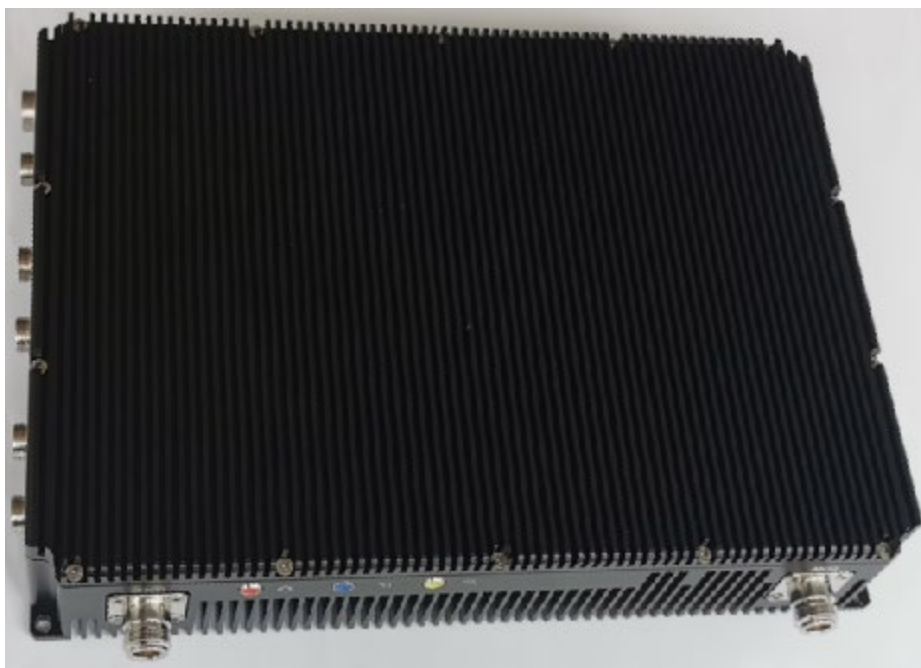


## **SDL610 10W\*2 Data/Video Wireless Transceiver**

- TDD OFDM full duplex wireless transceiver for video and data Link
- Up to 100Mbps Iperf Throughput
- Supports Point-to-Point, Point-to-Multipoint and Mesh Networks
- Interface through web browser or control uart
- 3 Ethernet and 1 channel serial data link
- Long distance wireless transceiver with 10W\*2 RF power

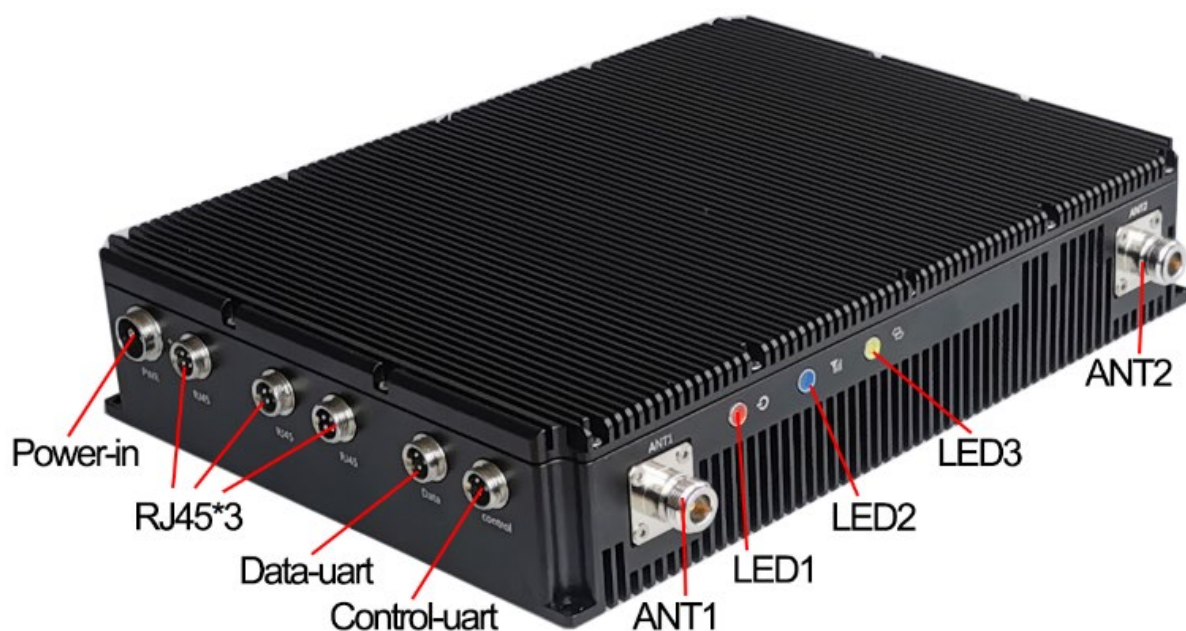


Sihid SDL610 was designed for video and data wireless transmission with two way wireless data link. This OFDM radio device works at 600MHz or 1.4GHz bands, with frequency hopping technology (FHSS) to make sure better stability signal communication.

## Features:

- TDD OFDM modulation
- Supports 566~678MHz band or 1420~1480MHz band or 1470~1530MHz
- Supports FHSS inside each band
- 3/5/10/20/40MHz band widths
- Maximum 100Mbps throughput
- RF transmission maximum power: 10W\*2
- Constellation: QPSK, 16QAM, 64QAM, self-adaption
- Sensitivity: -102dBm(1Mbps@20MHz)
- Supports IP data transmission(3 Ethernet port)
- Supports serial data transmission(1 channel RS232 or TTL uart)
- 3~10km(ground-to-ground), 20~150km(UAV-to-ground, optional distance grade)
- Web UI and control uart for management
- AES128 encryption
- Uplink and downlink stream control
- Networking mode: Point-to-Point, Point-to-Multipoint, Relay, and Mesh(specify)
- Movement Speed: Supports no less than 300km/h
- IP66 waterproof rugged aluminum alloy housing
- Power input: 24~30V
- Power consumption(1D4U): <3.3A@28V(access node) and <0.9A@28V(central node)
- Dimensions: 300\*220\*60 mm
- Weight: 4.4kg

## Specification



I/O	Description
Ethernet	Three GX12-4 male connector, bridged inside with same IP address
Data UART	RS232 or TTL data UART, GX12-3 male connector
Control UART	TTL control UART, GX12-3 male connector
Power in	GX16-2 male connector
ANT1	Tx/Rx Antenna port, N-type female
ANT2	Tx/Rx Antenna port, N-type female

## I/O Signal

### Ethernet

3 Channel Ethernet port, the 3 Ethernet port are bridged connection on board inside the device with same IP address.



IP camera video can be connected with SDL610 directly via Ethernet port. HDMI/SDI/AHD/AV camera video can be encoded with Sihid SE10/SE11 device and then work with SDL610 via Ethernet connection.

Sihid SD10 H.265/H.264 video decoder device can work with SDL610 via Ethernet connection on the video received side for realtime video monitoring.

### Data uart

RS232 or TTL uart(according to customer's requirement). Uart data is wireless transmitted via link layer protocol. Baud rate of the uart can be setup by web UI or control uart. The below picture shows the PIN signal of the docking connection cable of the data uart.



### Control uart

TTL control uart. You can run AT command via control uart to configure the paramerers of the device and view the wireless link status of the device. The up picture shows the PIN signal of the docking connection cable of the data uart.

### LEDs

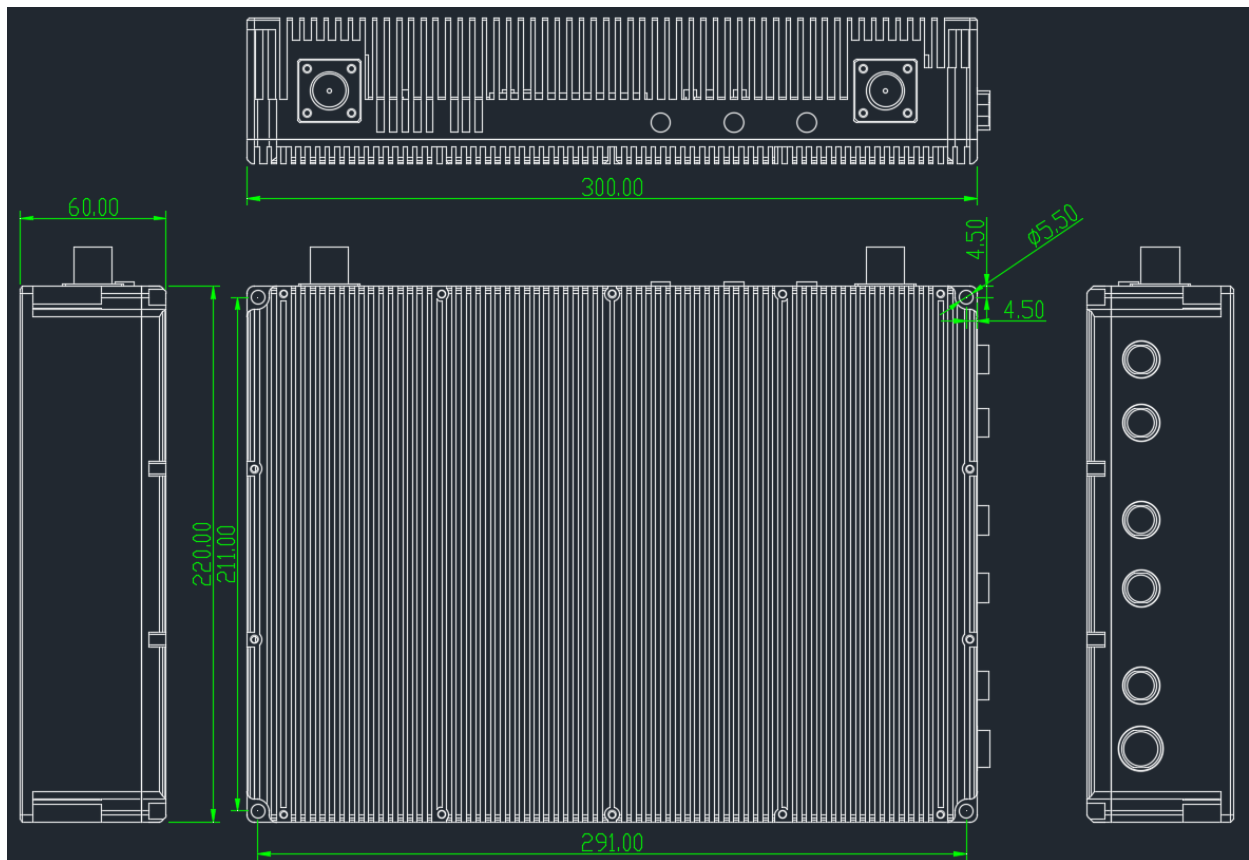
LED1, red light on normal powered;

LED2, blue light LED;

LED3, yellow light LED; Working status of LED2 and LED3 are listed as below table:

Central Node	Blue LED2 continues light during its's normal working; Yellow LED3 won't light during its's normal working;
Access Node	Yellow LED3 continues light when the access node is connecting with the central node.
	The blue LED2 indicate the wireless link status: LED2 blinks in 30s interval, the wireless link is strong; LED2 blinks in 6s interval, the wireless link is middle; LED2 blinks in 1s interval, the wireless link is weak.

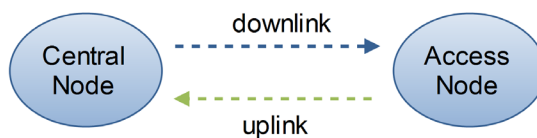
## SDL610 device size(mm)



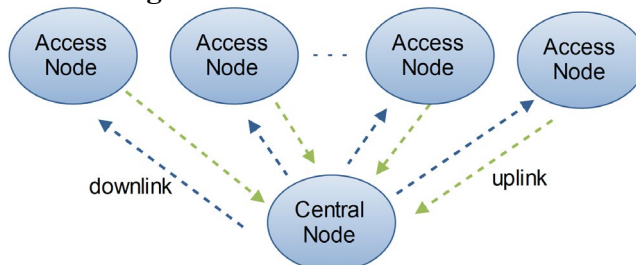
## Wireless networking with SDL610

SDL610 supports two operating modes: Access Node or Central Node. It can be managed through web UI. SDL610 supports features of maximum 63 Access Nodes connected to a Central Node. All of the Nodes are in a same wireless LAN and share the whole transmission bandwidth (maximum 100Mbps throughput). Data from Central Node to Access Node, we call downlink, and data from Access Node to Central Node, we call uplink. Uplink and downlink stream ratio can be controlled through web UI. When using SDL610 for Point-to-Point transmitting, uplink and downlink share the whole transmission bandwidth (maximum 100Mbps throughput) too. SDL610 supports networking mode: Point -to-Point, Point-to-Multipoint, Relay, and Mesh (specify mesh version when order).

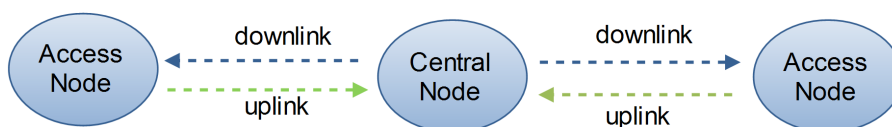
## Point-to-Point transmitting



### Point-to-Multipoint transmitting



### Relay transmitting



### Mesh transmitting (Specify)

