

ST30NMT UAV Video Data Transmitter and Receiver

SUNTOR module ST30NMT is the latest miniaturized and functional wireless transmission equipment. It adopts TDD wireless transmission technology and dual antenna diversity design to make the signal transmission quality more stable. The device can support bidirectional transmission of network data and TTL serial data at the same time. The data link can be adjusted according to different ratios, and the uplink and downlink data link transmission rates can be adjusted proportionally. In addition, the module has three frequency of 2.4GHz/1.4GHz/800MHz for option. The equipment can be applied to the use of intelligent unmanned terminals such as UAV drones, unmanned ships, unmanned boats and robots.

1、Feature:

- TDD wireless transmission technology
- Optional frequency 800MHz、1.4GHz
- Duplex Transmitting Rate is 4-12Mbps
- Support Point to Point and Point to Multi-Point. 2-4 TX to 1RX, or 2-4 RX to 1TX.
- Dual antenna diversity design to make the signal transmission quality more stable, and high receiving sensitivity
- Long range more than 30km
- 2W RF power and lower power consumption
- Support IP video output and bidirectional TTL/RS232 serial data
- Adapt to global temperature -30°C~70°C
- AES128 Encryption
- The uplink and downlink data link transmission rates can be adjusted proportionally(2D3U、3D2U、4D1U)
- Optional Bandwidth(3MHz/5MHz/10MHz/20MHz)

2、Product

2.1 Shape and Dimension



2.2、Mechanical chassis and double Omni antenna design



3、Parameter

Module			
Hardware	RF	Frequency	2.4GHz(2401.5-2481.5 MHz) NOT OPPEN YET 1.4GHz(1427.9-1447.9MHz) 800MHz(806-826 MHz)
		RF Power	33dBm (2W)
		Receiving sensitivity	2.4G (1Mbps) :20MHz -99dBm 10MHz -102dBm5MHz -104dBm 3MHz -106dBm 1.4G (1Mbps) : 10MHz -103dBm 5MHz -106dBm 3MHz -108dBm 800M (1Mbps) :10MHz -103dBm 5MHz -106dBm 3MHz -108dBm
	Antenna	Double Antenna	SMA Type
	Serial Port	TTL *1	Baud rate 115200



System	Power	consumption	5V power supply the consumption maximum in 850mA±15%.
		9~13V	optional
	Working temperature	-25°C~60°C	
	Center point selection	Central node	Any node in the network can be configured as a central node
	From Node	Rate	The central node simultaneously receives/sends the total rate of data sharing at the current bandwidth.
		Node Qty	Ethernet Nodes N≥2 maximum 16 access point
		Communications	Any two slave nodes must be forwarded through the central node
	Wireless	Rate	All slave nodes and the central node share the working bandwidth in one direction, the maximum downlink configuration (20M bandwidth, the rate reaches 30M), and the maximum uplink configuration (20M bandwidth, the rate reaches 26M).
		Automatic power adjustment	Support access node adaptive adjustment of transmit power
	Software upgrade	OTA, Local and remote upgrade	
	Anti-interference	Frequency hopping	Support automatic frequency hopping in the range of frequency



	Retransmission configuration		Select whether to retransmit according to different data carried
Transmitting mode	Transmission mode		Single antenna transmission, single antenna receiving / single antenna transmitting, dual antenna receiving
	Data link		Master-slave data bidirectional communication, dynamically adjusting rate based on wireless data
	Access		PTP;PTMP
Bandwidth	2.4GHz		3MHz/5MHz/10MHz/20MHz
	1.4GHz		3MHz/5MHz/10MHz
	800MHz		3MHz/5MHz/10MHz
Rate			Single node supports up to 30Mbps, adaptive average distribution system rate
Encryption			Support user configuration layer 2 encryption to turn off And encryption (ZUC, SNOW3G, AES three encryption options are optional)
Modulation			QPSK、16QAM、64QAM
Latency	Air latency		Delay from node-central node transmission <10ms
	Start delay		entral node/slave node boot delay <15s
	Network Start		Time <1min