



MOBILE SAFETY VIEW SYSTEM

Perfect Quality Meeting Heavy Duty Industry



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INTRODUCTION

Mining, Construction, Agriculture, Forest, Marine,
Military Defense and Road. Wherever Safety needs.
Eastern Mastec products are always there.

Eastern Mastec Products

Perfect Waterproof (IP69K) and Vibration Resistant
Meet EMC STANDARD, EMC DIRECTIVE 2014/30/EU
Maintain The Best Performance in Any Environment
Use of Genuine Raw Material and Parts
Impact Resistant, Complied MIL-STD
Excellent Quality Control

CERTIFICATIONS and INTELLECTUAL PROPERTY RIGHTS



QUALITY ASSURANCE PROCESS

Eastern Mastec

Quality Assurance Process (QAP) is dedicated



Efficiency in workplaces.

To meet environmental standards that lead to the customer satisfaction and global environmental regulation.

To guarantee safety of lives, by monitoring around vehicle and workplaces to avoid any situation.

To control and maintain optimal conditions of products for manufacturing and usage.

Solid and Dependable.

Our QC team pays the greatest attention to quality and constantly improves its laboratories to control its manufactured products without compromising performance.

The most ultimate goal during our QAP is to focus on QC & achieving highly qualified products using 90 kinds of measuring instruments and 40 different equipments hence this allows us to consistently conducts variety tests, e.g. global standards in thermal shock, vibration, waterproof, temperature and humidity that help our customers drive operational efficiency, product quality, safety and compliance while minimizing environmental impact.

Our products comply with global regulations and most of all, we are constantly improving on **COMPONENTS, MATERIALS, PACKAGING and AUTOMATIC MANUFACTURING INSPECTION SYSTEM.**

HIGH TEMPERATURE

Operating : +70D, 96H (ISO 16750-4 5.1.2.2)

Storage : +85D, 48H (ISO 16750-4 5.1.2.1)

LOW TEMPERATURE

Operating : -40D, 24H (ISO 16750-4 5.1.1.2)

Storage : -40D, 24H (ISO 16750-4 5.1.1.1)

VIBRATION

ALUMINIUM and ZINC PRODUCT

: Each X,Y,Z axis 32H (ISO 16750-3 4.1.2.7)

PLASTIC PRODUCT

: Each X,Y,Z axis 32H (ISO 16750-3 4.1.2.8)

MECHANICAL SHOCK

SHOCK : 50G (ISO 16750-3 4.2.2.2)

WATERPROOF

IP-X8 : IEC 60529

IP-69K : ISO 20653

FREE FALL

Drop Height : 1m Free Fall Drop, each 6 Side

Impact Surface : Concrete Ground

(ISO 16750-3 4.3.2)

THERMAL SHOCK

-40D ~ +90D (ISO 16750-4 5.3.1 / 5.3.2)

ESD

DIRECT : 2, 4, 6, 8Kv (ISO 10605)

AIR : 2, 4, 8, 15Kv (ISO 10605)

SALT SPRAY

Perform the test in accordance with IEC6008-2-52

NaCl : 5%, Severity level = 4 (ISO 16750-4 5.5.1)

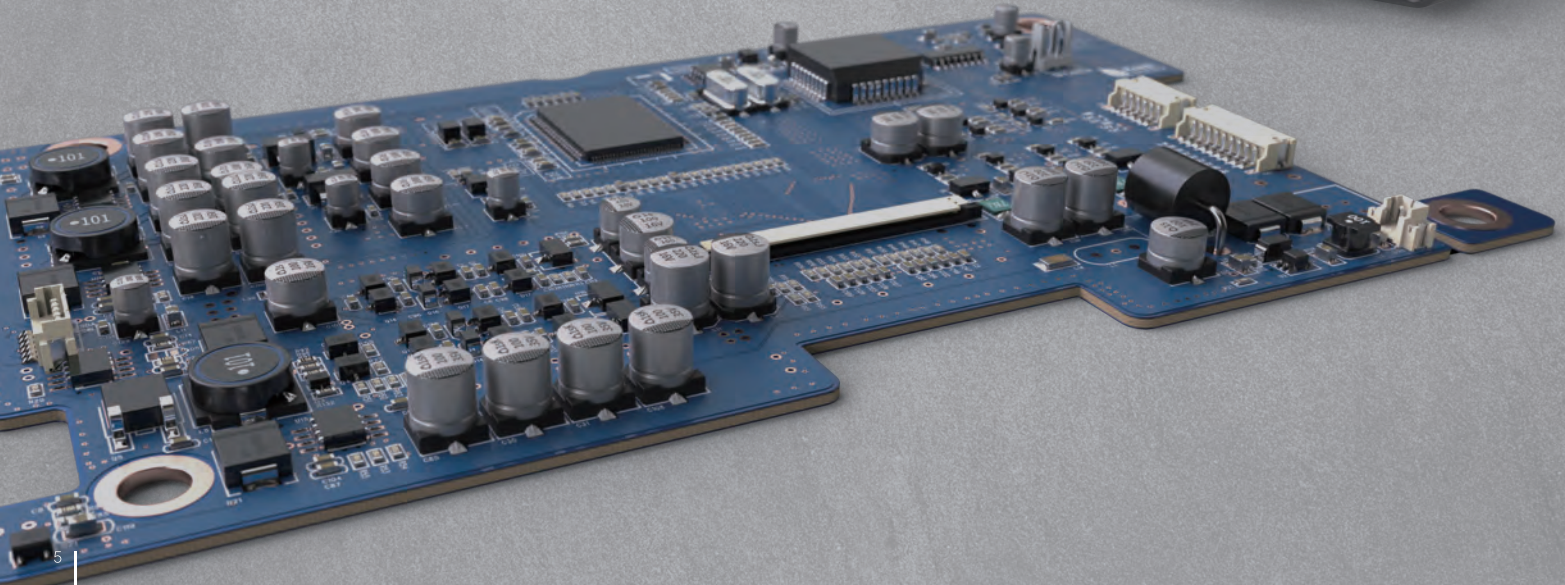
Achieve on Demand

Apply ICT to realize zero defect rate. Uniformity of product quality by application of automated inspection.

Test suitability evaluation of the ISO 16750 standard that maintains excellent reliability even in vehicle and electronic equipment environments.

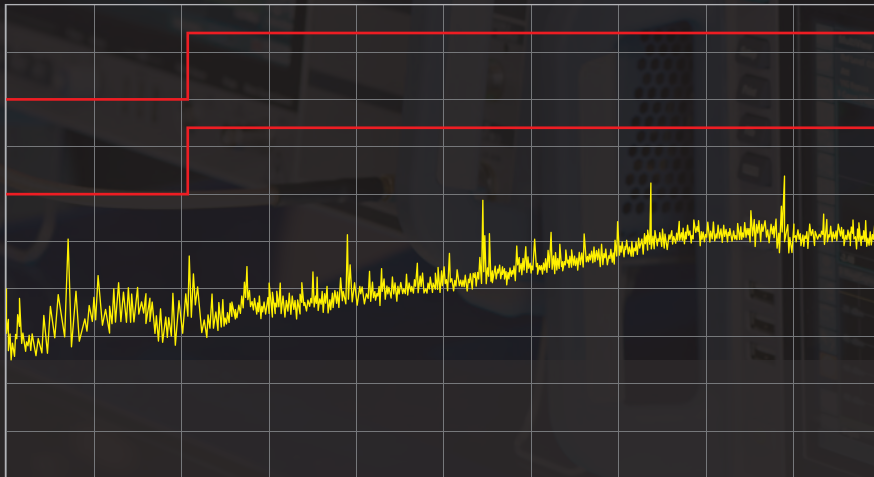
Perfect quality control with a market return rate of 0% based on know-how accumulated over a long period of time.

Provide the industry's longest warranty period.



Ref 60 dBμV/m
Peak
Log
5
dB

Atten 5 dB



Start 30 MHz

Stop 1 GHz

EMC

According to EMC DIRECTIVE 2014/30/EU

VIVID IMAGE

Better than human eye

| BEST LENS | APPLY ICR | OPTICAL AXIS CORRECTION | TUNED IMAGE



IP69K
RATING



WATERPROOF

Our test standard is stricter than the international IP68 waterproof and dustproof standard.

We conduct 100% waterproof testing during production.



ECO PLAN

We use forest-friendly paper packaging for sustainable growth and a better tomorrow as part of **ESG** management.

Plastic resin-based materials are no longer used in **ALL PACKAGING**. Water-soluble ink without environmental pollution, **PLASTIC FREE** packaging materials, even packaging tape.





Camera



Super
Power IR

Non
Reflection

ECC-AC70-05AIBR

(p.27)



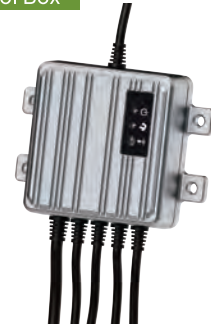
Super
Power IR

Non
Reflection

ECC-AC77-05AIBR / AC77-02AI

(p.27)

Control Box



IP69K
IP68

EMC-AI100

(p.42)

Features

- AUTOMATIC DETECTION Capability
(PERSON, CAR, TRUCK, BUS, MOTORCYCLE AND BICYCLE)
- Endless progression through DEEP-LEARNING
- Flexible CUSTOMIZING DETECTING options
- TRIGGER OUTPUT support for object detection (DC 12V)
- RECOGNITION RANGE is 2M TO 10M

Camera



Extreme
Cold Resist

Standard IP

ECC-SC10

(p.28)



BroadR
Reach

ECC-AC70-05AIBR

(p.27)



BroadR
Reach

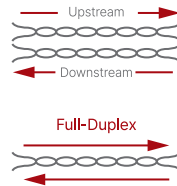
Standard IP

ECC-AC77-05AIBR / AC77-05IP

(p.28)

Features

- 5.1M Pixel High-Definition Image
- TTA Verified
- Support Multiple Network Protocols - ONVIF, RTSP, ETC..
- External access is possible using the vehicle network
- Mirror / Normal image selected by Magnet or Firmware

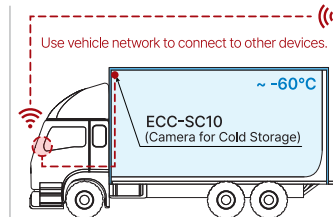


Standard IP

Upstream and Downstream use two Different pairs to form a full-duplex link

BroadR-Reach

Full-Duplex operation over a Single twisted pair



Phone



Tablet



Laptop & NVR

Mining Machine - Camera

Excavator



Extreme
Heavy Duty

ECC-M7000

(p.32)



Super
Power IR

Non
Reflection

ECC-AC70 / EAC-AC70

(p.31)



Explosion
proof

Extreme
Heavy Duty

ECC-MEP10

(p.30)

(p.48)

Control Box (Optional)

A control box is required to connect third-party monitors



(p.49)

Extension Cable (Optional)

- Standard (5/10/15/20M)
- High Definition (5/10/15/20M)



Monitor



Extreme
Heavy Duty

ECL-AM10Q / EAL-AM10Q

(p.41)



Extreme
Heavy Duty

ECL-AM7Q / EAL-AM7Q

(p.41)



Heavy Duty

ECL-7WQ

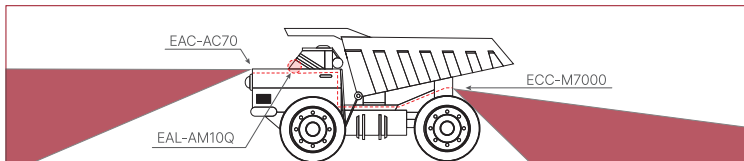
(p.43)



Heavy Duty

ECL-7W

(p.43)



Mining Machine Connection Example

(p.51)

- 1 Monitor : EAL-AM10Q
- 2 Cameras : EAC-AC70 / ECC-M7000
- Extension Cable

Construction Vehicle - Camera

Earthmoving Machine



Shutter

ECC-M90

(p.33)



Shutter

Self
Cleaning

ECC-M3000

(p.33)



Shutter
Self Cleaning

ECC-M3300

(p.29)



Shutter

Value
Innovated

EAC-M90

(p.33)



Shutter

Self
Cleaning

Value
Innovated

EAC-M3000

(p.33)



ECC-M93

(p.37)

(p.48)

Control Box (Optional)

A control box is required to connect third-party monitors



(p.49)

Extension Cable (Optional)

- Standard (5/10/15/20M)
- High Definition (5/10/15/20M)



Earthmoving Machine



Super
Power IR

Non
Reflection

ECC-AC77 / EAC-AC77

(p.31)



Night
Vision IR

Wide Range
Power

ECC-AC10X

(p.32)

Forklift



On Blade

ECC-MF100

(p.32)



On Mast

ECC-MS20A

(p.39)



On Mast

ECC-MS30

(p.39)

Construction Vehicle - Monitor

Monitor



Extreme
Heavy Duty

ECL-AM10Q / EAL-AM10Q

(p.41)



Extreme
Heavy Duty

ECL-AM7Q / EAL-AM7Q

(p.41)



Heavy Duty

ECL-7WQ

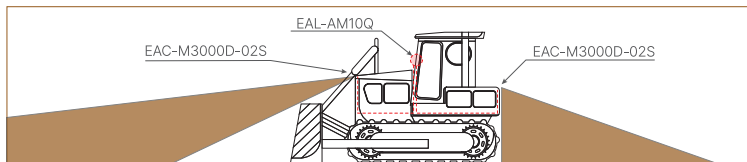
(p.43)



Heavy Duty

ECL-7W

(p.43)



Construction Vehicle Connection Example

(p.51)

- 1 Monitor : EAL-AM10Q
- 2 Cameras : EAC-M3000D-02S (2EA)
- Extension Cable

Camera



ECC-M77

(p.34)



ECC-M390

(p.36)



ECC-M70

(p.34)

Value
Innovated



EAC-M77

(p.34)

Value
Innovated



EAC-M390

(p.36)

Value
Innovated



EAC-M70

(p.34)

(p.48)

Control Box (Optional)

A control box is required to connect third-party monitors



(p.49)

Extension Cable (Optional)

- Standard (5/10/15/20M)
- High Definition (5/10/15/20M)



Agricultural Machine - Camera

Camera

Classic
Model



Classic
Model



ECC-M47

(p.38)

ECC-M80

(p.38)

Monitor



Extreme
Heavy Duty

ECL-AM10Q / EAL-AM10Q

(p.41)



Extreme
Heavy Duty

ECL-AM7Q / EAL-AM7Q

(p.41)



Heavy Duty

ECL-7WQ

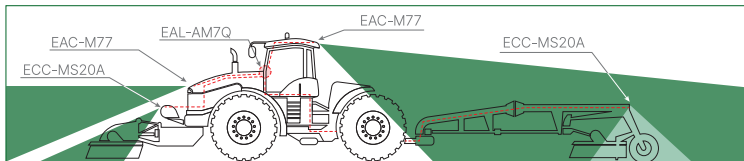
(p.43)



Heavy Duty

ECL-7W

(p.43)



Agricultural Machine Connection Example

(p.52)

- 1 Monitor : EAL-AM7Q
- 4 Cameras : EAC-M77 (2EA) , ECC-MS20A (2EA)
- Extension Cable

Special Equipped Vehicle - Camera

Logging Machine & Container Handler



Super
Power IR

Non
Reflection

ECC-AC77 / EAC-AC77

(p.31)



Super
Power IR

Non
Reflection

ECC-AC70 / EAC-AC70

(p.31)



Non
Reflection

ECC-M5X

(p.35)



Non
Reflection

ECC-M7X

(p.35)



Non
Reflection

ECC-M8X

(p.35)



Non
Reflection

ECC-M9X

(p.35)

(p.48)

Control Box (Optional)

A control box is required to connect third-party monitors



(p.49)

Extension Cable (Optional)

- Standard (5/10/15/20M)
- High Definition (5/10/15/20M)



Special Equipped Vehicle - Camera

Tank Truck



Explosion
proof

Extreme
Heavy Duty

ECC-MEP10

(p.30)

Refrigerator Truck



Extreme
Cold Resist

ECC-SC10

(p.28)

Crane



Night
Vision IR

Wide Range
Power

ECC-AC10X

(p.32)

Special Equipped Vehicle - Monitor

Monitor



Extreme
Heavy Duty

ECL-AM10Q / EAL-AM10Q

(p.41)



Extreme
Heavy Duty

ECL-AM7Q / EAL-AM7Q

(p.41)



Heavy Duty

ECL-7WQ

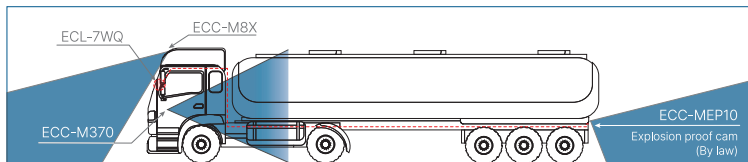
(p.43)



Heavy Duty

ECL-7W

(p.43)



Special Equipped Vehicle Connection Example

(p.52)

- 1 Monitor : ECL-7WQ
- 4 Cameras : ECC-M8X / ECC-MEP10 / ECC-M370 (2EA)
- Extension Cable

Control Box



EDM-77CQ / EDM-77CQH

(p.47)



EMC-50W

Low Heat

IP69K



EMC Control Box Series

(p.48)

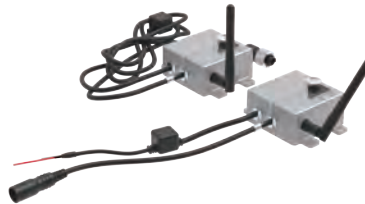
DVR



EMD-S10

(p.47)

Wireless



EWS-10

(p.47)

On Road Vehicle - Camera

Bus & Coach

Compact
Camera



ECC-MS20A

(p.39)

Compact
Camera



ECC-MS30

(p.39)

Universal
Mounting



ECC-M370

(p.39)

Tilt



ECC-M89A

(p.38)



ECC-M99

(p.39)

(p.48)

Control Box (Optional)

A control box is required to connect third-party monitors



(p.49)

Extension Cable (Optional)

- Standard (5/10/15/20M)
- High Definition (5/10/15/20M)



Truck



Entry
Model

MCC-303

(p.29)



Entry
Model

MCC-313

(p.39)



Entry
Model

YB-40C

(p.30)



ECC-MS30

(p.39)

On Road Vehicle - Camera

Common Use



ECC-M350

(p.36)



ECC-M9000

(p.37)



ECC-M2000

(p.37)

Shutter

Self
Cleaning

Dual Lens



EAC-M350

(p.36)



ECC-M9100

(p.37)



ECC-M330

(p.38)

Dual Lens

Monitor

Entry
Model



MCL-737

(p.42)



ECL-7GF / 7GEF / 7G2EF

(p.44)



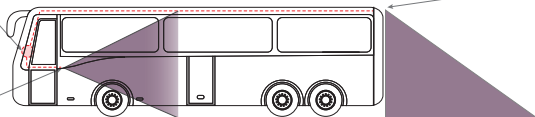
ECL-7GQF

(p.44)

MCL-737

MCL-303

ECC-M370



On Road Vehicle Connection Example

(p.53)

- 1 Monitor : MCL-737
- 3 Cameras : ECC-M370 (2EA), MCC-303
- Extension Cable

ECC-AC70-05AIBR / ECC-AC77-05AIBR

- AI Object Detection
- BroadR-Reach

Image	5.1M CMOS Sensor	Object Detection	Person Car Motorcycle Bicycle Truck Bus
Resolution	2560×1920	AI Model	MobilenetV2_SSDLite(Detection) MobilenetV2(Classification)
FOV	135°(D) × 106°(H) × 77°(V)	Interface	BroadR-Reach IEEE 802.3
Illumination	(Min.) 0 Lux with IR LED	Streaming	Triple Stream (STREAM 1, 2, 3) RTP/RTSP UNICAST RTP MULTICAST RTP
Power	DC 12V DC 10 ~ 60V (Optional)	OS	Embedded LINUX
Temp.	-40 ~ 85°C -40 ~ 185°F	Protocol	TCP/IP UDP/IP RTP RTSP RTCP NTP HTTP DHCP FTP SMTP DNS DDNS
Vib. Resist.	10G	Onvif	Ver 19.12
IP Rating	IP69K	Simultaneous Access	Max. 10 USER
Material	AI		



AI Product

IP Camera

ECC-AC77-02AI

- AI Object Detection

Image	2.1M CMOS Sensor	Object Detection	Person Car Motorcycle Bicycle Truck Bus
Resolution	1920×1080	AI Model	MobilenetV2_SSDLite(Detection) MobilenetV2(Classification)
FOV	135°(D) × 106°(H) × 77°(V)		
Illumination	(Min.) 0 Lux with IR LED		
Power	DC 12V DC 10 ~ 60V (Optional)		
Temp.	-40 ~ 85°C -40 ~ 185°F		
Vib. Resist.	10G		
IP Rating	IP69K		
Material	AI		



AI Product

IP Camera

ECC-AC77-05IP

- Standard IP

Image	5.1M CMOS Sensor	OS	Embedded LINUX
Resolution	2560×1920	Protocol	TCP/IP UDP/IP RTP RTSP RTCP NTP HTTP DHCP FTP SMTP DNS DDNS
FOV	135°(D) × 106°(H) × 77°(V)	Onvif	Ver 19.12
Illumination	(Min.) 0 Lux with IR LED	Simultaneous Access	Max. 10 USER
Power	DC 12V (Non Poe) DC 10 ~ 60V (Poe)	Compress Format	H.265 H.264 MJPEG
Temp.	-40 ~ 85°C -40 ~ 185°F	Streaming	Triple Stream (STREAM 1, 2, 3) RTP/RTSP UNICAST RTP MULTICAST RTP
Vib. Resist.	10G		
IP Rating	IP69K		
Material	AI		



IP Camera

ECC-SC10

- Extreme Cold Resistance
- Standard IP

Image	5.1M CMOS Sensor	OS	Embedded LINUX
Resolution	2560×1920	Protocol	TCP/IP UDP/IP RTP RTSP RTCP NTP HTTP DHCP FTP SMTP DNS DDNS
FOV	135°(D) × 106°(H) × 77°(V)	Onvif	Ver 19.12
Illumination	(Min.) 0 Lux with IR LED	Simultaneous Access	Max. 10 USER
Power	DC 12V (Non Poe) DC 10 ~ 60V (Poe)	Compress Format	H.265 H.264 MJPEG
Temp.	-60 ~ 70°C -76 ~ 158°F	Streaming	Triple Stream (STREAM 1, 2, 3) RTP/RTSP UNICAST RTP MULTICAST RTP
Vib. Resist.	10G		
IP Rating	IP69K		
Material	AI		



IP Camera
Special Equipped Vehicle

ECC-M3300D-02S

- Shutter Camera
- CVBS / A-HD & MIR / NOR Selectable
- Auto Cleaning Function
- Wide angle SMD IR LED

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	150°(D) × 130°(H) × 70°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V DC 10 ~ 32V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	AI



Shutter Open



Shutter Close

Construction Vehicle
Special Equipped Vehicle

MCC-303 / MCC-313

- Entry Model
- Wide Angle SMD IR LED

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines
FOV	MCC-303 : 130°(D) × 108°(H) × 62°(V) MCC-313 : 160°(D) × 135°(H) × 73°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V
Temp.	-30 ~ 80°C -22 ~ 176°F
Vib. Resist.	10G
IP Rating	IP69K
Material	AI



MCC-303



MCC-313

On Road Vehicle

ECC-MEP10 R2 / R5

- Explosion Proof

Image	R2 : 2.1M CMOS Sensor R5 : 5.1M CMOS Sensor
Resolution	R2 : A-HD 1,000TV Lines R5 : A-HD 1,200TV Lines
FOV	150°(D) × 130°(H) × 70°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V DC 10 ~ 32V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	AI

EX INFORMATION

Ex II 2G | CE 0598

CERTIFICATE NUMBER IECEx BAS 19 0006 X
Baseefa 19 ATEX 0009 X

INSTALLATION SITE ZONE 1

Ex MARKING Ex db op is IIC T4 Gb

APPLIED STANDARDS

IEC	IEC 60079-0 : 2017	ATEX	EN IEC 60079-0 : 2018
	IEC 60079-1 : 2014-06		EN 60079-1 : 2014
	IEC 60079-28 : 2015		EN 60079-28 : 2015



Mining Machine
Special Equipped Vehicle

YB-40C

- Entry Model
- Optimized to Delivery Trucks
- Easy to Install

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines
FOV	150°(D) × 130°(H) × 70°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V
Temp.	-40 ~ 70°C -40 ~ 158°F
Vib. Resist.	7G
IP Rating	IP69K
Material	AI (Body) Plastic (Bracket)



On Road Vehicle

ECC-AC70-02S / EAC-AC70-02S

- Super Power IR LED
- CVBS / A-HD Selectable (MIR / NOR Optional)

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	150°(D) × 130°(H) × 70°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 10 ~ 32V DC 10 ~ 60V (Optional - ECC Model only)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Al

ECC-AC70-05

- Super Power IR LED

Image	5.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines
FOV	150°(D) × 130°(H) × 70°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 10 ~ 32V DC 10 ~ 60V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Al



Mining Machine
Special Equipped Vehicle

ECC-AC77-02S / EAC-AC77-02S

- 6 Wide Angle SMD IR LED
- CVBS / A-HD Selectable (MIR / NOR Optional)

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	150°(D) × 130°(H) × 70°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 10 ~ 32V DC 10 ~ 60V (Optional - ECC Model only)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Al

ECC-AC77-05

- 6 Wide Angle SMD IR LED

Image	5.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines
FOV	150°(D) × 130°(H) × 70°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 10 ~ 32V DC 10 ~ 60V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Al



Construction Vehicle
Special Equipped Vehicle

ECC-AC10X

- Super Power IR LED
- 10x Zoom Function
- Night Vision Camera
- DeFog Function

Image	5.1M CMOS Sensor	Control Box	
Resolution	A-HD 1,200TV Lines	Power	DC 10 ~ 60V
FOV	20°(D) × 18°(H) × 10°(V)	IP Rating	IP65
Illumination	(Min.) 0 Lux with IR LED	Material	Plastic
Power	DC 10 ~ 32V		
Temp.	-40 ~ 85°C -40 ~ 185°F		
Vib. Resist.	10G		
IP Rating	IP69K		
Material	Al		



Construction Vehicle
Special Equipped Vehicle

ECC-MF100D-02

- Optimized to Forklift

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines
FOV	53°(D) × 42°(H) × 30°(V)
Illumination	(Min.) 0.5 Lux
Power	DC 12V
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Zn



Construction Vehicle

ECC-M7000D-02S

- Extreme Heavy Duty

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines
FOV	130°(D) × 106°(H) × 60°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V DC 10 ~ 32V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	15G
IP Rating	IP69K
Material	Al



Mining Machine

ECC-M3000D-02S

Construction Vehicle

- Shutter Camera
- Auto Cleaning Function
- CVBS / A-HD Selectable & MIR / NOR Selectable

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	140°(D) × 120°(H) × 60°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V DC 10 ~ 32V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Al



EAC-M3000D-02S

Construction Vehicle

- Shutter Camera
- Auto Cleaning Function
- CVBS / A-HD Selectable & MIR / NOR Selectable
- Wide angle SMD IR LED

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	140°(D) × 120°(H) × 60°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Al



ECC-M90D-02S

Construction Vehicle

- Shutter Camera
- CVBS / A-HD Selectable (MIR / NOR Optional)

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	130°(D) × 106°(H) × 60°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V DC 10 ~ 32V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Al



EAC-M90D-02S

Construction Vehicle

- Shutter Camera
- Wide angle SMD IR LED
- CVBS / A-HD Selectable (MIR / NOR Optional)

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	130°(D) × 106°(H) × 60°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Al



ECC-M77D-02S

Agricultural Machine

- CVBS / A-HD Selectable (MIR / NOR Optional)

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	130°(D) × 106°(H) × 60°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V DC 10 ~ 32V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	AI



EAC-M77D-02S

Agricultural Machine

- CVBS / A-HD Selectable (MIR / NOR Optional)
- Wide angle SMD IR LED

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	140°(D) × 120°(H) × 60°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	AI



ECC-M70D-02S

Agricultural Machine

- CVBS / A-HD Selectable (MIR / NOR Optional)

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	130°(D) × 106°(H) × 60°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V DC 10 ~ 32V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	AI



EAC-M70D-02S

Agricultural Machine

- CVBS / A-HD Selectable (MIR / NOR Optional)
- Wide angle SMD IR LED

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	130°(D) × 106°(H) × 60°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	AI



ECC-M5XD-02S

Special Equipped Vehicle

- CVBS / A-HD Selectable (MIR / NOR Optional)

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	150°(D) × 130°(H) × 70°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V DC 10 ~ 32V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Al



ECC-M7XD-02S

Special Equipped Vehicle

- CVBS / A-HD Selectable (MIR / NOR Optional)

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	150°(D) × 130°(H) × 70°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V DC 10 ~ 32V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Al



ECC-M8XD-02S

Special Equipped Vehicle

- CVBS / A-HD Selectable (MIR / NOR Optional)

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	150°(D) × 130°(H) × 70°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V DC 10 ~ 32V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Al



ECC-M9XD-02S

Special Equipped Vehicle

- CVBS / A-HD Selectable (MIR / NOR Optional)

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	150°(D) × 130°(H) × 70°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V DC 10 ~ 32V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Al



ECC-M390D-02S

Agricultural Machine

- CVBS / A-HD Selectable (MIR / NOR Optional)

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	140°(D) × 120°(H) × 60°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V DC 10 ~ 32V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	AI



EAC-M390D-02S

Agricultural Machine

- CVBS / A-HD Selectable (MIR / NOR Optional)
- Wide angle SMD IR LED

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	140°(D) × 120°(H) × 60°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	AI



ECC-M350D-02S

On Road Vehicle

- CVBS / A-HD Selectable (MIR / NOR Optional)

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	150°(D) × 130°(H) × 70°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V DC 10 ~ 32V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	AI



EAC-M350D-02S

On Road Vehicle

- CVBS / A-HD Selectable (MIR / NOR Optional)
- Wide angle SMD IR LED

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	150°(D) × 130°(H) × 70°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	AI



ECC-M9000D-02S

On Road Vehicle

- Shutter Twin Camera
- Auto Cleaning Function
- CVBS / A-HD Selectable (MIR / NOR Optional)

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	142°(D) × 123°(H) × 68°(V) 50°(D) × 42°(H) × 24°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V DC 10 ~ 32V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Al



ECC-M9100D-02S

On Road Vehicle

- Twin Camera
- CVBS / A-HD Selectable (MIR / NOR Optional)

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	142°(D) × 123°(H) × 68°(V) 50°(D) × 42°(H) × 24°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V DC 10 ~ 32V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Al



ECC-M2000D-02S

On Road Vehicle

- CVBS / A-HD Selectable (MIR / NOR Optional)

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	150°(D) × 130°(H) × 70°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V DC 10 ~ 32V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Al



ECC-M93D-02S

Construction Vehicle

- Shutter Camera
- CVBS / A-HD Selectable (MIR / NOR Optional)

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	130°(D) × 106°(H) × 60°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V DC 10 ~ 32V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Al



ECC-M47D-02S

Agricultural Machine

- CVBS / A-HD Selectable (MIR / NOR Optional)

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	130°(D) × 106°(H) × 60°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V DC 10 ~ 32V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	AI



ECC-M80D-02

Agricultural Machine

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines
FOV	130°(D) × 106°(H) × 60°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	AI



ECC-M330D-02S

On Road Vehicle

- CVBS / A-HD Selectable (MIR / NOR Optional)

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	150°(D) × 130°(H) × 70°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V DC 10 ~ 32V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	AI



ECC-M89A

On Road Vehicle

- Tilt Camera

Image	1.23M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	A-HD 80°(D) × 70°(H) × 40°(V) CVBS 91°(D) × 70°(H) × 51°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	AI



ECC-MS30D-02

Construction Vehicle

On Road Vehicle

- Compact Size Camera
- Wide Angle View Camera

Image	2.1M CMOS Sensor
Resolution	A-HD 1,000TV Lines
FOV	185°(D) × 163°(H) × 88°(V)
Illumination	(Min.) 0.5 Lux
Power	DC 12V DC 10 ~ 32V (Optional)
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Zn



ECC-MS20A

Construction Vehicle

On Road Vehicle

- Compact Size Camera

Image	1.23M CMOS Sensor
Resolution	A-HD 1,000TV Lines
FOV	117°(D) × 100°(H) × 62°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Zn



ECC-M99

On Road Vehicle

- Side View Camera

Image	1.23M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	A-HD 117°(D) × 100°(H) × 62°(V) CVBS 120°(D) × 96°(H) × 76°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Al



ECC-M370

On Road Vehicle

- Universal Mounting

Image	1.23M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	A-HD 117°(D) × 100°(H) × 62°(V) CVBS 120°(D) × 96°(H) × 76°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Zn (Camera) Al (Housing)



ECC-MB5

- Cylindrical Camera

Image	1.23M CMOS Sensor
Resolution	A-HD 1,000TV Lines CVBS 700TV Lines
FOV	A-HD 117°(D) × 100°(H) × 62°(V) CVBS 120°(D) × 96°(H) × 76°(V)
Illumination	(Min.) 0 Lux with IR LED
Power	DC 12V
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Zn



ECC-MB3

- Cylindrical Camera

Image	1.23M CMOS Sensor
Resolution	CVBS 700TV Lines
FOV	120°(D) × 96°(H) × 76°(V)
Illumination	(Min.) 0.1 Lux
Power	DC 12V
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist.	10G
IP Rating	IP69K
Material	Al



ECL-AM10Q | EAL-AM10Q

- Full Touch Screen
- Extreme Heavy Duty
- CVBS / A-HD Support

Display	10.1" 1280×800
	Single Split Triple Quad
Input	4 CAM 1 AV (CVBS, A-HD)
Power	DC 9 ~ 80V Max 30 Watt (ECL Model)
	DC 10 ~ 32V Max 30 Watt (EAL Model)
Temp.	-40 ~ 70°C -40 ~ 158°F
Vib. Resist	10G
IP Rating	IP69K
Material	Al



- Construction Vehicle
- Mining Machine
- Agricultural Machine
- Special Equipped

ECL-AM7Q | EAL-AM7Q

- Full Touch Screen
- Extreme Heavy Duty
- CVBS / A-HD Support

Display	7" 1280×800
	Single Split Triple Quad
Input	4 CAM 1 AV (CVBS, A-HD)
Power	DC 9 ~ 80V Max 30 Watt (ECL Model)
	DC 10 ~ 32V Max 30 Watt (EAL Model)
Temp.	-40 ~ 70°C -40 ~ 158°F
Vib. Resist	10G
IP Rating	IP69K
Material	Al



- Construction Vehicle
- Mining Machine
- Agricultural Machine
- Special Equipped

MCL-737

- Entry Model
- CVBS / A-HD Support

Display	7" 1024×600
	Single
Input	3 CAM (CVBS, A-HD)
Power	DC 10 ~ 32V Max 15 Watt
Temp.	-30 ~ 70°C -22 ~ 158°F
Vib. Resist	7G
Material	Plastic



EMC-AI100

- AI Object Detection Control Box

Power	DC 10 ~ 32V	Object Detection	Person Car Motorcycle Bicycle Truck Bus
Input	4 CAM (A-HD)	Max Encoding	3840×2160 @30p (4K + 1M + VGA) @30p
Output	1 AV (CVBS, A-HD)	Video Codec	H.264 H.265 MJPEG
Display	Single Dual 1 Dual 2 Quad		
Temp.	-40 ~ 85°C -40 ~ 185°F		
Vib. Resist.	10G		
IP Rating	IP65		
Material	AI		



ECL-7W

- Capacitive Touch Key • Heavy Duty
- CVBS / A-HD Support

Display	7" 1024×600
	Single
Input	2 CAM (CVBS, A-HD)
Power	DC 10 ~ 32V Max 15 Watt
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist	10G
IP Rating	IP69K
Material	AI



- Construction Vehicle
- Mining Machine
- Agricultural Machine
- Special Equipped

ECL-7WQ

- Capacitive Touch Key • Heavy Duty
- CVBS / A-HD Support

Display	7" 1024×600
	Single Split Triple Quad
Input	4 CAM (CVBS, A-HD)
Power	DC 10 ~ 32V Max 30 Watt
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist	10G
IP Rating	IP69K
Material	AI



- Construction Vehicle
- Mining Machine
- Agricultural Machine
- Special Equipped

ECL-7GF / 7GEF / 7G2EF

- Capacitive Touch Key
- CVBS / A-HD Support

Display	7" 1024×600
	Single
Input	7GF : 2 CAM (Tilt, Shutter Camera Support) 7G2EF : 2 CAM (Normal Camera Support Only) 7GEF : 1 CAM (Tilt, Shutter Camera Support) 1 AV
Power	DC 10 ~ 32V Max 15 Watt
Temp.	-30 ~ 75°C -22 ~ 167°F
Vib. Resist	7G
Material	Plastic



ECL-7GQF

- Capacitive Touch Key
- CVBS / A-HD Support

Display	7" 1024×600
	Single Split Triple Quad
Input	4 CAM (CVBS, A-HD)
Power	DC 10 ~ 32V Max 30 Watt
Temp.	-30 ~ 75°C -22 ~ 167°F
Vib. Resist	7G
Material	Plastic





ECL-770QWPH

- Capacitive Touch Key
- CVBS / A-HD Support

Display	7" 1024×600
	Single Split Triple Quad
Input	4 CAM 1 AV (CVBS, A-HD)

EAL-770QWPHF

- Capacitive Touch Key
- CVBS / A-HD Support

Display	7" 1024×600
	Single Split Triple Quad
Input	4 CAM 1 AV (CVBS, A-HD)

EAL-770WPHF

- Capacitive Touch Key
- CVBS / A-HD Support

Display	7" 1024×600
	Single
Input	2 CAM (CVBS, A-HD)

ECL-750QWPH

- Capacitive Touch Key
- CVBS / A-HD Support

Display	7" 1024×600
	Single Split Triple Quad
Input	4 CAM 1 AV (CVBS, A-HD)

EAL-750QWPHF

- Capacitive Touch Key
- CVBS / A-HD Support

Display	7" 1024×600
	Single Split Triple Quad
Input	4 CAM 1 AV (CVBS, A-HD)

EAL-750WPHF

- Capacitive Touch Key
- CVBS / A-HD Support

Display	7" 1024×600
	Single
Input	2 CAM (CVBS, A-HD)

ECL-730QWPH

- Capacitive Touch Key
- CVBS / A-HD Support

Display	7" 1024×600
	Single Split Triple Quad
Input	4 CAM 1 AV (CVBS, A-HD)

EAL-730QWPHF

- Capacitive Touch Key
- CVBS / A-HD Support

Display	7" 1024×600
	Single Split Triple Quad
Input	4 CAM 1 AV (CVBS, A-HD)

EAL-730WPHF

- Capacitive Touch Key
- CVBS / A-HD Support

Display	7" 1024×600
	Single
Input	2 CAM (CVBS, A-HD)



ECL-7WED

Display	7" 800×480
	Single
Input	1 CAM 1 AV (CVBS)

ECL-7WED2

Display	7" 800×480
	Single
Input	2 CAM (CVBS)

ECL-70D

Display	7" 800×480
	Single Split Triple PIP Quad
Input	4 CAM 1 AV (CVBS)

ECL-700D (Monitor Only)

Display	7" 800×480
	Single
Input	2 CAM 1 AV (CVBS)



ECL-560D

Display	5.6" 640×480
	Single
Input	2 CAM (CVBS)

ECL-510D

Display	5" 640×480
	Single
Input	2 CAM (CVBS)

ECL-500D

Display	5" 640×480
	Single
Input	2 CAM (CVBS)

EWS-10

- Stand Alone Wireless System

Operating Frequency	2.4095 GHz ~ 2.4696 GHz ISM Band
Data Rate	4 Mbps (Max)
Transmission Distance	200m (at open space)
Frame Rate	Up to 25fps at 720 × 576 (PAL) Up to 30fps at 720 × 480 (NTSC)
Type of Spread Spectrum	FHSS
Receiving Sensitivity	-85dBm
Video Format	MPEG4
Transmission Power	19dBm
Latency	Average 100ms

Power	DC 10 ~ 32V Max 20Watt
Temp.	-40 ~ 85°C -40 ~ 185°F
IP Rating	IP69K
Material	AI



Wireless

EDM-77CQ / 77CQH

- 4 Channel Quad Control Box

Input	4 CAM 1 AV
Video System	NTSC PAL A-HD(EDM-77CQH Only) Single Split Triple Quad
Power	DC 10 ~ 32V Max 25 Watt
Temp.	-40 ~ 85°C -40 ~ 185°F
Vib. Resist	10G
Material	EGI Steel



Control Box

EMD-S10

- 4 Channel Digital Video Record

Input	4 CAM (CVBS A-HD)
Output	2AV (D1 720p 1080p)
Frame	1080p@60fps 720p@120fps D1@ 120fps
Power	DC 10 ~ 60V Max 12 Watt
Temp.	-20 ~ 70°C -4 ~ 158°F
Material	AI



DVR

EMC-50W

- Priority for trailer
- Low Heat
- CVBS to A-HD (1080p, 720p Selectable)

Power	DC 12 ~ 15V
Temp.	-20 ~ 70°C -4 ~ 158°F
Vib. Resist	10G
IP Rating	IP69K
Material	Al



EMC-10SF / NF

- SF : Shutter Control Box
- NF : Wide Input Voltage Control Box



EMC-20T

- Tilt Control Box



EMC-30D

- Image Distribution Control Box
- A-HD Support



EMC-40WDF

- Camera Auto Switch Control Box
- Waterproof (IP69K)
- A-HD Support



Standard Cable

- IP Connector on One Side
- IP Connector on Both Side



High Definition Cable

- EXT. Cable for A-HD Connection
- IP Connector on One Side
- IP Connector on Both Side



Curl \ Trailer Cable Kit



EMB-10

- Standard Monitor Mounting Bracket
- AMPS Pattern (38×30mm / 1.5"×1.19")
- Pan Plate installing on dash board
- Ball Joint Type (Pan / Tilt Available)
- Vibration : 7G (with ECL-7GF, 460g)



EMB-20

- Standard Monitor Mounting Bracket
- Rail Sliding with dual holder
- Pan Plate installing on dash board
- Ball Joint Type (Pan / Tilt Available)
- Vibration : 7G (with ECL-7GQF, 490g)



EMB-30B

- Standard Monitor Mounting Bracket
- AMPS Pattern (38×30mm / 1.5"×1.19")
- Pan Plate installing on dash board
- Ball Joint Type (Pan / Tilt Available)
- Vibration : 10G (with ECL-7W, 750g)



EMB-40B

- Standard Monitor Mounting Bracket
- Rail Sliding with single holder
- Pan Plate installing on dash board
- Ball Joint Type (Pan / Tilt Available)
- Vibration : 10G (with ECL-7WQ, 790g)



EMB-100

- Heavy Duty Monitor Mounting Bracket
- AMPS Pattern (38×30mm / 1.5"×1.19")
- Drill Base
- Ball Joint Type (Pan / Tilt Available)
- Vibration : 10G (with ECL-AM7Q, 770g)



EMB-200

- Heavy Duty Monitor Mounting Bracket
- Rail Sliding with dual holder
- Drill Base
- Ball Joint Type (Pan / Tilt Available)
- Vibration : 10G (with ECL-AM7Q, 770g)



EMB-300

- Heavy Duty Monitor Mounting Bracket
- AMPS Pattern (38×30mm / 1.5"×1.19")
- Drill Base
- Vibration : 10G (with ECL-AM10Q, 1,250g)



WIRING DIAGRAM EXAMPLE

MINING MACHINE

COMPONENTS

1 Front , 1 Rear view cameras

10.1" DIGITAL LCD Monitor

EAL-AM10Q

FRONT VIEW SET

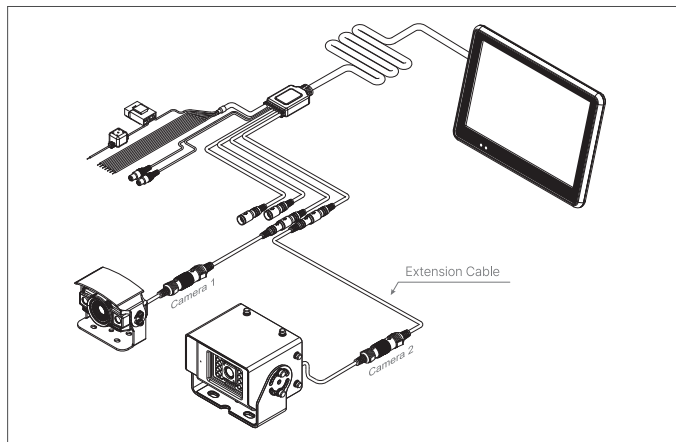
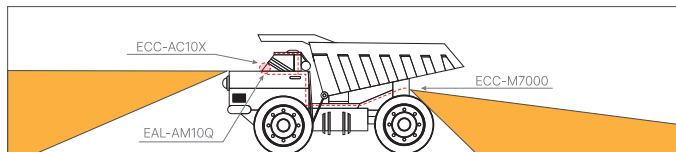
EAC-AC70 (150°)

Extension Cable (5m)

REAR VIEW SET

ECC-M7000 (130°)

Extension Cable (20m)



CONSTRUCTION VEHICLE

COMPONENTS

1 Front , 1 Rear view cameras

10.1" DIGITAL LCD Monitor

EAL-AM10Q

FRONT VIEW SET

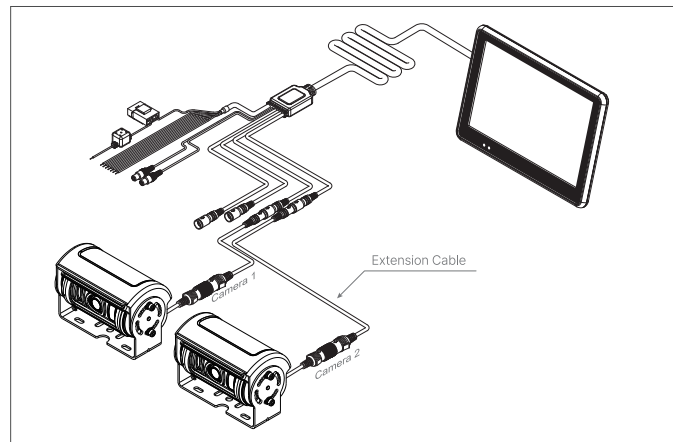
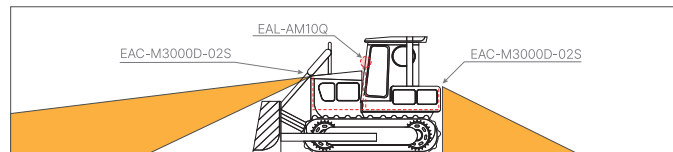
EAC-M3000D-02S (140°)

Extension Cable (5m)

REAR VIEW SET

EAC-M3000D-02S (140°)

Extension Cable (5m)

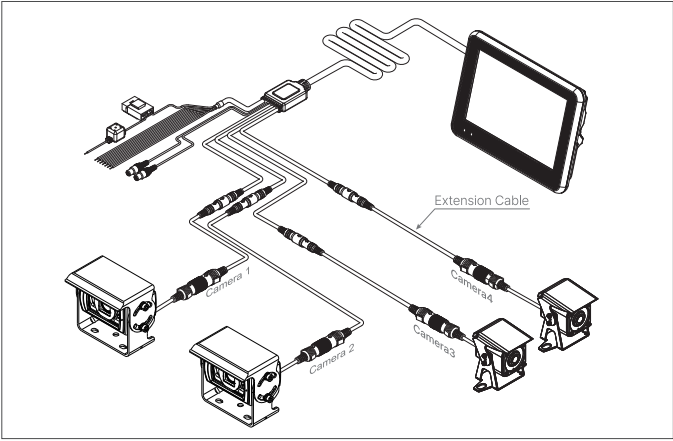
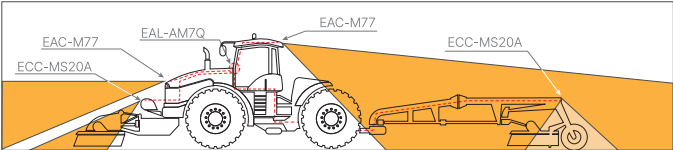


AGRICULTURAL MACHINE

COMPONENTS

2 Front , 2 Rear view cameras

7" DIGITAL LCD Monitor EAL-AM7Q	
FRONT VIEW SET	REAR VIEW SET
EAC-M77(140°)	EAC-M77 (140°)
ECC-MS20A (117°)	ECC-MS20A (117°)
Extension Cable (5m, 10m)	Extension Cable (5m, 20m)

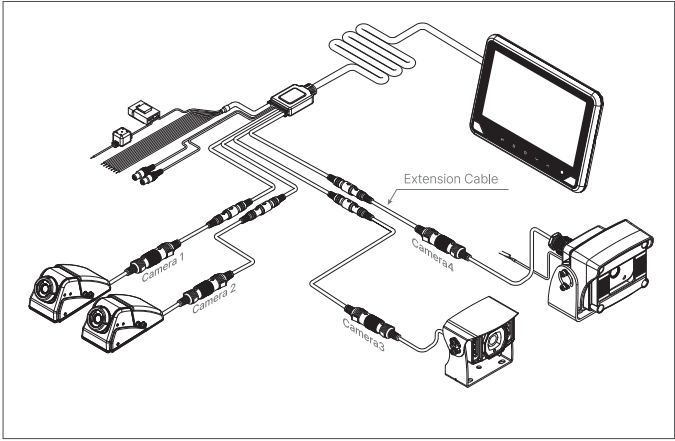
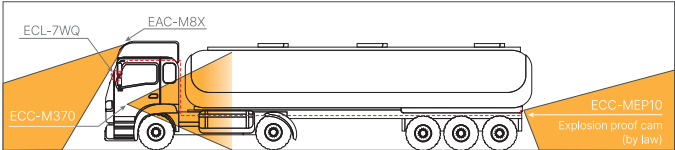


SPECIAL EQUIPPED VEHICLE

COMPONENTS

1 Front, 2 Side, 1 Rear view Cameras

7" DIGITAL LCD Monitor ECL-7WQ		
FRONT VIEW SET	SIDE VIEW SET	REAR VIEW SET
ECC-M8X (150°)	ECC-M370 (117°) *2	ECC-MEP10 (150°)
Extension Cable (5m)	Extension Cable (5m)	Extension Cable (20m)



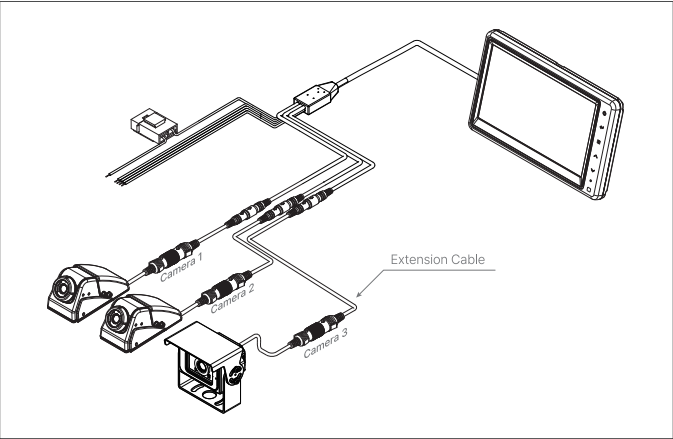
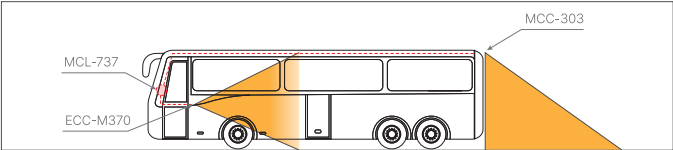
WIRING DIAGRAM EXAMPLE

ON ROAD VEHICLE

COMPONENTS

2 Side, 1 Rear view cameras

7" DIGITAL LCD Monitor MCL-737	
REAR VIEW SET MCC-303 (130°) Extension Cable (20m)	SIDE VIEW SET ECC-M370 (117°)*2 Extension Cable (5m)

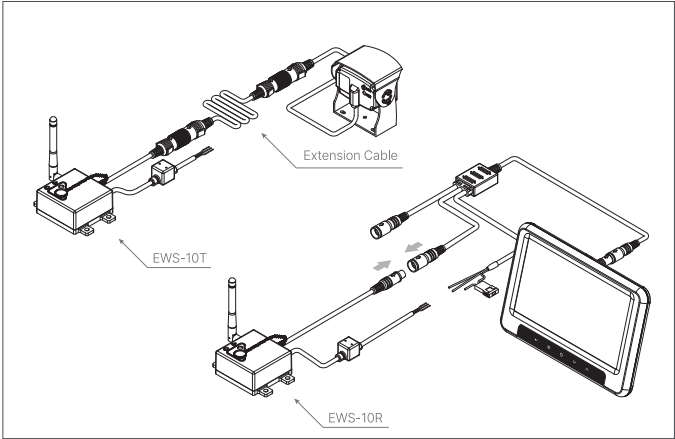
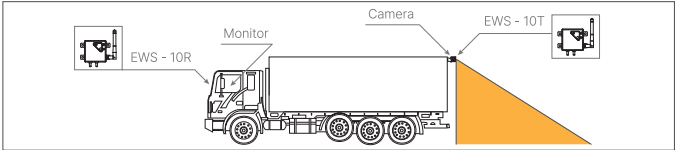


WIRELESS SYSTEM (EWS-10T/R)

COMPONENTS

Rear view with Wireless System

MONITOR SET 7 inch Digital LCD Monitor EWS-10R (Receiver)	
REAR VIEW SET CMOS Sensor Camera (150°) EWS-10T (Transmitter)	



CAMERA AUTO SWITCH CONTROL BOX

COMPONENTS 2 Rear view cameras with Auto Switch CONTROL BOX

MONITOR SET 7 inch Digital LCD Monitor Camera Auto Switch Control Box (EMC-40WDF)	
CAMERA SET 1 CMOS Sensor Camera (150°) Extension Cable (20m) Trailer Cable Trailer Connector (2ea)	CAMERA SET 2 CMOS Sensor Camera (150°) Extension Cable (20m)

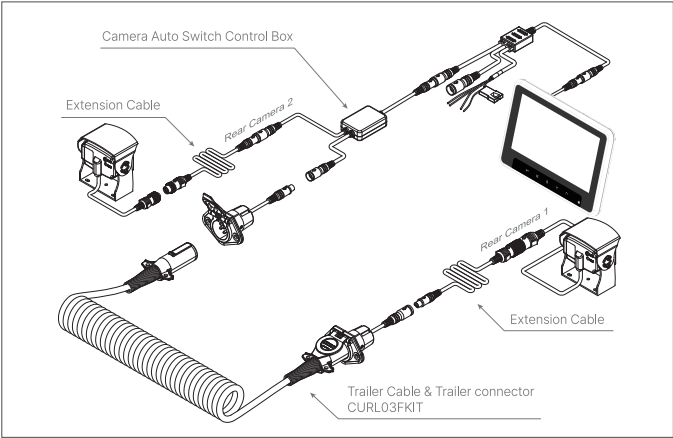
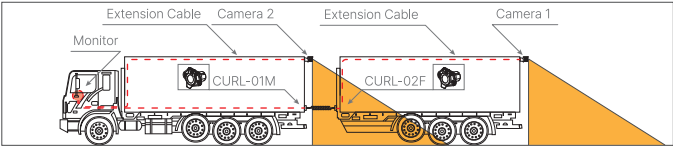
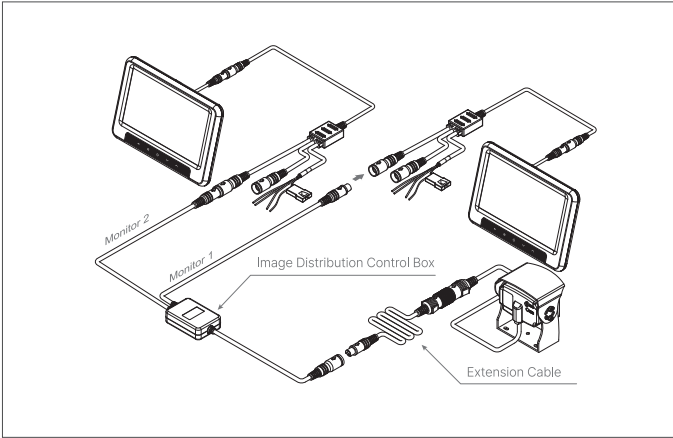
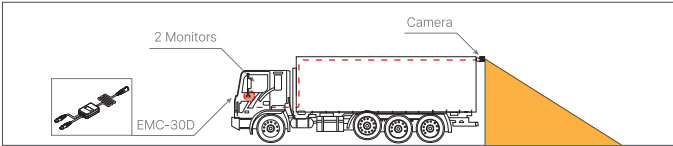


IMAGE DISTRIBUTION CONTROL BOX

COMPONENTS Rear view with 1 Image and 2 Monitor Control BOX Cable

MONITOR SET 7 inch Digital LCD Monitor (2ea) Image Distribution Control Box (EMC-30D)	
REAR VIEW SET CMOS Sensor Camera (150°) Extension Cable (20m)	



QUICK REFERENCE - MONITOR

MODEL	(page)	DISPLAY	INPUT	POWER INPUT	DIMENSION W × H × D (mm)	WEIGHT(Approx.) Monitor Only	MATERIAL
ECL-AM10Q	(pg. 41)	10.1 inch 1280 × 800	4 CAM / 1AV	DC 9V ~ 80V	262 × 183 × 33	1,250g	AI
EAL-AM10Q				DC 10V ~ 32V			
ECL-AM7Q	(pg. 41)	7 inch 1280 × 800	4 CAM / 1AV	DC 9V ~ 80V	193 × 141 × 32	770g	
EAL-AM7Q				DC 10V ~ 32V			
ECL-7WQ	(pg. 43)	7 inch 1024 × 600	4 CAM	DC 10V ~ 32V	193 × 135 × 49	790g	
ECL-7W			2 CAM			750g	
ECL-7GQF	(pg. 44)	7 inch 1024 × 600	4 CAM	DC 10V ~ 32V	193 × 130 × 44	490g	Plastic
ECL-7GF			2 CAM		193 × 130 × 42	430g	
ECL-7G2EF			1 CAM / 1 AV				
ECL-7GEF							
MCL-737	(pg. 42)	7 inch 1024 × 600	3 CAM	DC 10V ~ 32V	195 × 117 × 26	450g	AI
ECL-770QWPH	(pg. 45)	7 inch 1024 × 600	4 CAM / 1 AV	DC 10V ~ 60V	194 × 124 × 51	850g	
EAL-770QWPHF				2 CAM		DC 10V ~ 32V	
EAL-770WPHF							
ECL-750QWPH	(pg. 45)	7 inch 1024 × 600	4 CAM / 1 AV	DC 10V ~ 60V	194 × 124 × 48	750g	
EAL-750QWPHF			2 CAM	DC 10V ~ 32V		730g	
EAL-750WPHF							
ECL-730QWPH	(pg. 45)	7 inch 1024 × 600	4 CAM / 1 AV	DC 10V ~ 60V	196 × 124 × 47	580g	Plastic
EAL-730QWPHF				2 CAM		DC 10V ~ 32V	
EAL-730WPHF							

MODEL	(page)	DISPLAY	INPUT	POWER INPUT	DIMENSION W × H × D (mm)	WEIGHT(Approx.) Monitor Only	MATERIAL
ECL-7WED	(pg. 46)	7 inch 800 × 480	1 CAM / 1 AV	DC 10V ~ 32V	197 × 128 × 32	440g	Plastic
ECL-7WED2			2 CAM				
ECL-70D	(pg. 46)	7 inch 800 × 480	4 CAM / 1 AV	DC 10V ~ 32V	197 × 138 × 32	590g	
ECL-700D			2 CAM / 1 AV				
ECL-560D	(pg. 46)	5.6 inch 640 × 480	2 CAM	DC 10V ~ 32V	172 × 115 × 32	380g	
ECL-510D		5 inch 640 × 480			172 × 115 × 35		
ECL-500D							

QUICK REFERENCE - WIRELESS SYSTEM

MODEL	(page)	OPERATION FREQUENCY ISM band	LATENCY	POWER INPUT	DIMENSION W × H × D (mm)	WEIGHT (Approx.)	MATERIAL
EWS-10(RX / TX)	(pg. 47)	2.4095 GHz ~ 2.4696 GHz	≅ 100ms	DC 10V ~ 32V	90 × 33 × 65	320g	AI

QUICK REFERENCE - CONTROL BOX / DVR

MODEL	(page)	POWER INPUT	DIMENSION W × H × D (mm)	WEIGHT (Approx.)	MATERIAL	MODEL	(page)	POWER INPUT	DIMENSION W × H × D (mm)	WEIGHT (Approx.)	MATERIAL
EMC-AI100	(pg. 42)	DC 10V ~ 32V	90 × 28 × 86	470g	AI	EMC-50W	(pg. 48)	DC12V ~ 15V	91 × 83 × 20	300g	AI
EDM-77CQH	(pg. 47)	DC 10V ~ 32V	154 × 29 × 105	500g	EGI (Steel)	EMC-40WDF		DC 12V	60 × 42 × 21	40g	Plastic
EDM-77CQ						EMC-30D		DC 12V	60 × 44 × 18	40g	
EMD-S10	(pg. 47)	DC 10V ~ 60V	167 × 51 × 189	1,100g	AI	EMC-20T		DC 12V	60 × 42 × 18	40g	
						EMC-10SF/NF		DC 10V ~ 32V	60 × 42 × 18	40g	

QUICK REFERENCE - CAMERA

MODEL	(page)	IMAGE Pixel	ANGLE OF VIEW (A:HD)		POWER INPUT	DIMENSION W × H × D (mm)	WEIGHT(Approx.) Camera Only	MATERIAL
			Standard	Optional				
ECC-AC70-05AIBR	(pg. 27)	5.1MP	135°	92° 40°	DC 12V	78 × 45 × 52	250g	AI
ECC-AC77-05AIBR								
ECC-AC77-02AI								
ECC-MEP10 R2	(pg. 30)	2.1MP	150°	140° 130° 92° 40°	DC 12V	98 × 86 × 113	800g	
ECC-MEP10 R5		5.1MP						
ECC-AC77-05IP	(pg. 28)	5.1MP	135°	92° 40°	DC 12V	78 × 45 × 52	250g	
ECC-SC10	(pg. 28)	5.1MP	135°	92° 40°	DC 12V	80 × 80 × 71	470g	
ECC-AC70-02S	(pg. 31)	2.1MP	150°	140° 130° 92° 40°	DC 10V ~ 32V	78 × 45 × 52	250g	
EAC-AC70-02S								
ECC-AC70-05		5.1MP						
ECC-AC77-02S	(pg. 31)	2.1MP	150°	140° 130° 92° 40°	DC 10V ~ 32V	78 × 45 × 52	250g	
EAC-AC77-02S								
ECC-AC77-05		5.1MP						
ECC-AC10X	(pg. 32)	5.1MP	20°	-	DC 10V ~ 32V	86 × 86 × 60	360g	
MCC-303	(pg. 29)	2.1MP	130°	92° 40°	DC 12V	70 × 43 × 57	215g	
MCC-313			160°	-		70 × 43 × 80	200g	
ECC-M3300D-02S	(pg. 29)	2.1MP	150°	140° 130° 92° 40°	DC 12V	104 × 55 × 63	370g	
ECC-M3000D-02S	(pg. 33)	2.1MP	140°	130° 92° 40°	DC 12V	104 × 55 × 63	370g	
EAC-M3000D-02S								
ECC-M93D-02S	(pg. 37)	2.1MP	130°	92° 40°	DC 12V	96 × 42 × 72	370g	

MODEL	(page)	IMAGE Pixel	ANGLE OF VIEW (A:HD)		POWER INPUT	DIMENSION W × H × D (mm)	WEIGHT(Approx.) Camera Only	MATERIAL
			Standard	Optional				
ECC-M90D-02S	(pg. 33)	2.1MP	130°	92° 40°	DC 12V	103 × 46 × 68	390g	AI
EAC-M90D-02S								
ECC-M9000D-02S	(pg. 37)	2.1MP	142° 50° (Twin)	-	DC 12V	118 × 58 × 65	630g	
ECC-M9100D-02S								
ECC-M2000D-02S	(pg. 37)	2.1MP	150°	140° 130° 92° 40°	DC 12V	86 × 43 × 49	230g	
ECC-M77D-02S	(pg. 34)	2.1MP	130°	92° 40°	DC 12V	69 × 41 × 50	230g	
EAC-M77D-02S			140°	130° 92° 40°				
ECC-M70D-02S	(pg. 34)	2.1MP	130°	92° 40°	DC 12V	69 × 42 × 70	330g	
EAC-M70D-02S								
ECC-M390D-02S	(pg. 36)	2.1MP	140°	130° 92° 40°	DC 12V	69 × 41 × 51	230g	
EAC-M390D-02S								
ECC-M350D-02S	(pg. 36)	2.1MP	150°	140° 130° 92° 40°	DC 12V	69 × 41 × 53	230g	
EAC-M350D-02S								
ECC-M330D-02S	(pg. 38)	2.1MP	150°	140° 130° 92° 40°	DC 12V	69 × 44 × 63	260g	
ECC-M5XD-02S	(pg. 35)	2.1MP	150°	140° 130° 92° 40°	DC 12V	71 × 41 × 51	230g	
ECC-M7XD-02S								
ECC-M8XD-02S								
ECC-M9XD-02S								
ECC-M7000D-02S	(pg. 32)	2.1MP	130°	92° 40°	DC 12V	120 × 76 × 70	1,780g	
YB-40C	(pg. 30)	2.1MP	150°	140° 130° 92° 40°	DC 12V	40 × 42 × 48	155g	

QUICK REFERENCE - CAMERA

MODEL	(page)	IMAGE Pixel	ANGLE OF VIEW (A+HD)		POWER INPUT	DIMENSION W × H × D (mm)	WEIGHT(Approx.) Camera Only	MATERIAL
			Standard	Optional				
ECC-M47D-02S	(pg. 38)	2.1MP	130°	92° 40°	DC 12V	94 × 48 × 69	320g	Al
ECC-M80D-02	(pg. 38)		130°	92° 40°		94 × 54 × 72	440g	
ECC-MF100D-02	(pg. 32)		53°	-		30 × 25 × 136	210g	
ECC-MS30D-02	(pg. 39)		185°	-		28 × 28 × 40	105g	Zn
ECC-MS20A	(pg. 39)	1.23MP	117°	-		30 × 30 × 39	107g	
ECC-MB5	(pg. 40)		117°	-		30 × 30 × 44	80g	
ECC-M370	(pg. 39)		117°	-		54 × 64 × 71	330g	
ECC-M99	(pg. 39)		117°	-		45 × 47 × 81	170g	
ECC-M89A	(pg. 38)		80°	-		91 × 53 × 82	430g	Al
ECC-MB3	(pg. 40)		120°	-		30 × 30 × 60	80g	



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