



SY155S

WIFI6+BTDM5.4 module



catalogue

catalogue	2
SY155S	1
1. Statement	3
2. Summary	4
3. Specification Description	4
4. PIN definition	5
4.1 pin diagram	5
4.2 Pin Description	5
5. Packaging detail	7

1. Statement

This product is allowed to be used in all EU member states.

This device is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. 5150-5350 MHz Indoor Use Only! There are no countries with restricted usage.

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..

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

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.

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator and your body: Use only the supplied antenna.

FCC ID: 2BS8J-SY155S

2. Summary

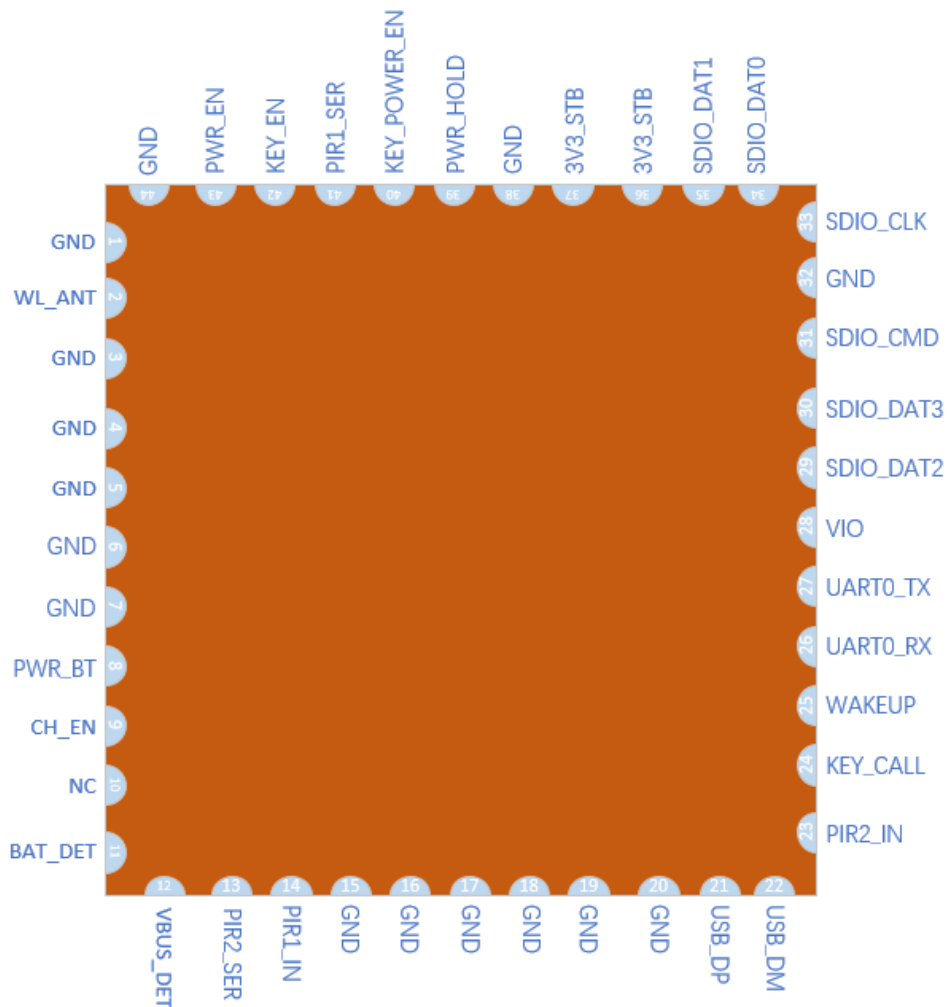
The SY155S is a low-power 2.4G&5.8G dual-band module supporting both WIFI6 and BLE 5.4, ideal for battery-powered devices including IPCs, smart locks, and gateways.

3. Specification Description

Chip model	AIC8800M40B
coffret	WIFI:SDIO BLE:UART
size	12*12*2mm
working temperature	-20 °C ~ +80 °C
working voltage	3.0~3.6V
WLAN protocol	IEEE 802.11a/b/g/n/ac/ax
Wi-Fi frequency range	2.4 GHz&5.8GHz
antenna	1T1R
maximum physical layer transmission rate	Tx: 286.8 Mbps Rx: 229.4 Mbps
tape width	20 MHz/ 40 MHz
Encryption mode	WEP/WPA/WPA2/WPA3-SAE Personal, MFP
work pattern	AP/ STA
Bluetooth protocol	BTDM5.4

4. PIN definition

4.1 pin diagram

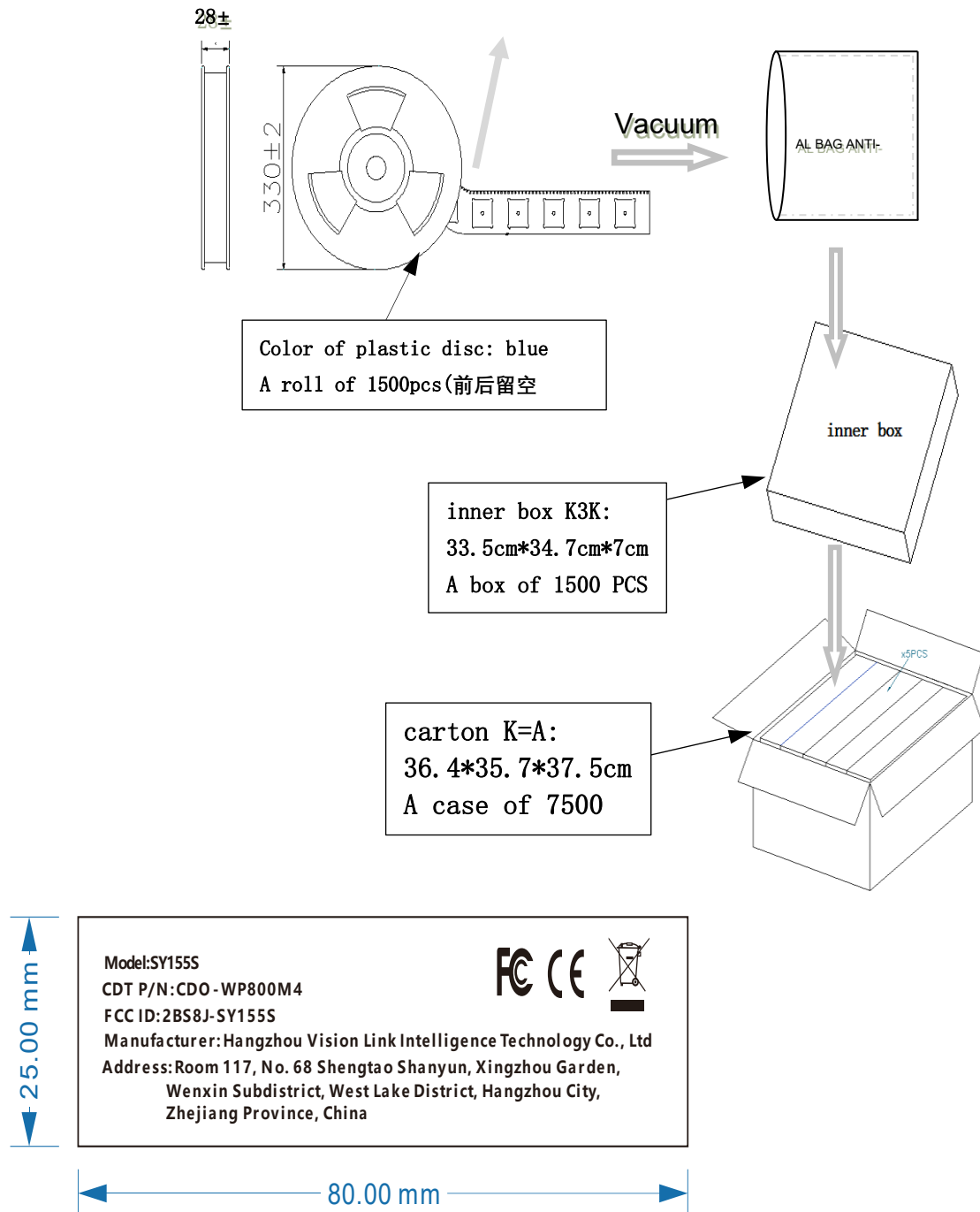


4.2 Pin Description

NO.	name	type	description
1	GND	GND	GND pin
2	WL_ANT	ORF	WLAN_RF input and output
3	GND	GND	GND pin
4	GND	GND	GND pin
5	GND	GND	GND pin
6	GND	GND	GND pin
7	GND	GND	GND pin
8	PWR_BT	PWR_BT	

9	CH_EN	I/O	CH_CN Charging Control High Efficiency-----Output Port
10	GPIOB1	I/O	NC Pin Floating
11	BAT_DET	I/O	BAT_DET Battery Voltage Detection
12	VBUS_DET	I/O	VBUS_DET USB Insertion Detection
13	PIR2_SER	I/O	Set PIR2
14	PIR1_IN	I/O	PIR1_IN
15	GND	GND	GND pin
16	GND	GND	GND pin
17	GND	GND	GND pin
18	GND	GND	GND pin
19	GND	GND	GND pin
20	GND	GND	GND pin
21	USB_DP	USB_DP	USB_DP
22	USB_DM	USB_DM	USB_DM
23	PIR2_IN	I/O	PIR2_IN
24	KEY_CALL	I/O	One-touch call button High-level active
25	WAKEUP	I/O	MCU wake-up timer---Wake-up interrupt input port H
26	UART0_RX	I/O	UART0_RX programming and general control pins
27	UART0_TX	I/O	UART0_TX programming and general control pins
28	VIO	VIO	GDPIO chip powered by 3.3V
29	SDIO_DAT2	I/O	SDIO_DAT2
30	SDIO_DAT3	I/O	SDIO_DAT3
31	SDIO_CMD	I/O	SDIO_CMD
32	GND	GND	GND pin
33	SDIO_CLK	I/O	SDIO_CLK
34	SDIO_DAT0	I/O	SDIO_DAT0
35	SDIO_DAT1	I/O	SDIO_DAT1
36	3V3_STB	VCC	Chip power supply: 3.3V
37	3V3_STB	VCC	Chip power supply: 3.3V
38	GND	GND	GND pin
39	PWR_HOLD	I/O	POWER_EN powers up T23----output port H
40	KEY_POWER_EN	I/O	KEY_POWER_EN locks the system power supply----output port H
41	PIR1_SER	I/O	Set PIR1
42	KEY_EN	I/O	Press KEY_EN and hold to reset. High level active---input port
43	PWR_EN	I/O	PWR_EN pull-up resistor
44	GND	GND	GND pin

5. Packaging detail



The label is stuck on the vacuum bag of the tape.

Notice: Due to the product's small size, it is not feasible to silk-screen the label information. Therefore, this information is provided in the instruction manual and on the outer packaging.



ESD CAUTION

The SY155S module is ESD (electrostatic discharge) sensitive device and may be damaged with ESD or spike voltage. Although SY155S module is with built-in ESD protection circuitry, please handle with care to avoid the permanent malfunction or the performance degradation.

Integration instructions for host product manufacturers according to KDB
996369 D03OEM Manual v01

List of applicable FCC rules

FCC Part 15 Subpart C 15.247 & 15.209 & 15.407.

Specific operational use conditions

The module can be used for mobile applications with a maximum 2.48dBi antenna. The host manufacturer installing this module into their product must ensure that the final product complies with the FCC requirements by a technical assessment or evaluation to the FCC rules, including the transmitter operation. The host manufacturer has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module. The end user manual shall include all required regulatory information/warning as shown in this manual.

Limited module procedures

Not applicable. The module is a single module and complies with the requirement of FCC Part 15.212.

Trace antenna designs

Not applicable. The module has its own antenna, and doesn't need a host's printed board micro strip trace antenna etc.

RF exposure considerations

The module must be installed in the host equipment such that at least 20cm is maintained between the antenna and users' body; and if RF exposure statement or module layout is changed, then the host product manufacturer is required to take responsibility of the module through a change in FCC ID or new application. The FCC ID of the module cannot be used on the final product. In these circumstances, the host manufacturer will be responsible for reevaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

Antennas

Antenna Specification are as follows:

Type: External Antenna

Gain: 2.4G:2.4dBi;5G:2.48dBi;

This device is intended only for host manufacturers under the following conditions: The transmitter module may not be co-located with any other transmitter or antenna; The module shall be only used with the internal antenna(s) that has been originally tested and certified with this module. The antenna must be either permanently attached or employ a "unique" antenna coupler.

As long as the conditions above are met, further transmitter test will not be required. However, the host manufacturer is still responsible for testing their end-product for any additional compliance. Integration instructions for host product manufacturers according to KDB 996369 D03OEM Manual v01 requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc).

Label and compliance information

Host product manufacturers need to provide a physical or e-label stating "Contains FCC ID:2BS8J-SY155S" with their finished product.

Information on test modes and additional testing requirements

Host manufacturer must perform test of radiated & conducted emission and spurious emission, e.t.c according to the actual test modes for a stand-alone modular transmitter in a host, as well as for multiple simultaneously transmitting modules or other transmitters in a host product. Only when all the test results of test modes comply with FCC requirements, then the end product can be sold legally.

Additional testing, Part 15 Subpart B disclaimer

The modular transmitter is only FCC authorized for FCC Part 15 Subpart C 15.247 & 15.209 & 15.407 and that the host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification. If the grantee markets their product as being Part 15 Subpart B compliant (when it also contains unintentional-radiator digital circuitry), then the grantee shall provide a notice stating that the final host product still requires Part 15 Subpart B compliance testing with the modular transmitter installed.

CE TX/RX Frequency Range:

2.4G WIFI:

2412MHz to 2472MHz

2422MHz to 2462MHz

5G WIFI:

U-NII-1: 5180 MHz to 5240 MHz

U-NII-2A: 5260 MHz to 5320 MHz

U-NII-2C: 5500 MHz to 5700 MHz

U-NII-3: 5745 MHz to 5825 MHz

Bluetooth:

2402-2480MHz

CE MAX Power:

2.4GHz WIFI: 16.95dBm

5GHz WIFI: 17.7dBm

Bluetooth: 1.88dBm



Hangzhou Vision Link Intelligence Technology Co., Ltd

Room 117, No. 68 Shengtao Shanyun, Xingzhou Garden, Wenxin Subdistrict, West Lake
District, Hangzhou City, Zhejiang Province, China

DECLARATION OF CONFORMITY

(Jan. 09, 2026)

I, hereby declare that the product

Product Name: WIFI6+BTDM5.4 module

Model Number: SY155S

Hardware: V20

Software: 10.12.72

Satisfies all the technical regulations applicable to the product within the scope of Council Directives 2014/30/EU, 2014/53/EU and 2014/35/EU declare that the same application has not been lodged with any other EU Notify Body:

1.	EN 55032:2015/A1:2020	2.	EN 55035:2017/A11:2020
3.	ETSI EN 300 328 V2.2.2 (2019-07)	4.	ETSI EN 301 893 V2.2.1 (2024-11)
5.	ETSI EN 300 440 V2.2.1 (2018-07)	6.	ETSI EN 301 489-1 V2.2.3 (2019-11)
7.	ETSI EN 301 489-17 V3.3.1 (2024-09)	8.	EN 50663:2017
9.	EN 62479:2010	10.	EN 50665:2017
11.	EN IEC 62311:2020	12.	EN IEC 62368-1:2020+A11:2020
13.		14.	
15.		16.	

(Title(s) of regulations, standards, etc.)

All essential radio test suites have been carried out.

NOTIFIED BODY:

Name: DERYCOM CERTIFICATION SERVICES, INC.

Address: 1100 Falcon Avenue

Glencoe, Mn 55336

Identification Number: 3052

MANUFACTURER or AUTHORISED REPRESENTATIVE:

Name: Hangzhou Vision Link Intelligence Technology Co., Ltd

Address: Room 117, No. 68 Shengtao Shanyun, Xingzhou Garden, Wenxin Subdistrict, West Lake
District, Hangzhou City, Zhejiang Province, China

Accessories:

1.	N/A
2.	/

This declaration is issued under the sole responsibility of the manufacturer and, if applicable, his authorized representative.

Sincerely,

(Signature) *Lucy Liu*

Contact Name: Lucy Liu

Title: Manager

Email: liuliang@veepai.com

Manufacturer Name: Hangzhou Vision Link Intelligence Technology Co., Ltd