Lidar v3hp datasheet

2 out of 2 find this useful: Devices worth choosing more previous models only for double sample rates only. Good construction. Water resistance is a nice touch, but only as a safety measure. Optics will not perform if you get water to the lens and if you plan to expose the sensors to moisture, I recommend symbolizing it in glass plastic or non-IR-blocking, or at least closing the front. Leaving vulnerable lenses has always been a bad idea when dealing with precision instruments. The only thing missing that will make it the perfect point cloud scanner is the RGB sensor. I have to combine mines with self-modules and alignment is always an issue, but for low prices, can't complain. Love this! Zoom Articlebeschrieb DETAILS LIDAR never looks so good! This is LIDAR-Lite v3HP, a compact, high-maternity optical distance measurement sensor from Garmin™. LIDAR-Lite v3HP is an ideal optical ranger solution for drone, robot, or unmanned vehicle applications. Each sensor is housed in a durable IPX7-worth housing and includes all the core features and configuration of the popular LIDAR-Lite v3 users. V3HP is very similar to v3 function but can now try faster at a rate greater than 1kHz (where v3 can only afford up to 500Hz). Another improvement is that this v3HP model is more power efficient with the current consumption rate of 40mA less than v3 (that's 65mA compared to 105mA while idle, and 85mA instead of 130mA when acquiring). Each LIDAR-Lite v3HP has a range of 5cm to 40m and has a side transmitter, 905nm (1.3 watts), a laser transmitter of one strip, 8m radiant beam gambler, and 12.5mm optical aperture. This LIDAR-Lite version still operates at 5VDC (6V max) with 1.3W peak power and still has +/- 2.5cm on >2m. In addition to everything, LIDAR-Lite is configured users, allowing adjustments between accuracy, operational range and measurement time and can be interspersed through I2C or PWM with 200mm cables attached. Note: CLASS 1 LASER PRODUCTS CLASSIFIED EN/IEC 60825-1 2014. This product complies with performance standards for laser products under 21 CFR 1040, except in respect of features permitted by FDA-2016-V-2943 Variance Number effective 27 September 2016. Resolution Features: 1 cm Typical accuracy: +/- 2.5cm at a distance greater than 2 meters (Refer to operating manual for complete operational specifications) Range: 5cm to 40m Update Rate: Larger than 1kHz Interface: I2C or PWM Power (operating voltage): 4.75-5V Current Use of Max 6V: 65m idle; 85ma during the temperature of the acquisition operation: -20°C to 60°C Laser wave length / Peak power: 905nm/1.3W Beam difference: 8m Radian Optics aperture: Water rating of 12.5mm: Unit dimensions: 24.5mm x 53.5mm x 33.5mm (1.0in x 2.1in x 1.3in) Weight: 34g (1.2oz) LIDAR has never looked so good! It is LIDAR-Lite v3HP, solid, high-paid sensor distance measurement from Garmin™. Lidar-Lite v3HP is an ideal optical renjer solution for drone, robot or driverless vehicle applications. Each sensor is placed in a durable IPX7-value housing and includes all the features of the terrace and the popular LIDAR-Lite v3 user configuration. V3HP is very similar to the v3 function but can now try faster at levels greater than 1kHz (where v3 is only capable of up to 500Hz). Another improvement is that the v3HP model is more power-consuming with current usage rates of 40mA less than v3 (that's 65mA compared to 105mA when castrated, and 85mA instead of the 130mA it currently acquires). Each LIDAR-Lite v3HP has a range of 1m to 40m and has an edge transmitter, 905nm (1.3 watts), a one-line laser transmitter, 8m parachutist radians, and a 12.5mm optical aperture. This LIDAR-Lite version still operates at 5VDC (6V max) with a peak power of 1.3W and still has +/- 2.5cm accuracy at >2m. In addition to everything else, LIDAR-Lite is user configured, allowing alignment between accuracy, operation range and measurement time and can be crossed over I2C or PWM with an attached 200mm cable. Note: CLASS 1 LASER PRODUCTS CLASS EN/IEC 60825-1 2014. This product complies with performance standards for laser products under 21 CFR 1040, except with respect to the characteristics justified by the FDA-2016-V-2943 Variance Number power of attorney September 27, 2016. Features: Resolution: 1 cm Typical accuracy: +/- 2.5cm at distances greater than 2 meters (Refer to operating manual for full operating specifications) Range: 1m to 40m Current Packing Rate: Greater than 1kHz Between faces: I2C or PWM Power (operating volts): 4.75-5VDC; Current Usage Max 6V: 65ma terbiar; 85ma during takeover operation temperature: -20°C to 60°C Laser wavelength / Peak power: 905nm/1.3W Rasuk difference: 8m Optical Radian aperture: 12.5mm Water Level: IPX7 Unit dimensions: 24.5mm 5mm x 53.5mm x 33.5mm (1.0in x 2.1in x 1.3in) Weight: 34g (1.2oz) Document: This Video Library provides quick access to the basic functions of LIDAR-Lite through between arduino faces. In addition, it can provide users of any platform with templates for their own application cod. For detailed specifications, pinouts, and image of the connection king, see the manual linked on the product page above. Memorandum of Understanding: Changes between small faces have occurred between LIDAR-Lite v3, v3HP, and earlier versions. The back-to-back harmony of the library is largely maintained, although support is not provided directly for v1 and v2. Installation instructions To install, download this repository and drop it in your Arduino library folder or use the Arduino Library Manager. If you need help, follow the directions here: . Examples of Lakaran v3 / GetDistancePWM This is a demonstration lidar-lite. It shows how to read the distance using between the faces of PWM. v3 /GetDistanceI2c It shows how to read the distance using the I2C interface and choose a pre-fixed configuration. v3/ShortRangeHighSpeed This example shows the method for running LIDAR-Lite at high speeds for short-range applications. It combines a variety of standards to trade a variety and accuracy for a very fast size. v3HP/v3HP_I2C This example shows various methods for running LIDAR-Lite v3HP. v3HP/v3HP_MONITOR Using MOD pins to monitor v3HP LIDAR-Lite STATUS. v3HP/v3HP_PWM Use PWM output to read distance from LIDAR-Lite v3HP. v4LED/v4LED Various operating examples for LIDAR-Lite v4 LEDs. v4LED/v4LED_fast example of high reply rates using the selected GPIO pin or I2C port to trigger the size. v4LED/v4LED_lowpower Take a single distance size using the I2C port in a lower state of power. History Version 3.0.6 - Copy alt requestFrom() to LLv4LED library 3.0.5 - v3HP library updated for alternative requestFrom() 3.0.4 - v4 LED and now pack v3HP library. New example v3HP PWM. 3.0.3 - Add v3HP library function to read peak stack 3.0.2 - Add v4 LED examples and link to ANT Library 3.0.1 - v4 LED example clean up and library fixes 3.0.0 - Support for LIDAR-Lite v4 LED 2.0.6 - Add v3HP library function to reset the reference filter 2.0.5 - Add v3 library function to set alternate I2C addr 2.0.4 - Update short-range, high-error configuration 2.0.3 - New example using MODE pin for STATUS output of v3HP 2.0.2 - Updates to v3HP library 2.0.0 - Support for LIDAR-Lite v3HP 1.0.3 - Fix version convention 1.0.2 - Library Manager Update 1.0.1 - Release to Library Manager 1.0.0 - Initial release Raspberry Pi Library for LIDAR-Lite v3 LIDAR-Lite v3 on Pi - Basic support available for Raspberry Pi 3B+ ANT Library for LIDAR-Lite v4 LED License Copyright (c) 2018 Garmin Ltd. or its subsidiaries. Circulated under apache license 2.0. See LICENSE for more information. Page 2 Of this Library provides appropriate access to the basic functions of LIDAR-Lite through the arduino interface. In addition, it can provide users of any platform with templates for their own application cod. For detailed specifications, pinouts, and image of the connection king, see the manual linked on the product page above. Memorandum of Understanding: Changes between small faces have occurred between LIDAR-Lite v3, v3HP, and earlier versions. The back-to-back harmony of the library is largely maintained, although support is not provided directly for v1 and v2. Installation instructions To install, download this repository and drop it in your Arduino library folder or use the Arduino Library Manager. If you need help, follow the directions here: . Examples of Lakaran v3 / GetDistancePWM This is the easiest demonstration of LIDAR-Lite. It shows how to read the distance using between the faces of PWM. This demonstration shows how to read the distance using the I2C interface and choose a preset configuration. v3/ShortRangeHighSpeed This example shows the method to run LIDAR-Lite at high speed for short range It combines a variety of standards to trade a variety and accuracy for a very fast size. v3HP/v3HP_I2C This example shows various methods for running LIDAR-Lite v3HP. v3HP/v3HP_MONITOR Using MOD pins to monitor v3HP LIDAR-Lite STATUS. v3HP/v3HP_PWM Use PWM output to read distance from LIDAR-Lite v3HP. v4LED/v4LED Various operating examples for LIDAR-Lite v4 LEDs. v4LED/v4LED_fast example of high reply rates using the selected GPIO pin or I2C port to trigger the size. v4LED/v4LED_lowpower Take a single distance size using the I2C port in a lower state of power. History Version 3.0.6 - Copy alt requestFrom() to LLv4LED library 3.0.5 - v3HP library updated for alternative requestFrom() 3.0.4 - v4 LED and now pack v3HP library. New example v3HP PWM. 3.0.3 - Add v3HP library function to read peak stack 3.0.2 - Add v4 LED examples and link to ANT Library 3.0.1 - v4 LED example clean up and library fixes 3.0.0 - Support for LIDAR-Lite v4 LED 2.0.6 - Add v3HP library function to reset the reference filter 2.0.5 - Add v3 library function to set alternate I2C addr 2.0.4 - Update short-range, high-error configuration 2.0.3 - New example using MODE pin for STATUS output of v3HP 2.0.2 - Updates to v3HP library 2.0.0 - Support for LIDAR-Lite v3HP 1.0.3 - Fix version convention 1.0.2 - Library Manager Update 1.0.1 - Release to Library Manager 1.0.0 - Initial release Raspberry Pi Library for LIDAR-Lite v3 LIDAR-Lite v3 on Pi - Basic support available for Raspberry Pi 3B+ ANT Library for LIDAR-Lite v4 LED License Copyright (c) 2018 Garmin Ltd. or its subsidiaries. Circulated under apache license 2.0. See LICENSE for more information. Granules.