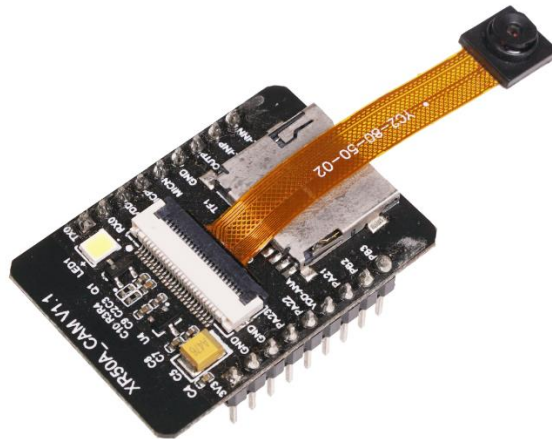


SEED-102110465

XR50A CAM Development Board(with camera)



Feature

- 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)

Description

XR50A - CAM is a wireless image acquisition based on XR-50A-WIFI module development product, it has ARM Cortex-M4F 32 - bit micro MCU with the maximum frequency is 384MHZ, 416 KB SRAM, 160 KB ROM, 4MB PSRAM, AND 1024 bits efuse. It can be used as an image acquisition board or independent product development, XR50A - CAM hardware part contains a Camera interface port, reset buttons, TF card slot, the power indicator light, flashing light, XR-50A-WIFI module, it can be used for image acquisition and wireless transmission application interface, also it supports the microphone and speaker interface for audio collection and audio output.

Specifications

Chip type	XR50_CAM
Encapsulation	DIP-18
Size	38*27*11.5(-0.2 - +0.2)MM
SPI Flash	default 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 external antenna

Chip type	XR50_CAM
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

Dimensions

- 4 x 2.8 x 1 (cm)

Technical details

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_TDO; 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

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