

Technical specification

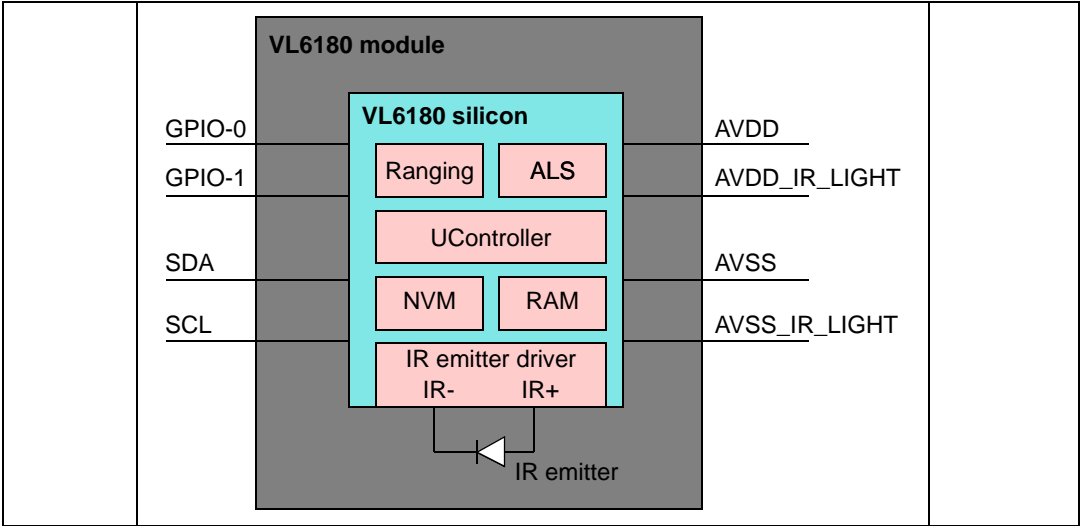
Table 1. Technical specification

Feature	Detail
Package	Optical LGA12
Size	4.8 x 2.8 x 1.0 mm
Ranging	0 to 50 cm ⁽¹⁾
Ambient light sensor	0.038 to 50klux ⁽²⁾ 16-bit output ⁽³⁾
Operating voltage	2.5 to 3.0V
Typical current consumption	Hardware standby: <1 uA Software standby: <1uA ALS: 280uA (typical) Ranging: < 1.5mA (typical)
Operating temperature	-20 to 70°C
IR emitter	850nm
I ² C address	0x29 (7-bit)

1. Maximum ranging distance dependent on target and ambient light conditions
2. Light level at module (if used, cover glass transmission must be taken into account)
3. Output in counts, which can be converted to Lux.

System block diagram

Figure 1. VL6180 block diagram



Ordering information

VL6180 is currently available in the following format. More detailed information is available on request.

Table 2. Delivery format

Order code	Description
VL6180V0NR/1	Tape and reel, MOQ 5000 pieces
MOB-EVK2-180-01	Evaluation kit
PCB1453-00C	VL6180 on plug-in PCB

EcoPack

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Revision history

Table 3. Document revision history

Date	Revision	Changes
20-Feb-2013	1	Initial release.
21-Mar-2013	2	Updates to Technical specification on page 2 .
11-Dec-2013	3	Corrected drawing on page 1
07-Jan-2014	4	Updates to Table 1.: Technical specification on page 2 and order codes

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