



NCM12-FE-180F is a Quad VGA pixel compliant color camera module with waterproof housing with built-in ISP.

It has 1280 horizontal and 960 vertical pixels and via 1/3.8" optical format.

The compact waterproof housing makes this camera module ideal for rear-view applications.

1. Feature

- Directly connectable to FAKRA
- LVDS(GVIF2) ※1
- HDR
- Waterproof (IP67/IP69K)

※1 : GVIF is a registered trademark or trademark of Sony Group Inc. or its affiliates.

2. Specification

• Image Sensor	1/3.8 inch CMOS color image sensor
• Shutter Type	Rolling shutter
• Dimension(mm)	31 × 21.3 × 21.9 [mm] ※2
• Effective Pixels	1280(H) × 960(V)
• Pixel Size	2.9μm(H) × 2.9μm(V)
• Output Interface	LVDS(GVIF2)
• Output Signal Format	YCbCr422
• Frame Rate(Max.)	30fps
• Functions	Auto Exposure Control, Auto White Balance, Auto Gain Control, HDR, Image Inversion (up/down, left/right), Flicker correction, Waterproof& Dustproof Performance (IP67/IP69K), etc.
• Angle of View (Typ.)	(H)189°/(V)150°/(D)216°:1280(H)x960(V)
• Optical Filter	IRCF
• F Number	F2.4
• Connection Type	FAKRA connector
• Power Consumption (Typ.)	700 [mW]

※2 : FAKRA connector and Cable part is not included

3. Recommended Operating Conditions

• Recommended supply voltage	9.0	[V]	
• Power Supply Voltage	8.0 ~ 10.0	[V]	
• Operating Temperature	-30 ~ +80	[°C]	※3
• Storage Temperature	-40 ~ +85	[°C]	※3

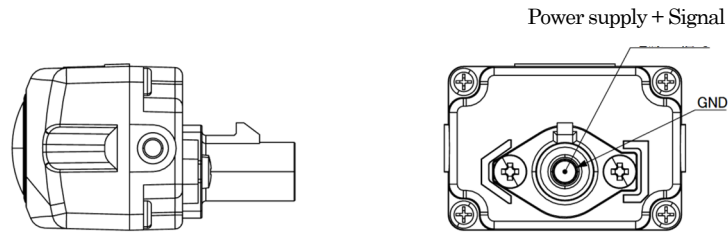
※3 : No condensation

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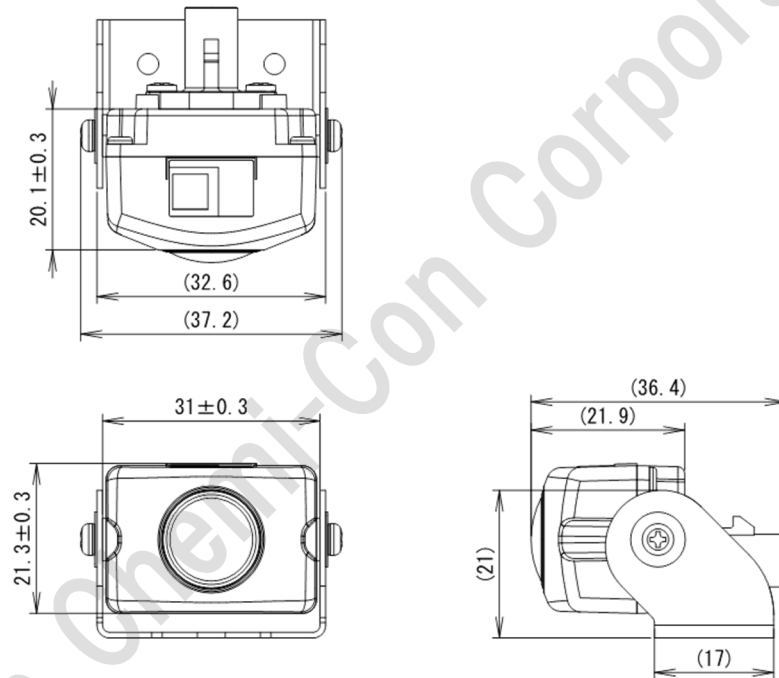


4. Terminal Description



5. External Dimensions

[Unit : mm]



6. Image Capture Polarity



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