MILLIMETER RADAR SENSING

UAV FLIGHT CONTROL SAFETY



Yteq Sense Technology Co., Ltd.

Millimeter Radar For UAV Flight Control Safety



Application Scenarios

Multi-rotor UAV

Fixed wing UAV

eVTOL aircraft









Product——URE120 120M Collision Avoidance Radar-79GHz

UAV Collision Avoidance Radar is developed to detect obstacles to UAV during flying, so the flight control can make action to avoid collision and bring safety to UAV. The radar has advantages of high precision, small size, high sensitive, light weight, easy for integration and stable performance. It will send back the relative distance, speed and angle data between obstacles and radar to make the drone keep away from obstacles and ensure its safe working.

Item	Parameters	Data
Antenna Performance	Azimuth	±15°
	Elevation	-5°~+3°
Detection Performance	Distance detection range	1.5~120m
	Distance detection accuracy	±0.1m
	Distance detection resolution	0.9m
Radar Performance	Frequency	79GHz
	Refresh Rate	20Hz
	Bandwidth	0.16GHz
	Working Voltage	5-24V
	Working Temperature	-40℃~85℃
System Property	Power Consumption	3W
	Protection Rating	IP67
	Communication Interface	UART/CAN
	PCB Size	55*52*1.6mm



Product——URV50 50M Collision Avoidance Radar- 60GHz

UAV Collision Avoidance Radar is developed to detect obstacles to UAV during flying, so the flight control can make action to avoid collision and bring safety to UAV. The radar has advantages of high precision, small size, high sensitive, light weight, easy for integration and stable performance. It will send back the relative distance, speed and angle data between obstacles and radar to make the drone keep away from obstacles and ensure its safe working.

Item	Parameters	Data
Antenna Performance	Azimuth Width (-6dB)	±40°
	Elevation Width (-6dB)	±10°
Detection Performance	Detect Range	1.5~50 m
	Distance Accuracy	±0.1 m
	Distance Resolution	0.25 m
Radar Performance	Frequency	60 GHz
	Refresh Rate	10 Hz
	Frequency Bandwidth	0.6GHz
System Performance	Working Voltage	5 – 16V DC
	Working Temperature	-40~+ 85℃
	Power Consumption	≤2 W
	Waterproof Level	IP67
	Interface Port	UART/CAN
	PCB Size (mm)	28*29.5*1.6



Product——NRA24+ 200M UAV Altimeter Radar- 24GHz

NRA24+ is a new version altimeter for UAV altitude detection, detecting to ground for a height up to 200m. The radar can adapt various complicated ground condition and environment. By detecting the flying height, it provides the guidance for agriculture plants protection UAVs and logistic delivery UAVs. Our radar sensor can be compatible to work with Ardupilot / Pixhawk flight controller.

Features	Specification	Parameters
Antenna Feature	Azimuth Angle (3dB)	±32°
	Elevation Angle (3dB)	±20°
Radar Feature	Detection Range	0.1-200m
	Ranging Accuracy	0.02m
	Fresh Rate	50Hz
	TX Frequency (GHz)	24GHz
	Max Speed	60m/s
System Feature	Working Voltage	5~32V
	Operating Temperature	-40℃~85℃
	Power Consumption	1.5W
	Data Interface	UART/CAN/RS422
	Weight	95g
	Dimension	110*76*16.5 (mm)



Product——UHK200 200M UAV Altimeter Radar- 24GHz

200M UAV Altimeter Radar is a terrain following sensor, detecting to ground for a height up to 200m. The radar can adapt various complicated ground condition and environment. By detecting the flying height, it provides the guidance for agriculture plants protection UAVs and logistic delivery UAVs. Our radar sensor can be compatible to work with Ardupilot / Pixhawk flight controller.

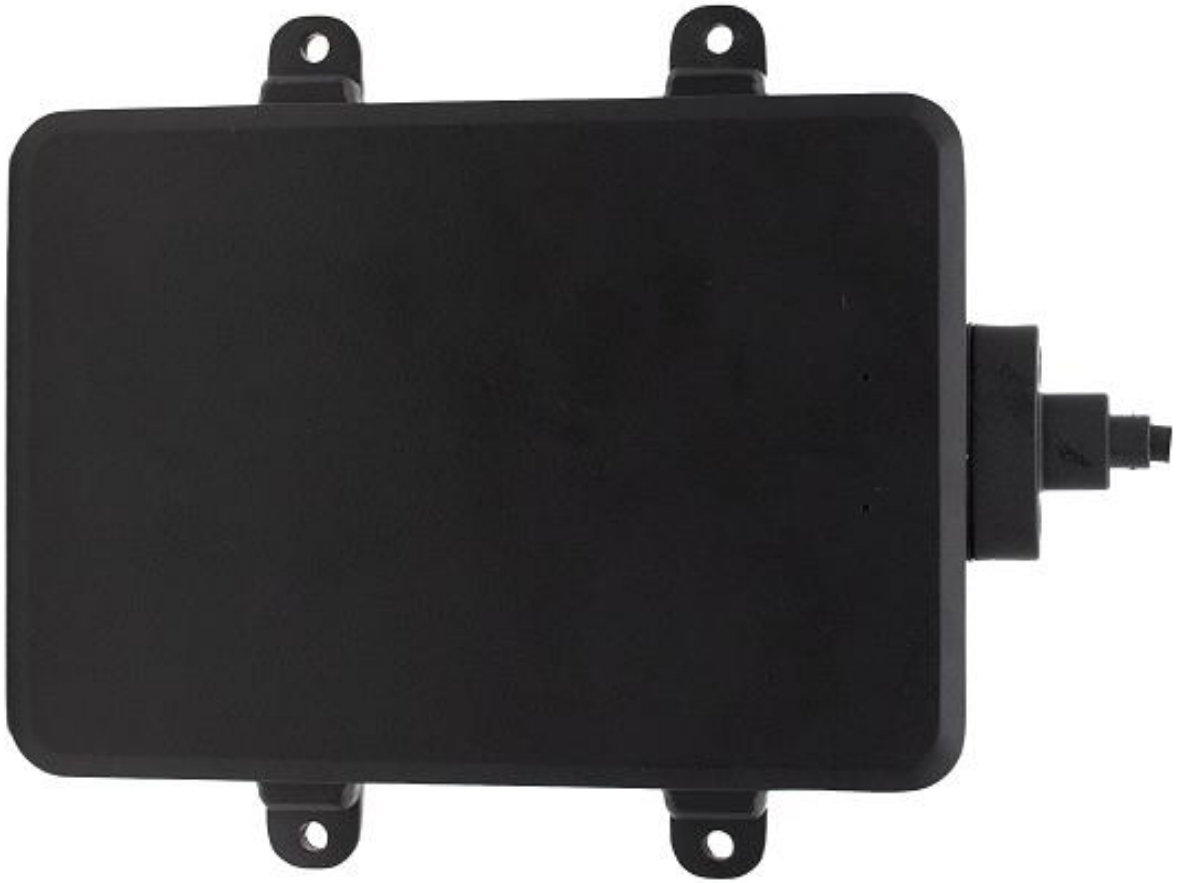
Features	Specification	Parameters
Antenna Feature	Azimuth Angle (3dB)	±24°
	Elevation Angle (3dB)	±18°
Radar Feature	Detection Range	0.2-200m
	Ranging Accuracy	0.02m
	Fresh Rate	10-45Hz
	TX Frequency (GHz)	24GHz
	Max Speed	60m/s
System Feature	Working Voltage	5~24V
	Operating Temperature	-40℃~85℃
	Power Consumption	1.5W
	Data Interface	UART/CAN
	Weight	100g
	Dimension	112*66*18.5 (mm)



Product——UHK500/1000 Long Range Altimeter Radar- 24GHz

The Airborne Altimeter is a high-performance, highly integrated altitude-fixing and sensing module specifically designed for UAVs and various low-altitude flight platforms. Utilizing advanced 24GHz Frequency Modulated Continuous Wave (FMCW) millimeter-wave radar technology, it offers core advantages such as all-weather operation, strong anti-interference capability, high precision, and long-range detection.

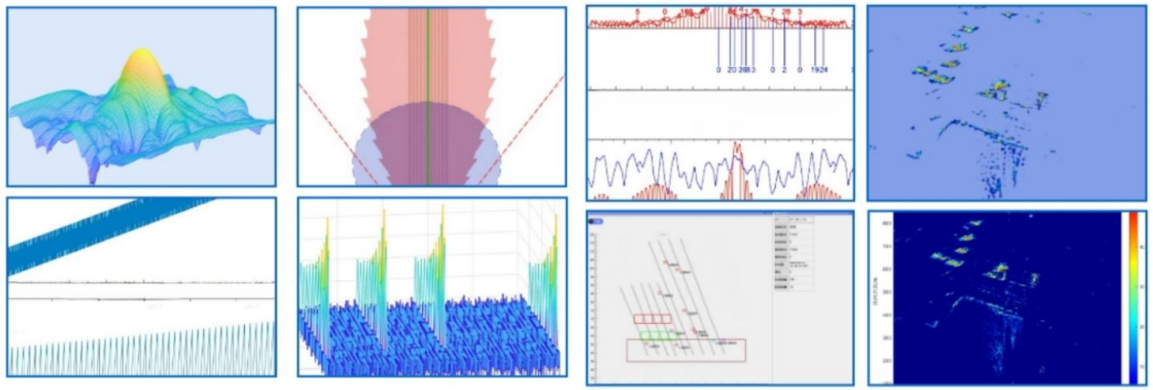
Radar module	FMCW
Transmit frequency	24GHz
Detection range	500m/1000m
Range accuracy	0.05m
Refresh rate	45Hz
Maximum detectable target velocity	up to 134 MPH (60m/s) , Rising speed
Field of view (horizontal)	±24°
Field of view (vertical)	±18°
Power Input	DC 7-24V
Power Consumption	2W
Communication interface	UART（TTL）/CAN
Working temperature	-40~70 (°C)
IP rating	IP67
Dimension (length*width*height)	141.5*82*18 (mm)
Wight	120 (g)

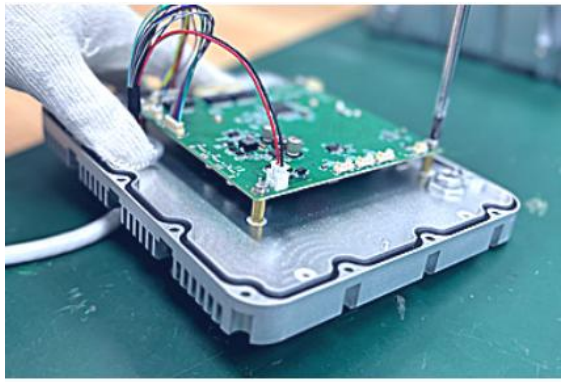


Company--Yteq Sense Technology

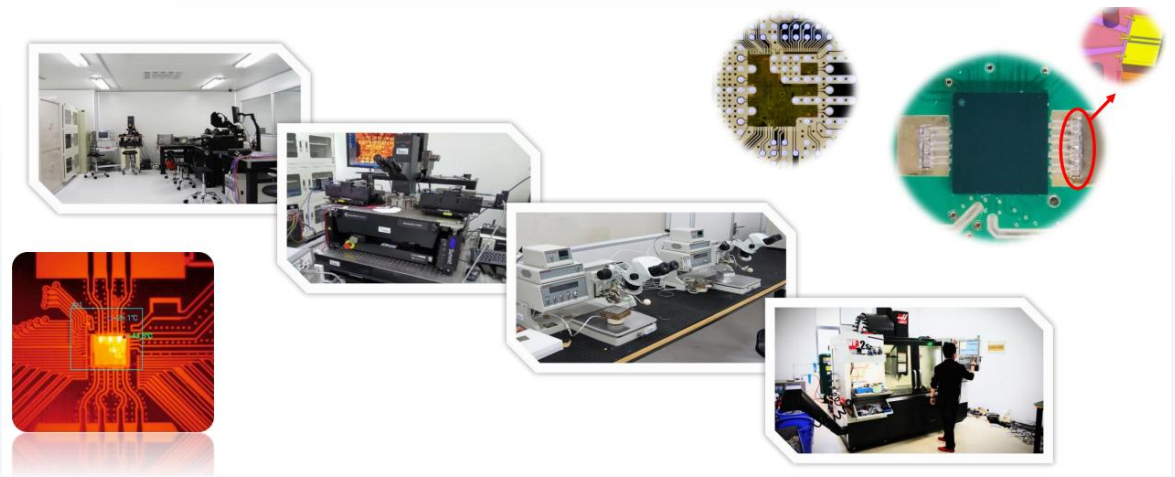
Smart Radar Sense for UAV Safety

R&D--Manufacturing--Integration--Solution Providing









Founded by a group of mmwave radar experts, Yteq Sense Technology Co., Ltd. is a hi-tech enterprise specializing in radar sensing system development. Yteq has got a professional team in R&D development, including radar antenna design, hardware design, AI & algorithm development and software integration. Yteq will continue to grow and bring better products and service to the market.

Our Honor

Hi-Tech Enterprise

Copyrights

Invention Patent

Prize

System Certificate











R&D • Invention • Cost-Down

IP Patent
7

Certificate
10+

Copyright
20+

Our Honor


长沙市认定
企业技术中心
长沙市发展与改革委员会
二零二四年一月


湖南省专精特新中小企业
（2024-2027）
湖南省工业和信息化厅
二〇二四年四月


科技型中小企业
企业名称：湖南众天云科技有限公司
证书编号：202343010408008622
2021年11月1日


湖南众天云科技有限公司
创新型中小企业
湖南省工业和信息化厅
2023年3月7日


发明专利证书


发明专利证书


发明专利证书


发明专利证书


发明专利证书


外观设计专利证书