

6F, Bldg A3, Zidong International Creative Park, Zidong Rd, Qixia District, Nanjing, China.

# IT780A

### **Product Introduction**

IT780A air-side equipment is matched with air-side equipment to achieve long-distance two-way wireless video, audio, and data transmission. The longest air-to-ground transmission distance can reach more than 50km. The communication method can meet point-to-point two-way communication, and can also realize point-to-multipoint star network communication.

The device provides multiple business interfaces, including 1 Ethernet port, 1 transparent TTL serial port, and 1 transparent RS232 port. It has the characteristics of small size, light weight, easy installation, and easy use. The structure can be customized according to the usage scenario. It is very Suitable for use in imagedata integrated wireless data transmission scenarios such as drones, unmanned ships, unmanned vehicles, and robots.

System				
Frequency	1428~1448MHz			
Bandwidth	5MHz/10MHz/20MHz (flexible and configurable)			
Transmission	TDD-OFDM			
Modulation	BPSK/QPSK/16QAM/64QAM(adaptive)			
Transmission capacity	24Mbps@10MHz (peak rate)			
Transmission distance	15km/30km(Expandableto 80km/100km)			
Transmitting power	2W			
Receiving sensitivity	-99dBm@5MHz			
Frequency hopping	Supports automatic hopping within the band			
Encryption	Supports AES128			
Power supply	DC12V			
Power consumption	≤12W			
Interface				
Antenna	SMA			
Power	J30J (JST version available)			
Ethernet	J30J (JST version available)			
UART	J30J (JST version available)			
USB	J30J (JST version available)			
Data				
Dimensions	135*64*21.5mm			
Weight	≤220g			
Operation Temp Range	-20℃~+75℃			

## **Specifications**



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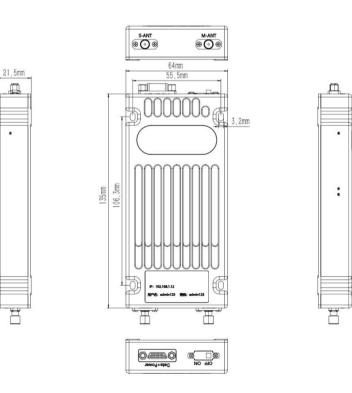
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Interface				
Pin#	Name	Function	Remarks	
Enclosure: DATA+POWE	R / 1301			
1, 2	VCC	+12V	-	
3, 4	PGND	power supply ground	-	
5	ETH_TXN	TX- (orange)	- 10/100M self-adaptive	
6	ETH_TXP	TX+ (white orange)		
7	ETH_RXP	RX- (green)		
8	ETH_RXN	RX+ (white green)		
9	RS_GND	RS232 ground	RS232 transparent transmission interface, serial & network port interoperability	
10	RS_RX	RS232 receiving		
11	RS_TX	RS232 sending		
12	NC	suspended	-	
13	TTL_RX	TTL receiving	TTL point-to-point transparent transmission interface, 3.3V level	
14	TTL_TX	TTL sending		
15	TTL_GND	TTL ground		
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	

#### Intorfaco

### Design

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