



Press Release

Nippon Chemi-Con Corporation
October 7, 2022

Ultra-Small/Thin ToF (Time of Flight) Measuring Module NCM008-AA Developed

Nippon Chemi-Con has developed ultra-small/thin ToF modules. We promote development of products for Automatic Guided Vehicle (AGV)/Autonomous Mobile Robot (AMR), which expects demand for 3D sensing, and products for the contactless interface market. We have succeeded in developing a module that can be embedded into devices. Products will be manufactured at Chemi-Con Nagaoka Corp. (a wholly owned subsidiary of Nippon Chemi-Con) which resides in Nagaoka, Niigata.

NCM008-AA Overview

NCM008-AA is an ultra-small/thin module that can measure depths based on the concept of embedding into devices. The product can send high-speed measurement results emitted from depth image sensors to device control units through MIPI-CSI2. A light source in the near-infrared wavelength range is used alongside the indirect ToF depth image sensor. This light was developed with a circuit that was evaluated as “Class 1” in the Safety of Laser Products’ “classification of laser products.” The safety of this light is to be confirmed by third parties.

Samples and Mass Production

NCM008-AA started samples in October 2022 and is scheduled to start mass production in March 2023.

Product Specifications

Active pixels	320(H)×240(V) pixels
Supported image size	QVGA (320*240)
Output format	RAW 12bit
Output interface	MIPI CSI-2 2Lane
Frame rate	60fps MAX
Angle of view	55°(H)/40°(V)
VCSEL laser range	60°(H)/45°(V)
VCSEL laser wavelength	850nm
External dimensions	L35mm×W24mm×H8mm (excluding FPC)
Operating temperature	0 to +40°C
Supported measurement range	0.4m to 2.0m (TBD)
Measurement accuracy	< 3%@400mm (based on our measurement environment)

Product Appearance
-NCM008-AA

