

ST15NMT-MiNi UAV Video Data Transmitter and Receiver

SUNTOR module ST15NMT-MiNi 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. The device can transmit standard ethernet network data, TTL serial port data, support wide voltage power supply, and can be widely used in network video signal transmission in the fields of drones, unmanned boats, unmanned vehicles, airships, target aircraft, powered umbrellas, robots, and other fields. Control signal transmission. At the same time, it is suitable for portable use, suitable for law enforcement personnel on-site video forensics, emergency deployment, rescue sites, military project like navy, air force, police and army's armed forces.

1、Feature:

- TDD OFDM wireless transmission technology
- Optional frequency 800MHz、1.4GHz、2.4GHz
- Dimension 88x55x17mm Weight N.W.:110g N.W.:140g(included antenna)
- Duplex Transmitting Rate is 3-8Mbps
- Support Point to Point and Point to Multi-Point in 1-4 TX to 1RX, or 1TX to 1-4 RX. For example: Three drones to one GCS, Three GCS to one drone
- Dual antenna diversity design to make the signal transmission quality more stable, and high receiving sensitivity
- Long range more than 15km in LOS, 200meters-500meters in NLOS
- Lowest RF power 25dBm and power consumption TX 5W RX 5W
- Support IP video output and bidirectional TTL serial data
- The uplink and downlink data link transmission rates can be adjusted proportionally(2D3U、3D2U、4D1U)
- Optional Bandwidth(3MHz/5MHz/10MHz/20MHz)

2、Product Shape and Dimension



3、Parameter

Module				
Hardware	RF	Frequency	2.4G(2401.5-2481.5MHz) 1.4G(1427.9-1447.9MHz) 800M(806-826 MHz)	
		RF Power	25dBm±2	
		Receivng sensitivity	2.4G (1Mbps):20MHz -99dBm 10MHz -102dBm5MHz -104dBm 3MHz -106dBm1.4G (1Mbps) : 10MHz -103dBm 5MHz -106dBm 3MHz -108dBm800M (1Mbps) :10MHz -103dBm 5MHz -106dBm 3MHz -108dBm	
	Antenna	Double Antenna	SMA Type	
	Serial Port	TTL *1	Baud rate 115200	
	Power	consumption	5V power supply the consumption maximum in 850mA±15%。	
		9~13V	optional	
Working temperature	-25℃~60℃			
System	Center point	Central node selection	Any node in the network can be configured as a central node	
		Rate	The central node simultaneously receives/sends the total rate of data sharing at the current bandwidth.	
	From Node	Node Qty	Ethernet Nodes N≥2 maximum 16 access point	
		Communications	Any two slave nodes must be forwarded through the central node	
			Any node supports unicast and broadcast modes	
		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			
Wireless	Anti-interference	Frequency hopping	Support automatic frequency hopping in the range of frequency	

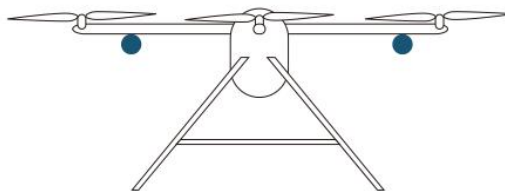
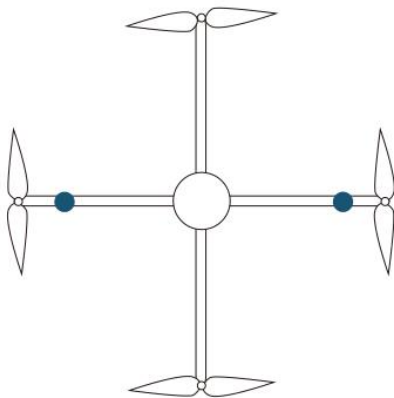
Retransmission configuration		Select whether to retransmit according to different data carried
Transmitting mode	Transmission mode	Single antenna transmission, single antenna receiving / single antenna transmitting, dual antenna receiving
	Data link	Master-slave data bidirectional communication, dynamically 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

3、Application Scenario

3.1. Antenna Installation Location

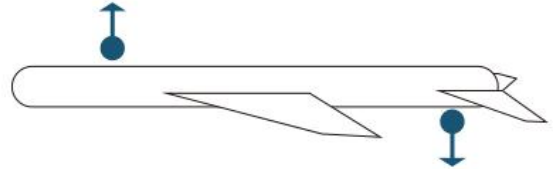
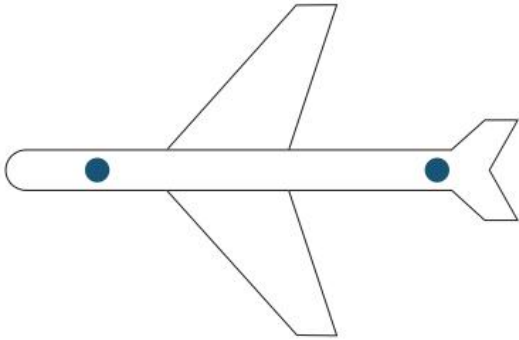
Multi-rotors Drones

“●”为天线安装位置示意。



Fixed Wing Drones

“●”为天线安装位置示意。(注：此安装方式可保证固定翼在各种倾斜角度下无遮挡)

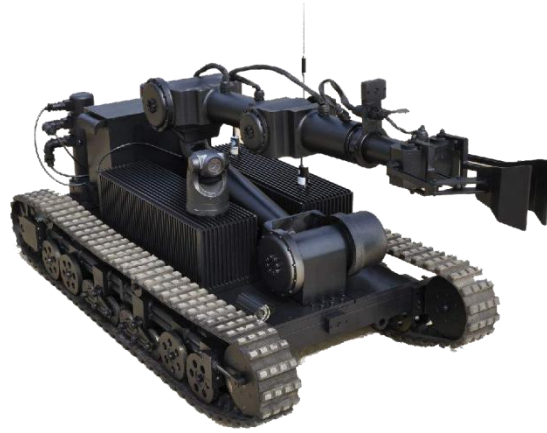
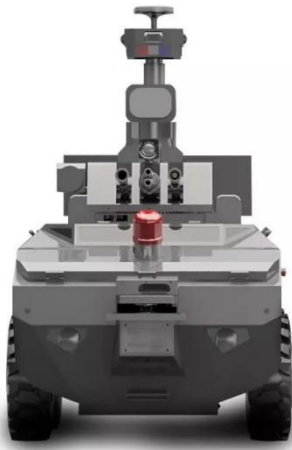


Drones/UAV Military/Industrial/Commercial Project



3.2. Robot and Unmanned Ground Vehicle Military Police Ministry Government Project





3.3. Unmanned Boat Military Project

