# CCDCAM

#### MC-K10H Smoke&Flame Recognition Camera Module



The MC-K10H module is a camera module designed for the timely detection and alarm signaling of smoke and flames, suitable for both indoor and outdoor environments. Its smoke and flame detection algorithms can identify smoke and flame regions within dynamic video streams. After multi-frame fusion calculations, it can output alarm information for smoke and flames.

Additionally, the MC-K10H is an easy-to-develop and integrate module compatible with other digital systems. It supports local area network (LAN) monitoring, configuration, and upgrades. The module comes with a standard SDK for both Linux and Windows platforms.

#### **Key Features**

- 1/3" 4MP CMOS Sensor
- Support H.256+, H.256, H.264 encoding.
- Support soft light sensitivity and full color .
- Support smart analytical, smoke and flames detection.
- Support two way audio, voice broadcast, custom voice messages.
- Support image flipping and support digital WDR.
- Support ONVIF.
- Support IP filter and block list.
- Support auto-focus and PT
- Support TF card/WiFi/4G/ alarm input and out/



## **Technical specifications:**

Image sensor			
Model	MC-K10H		
SOC	SSC37D		
Sensor	1/3" 4MP CMOS		
Maximum resolution	2560*1440@25fps		
Minimum illumination			
Camera			
AGC	Auto/Manual		
S/N ratio			
Shutter speed			
Wide dynamic range	Digital WDR≥73.7dB		
Exposure mode	Auto/ Manual/shutter mode		
White balance	Auto/ Manual /ATW/ Indoor/Outdoor/ lamp		
Day & Night			
Image resolution			
Main stream	2560*1440/2304*1296/1920*1080/1280*720/1944*1944/1200*1200@25fps		
Sub stream	640*360/VGA/D1		
Audio resolution			
Audio Out/In	Supported/Wired required		
Audio processing	G.711 codec standard		
Protocol			
Network protocol	HTTP/RTSP/DHCP/NTP/P2P/ONVIF and more		
Interface			
Network interface	10/100Mps Base-T Ethernet, 1*RJ45 interface		
IRCUT interface	Integrated IRCUT switching circuit with automatic, external, manual, and timed control for day/night mode.		
Light board interface	PWM yellow light		
Storage interface	TF memory card up to 512GB		
Extra interface	Expandable with either 1 channel of IO output or 1 channel of 458 interface.		
General			
Power supply	DC 12V protected from lightning		
Additional functions	OSD supported/Two way audio/Support audio and video synchronously/smoke and flame detection /voice alarm/		
Standard	International: IEC61000-4-5 China: GB/T17626.5		
Size	(L)38mm * (W)38mm		
Operation temperature	-40°C~+65°C		
Working humidity	≤90% RH (non-condensing)		

### **Additional Note**

Suitable Install environment: Indoor / Outdoor

**Avoid objects:** Please avoid red objects and reflective surfaces after installation, Ex:red lights, car tail lights, sunlight reflection etc.

**Recommended installation height:** Distance from the ground ≥1.5meters

**Ambient Light:** Supports normal indoor and outdoor lighting, backlight, side light, and low light environments (does not support IR).

Target Recognition Range:

Minimum flame: 30x30 @ 1080P, optimal flame: 60x60 and above @ 1080P Minimum smoke: 30x30 @ 1080P, optimal smoke: 60x60 and above @ 1080P

**Target Clarity:** 

Not supported: overexposure, reflection, motion blur, defocus, IR, dim lighting, blur.







IO	FUNCTION	PIN	PIN NAME	DESCRIPTION
D1	8-pin	1	DC12V+	DC 12V input
		2	GND	Ground
		3	RJ45_6	RX-
	network &	4	RJ45_3	RX+
	power interface	5	RJ45_2	TX-
		6	RJ45_1	TX+
		7	RESET	Reset
		8	LED+	Network status indicator light
	2-pin	1	MIC+	
D2	2 Primary Microphone	2	MIC-	Primary microphone
D3	2-pin	1	MIC+	Secondary microphone
	Secondary Microphone	2	MIC-	
D4	Audio out	1	AUDIO_OUT	Audio output
		2	GND	Ground
D5	Speak out	1	SPK+	Speak output (8 $\Omega$ 2W)
		2	SPK-	
D6	Light control	1	CDSIN	CDS (Since the MC-K10H is a smoke and flame detection module, we recommend not using interface D6.)
		2	GND	Ground
		3	PWM1	IR
		4	PWM0	Yellow light /White light
D7	IR-CUT	1	IR-CUT Signal control	Output
	interface	2		
D8	Extended	1	GND	Ground
	interfaces	2	ТХ	Serial interface or RS485 interface
	IO / RS485	3	RX	
		4	IO-OUT	Spken