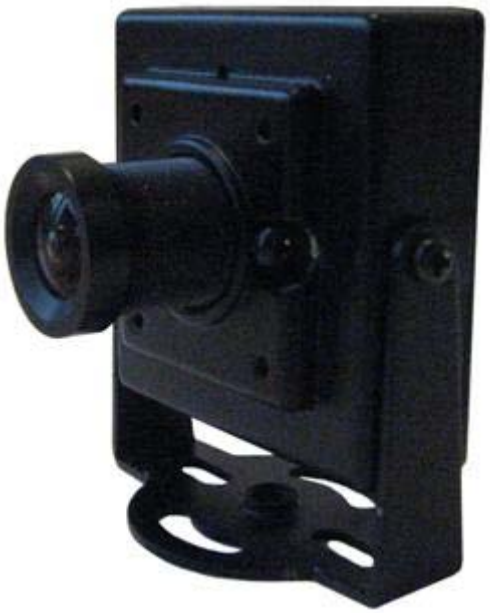
CAM 120
Technical Manual

Version 1.01



Introduction

This manual contains technical documentation allowing easy installation and use of the CAM 120 camera module designed for the C350, C450 and the C600 series. For information on the high-level programming of the CAM 120, please refer to the RTCU IDE documentation.

The CAM 120 extends the capability of the M2M Control platform with the ability to take JPEG compressed snapshots. Snapshots can be taken in four different resolutions.

A whole new range of applications becomes available with CAM 120, such as:

- Remote monitoring of equipment, devices, work areas or locations.
- Any triggered event application.
- Security application.
- *"A picture is worth a thousand words…"*

Snapshots taken can either be saved to a SD-CARD, which can be accessed remotely, or it can be sent directly over GPRS to a server.

The CAM 120 is fully compatible with the former model CAM 100.

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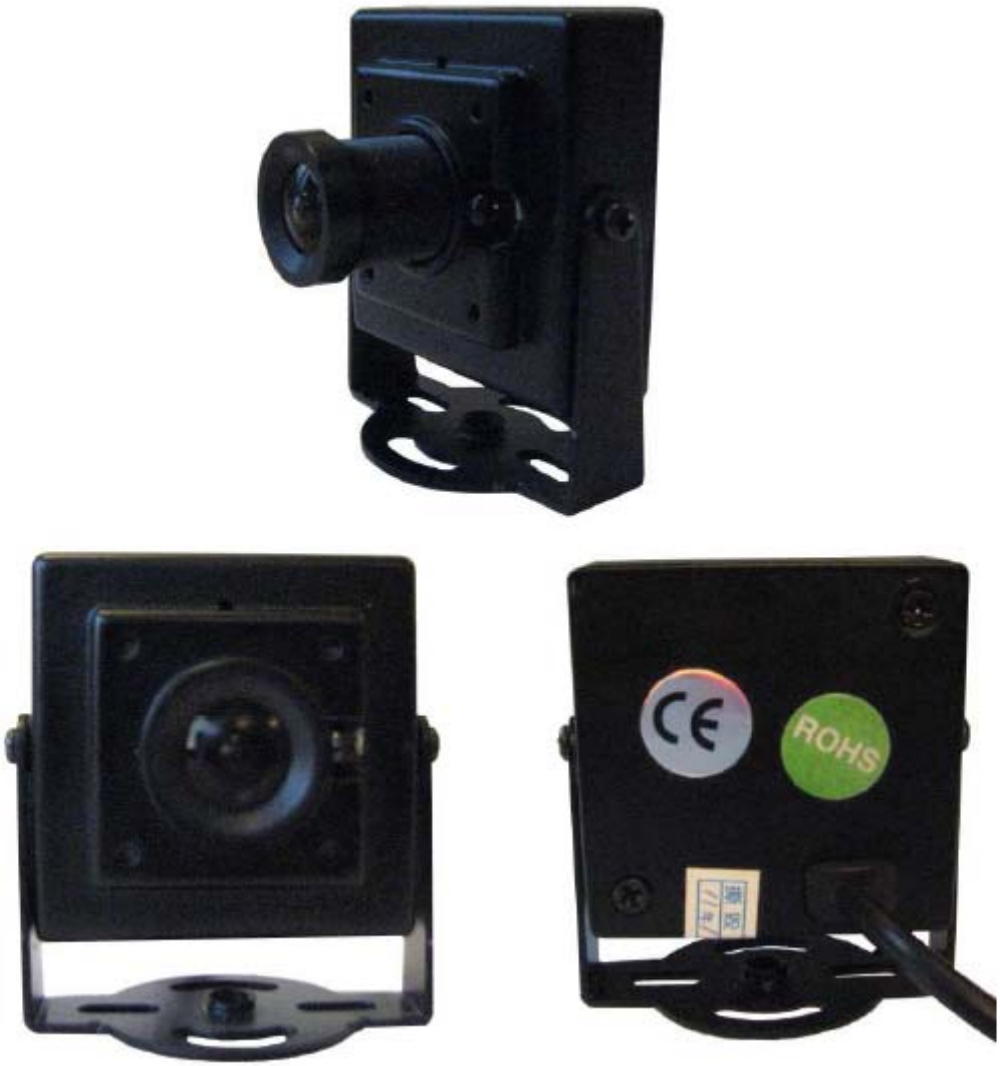
Graphical view



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Installation

Connection

The CAM 120 is connected to serial port 1 (service port) on the C600 and C350. For this purpose a 3 meter cable is delivered, which also allows placement of the CAM 100 away from the control unit itself.

For the C450 series the colour coded 4 cables need to be connected to the C450 manually. Cables are colour coded, and these colours will be used in the following description:

Color	Signal Name
Black	SGND
Yellow	SER1_TXD
White	SER1_RXD
Red	DCOUT33

Power supply for the CAM 120 is controlled by the unit. This keeps the power consumption kept at a minimum, only turned on when taking snapshots.

Lens adjustment

After the CAM-120 is placed correctly, the focus needs adjustment. This is done by loosening the screw that locks the lens and turning the lens carefully left or right manually, depending on the distance to the objective to focus on.

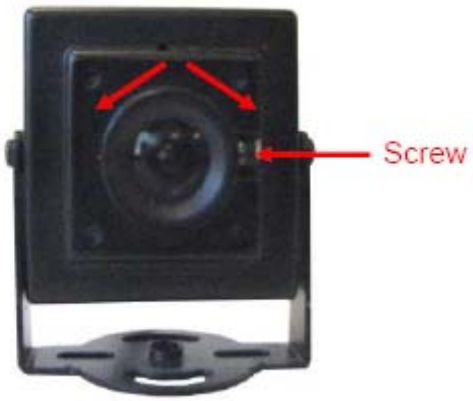

Figure 2: Lens adjustment

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Specifications

Camera type	Still Image JPEG Compression VGA Camera Module			
Image Sensor	1/4 CMOS			
White Balance	Automatic			
Exposure	Automatic			
Auto Gain Control	Automatic			

	Minimum	Typical	Maximum
Power supply (VDC)	3.0	3.3	3.6
Field of View (degrees)	90 (diagonal)		120 (diagonal)
Working Temperature	-15 °C		+70 °C

External Dimensions (mm)	W 36 x H 36 x D 29		Without mounting bracket	
Resolution	80 x 64	160 x 128	320 x 240 (QVGA)	640 x 480 (VGA)

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Appendix A

Figure 3: Area overview

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Figure 4: Room overview

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