

IT717S

Product Introduction

The IT717S standard version device can realize long-distance two-way wireless video, audio, and data transmission, and the maximum air-to-ground transmission distance can reach more than 20km. The communication method can meet point-to-point two-way communication, and can also realize point-to-multipoint star networking communication.

The device provides multiple service interfaces, including 1 Ethernet port and 1 transparent serial port. It has the characteristics of small size, light weight, easy installation, and easy use. It is very suitable for unmanned aircraft, unmanned ships, unmanned vehicles, robots and other integrated wireless data transmission scenarios. At the same time, the interface form can be customized according to requirements.

Specifications

System	
Frequency	1428~1448MHz (supports frequency band expansion)
Bandwidth	5MHz/10MHz/20MHz (flexible and configurable)
Transmission	TDD-OFDM
Modulation	BPSK/QPSK/16QAM/64QAM (adaptive)
Transmission capacity	24Mbps@10MHz (peak rate)
Transmission distance	20km
Transmitting power	300mW
Receiving sensitivity	-99dBm@5MHz
Frequency hopping	Supports automatic hopping within the band (can expand to cross-band)
Encryption	Supports AES128
Power supply	DC12V
Power consumption	≤5W
Interface	
Antenna	SMA
Power	JST
Ethernet	JST
UART	JST
USB	JST
Data	
Dimensions	84*70*19mm (excluding mounting holes and antenna interface)
Weight	≤140g
Operation Temp Range	-20°C ~ +75°C

Interface

Pin#	Name	Function	Remarks
Enclosure: POWER (power port) / JST socket			
1	VCC	power supply +12V	-
2	GND	ground signal	-
Enclosure: DATA (communication serial port)/JST socket			
1	EXT_TX0	Data serial port TX	TTL/3.3V
2	EXT_RX0	Data serial port RX	TTL/3.3V
3	GND	ground signal	-
Enclosure: CFG (configuration serial port)/JST socket			
1	EXT_TX1	Configure serial port	TX TTL/1.8V
2	EXT_RX1	configure serial port	RX TTL/1.8V
3	GND	ground signal	-
Enclosure: USB (USB interface)/JST socket			
1	VCC	+5V	input
2	2 M_USB0_DM	DATA+	AT command channel
3	3 M_USB0_DP	DATA-	AT command channel
4	GND	ground signal	-
Enclosure: ETHERNET (Ethernet port) / JST socket			
1	ETH_TXP	TX+ (white green)	10/100M self-adaptive
2	ETH_TXN	TX- (green)	
3	ETH_RXP	RX+ (white orange)	
4	ETH_RXN	RX- (orange)	
Enclosure: M-ANT (main transceiver antenna port)/SMA socket			
1	RFS1	radio frequency signal	impedance: 50Ω
Enclosure: S-ANT (auxiliary receiving antenna port) / SMA socket			
1	RFS2	radio frequency signal	impedance: 50Ω

Design

