SDL605 5W*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 RS232 data link
-- Long distance wireless transceiver with 5W*2 RF power

Sihid SDL605 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 1420~1530MHz band
- Supports FHSS inside each band
- 3/5/10/20/40MHz band widths
- Maximum 100Mbps throughput
- RF transmission maximum power: 5W*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)
- 2~10km(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 120km/h
- Compact size and light weight
- Rugged aluminum alloy housing
- Power input: 24~28V

- Power consumption(1D4U): <2A@24V(access node) and <1.1A@24V(central node)
- Dimensions: 113.9*83.7*23.3 mm
- Weight: 243g

Specification

I/O	Description
Ethernet	3 channel 4Pin PH1.25mm connector, bridged inside with same IP address
Data UART	RS232 data UART, 3PIN PH1.25mm connector
Control UART	TTL control UART, 3PIN PH1.25mm connector
Power in	XT30PW-M connector
ANT1	Tx/Rx Antenna port, SMA female
ANT2	Tx/Rx Antenna port, SMA 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 SDL605 directly via Ethernet port. HDMI/SDI/AHD/AV camera video can be encoded with Sihid SE10/SE11 device and then work with SDL605 via Ethernet connection.

Sihid SD10 H.265/H.264 video decoder device can work with SDL605 via Ethernet connection on the video received side for realtime video monitoring.

Data uart

3 PIN PH1.25mm connector, RS232 uart. Uart data is wireless transmitted via link layer protocol. Baud rate of the uart can be setup by web UI or control uart.

Control uart(C-TTL)

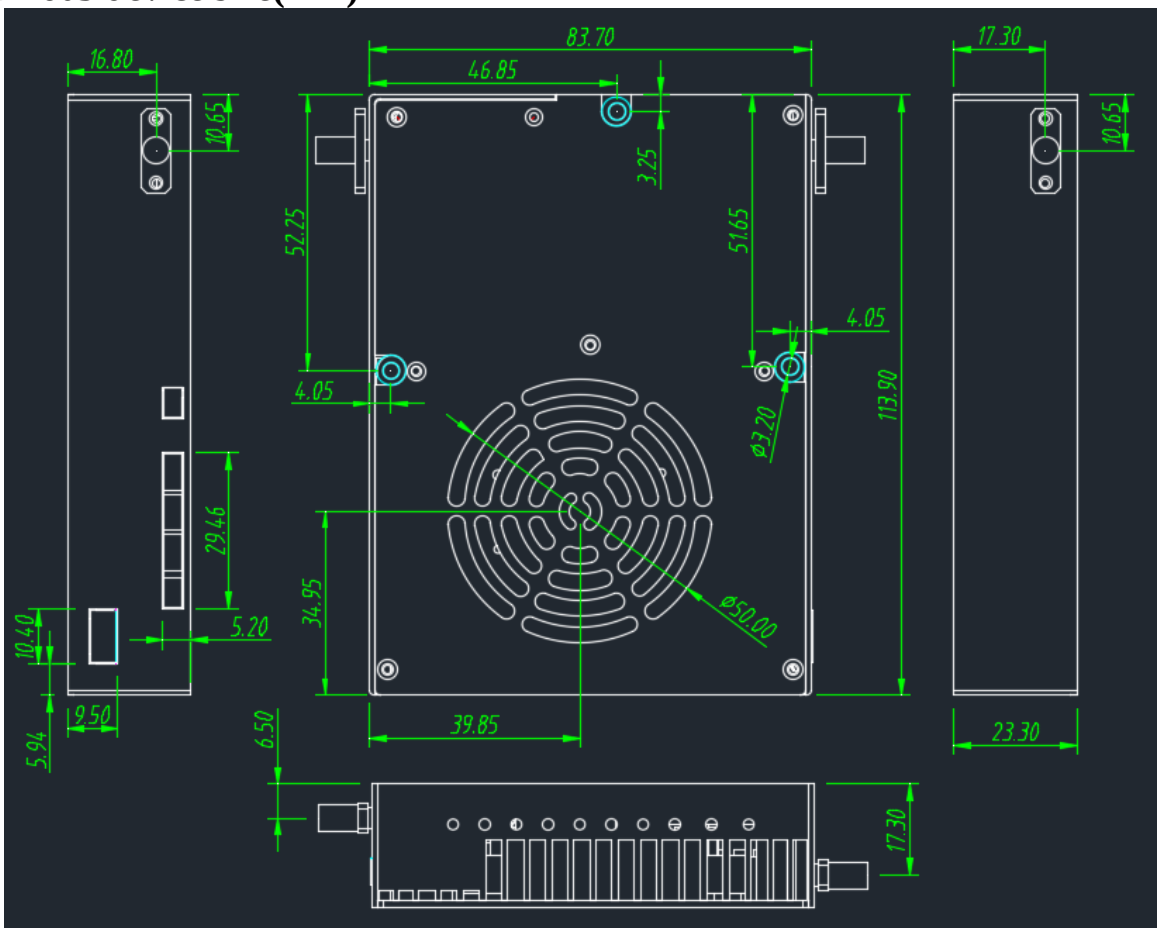
3 PIN PH1.25mm connector, TTL control uart. You can run AT command via control uart to configure the paramerers of the device and view the wireless link status of the device.

LEDs

LED1, red light on normal powered;
LED2, blue light LED;
LED3, green light LED; Working status of LED2 and LED3 are listed as below table:

Central Node	Blue LED2 continues light during its's normal working; Green LED3 won't light during its's normal working;
Access Node	Green 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.

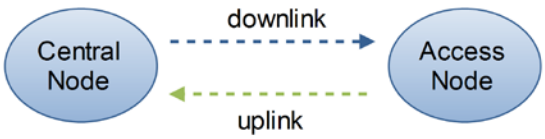
SDL605 device size(mm)



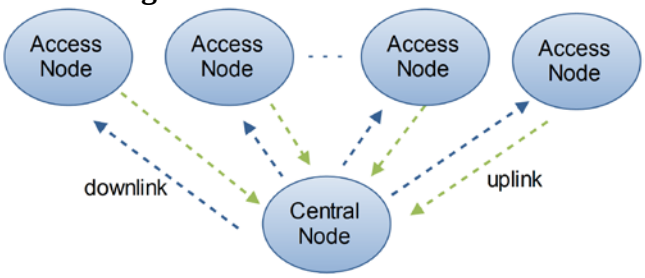
Wireless networking with SDL605

SDL605 supports two operating modes: Access Node or Central Node. It can be managed through web UI. SDL605 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 SDL605 for Point-to-Point transmitting, uplink and downlink share the whole transmission bandwidth (maximum 100Mbps throughput) too. SDL605 supports networking mode: Point -to-Point, Point-to-Multipoint, Relay, and Mesh (specify mesh version when order).

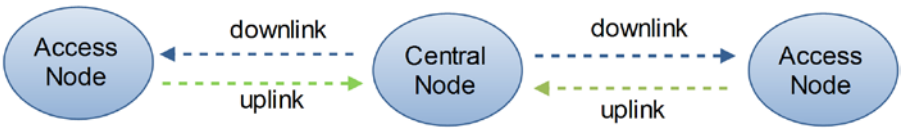
Point-to-Point transmitting



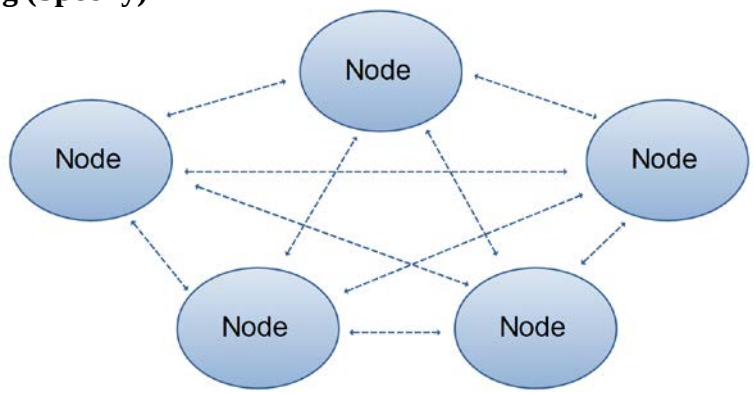
Point-to-Multipoint transmitting



Relay transmitting



Mesh transmitting (Specify)

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C-TTL RJ45 RJ45 RJ45
RS232
ANT1