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Ethernet Video&Data&RC Link

V31



V31 is a wireless digital video and telemetry data and RC link with two options of frequencies: 800MHz and 1.4GHz. Having a maximum range of 80km, it supports 1 video streaming channel, 2 SBUS channels and 1 serial channel. V31 supports point-to-point, point-to-multipoint communication. The central node can communicate with a maximum of 16 connecting nodes, which enhances the application scenarios greatly.

The high level of integration reduces the product's power consumption and size. It is especially suitable for UAVs and UGVs.

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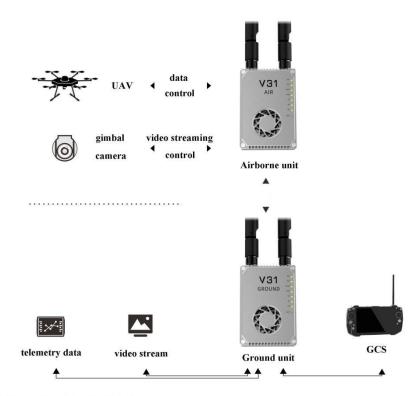
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• Dual SBUS IN and Out Video&telemetry data&RC link

● Star topology
● Visual Web configuration

● 50km range ● 800MHz, 1.4GHz for choice



All-in-One Radio Link

Transparent network transmission, able to transmit video streaming, compatible with all network protocols

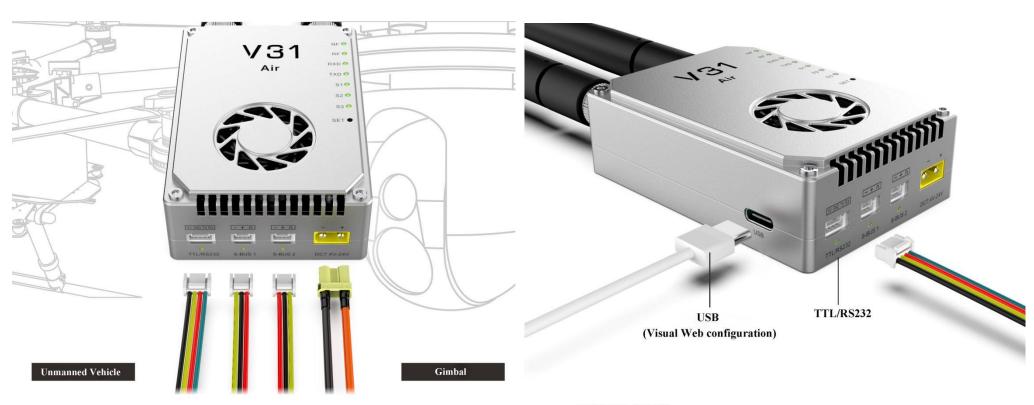
Transparent data transmission, supporting TTL/RS232 Level signal

Dual SBUS input and output, extending remote control range

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Dual SBUS

Able to control the unmanned vehicle and its payload simultaneously

RS232/TTL

Selectable data port, RS232 or TTL

Adjustable baud rate

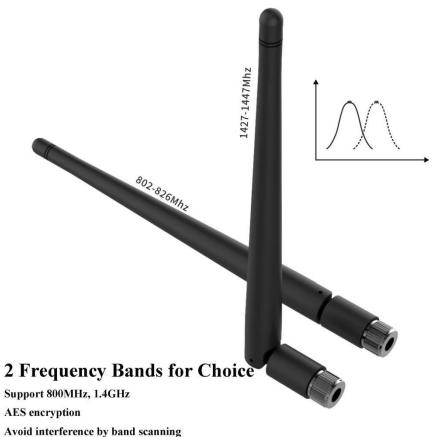
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Support point-to-point, point-to-multipoint communication, the central node can communicate with any connecting nodes, max 16.



Support internal frequency hopping in the selected frequency band

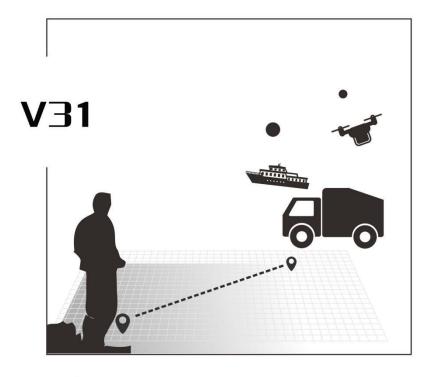
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Compatible with all the network protocols



Range

Ground to ground: 3-5km@LOS condition

Air to ground: 50km grade@LOS condition

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Support working with E11 Network Port Expansion Dock

It is possible to expand V31 with 3 IP serial channels and 2 LAN channels using E11.

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Parameters

Item	Parameters	Description	
F	800MHz	806-826MHz	
Frequency band	1.4GHz	1427.9-1447.9MHz	
RF power	2w, 5w	adjustable	
	V31-5km: 5km grade(ground to ground)		
	V31-20km: 20km grade(air to ground)		
Transmission range	V31-30km: 30km grade(air to ground)	LOS condition	
	V31-50km: 50km grade(air to ground)		
	V31-80km: 80km grade(air to ground)		
S-BUS port	2*S-BUS ports NA		
Serial port	1*serial port	Full duplex, baud rate adjustable	
Seriai por t	(default: TTL; optional: RS232)		

Technology moves rapidly. Specifications are subject to change.

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Video latency	200-300ms		
Power supply voltage	DC 7.4-24V	2S-6S battery	
Bandwidth	1.4-20M	1.4M/3M/5M/10M/20M	
Video input/output	LAN	Connecting IPC device/PC	
Power supply interface	XT30		
Antenna	glue stick antennas&fiber glass epoxy antennas		
Dimension	80mm*56mm*25mm		
Weight	160g(exclude antenna)		
Operation temperature	-20°C-+50°C		

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E11 Network Port Expansion Dock (It can work with V31 to extend the serial and LAN ports) (Optional)		
Power supply voltage	7.4v-24v	
Serial port interface	TTL*1; RS232*2	
Serial port interface	(able to work simultaneously)	
Serial port working mode	Support TCP Server, TCP Client, UDP Client, UDP Server, Httpd Client	
Ethernet port	LAN*3	
Weight	60g	

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Dimension	85mm*55mm*13mm	
Operating temperature	-10℃~+50℃	

Product video

	V31-5km 1km range@NLOS condition	
1	(Ground to ground test, city environment, 8 tall buildings	https://youtu.be/c3q690EBh9Q
	between Tx and Rx)	
2	V31-30km 30km range@LOS condition	
	2*glue stick antennas at the ground end	https://youtube.com/shorts/toqDnInEuNk
	(Air to ground test, plain environment)	
3	V31-30km 36km range@LOS condition	
	2*fiber-glass epoxy antennas at the ground end	https://youtu.be/CE9VHWM9oMM
	(Air to ground test, plain environment)	

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Purchase Guide

- 1. V31 has 5 sub-models, V31-5km, V31-20km, V31-30km, V31-50km, V31-80km. When ordering, pls specify.
- 2. V31 has 2 frequencies for choice, 800MHz and 1.4GHz. When ordering, pls specify.
- 3. V31 Air unit and Ground unit have one serial port, default: TTL(RS232 optional). If there is no special instruction from the customer, TTL port will be configured. If RS232 is needed, kindly notify us.

Pls, refer to the below list to specify your requirement when ordering.

No.	P/N	Frequency	Range	Serial port	E11
1	V21	800MHz, 1.4GHz, 2.4GHz	10km grade(air to ground)	TTL(default), RS232(optional)	Need or not
2	V31-5km	800MHz, 1.4GHz	3-5km(ground to ground)	TTL(default), RS232(optional)	Need or not
3	V31-20km	800MHz, 1.4GHz	20km grade(air to ground)	TTL(default), RS232(optional)	Need or not
4	V31-30km	800MHz, 1.4GHz	30km grade(air to ground)	TTL(default), RS232(optional)	Need or not
5	V31-50km	800MHz, 1.4GHz	50km grade(air to ground)	TTL(default), RS232(optional)	Need or not

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6	V31-80km	800MHz, 1.4GHz	80km grade(air to ground)	TTL(default), RS232(optional)	Need or not
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