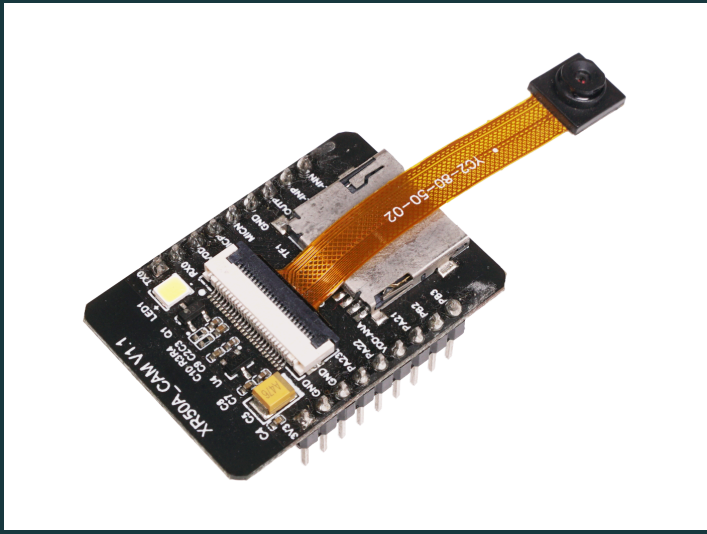
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INDUSTRIAL PRODUCT DATASHEET

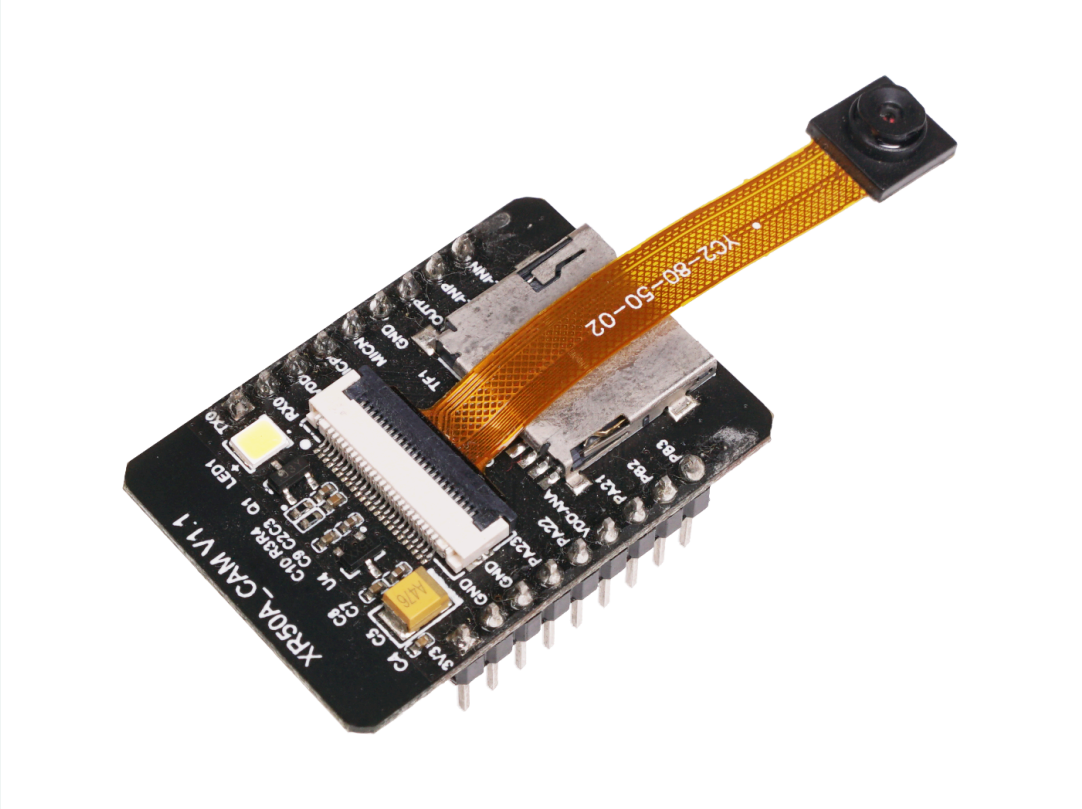
XR50A CAM Development Board(with camera)

XR50A CAM Development Board: 1920x1088 camera, video encoding, encryption, Wi-Fi connectivity, and over-the-air firmware upgrades.

SKU	UPDATED	PRICE
102110465	2025-11-03 07:54:56	$8.90(Excl. VAT)



Overview

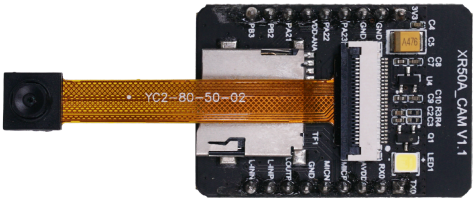


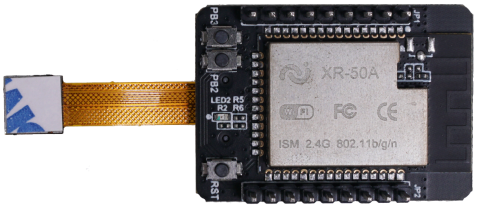
The XR50A CAM Development Board features an onboard flashlight and DVP interface camera (max resolution 1920x1088) with integrated video subsystem supporting JPEG, YUV, and NV12 encoding (32x32 to 1920x1088). It includes encryption engines (AES, DES, 3DES, SHA, MD5, CRC), Wi-Fi STA/AP/STA+AP modes, Smart Config/AirKiss, FOTA, and secondary development environments for Windows and Linux.

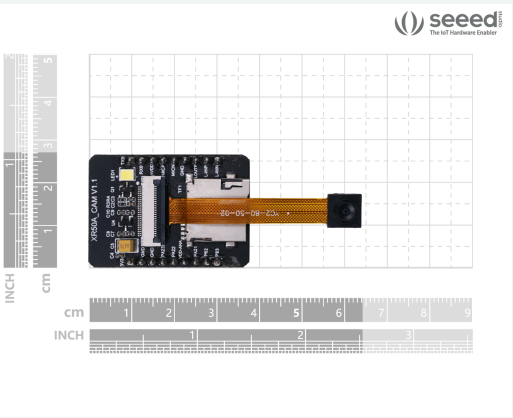
Key Features

- Support onboard flashlight and DVP interface camera (Maximum resolution 1920*1088)
- Support AES / DES / 3DES / SHA / MD5 / CRC Encryption Engine
- Support STA / AP / STA + AP operating mode
- Support Smart Config/AirKiss one key match
- Support Serial port local upgrade and remote Firmware Upgrade (FOTA) function
- Support secondary development and integrate Windows and Linux development environment
- integrated video subsystem support to JPEG and YUV encode mode, also it supports to nv12 input format in off-line encode mode. (minimum resolution: 32 * 32 pixel, the maximum resolution: 1920 * 1088)

Product Gallery







Specification

Chip type	XR50_CAM
Encapsulation	DIP-18
Size	38*27*11.5(-0.2 - +0.2)MM
SPI Flash	defult 32 Mbit
Support interface	UART / GPIO / PWM / CSI / MIC / Line-in / Speaker
I/O port	5
Series Rate	9600 / 19200 / 38400 / 115200 / 921600 bps, up to 3Mbps
Spectral range	2400 - 2483.5 MHz
Antenna form	On-board PCB antenna / IPEX extenal antenna
Transmitted power	802.11b: 15 - 19 dBm (@ 11 Mbps) 802.11g: 13 - 17 dBm (@ 54 Mbps) 802.11n: 12 - 16 dBm (@ HT20, MCS7)
Receive sensitivity	CCK, 1 Mbps: -96dBm CCK, 11 Mbps: -91dBm 6 Mbps (1/2 BPSK): -91dBm 54 Mbps (3/4 64-QAM): -75 dBm HT20, MCS7 (65 Mbps, 72.2 Mbps): -73 dBm
Power dissipation (typical value)	Turn off flash light -- Turn off camera: 48 mA Turn on flash light -- Turn off camera: 111 mA Turn off flash light -- Turn on camera: 108 mA Turn on flash light -- Turn on camera: 156 mA
Security	WEP / WPA-PSK / WPA2-PSK / WPS 2.0
Power supply	3.3 V current > 600 mA
Working temperature	-40 °C - 85 °C
Storage environment	-65 °C - 150 °C， < 90% RH

No.	Pin	Function
1	TX0	UART0_TX; JTAG_TMS; PWM4/ECT4; SWD_TMS; EINTB0
2	RX0	UART0_RX; JTAG_TCK; PWM5/ECT5; SWD_TCK; EINTB1
3	AVDD	2.8 V output, Support to external audio devices (CODEC) or mic-power
4	MICP	Coder Decoder ADC input p, microphone positive
5	MICN	Coder Decoder ADC input n, microphone negative
6	GND	ground connection
7	LOUTP	Coder Decoder DAC output p
8	LINEUP	Coder Decoder line-in input p
9	LINEN	Coder Decoder line-in input n
10	PB3	SWD_TCK; JTAG_TDI; PWM7/ECT7; FLASH_HOLD/IO; EINTB3
11	PB2	SWD_TMS; JTAG_TD0; PWM6/ECT6; FLASH|_WP/IO2; EINTB2
12	PA21	UART2_RX; DMIC_CLK; PWM2/ECT2; SPI1_CLK; WUPIO7
13	VDD_ANA	in-chip output 1.8 V
14	PA22	UART2_TX; DMIC_DATA; PWM3/ECT3; SPI1_CS0; WUPIO8; EINTA22
15	PA23	EXT_DCDC_PUP; FEM_CTRL1; FEM_CTRL2; WUPIO9; EINTA23; (Default is not mean high-level signal)

No.	Pin	Function
16	GND	Ground connection
17	GND	Ground connection
18	3V3	Power supply 3.3 V

Compliance & Logistics

HSCODE	8517180050
USHSCODE	8517180050
UPC	
EUHSCODE	8543709099
COO	CHINA

Resource Links

- https://www.seeedstudio.com/XR50A-CAM-Development-Board-with-camera-p-4691.html

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