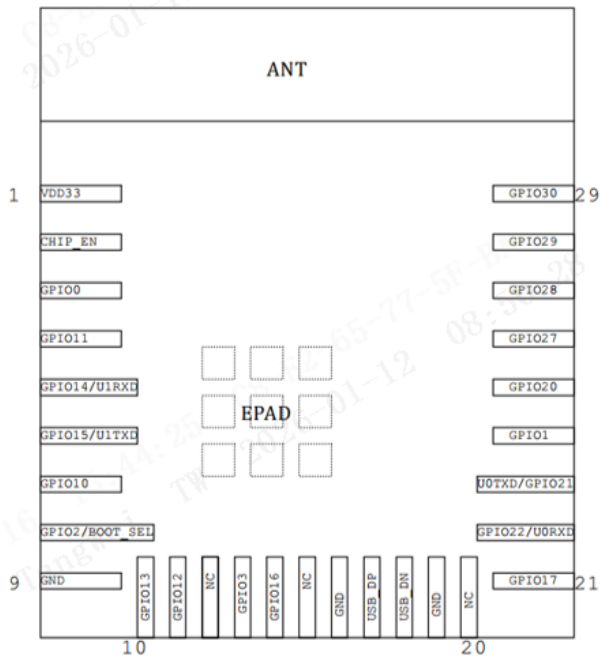


BL616C50IX29P00 Instruction Manual

1、 General Specification as below

Dimension	Typically, 18.0mmx 20.0mm x 2.5mm
Chipset	BL616C
Operating Frequency	WIFI:2400-2483.5MHz BT: 2400-2483.5MHz
Antenna	PCB antenna
Operating Voltage	3.3V±5%
PCB Information	4-layers design (0.8+/-0.15mm)
Peripheral Interface	WIFI&BT@UART
Rate	11b: 1, 2, 5.5 and 11Mbps 11g: 6, 9, 12, 18, 24, 36, 48 and 54 Mbps 11n: MCS0~7, Nss=1, BW=40MHz up to 150 Mbps 11ax: MCS0~11, Nss=1, BW=40MHz up to 229 Mbps
Operating Temperature	-20℃ to +85℃
Storage Temperature	-40℃ to +85℃
ESD Protection	HBM:2000V

2.Pin define



Pin	Description	NOTE	Pin	Description	NOTE
1	VDD		16	GND	
2	CHIP_EN		17	USB_DP	
3	IO0		18	USB_DN	
4	IO11		19	GND	
5	IO14		20	NC	
6	IO15		21	IO17	
7	IO10		22	IO22	
8	IO2		23	IO21	
9	GND		24	IO1	
10	IO13		25	IO20	
11	IO12		26	IO27	
12	NC		27	IO28	
13	IO3		28	IO29	
14	IO16		29	IO30	
15	NC				

3.Nameplate information



Display Method of Module Approval Code: Laser Engraving

4、 Application Scenarios

This module is mainly applied in always-powered IPC scenarios such as smart TVs. Based on the BL616C chip, it is a highly integrated device integrating MAC/BBP and 2.4 GHz PA/LNA, supporting a maximum PHY rate of 229 Mbps.

Designed to support standards-based functions in areas like security, Quality of Service (QoS) and international regulations, this module delivers maximum performance for end-users under all circumstances.

FCC Radiation Exposure Statement

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

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 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.

FCC Radiation Exposure Statement The modular can be installed or integrated in mobile or fix devices only. This modular be installed in any portable device, for example, USB dongle like transmitters is forbidden. This modular complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be collocated or operating in conjunction with antenna or transmitter. If the FCC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display label [AI-Link Confidential] BL616C50IX29P00 All rights reserved © Sichuan AI-Link Technology Co., Ltd ~ 23 ~ referring to the enclosed module. This exterior label can use wording such as the following:” Contains Transmitter Module FCC ID: 2AOK1-6161X when the module is installed inside another device, the user manual of this device must contain below warning statements;1. 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.(2) This device must accept any interference received, including interference that may undesired operation.2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. The devices must be installed and used in strict accordance with the manufacturer’ s instructions as described in the user documentation that comes with the product. This device is intended only for OEM integrators under the following conditions:1) The antenna must be installed such that 20 cm is maintained between the antenna and user.2) The transmitter module may not be co-located with any other transmitter or antenna. Module Antenna Type: ANT, 1.1dBi gain

This module is intended for OEM integrators only. Per FCC KDB 996369 D03 OEM Manual v01 guidance, the following conditions must be strictly followed when using this certified module: KDB 996369 D03 OEM Manual v01 rule sections:

2.2 List of applicable FCC rules This module has been tested for compliance to FCC Part 15

2.3 Summarize the specific operational use conditions

The module is tested for standalone mobile RF exposure use condition. Any other usage conditions such as co-location with other transmitter(s) or being used in a portable condition will need a separate reassessment through a class II permissive change application or new certification.

2.4 Limited module procedures Not applicable.

2.5 Trace antenna designs Not applicable.

2.6 RF exposure considerations This equipment complies with FCC mobile radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body. If the module is installed in a portable host, a separate SAR evaluation is required to confirm compliance with relevant FCC portable RF exposure rules.

2.7 Antennas

The following antennas have been certified for use with this module; antennas of the same type with equal or lower gain may also be used with this module. The antenna must be installed such that 20 cm can be maintained between the antenna and

sers. Antenna Type PCB

2.8 Label and compliance information

The final end product must be labeled in a visible area with the following: "Contains FCC ID: 2AOKI-6161X". The grantee's FCC ID can be used only when all FCC compliance requirements are met.

2.9 Information on test modes and additional testing requirements

This transmitter is tested in a standalone mobile RF exposure condition and any co-located or simultaneous transmission with other transmitter(s) or portable use will require a separate class II permissive change re-evaluation or new certification.

2.10 Additional testing, Part 15 Subpart B disclaimer

This transmitter module is tested as a subsystem and its certification does not cover the FCC Part 15 Subpart B (unintentional radiator) rule requirement applicable to the final host. The final host will still need to be reassessed for compliance to this portion of rule requirements if applicable.