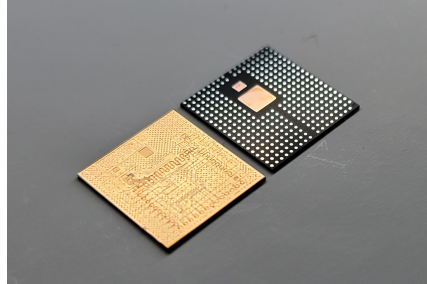
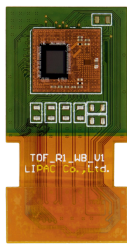


## Products

# Optical Engines for Sensors



## Optical Engine for ToF Sensor

The optical engine for ToF (Time of Flight) sensors incorporates a single package of VCSELs, image sensors and driver ICs that are essential for sensing 3D information. Its compact form factor allows to implement the smallest ToF sensor module in the aspect of size and thickness, and ease the application of the sensor module to space-limited devices such as mobile phones, AR/VR glasses, smart cars and IoT sensors, etc.

Parameter	Value	Note
Laser Optical Power	4.9 W (LST3W1TAA-C02) 11.1 W (LST9W1TAA-C02)	4.5 A, 50°C, pulse 6.0 A, 50°C, pulse
Laser Modulation Frequency	100MHz (Typ.), 200MHz (Max.)	-
Laser Emitter Number	544 (LST3W1TAA-C02) 180 (LST9W1TAA-C02)	-
Laser Divergence Angle	23.1 deg. (LST3W1TAA-C02) 23.0 deg. (LST9W1TAA-C02)	3.5 A, 86% power 6.0 A, 86% power
Package Size	(Tx) 2.5 × 4.4 × 0.270 mm <sup>3</sup> (Rx) 6.1 × 4.7 × 0.270 mm <sup>3</sup>	-
Sensor Resolution	VGA (640 × 480)	-
Sensor Pixel Pitch	3.5 um	-
Max. Sensing Distance	5 m	-
Center Wavelength	940 nm	-
Laser Type	Single Junction VCSEL array (LST3W1TAA-C02) Triple junction VCSEL array (LST9W1TAA-C02)	-
Detector Type	ToF image sensor	-
Data Sheet	-	Provided on customer's request
Test Result	-	Provided on customer's request



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