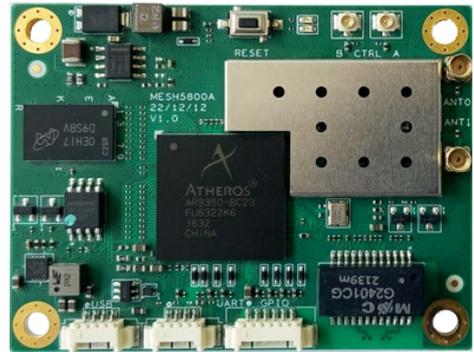MESH5800A is a 5.8 GHz 802.11n single-board WiFi module launched by Zencheer. Measuring only 50 × 66 mm, it is suitable for applications such as UAV mesh networking and broadband data transmission. MESH5800A supports 2×2 MIMO, with up to 24 dBm RF output power per channel. Customers can choose the appropriate interface options based on their needs, customize the overall enclosure dimensions, and develop compact broadband data-link devices.

Key Features

- Up to 24 dBm output power per channel
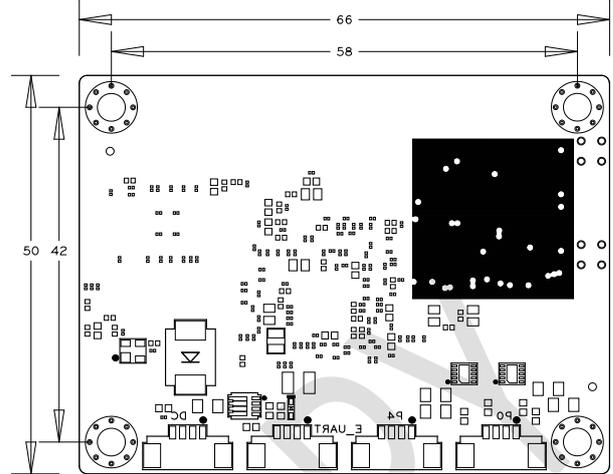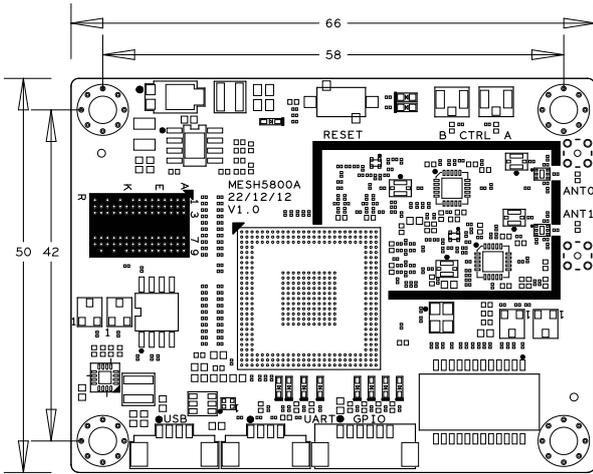- Compact size: only 50 × 66 mm

Specifications

Frequency Range	5180–5825 MHz	Bootloader	U-Boot
Channel Bandwidth	5/10/20 MHz adjustable	Linux Kernel	Linux kernel 3.18.19
Output Power	0.25 W	Wired Network	Configurable IP address
Rx Sensitivity	−90 dBm		Configurable subnet mask
Modulation	OFDM BPSK/QPSK/16-QAM/64-QAM	Wireless	Adjustable operating frequency
Data Rate	80 Mbps max	Network	Adjustable channel bandwidth
Antenna	2 MMCX		Adjustable output power
Ethernet	Two 10/100 Mbps Ethernet ports		Supports ad-hoc mode
	(using 1.25 mm pitch 4-pin connectors)		Configurable ESSID/BSSID
Interfaces	One USB 2.0 Host port		Supports adaptive rate and fixed-rate modes
	(using a 1.25 mm pitch 4-pin connector)		Supports distance optimization
	One data UART		Supports RTS/CTS settings
	(using a 1.25 mm pitch 4-pin connector)		Connection status display
	Four GPIOs		Web-based management
	(using a 1.25 mm pitch 6-pin connector)		Secure management via SSH
Tx/Rx Control[1]	2 IPEX	Management	Import/export configuration
Button	1 factory reset button		Restore factory settings
Power Supply	9–48 V DC		Online firmware update
	(using a 1.25 mm pitch 4-pin connector)		
Dimensions	50 × 66 × 10 mm		
Temperature	Storage: −40 °C to +125 °C		
	Operating: −20 °C to +65 °C		
Weight	21 g		

Interface Definitions

DC (Power Supply)		E_UART (UART)		P4 (Ethernet)		P0 (Ethernet)		UART (Debug)		USB		GPIO	
1	VIN+	1	3.3 V	1	RXP	1	RXP	1	3.3 V	1	5 V	1	3.3 V
2	VIN+	2	RXD	2	RXN	2	RXN	2	RXD	2	D-	2	GPIO18
3	VIN-	3	TXD	3	TXP	3	TXP	3	TXD	3	D+	3	GPIO14
4	VIN-	4	GND	4	TXN	4	TXN	4	GND	4	GND	4	GPIO15
												5	GPIO20
												6	GND

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[1]High-level output in TX mode and low-level output in RX mode, logic level: 3.3 V.

Physical Size