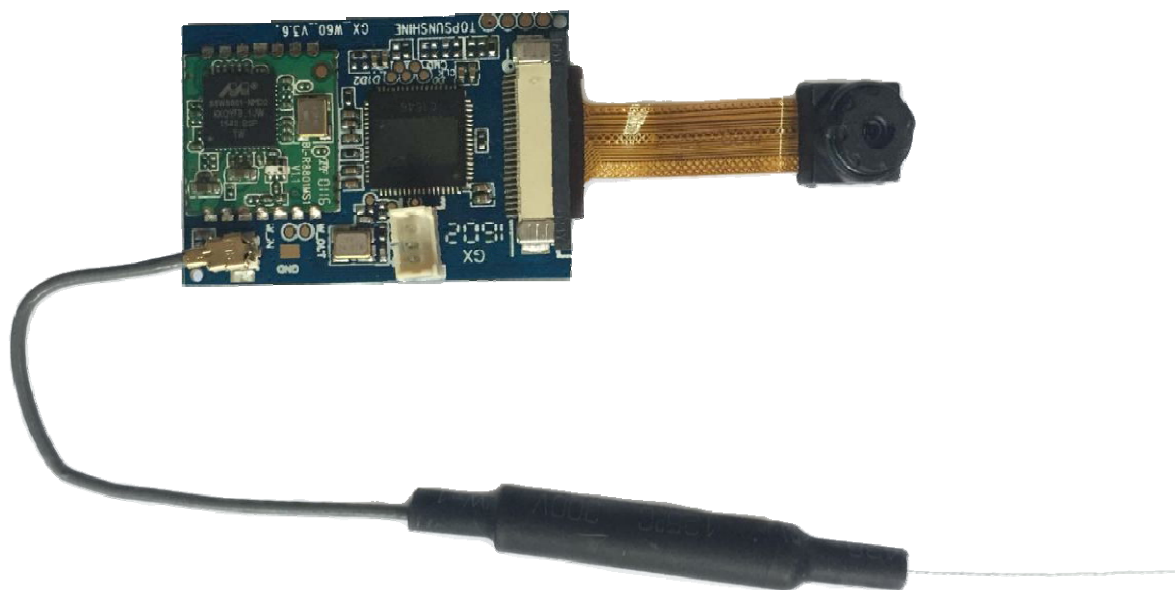


GX_W60_V3.5 WIFI Video module

Mnaua1



W60

1 summary

1.1 overview of the whole

W60_WIFI module is the latest introduction of crown Asahi Technology Co., Ltd. is a wireless video transmission and design of products. This module uses the most popular video compression technology H.264, the technology has a high data compression ratio, so that it can transmit the best video quality even in the least broadband resources. So that the distance to the video transmission will be further.

On the basis of the transmission video, the output control signal and the audio function can be extended simultaneously according to the requirement.

1) Use as WIFI mini camera

This module uses the advanced image compression technology to produce high compression ratio of the video data stream, through the WIFI point to point, Send to any display terminal (Android/iphone and other smart phones).

Smart phone needs to be installed in advance of the company's development of APP, in order to complete the video display, storage, send instructions, such as the application of the function of processing.

2) Application as WIFI to UART module

Support for serial transmission, support P2P communication, support Internet remote control of the Internet, is very suitable for the field of smart home,

Users can remotely control all electrical appliances at home with a mobile phone or a computer.

3) Use as IP camera

According to the customer request to add video monitoring function, speech function, users to go out time can also be monitoring mobile phone home screen, voice intercom.

4) Can also be customized according to the actual needs of customers the corresponding remote control products.

1.2 application area

Toy field video car, aircraft, flying saucer aerial etc.

Portable product area

Intelligent home field

Industrial sensor field

Point of sale terminal area

Logistics and freight management

Home security and automation

Medical field, such as patient monitoring, medical diagnosis

Metering (parking meters, measuring instruments, meters, etc.)

2 Module operation instructions

- A) the module button on the antenna, according to the following requirements of the power supply, power up, this time the red LED often bright, about 3 seconds to

wait about seconds to complete the initial.

- B) Iphone/Android mobile phone WIFI function to open, search to the corresponding WIFI video module name (name can be changed according to customer production requirements), click the name of the WIFI and select the connection.
- C) open application software (need to install the company's specific application software development, application software interface can be customized according to customer's product requirements), click on the interface to see the scene.
- D) The antenna is dipole antenna, and is permanent connection antenna. the antenna is 3.0dBi, This antenna is permanently paired with a product to sell. (Only antennas of the same type and with equal or less gains as shown below may be used with the The WiFi video module. Other types of antennas and/or higher gain antennas may require additional uthorization for operation)

3 main parameter

function	Specifications
camera	30 Million pixels
Video coding format	H. 264
Video sampling rate	Reach 25~30 frames per second
Image resolution	VGA (640*480)
frequency range	2.412—2.462 GHz
WiFi	802.11 b/g/n
Transmission bit rate	135/54/48/36/24/18/12/9/6/1M (自适应)
throughput	90Mbps
Transmit power	135M: 15dBm
	54M: 15dBm
	11M: 19dBm
Receiving sensitivity	54/135M: - 72dBm@10%PER
	11M: - 85dBm@8%PER
	6M: - 88dBm@10%PER
	1M: - 90dBm@8%PER
Security standard	WEP/WPA-PSK/WPA2-PSK.
transmission distance	30~150 meter
Antenna selection	dipole antenna
PCB	33mm*22mm*0.8mm
power supply	3~5V
power waste	800mW左右
working temperature	-10° C ~ +70° C

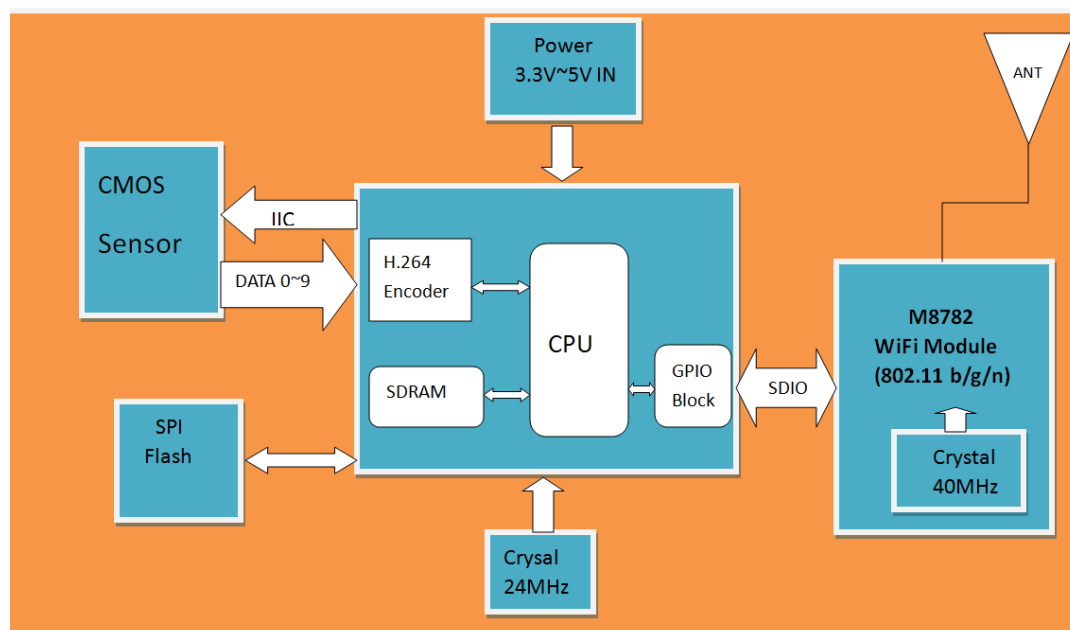
4. RF parameters

TX Power (dBm)	Mode	Rate(Mbps)	CH1	CH7	CH13
	11b	1	18.67	18.62	18.63
		2	18.58	18.61	18.57
		5.5	17.49	17.53	17.58
		11	17.46	17.52	17.48
	11g	6	16.25	16.1	16.3
		9	16.39	16.52	16.42
		12	15.26	15.24	15.38
		18	14.47	14.56	14.54
		24	13.34	13.46	13.31
36		12.2	12.45	12.05	
48		12.46	12.34	12.56	
54		12.64	12.16	12.23	
TX Power (dBm)	Mode	Rate(Mbps)	CH1	CH7	CH13
	11n HT20	MCS0	16.45	16.6	16.25
		MCS1	15.35	15.64	15.51
		MCS2	15.32	15.43	15.28
		MCS3	15.55	15.3	15.5
		MCS4	15.34	15.26	15.18
		MCS5	14.35	14.55	14.45
		MCS6	14.49	14.37	14.56
		MCS7	14.6	14.8	14.65
	Mode	Rate(Mbps)	CH3	CH7	CH11
	11n HT40	MCS0	15.2	15.05	15.75
		MCS1	15.16	15.24	15.31
		MCS2	15.54	15.37	15.17
		MCS3	15.45	15.3	15.64
		MCS4	15.41	15.28	15.42
		MCS5	14.35	14.45	14.4
		MCS6	14.25	14.36	14.47
		MCS7	14.35	14.75	14.55

TX EVM (dB)	Mode	Rate(Mbps)	CH1	CH7	CH13
	11b	1	- 38.5	- 39.3	- 38.8
		2	- 39.0	- 39.4	- 38.4
		5.5	- 39.3	- 38.2	- 39
		11	- 38.3	- 39.6	- 39.8
	11g	6	- 32.82	- 32.2	- 33.51
		9	- 32.71	- 32.96	- 32.58
		12	- 33.12	- 32.82	- 32.26
		18	- 32.4	- 33.41	- 33.37
		24	- 33.22	- 33.14	- 32.54
		36	- 33.91	- 32.82	- 32.4
		48	- 32.64	- 32.63	- 32.95
		54	- 32.02	- 33.52	- 32.55
TX EVM (dB)	Mode	Rate(Mbps)	CH1	CH7	CH13
	11n HT20	MCS0	- 25.55	- 25.87	- 25.45
		MCS1	- 26.84	- 27.42	- 26.53
		MCS2	- 27.92	- 27.64	- 28.02
		MCS3	- 28.85	- 29.05	- 28.95
		MCS4	- 29.34	- 29.63	- 29.82
		MCS5	- 29.85	- 30.2	- 29.9
		MCS6	- 29.71	- 29.64	- 29.73
		MCS7	- 30.15	- 30.26	- 30.42
	Mode	Rate(Mbps)	CH3	CH7	CH11
	11n HT40	MCS0	- 25.15	- 25.35	- 26.3
		MCS1	- 26.53	- 26.84	- 26.81
		MCS2	- 27.54	- 28.32	- 28.22
		MCS3	- 29.65	- 29.75	- 28.55
		MCS4	- 29.14	- 29.64	- 29.34
		MCS5	- 30.63	- 30.05	- 30.24
		MCS6	- 30.24	- 30.33	- 30.23
		MCS7	- 30.37	- 31.21	- 31.42

RX Sensitivity (dBm)	Mode	Rate(Mbps)	CH1	CH7	CH13
	11b	1	- 94	- 93	- 93
		2	- 93	- 93	- 93
		5.5	- 91	- 91	- 91
		11	- 88	- 88	- 88
	11g	6	- 88	- 88	- 88
		9	- 87	- 87	- 87
		12	- 86	- 86	- 86
		18	- 85	- 85	- 85
		24	- 83	- 83	- 83
		36	- 80	- 80	- 80
		48	- 76	- 76	- 76
		54	- 72	- 72	- 72
RX Sensitivity (dBm)	Mode	Rate(Mbps)	CH1	CH7	CH13
	11n HT20	MCS0	- 88	- 88	- 88
		MCS1	- 86	- 86	- 86
		MCS2	- 84	- 84	- 84
		MCS3	- 82	- 82	- 82
		MCS4	- 77	- 77	- 77
		MCS5	- 73	- 73	- 73
		MCS6	- 72	- 71	- 71
		MCS7	- 71	- 70	- 70
	Mode	Rate(Mbps)	CH3	CH7	CH11
	11n HT40	MCS0	- 86	- 86	- 86
		MCS1	- 84	- 84	- 84
		MCS2	- 82	- 82	- 82
		MCS3	- 78	- 78	- 78
		MCS4	- 75	- 75	- 75
		MCS5	- 70	- 70	- 70
		MCS6	- 69	- 69	- 69
		MCS7	- 67	- 67	- 67

5. W60 Block system diagram



6. Limit characteristic

Rating	Min	Max
Storage temperature	-50℃	+125℃
Power supply voltage	-0.1V	5V

FCC Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

15.105 Information to the user.

(b) For a Class B digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination.

The firmware setting is not accessible by the end user.

The final end product must be labelled in a visible area with the following:

“Contains Transmitter Module 2AFOSWT8266”

In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization