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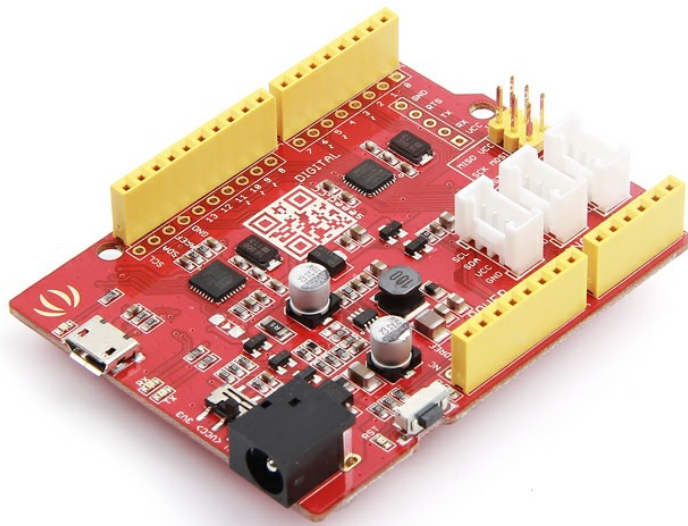
HPS-167 ToF Infrared Distance Measuring sensor(0.08-35m)

SKU 101990340



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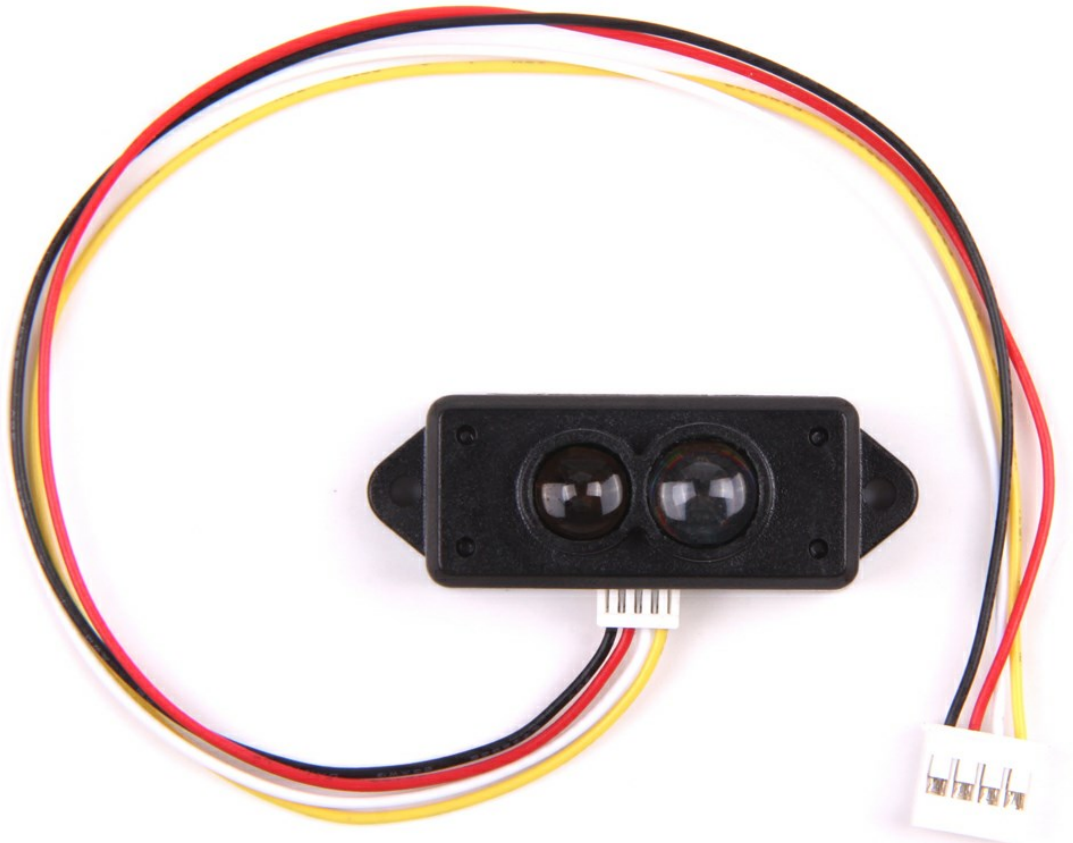
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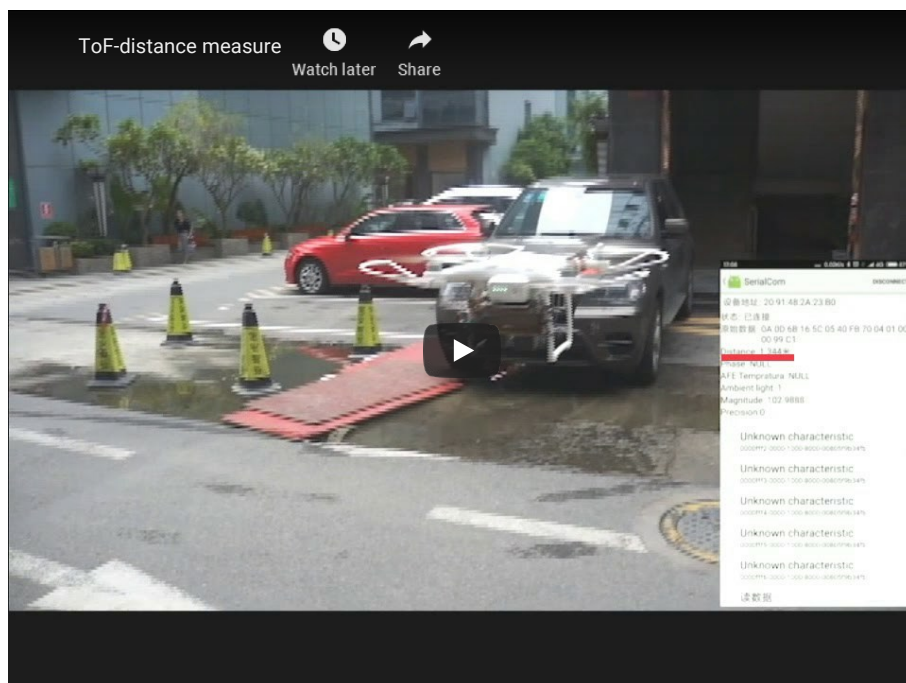


RPLiDAR A1M8 360 Degree Laser Scanner Kit - 12M Range

RPLiDAR A1M8 360 Degree Laser Scanner Kit - 12M Range

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Description



HPS-167 is an upgraded ultra-high-performance Time-of-Flight (ToF) infrared ranging sensor with newly-designed emitting & receiving optical lens, suitable for precise, long-range measurements. It provides accurate distance measurement whatever the target color and reflectivity unlike conventional technologies. HPS-167 can measure absolute distance up to 35m on a white target, setting a new benchmark in ranging performance levels, opening the door to various new applications.

HPS-167 integrates a high-power 850nm infrared LED emitter and a high-sensitivity photodiode (PD) coupled with internal physical infrared filters, enables longer ranging distance and higher immunity to ambient light.

Advanced embedded data processing & filtering algorithm realizes extremely stable and real-time measurement outputs.

Features:

- Fast, accurate distance ranging
 - Measures absolute range up to 35m (white target) with accuracy indication
 - Adaptive output data rate up to 54Hz
 - Measuring result is not sensitive to the target color and reflectivity
 - Embedded electrical & optical cross-talk compensation
 - -10°C~+55°C temperature compensation

- Ambient light compensation enables accurate measurement in high infrared ambient light levels

- Fully integrated miniature module
 - 850nm infrared LED emitter
 - Emitter driver
 - Integrated optimally-designed emitting & receiving optical lens
 - Ranging sensor with advanced embedded micro controller
 - Advanced embedded data processing & filtering algorithm
 - 115200bps 3.3V UART interface
 - 35(W) x 24(H) x 21.5(D) mm, 8g
- Eye safety
 - Compliant with latest Photobiological Safety of Lamps and Lamp Systems Standard IEC62471(Class 0), CE, FCC, RoHS

Mechanical drawing & device pinout

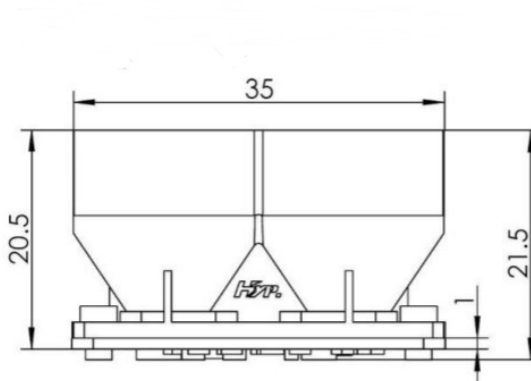


Figure 1. Front view of HPS-167

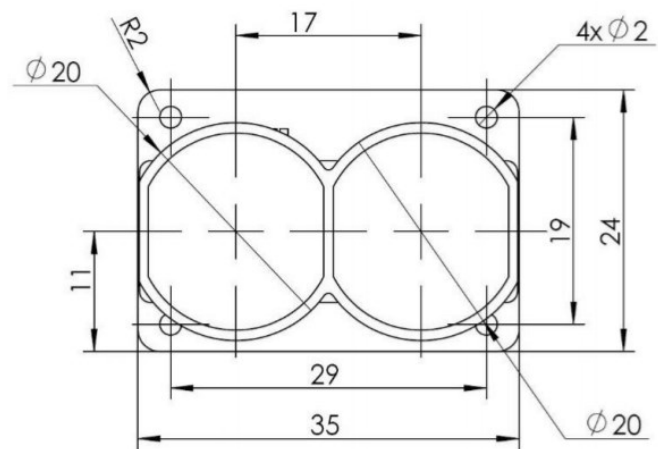


Figure 2. Top view of HPS-167

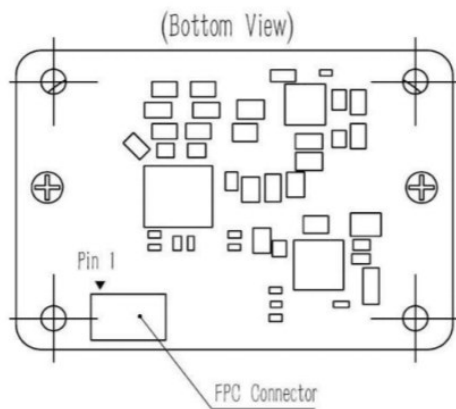


Figure 3. Bottom view of HPS-167

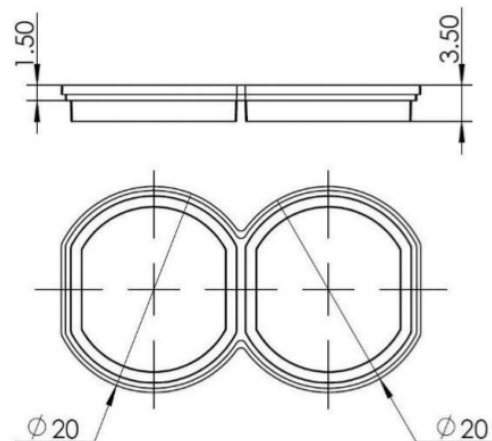
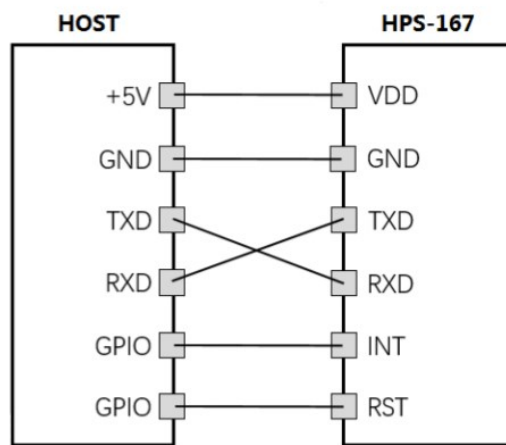


Figure 4. Front and bottom view of lens cover

Application schematic



Application schematic of the HPS-167

Technical Details

Dimensions	34mm x 24mm x 21.50mm
Weight	G.W 10g N.W 8g
Battery	Exclude
Power supply	4 ~ 6V
Maximum power consumption	1.3W
Quiescent power consumption	0.1W
Storage temperature	40 ~ 85°C
Operating temperature	-10 ~ 55°C
Infrared LED emitter	850nm
Emitting angle	±1.8°
Maximum measuring distance	35m (Tested on 90% reflectance white target)
Minimum measuring distance	0.08m
Output data	Distance, accuracy, signal strength, ambient IR level, temperature
Interface	TTL UART, 115200bps, 8 data bits, no parity, 1 stop bit

Part List

HPS-1671

ECCN/HTS

ECCN 6A992
HSCODE9031900090

Certification

CertificationFCC,CE

Documents

HPS-167 Datasheet
CE-EMC Report
FCC-VOC Report
RoHS Report

Questions and Answers



HPS-167 ToF Infrared Distance Measuring sensor(0.08-35m)

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