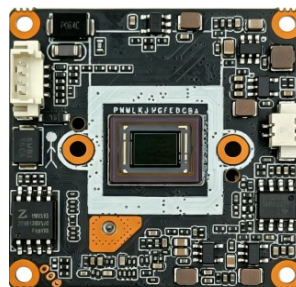




MT-S85DE Specifications

Functional Characteristics

- 1/2.8" 5-megapixel CMOS IMX675
- H.265+, H.265/H.264, dual-bitstream
- Supports backlight compensation, strong-light suppression, and 3D digital noise reduction.
- Supports image flipping, mirroring, and rotation
- Supports dual light sources with intelligent dimming
- Supports external TF cards, WiFi, or 4G connectivity
- Supports 2 serial ports and 3 general-purpose I/Os
- Supports precise human and vehicle detection, as well as applications such as electronic perimeter fencing, intrusion detection, and absentee detection.
- Supports screen masking to protect private areas.
- Supports voice intercom, voice announcements, and custom voice commands.
- Supports ONVIF Profiles S, T, G, and M
- Plugin-free for mainstream browsers
- Support for browser-based CMS functionality



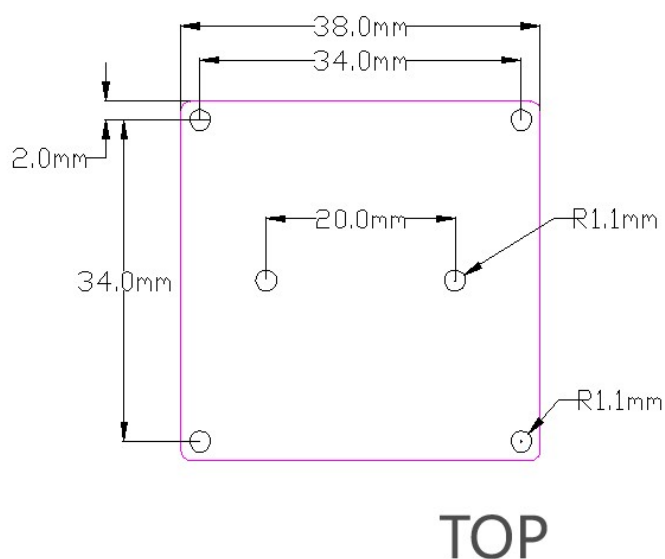
Size of Product

Model	MT-S85DE
Main control chip	SSC385DE
Imaging sensor	5MP, 1/2.8" CMOS sensor
Image output	Main video stream: 30 FPS (2576*1944,2048*1536,1920*1280,1600*1200,1024*768)
	Child stream: 30 FPS (800*600,320*240)
	Image Effects: Automatic white balance, backlight compensation support, and adjustable hue/brightness/contrast/saturation/sharpness.
Audio frequency	Default: 1 line-in input, 1 line-out via built-in power amplifier (8 Ω 1 W / 4 Ω 2 W)
	G.711 Compliance with encoding standards; supports two-way voice intercom, audio-video synchronization, and echo suppression.
Network interface	1 One RJ45 Ethernet port, 10/100M auto-negotiation
TF Interface	Supports one TF storage interface for external storage, with a maximum supported capacity of 512 GB.



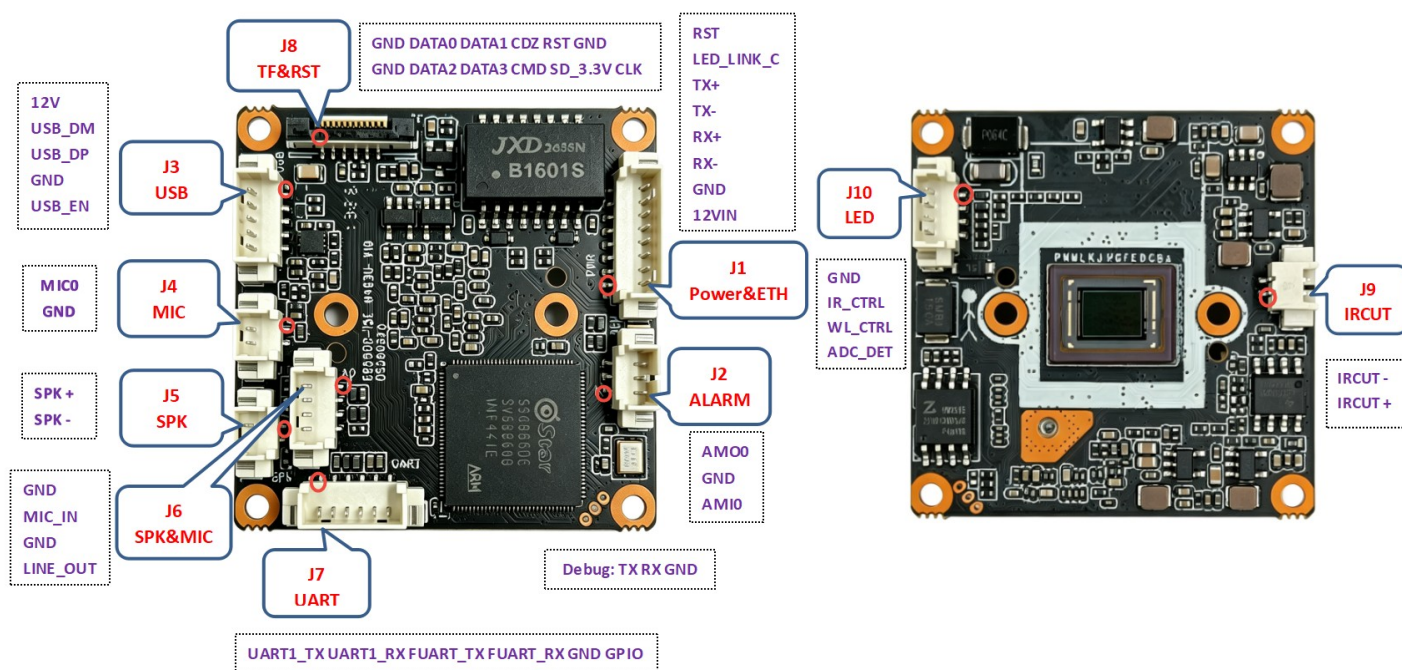
WiFi(selectable)	Supports external Wi-Fi 4/6 modules, featuring dual-band support and compliance with 802.11b/g/n/ax standards.
4G (Optional)	Supports third-party 4G communication modules
Reset button interface	Supports hardware reset button
UART	2 UART
IO	3 General-purpose I/O
Lighting panel interface	Supports dual light sources with intelligent dimming
Pilot lamp	Supports network connection indicator light
Networking protocol	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, NTP, UPnP, SMTP, IGMP, 802. 1X, IPv4, IPv6, UDP, SSL/TLS, SNMP, ARP, WebSocket, ONVIF
Standard configuration	Person/Vehicle Detection, Boundary Crossing Detection, Zone Intrusion Detection, Zone Entry Detection, Zone Exit Detection, Integrated Audio Alarm
Selectable	Face capture, face recognition, pet care, lane monitoring, license plate recognition, infant monitoring, abnormal sound detection, obstruction detection, electronic perimeter fencing, personnel absence detection, pedestrian flow statistics, voice alarms
Source	DC 12V
Work environment	-30℃~+65℃ (-22° F~+149° F) , ≤95%RH
Size	38×38 mm, plate thickness: 1.6 mm

Plate and Frame Dimensions





Mainboard Diagram



--Note: The circle indicates pin 1.

Interface Definition (Note: IO uses a default 3.3V power domain)

J1 (Vertical SMT-8P-1.25MM) – 12V Power Supply and Network Interface

Order number	Definition	Description
1	12V_VIN	DC power input, voltage range: 12V
2	GND	GND
3	TNRX -	Receive data-
4	TNRX +	Receive data+
5	TNTX -	Send data-
6	TNTX +	Send data+
7	LED_LINK_C	Network port indicator light
8	RST	Reset button, same as J8.11

J2 (Vertical SMT-3P-1.25MM) ----Alarm Interface

Order number	Definition	Description
1	ALAM_OUT0	Alarm output: 0; high-level output triggers alarm.
2	GND	GND
3	ALAM_IN0	Alarm input set to 0; alarm triggered by low-level input.

**J3 (Vertical SMT-5P-1.25MM) – USB application interface**

Order number	Definition	Description
1	12V	12V power output
2	USB_DM	USB differential data-
3	USB_DP	USB differential data+
4	GND	GND
5	USB_EN	Enable; enabled by default.

J4 (Vertical SMT-2P-1.25MM) ----MIC0 interface

Order number	Definition	Description
1	MIC0	Positive terminal of the microphone
2	GND	Mimu negative electrode

J5 (Vertical SMT-2P-1.25MM) ----Speaker jack

Order number	Definition	Description
1	SPK +	Connect to an 8 Ω , 1 W speaker+
2	SPK -	For 8 Ω , 1 W speaker-

J6 (Vertical SMT-6P-1.25MM) – External audio interface

Order number	Definition	Description
1	GND	GND
2	MIC_IN	Microphone input
3	GND	GND
4	LINE_OUT	Audio linear output

J7 (Vertical SMT-6P-SH1.0MM) – UART interface

Order number	Definition	Description
1	UART_TX	Serial port data reception
2	UART_RX	Serial port data transmission
3	FUART_TX	Fast serial data reception
4	FUART_RX	Fast serial port data transmission
5	GND	GND
6	GPIO	Be in common useGPIO

J8 (2*8P vertical dual-row FPC) ----TF slot

Order number	Definition	Description
1	GND	GND
2	SD_DATA2	TF Card Data 2
3	SD_DATA3	TF card data 3
4	SD_CMD	TF Card Command
5	SD_3V3	TF card power supply
6	SD_CLK	TF card clock



7	GND	SystemGND
8	SD_DATA0	TF card data: 0
9	SD_DATA1	TF Card Data 1
10	SD_CDZ	TF card insertion detection; defaults to low-level insertion.
11	SW_RST	Reset button, same as J1.8
12	GND	GND

J9 (Horizontal SMT-2P-1.25MM) ----IRCUT

Order number	Definition	Description
1	IRCUT +	IRCchanging-over+
2	IRCUT -	IRCchanging-over-

J10 (Vertical SMT-4P-1.25MM) ----LED board interface

Order number	Definition	Description
1	GND	GND
2	IR_CTRL	Infrared enable, high-level enable; PWM support available.
3	WL_CTRL	Supports white light enable, high-level enable, and PWM usage.
4	ADC_DET	Hard-light sensing, CDS sensing, default high-level input at night

- The above interfaces are defined as default features; for specialized functionality, please contact the developers.