



Press Release

Nippon Chemi-Con Corporation
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Development of Three Camera Module Models for Automotive Electronics and Industrial Equipment NCM12-FC, NCM10-FC, NCM12-FE

Nippon Chemi-Con has developed three models of camera modules.

- ◆For automotive electronics (embedded devices) - DSP built-in 1.23M pixels camera module NCM12-FC
- ◆For automotive electronics and industrial equipment - DSP built-in 1M pixels camera module NCM10-FC
- ◆For automotive electronics - LVDS communication DSP built-in 1.23M pixels camera module NCM12-FE

We promote development of high-performance camera modules that apply the technology we have cultivated in automotive applications, such as dashboard cameras. We also promote high-quality manufacturing through domestic production. These points have been highly praised by customers.

The three newly developed camera modules are ideal for advanced driver assistance systems and vehicle safety, which are becoming increasingly popular year by year. All products will be produced at Chemi-Con Nagaoka Corp. (a wholly owned subsidiary of Nippon Chemi-Con) in Nagaoka, Niigata prefecture.

[NCM12-FC Overview]

The NCM12-FC equips an AEC-Q 100 Grade 2 compliant in-vehicle 1.23M pixel CMOS image sensor and image processing engine. It operates under bright sunlight during the day, reduce noise in low-light environments, and portray natural and realistic images in both light and dark environments. We also have a wide variety of lenses.

◆Samples and Mass Production

The NCM12-FC is already available as samples and mass production is scheduled to start in August 2021.

◆Product Specifications

Active pixels	1280(H)×960(V)1.23M pixels
Optical size	1/3.8inch Diagonal 4.69mm
Supported image sizes	960p(1280×960) 720p(1280×720)
Output format	8bit YCbCr422
Output interface	8bit parallel output
Frame rate	30fps

Dynamic range	120dB@30fps
Operating temperature	-30 to +80°C
Storage temperature	-40 to +85°C
Lens variety	HFOV187°, HFOV127°, HFOV80°
External dimensions	L16 mm×W16 mm×H17 mm (excluding FPC)

[NCM10-FC Overview]

The NCM10-FC equips an AEC-Q 100 Grade 2 compliant in-vehicle 1M pixel CMOS image sensor and image processing engine. It has a distortion correction function and can process images with multi-panel processing. This camera module is suited for embedded applications for perimeter monitoring and industrial equipment.

◆Samples and Mass Production

The NCM10-FC is already available as samples and mass production is scheduled to start in August 2021.

◆Product Specifications

Active pixels	1280(H)×800(V)1.0M pixels
Optical size	1/4inch
Supported image sizes	800p(1280×800) 720p(1280×720)
Output format	8bit YUV422
Output interface	8bit parallel output
Frame rate	60fps(720p)
Dynamic range	96dB@30fps
Operating temperature	-30 to +80°C
Storage temperature	-40 to +85°C
Lens variety	HFOV193°, HFOV130°
External dimensions	L16 mm×W16 mm× H17 mm (excluding FPC)

[NCM12-FE Overview]

The NCM12-FE is a compact, waterproof camera module equipped with an AEC-Q 100 Grade 2-compliant 1.23M pixel CMOS image sensor and image processing engine. It is LVDS (GVIF2) communication system compliant, has high dynamic range, with a case that is IP67/IP69K waterproof and dustproof. This camera module is suited for exterior installations of vehicles such as rearview cameras.

◆Samples and Mass Production

The NCM12-FE is already available as samples and mass production is scheduled to start in March 2022.

◆Product Specifications

Active pixels	1280(H)×960(V)1.23M pixels
Optical size	1/3.8inch Diagonal 4.69mm
Supported image sizes	960p(1280×960) 720p(1280×720)
Transmission method	GVIF2 (PoC: Power Over Coax)

Output format	8bit YCbCr422
Output interface	8bit parallel output
Frame rate	30fps
Dynamic range	120dB@30fps
Operating temperature	-30 to +80°C
Storage temperature	-40 to +85°C
Lens variety	HFOV187°, HFOV127°
External dimensions	W31 mm×H21 mm×L25 mm (excluding cable)

[Product Appearance]



◆NCM12-FC



◆NCM10-FC



◆NCM12-FE