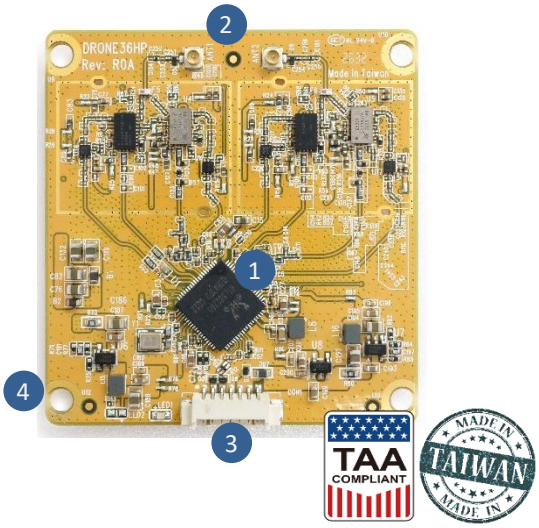
RTL8812AU USB 2.0
Module for Drone

Drone36HP



Key point

1. Chipset: RTL8812AU
2. RF Connector: IPEX
3. USB Connector:
   7 Pins wafer pitch 1.25 mm
4. Screw Hole: 3 mm

Drone36HP is a compact, high-power 2.4/5 GHz 802.11a/b/g/n/ac wireless module powered by Realtek RTL8812AU. Its built-in high-power FEM and 10 MHz narrow channel support help extend range and improve link robustness, making it an excellent choice for long-distance HD video transmission in IP surveillance, UAV/FPV, robotics, and remote monitoring deployments.

Technical Features:

Extended Range:
Built-in high-power Front-End Module (FEM) for superior signal penetration.

Narrow Bandwidth Support:
Supports 10 MHz narrowband channels to significantly extend WLAN communication range.

High-Speed Transmission:
Dual-band wireless support with high throughput designed to ensure smooth, high-definition video streaming.

UAV Optimized:
The ideal solution for long-range wireless video transmission in UAVs and IP camera systems.

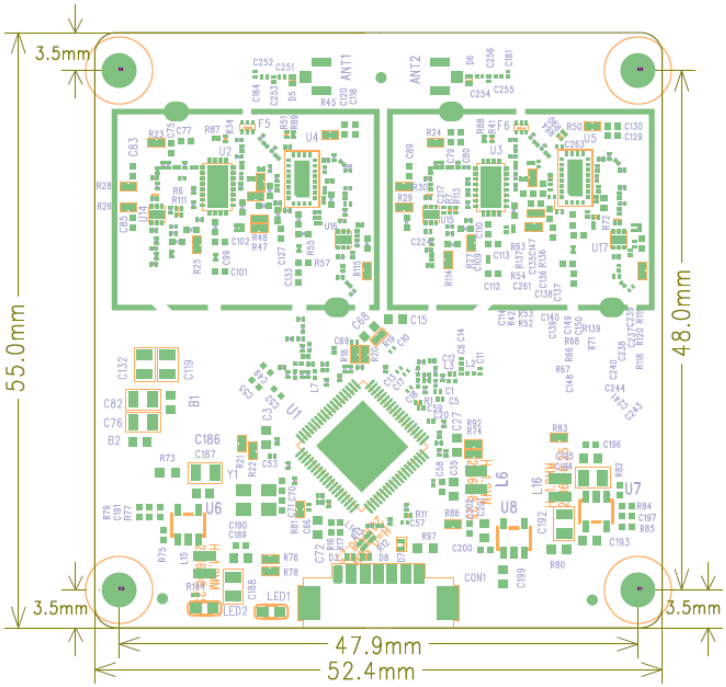
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- Specifications

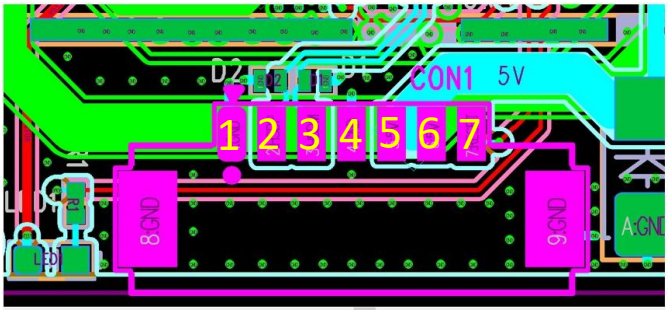
Chipset	Realtek RTL8812AU
Wireless Standard	IEEE 802.11a/n/ac
Frequency	Dual Band (Non-concurrent) 2.402 ~ 2.482 GHz 5.15 ~ 5.85 GHz
RF Transmitting Power	2.4 GHz: up to 26.5 dBm 5 GHz: up to 22.5 dBm
RF Receiving Sensitivity	2.4 GHz: 11b 1M -99 dBm 5 GHz: 11a 6M -93 dBm
Bandwidth	10/20/40/80 MHz
Data Rate	11b: 1, 2, 5.5, 11 Mbps 11g: 6, 9, 12, 24, 36, 48 and 54 Mbps 11a: 6, 9, 12, 18, 24, 36, 48 and 54 Mbps 11n: 2.4G up to 300 Mbps 11ac: up to 300 Mbps (limited by USB2.0)
Host Interface	USB 2.0
Power supply	DC 5V , 1100 mA (Max)
Antenna connector	2 x IPEX
Dimensions	55 x 52.4 x 4.6 mm
Operating temperature	-25 °C – 65 °C (-13 °F – 161 °F)
Weight	9.6 g
Operating System	Windows & Linux
Package Contents	1 x Drone36HP Module 1 x USB Interface Cable

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- Outline Drawing



- USB Pin Definition



Pin No.	Name
1	GND
2	D+
3	D-
4	GND
5	5V
6	5V
7	NC

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- ## RF Specifications (Single Antenna)

RX Sensitivity

2.4 GHz							
Mode	Data Rate	CH1		CH6		CH11	
		ANT0	ANT1	ANT0	ANT1	ANT0	ANT1
11b	1M	-99	-99	-99	-99	-99	-99
	11M	-90	90	90	90	90	90
OFDM	54M(g)	-77	-77	-77	-77	-77	-77
HT20	MCS7	-73	-73	-73	-73	-73	-73
HT40	MCS7	-70	-70	-70	-70	-70	-70

5 GHz									
Mode	Data Rate	CH36		CH100		CH149		CH165	
		ANT0	ANT1	ANT0	ANT1	ANT0	ANT1	ANT0	ANT1
OFDM	6M(a)	-93	-93	-93	-93	-93	-93	-93	-93
	54(a)	-77	-77	-77	-77	-77	-77	-77	-77
HT20	MCS7	CH36		CH100		CH149		CH165	
		-74	-74	-74	-74	-74	-74	-74	-74
HT40	MCS7	CH38		CH102		CH151		CH167	
		-71	-71	-71	-71	-71	-71	-71	-71
AC80	MCS9	CH42		CH122		CH138		CH155	
		-59	-59	-59	-59	-59	-59	-59	-59

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TX Power

2.4 GHz							
Mode	Data Rate	CH1		CH6		CH11	
		ANT0	ANT1	ANT0	ANT1	ANT0	ANT1
11b	1M	26.5	26.5	26.5	26.5	26.5	26.5
	11M	26.5	26.5	26.5	26.5	26.5	26.5
OFDM	54M(g)	23.5	23.5	23.5	23.5	23.5	23.5
HT20	MCS7	22.5	22.5	22.5	22.5	22.5	22.5
HT40	MCS7	22	22	22	22	22	22

* There is +/- 2 dBm tolerance for production test

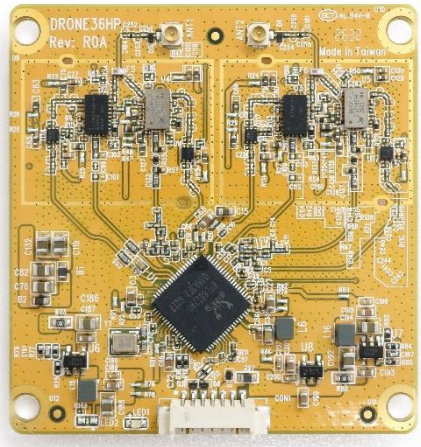
5 GHz											
Mode	Data Rate	CH36		CH64		CH100		CH157		CH165	
		ANT0	ANT1	ANT0	ANT1	ANT0	ANT1	ANT0	ANT1	ANT0	ANT1
OFDM	6M(a)	22	22	22	22	22	22	22	22	22	22
	54(a)	21	21	21	21	21	21	21	21	21	20
HT20	MCS0	CH36		CH64		CH100		CH157		CH165	
		23	23	23	23	23	23	23	23	23	22.5
	MCS7	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20
HT40	MCS0	CH38		CH62		CH102		CH151		CH167	
		23	23	23	23	23	23	23	23	23	22.5
	MCS7	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20
AC80	MCS9	CH42		CH106		CH122		CH138		CH155	
		19	19	19	19	19	19	19	19	19	19

* There is +/- 2 dBm tolerance for production test

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Package Contents

- 1 x Drone36HP module
- 1 x USB-A to 7-pin wafer cable (1.25 mm Pitch, 20 cm)



Drone36HP module



USB-A to 7-pin wafer cable (20 cm)

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