
- ★ Antenna angle : horizontal 44°, tilt angle16°
- ★ Dimension: 69*53*5mm

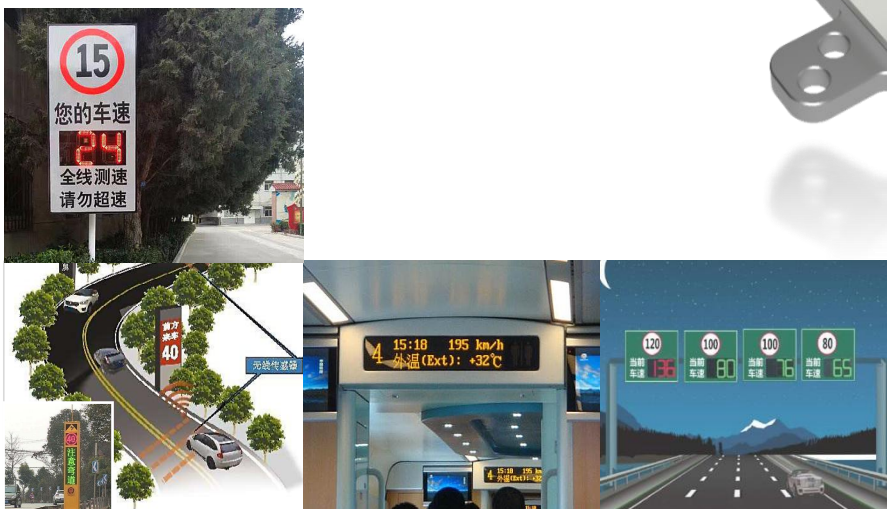
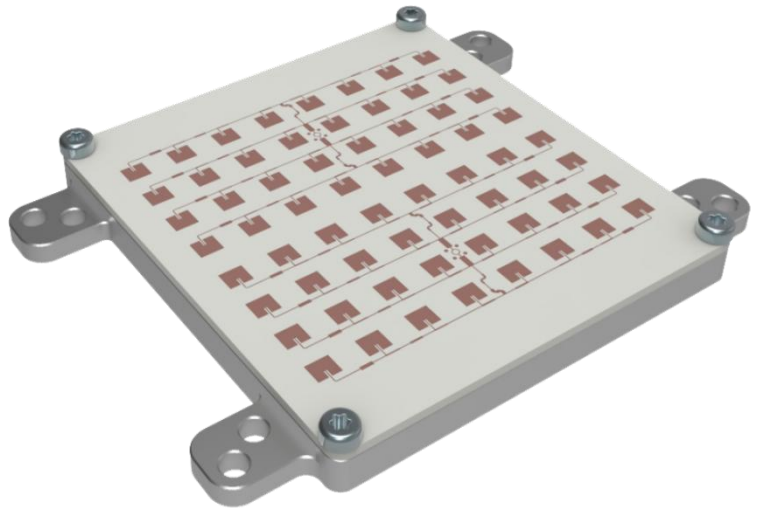


Self Developed Product | LDTR04Plus 24GHz Speed Measurement Radar Module

LDTR04Plus is a speed measuring radar module which integrates microstrip antenna, radio frequency circuit and signal processing circuit, and directly outputs target speed information. It can be used for long-distance vehicle speed measurement far father than 150 meters. The integrated RF chip using an integrated phase-locked loop has extremely high frequency stability and a speed measurement accuracy of 1KM/h.

Features

- ★ Frequency: 24.125GHz
- ★ Modulation mode: CW Detect moving vehicles Truck>150m car>100m
- ★ Support RS485 and TTL interface (Baud rate 9600bps)
- ★ Speed measuring range: 1Km/h-250Km/h
- ★ The speed measurement error is less than $\pm 1\text{Km/h}$
- ★ Voltage: 9-24V Current: 98mA@12V
- ★ Output (EIRP) : 20dBm (adjustable)
- ★ Antenna angle: 26°X13°
- ★ Sensor dimensions: 70X89X6.7mm



Self Developed Product |

LDTR22 24GHz Narrow-wave Velocity Measurement Radar

LDTR22 narrow-wave velocity measurement radar is a millimeter wave radar module integrating microstrip antenna, radio frequency circuit and signal processing circuit, directly output target speed information. It can be used to detect long-distance vehicle speed up to 320 meters, using integrated RF chip, high frequency stability, speed measurement accuracy $\leq 1\text{KM/h}$.

It is widely used in speed warning of highway, urban trunk line, city-county level highway, urban and rural trunk road and other roads, as well as road curve and intersection warning.

Features

- ◆ K-band RF integrated circuit design;
- ◆ Frequency range: 24~24.25GHz
- ◆ Modulation mode: CW detection of moving vehicles, detection distance up to 300 meters
- ◆ Support RS485, RS232 interface (baud rate 9600bps)
- ◆ Speed measuring range: 2KM/H~320KM/H
- ◆ Speed measurement error is less than $\pm 1\text{KM/H}$ (when the Angle between the movement direction and the radar beam bearing is zero)
- ◆ Voltage: 9~24V, current $\leq 70\text{mA}@12\text{V}$
- ◆ Output power (EIRP) : 20dBm; Actual power consumption $\leq 1.6\text{W}$
- ◆ Antenna Angle: horizontal 7° , pitch 28° (3dB beamwidth, actual detection Angle ≥ 1 lane)



Clarification

Delivery mode is default PCBA delivery (as shown in the picture), if you need to bring your own shell, please specify in advance, the product shell effect as shown in the picture.

Self Developed Product |

LD508PRO 24GHz Speed and Range Radar Module

LD508PRO millimetre wave radar is specially designed for detecting multiple dynamic or static targets within a certain range, the module adopts FMCW mode, non-contact mounting design, small size and compact structure. With high accuracy, low power consumption and strong anti-interference ability, it is suitable for detecting targets on bicycles, cars and other vehicles.

Features

- ★ frequency range : 24GHz
- ★ Detection distance: CW detection of moving vehicles, maximum detection distance 140m
- ★ Ranging accuracy : $\pm 0.1\text{m}$
- ★ Interface: RS485 communication method
- ★ Speed range : 0Km/h~180Km/h
- ★ Velocity measurement error less than $\pm 1\text{ Km/h}$
(when the direction of motion is zero degrees from the radar beam azimuth)
- ★ Input voltage : 9-24V, Amps : 25mA@12V
- ★ Output power (EIRP) : 13dBm (adjustable)
- ★ Antenna beam angle : $46^\circ \times 24^\circ$
- ★ Sensor size : 50.23X52.04mm



Clarification

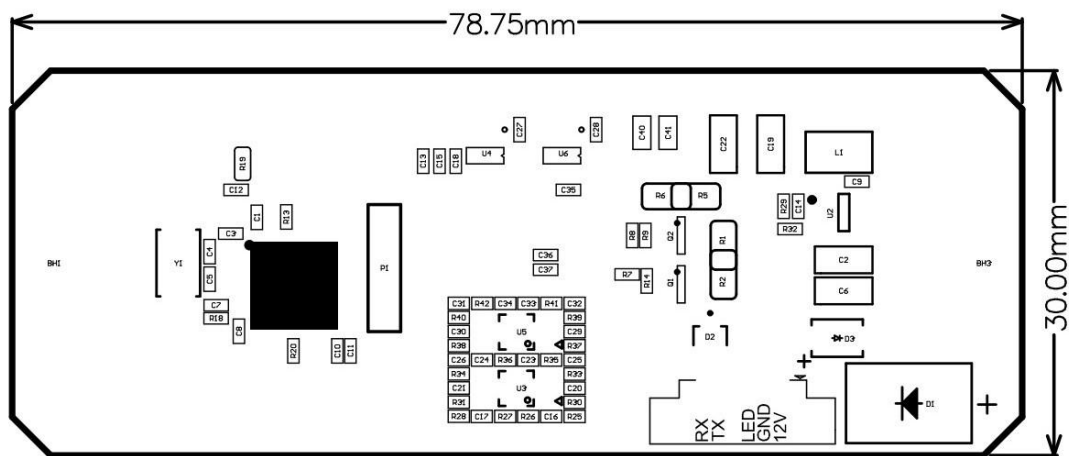
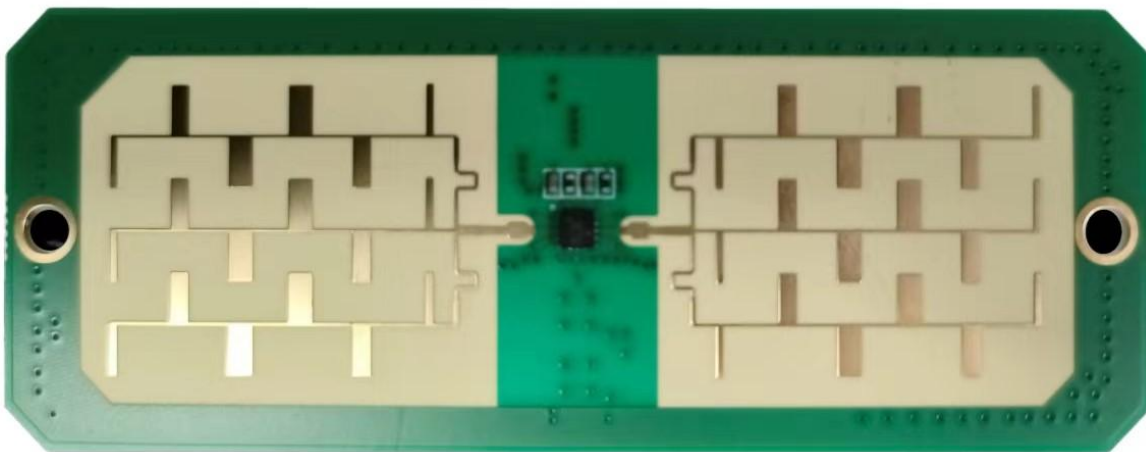
The radar operates in the 24 GHz frequency band, and the range of 140 metres is the maximum measurement range, and the maximum value of the detection distance will deviate according to the size of the object's RCS.

Self Developed Product | LDIR05M 24GHz Inductive Radar Module

The LDIR05M microwave sensing radar can be used to detect targets moving at speeds in the range of 1 km/h to 250 km/h and outputs approach, distance or presence signals (or commands) with an adjustable detection range.

Features

- ★ 24GHz (ISM standard band) motion detector based on the radar principle of operation
- ★ Maximum detection distance up to 200 meters (vehicle)
- ★ Detection distance can be configured by sensitivity
- ★ Serial TTL communication
- ★ Strong anti-interference ability, and not affected by temperature, humidity, dust, etc.
- ★ Module PCBA appearance size: 78.75*30mm

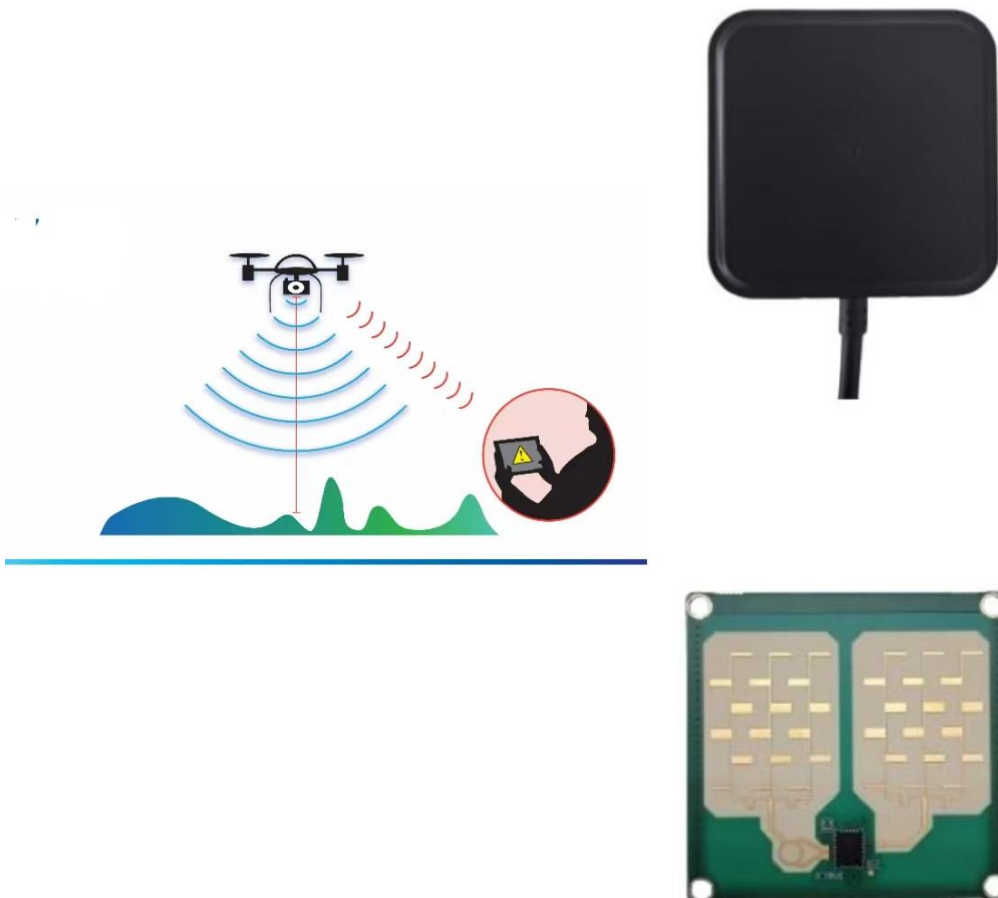


Self Developed Product | LDRA100 24GHz UAV Radar

The LDRA100 is a radar that can be used for UAV altitude measurement. It adopts 24GHz-ISM frequency band, which has strong anti-interference ability and is suitable for rain, snow, fog, dust and other harsh environments. Compact size, light weight, adopts high gain, low parasitic antenna in line with Taylor's distribution, imported Infineon vehicle specification chip. High sensitivity, stable performance, easy to integrate, can realize all-weather, all-day application, widely used in unmanned aerial platform (UAV/UAS), helicopters, small airships and other fields.

Features

- ★ Transmit Frequency: 24ghz
- ★ Modulation mode: FMCW
- ★ Far Range: 100m
- ★ Module PCBA appearance size: 62*62*20mm



THANKS

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