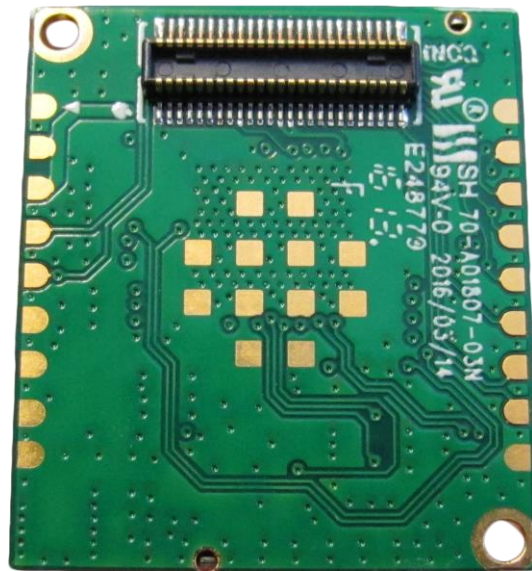


# AC-180M

## Product Specification



IEEE 802.11ac/a/b/g/n 1x1  
Wireless Module

# AC-180M Specifications



Hardware	
Standard	IEEE 802.11ac/a/b/g/n
Chipset	Marvell 88W8887 SoC
Host Interface	SDIO
Host Connector	Board to board connector (PANASONIC AXZ850145WG)
Operating Voltage	DC 3.3V
Power Consumption	<2W
Antenna Connector	u.FL-R-SMT compliant connector

Output Power	IEEE 802.11g/n	IEEE 802.11a/n	IEEE 802.11ac
	18dBm@6~36M	15dBm@6~36M	15dBm@HT80/MCS0~6
	16dBm@18~54M	14dBm@48~54M	14dBm@HT80/MCS7
	18dBm@HT20/MCS0~4	15dBm@HT20/40/MCS0~4	12dBm@HT80/MCS8
	18dBm@HT40/MCS0~4	14dBm@HT20/40/MCS0~4	10dBm@HT80/MCS9
	16dBm@HT20/MCS5,6	13dBm@HT20/40/MCS0~4	
	15dBm@HT40/MCS5,6		
	14dBm@HT20/MCS7		
	13dBm@HT40/MCS7		

Rx Sensitivity	IEEE 802.11g/n	IEEE 802.11a	IEEE 802.11ac
	-85dBm@11Mbps	-85dBm@6Mbps	-61dBm@VHT20/MCS7
	-85dBm@6Mbps	-69dBm@54Mbps	-58dBm@VHT40/MCS7
	-69dBm@54Mbps		-55dBm@VHT80/MCS9
	-64dBm@HT20/MCS7		
	-61dBm@HT40/MCS7		

Modulation	IEEE 802.11b (DSSS)	IEEE 802.11g (OFDM/DSSS)
		5.5/11 Mbps (CCK)
	2 Mbps (DQPSK)	24/36 Mbps (QAM-16)
	1 Mbps (DBPSK)	12/18 Mbps (QPSK)
		6/9 Mbps (BPSK)
	IEEE 802.11n (OFDM/DSSS)	IEEE 802.11ac
	QAM-64	QAM-256
	QAM-16	QAM-64
	QPSK	QAM-16
	BPSK	QPSK
		BPSK

Operating Frequency	2.4GHz Frequency	5GHz Frequency
	2412~2472MHz	5150~5250MHz
		5250~5470MHz
		5470~5725MHz
		5725~5850MHz

# AC-180M Specifications



<b>Software</b>	
Standard	IEEE 802.11i security standard IEEE 802.1x security standard IEEE 802.11e standard
Operation Mode	Infrastructure mode Ad-hoc mode
Power Management	Power save mode Deep Sleep mode
Security	WAPI WPA/WPA2/WPA-PSK/WPA2-PSK 64-bit and 128-bit WEP EAP-TLS/EAP-TTLS/EAP-PEAP

<b>Physical</b>	
Dimension	20mm (L) x 23mm (W) x 3.85mm (H)

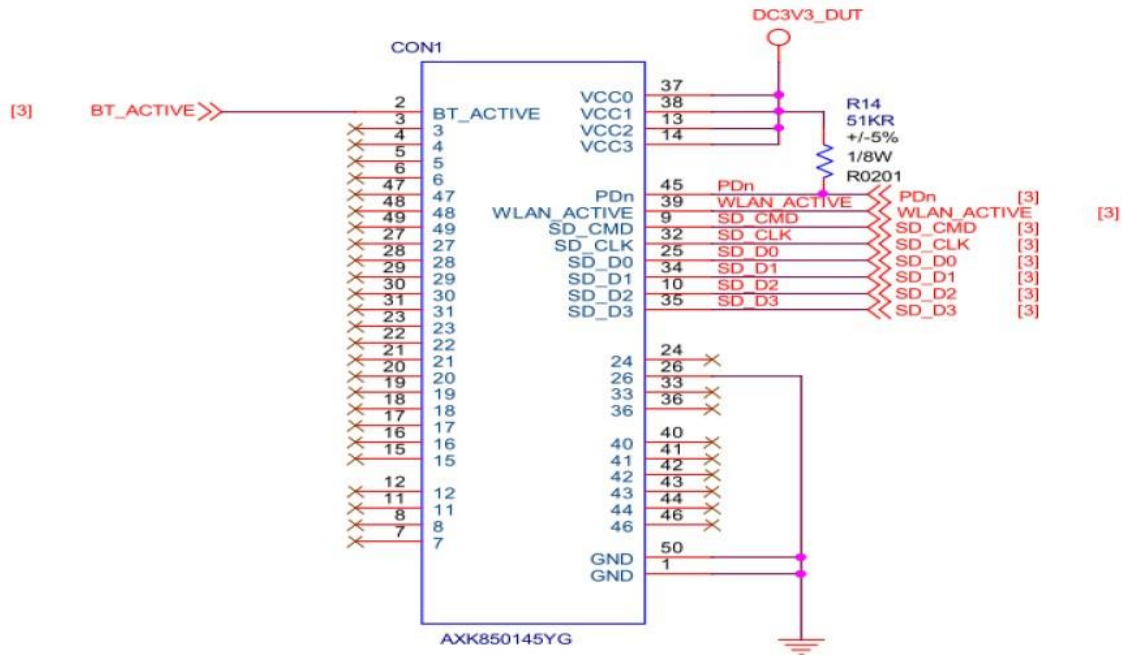
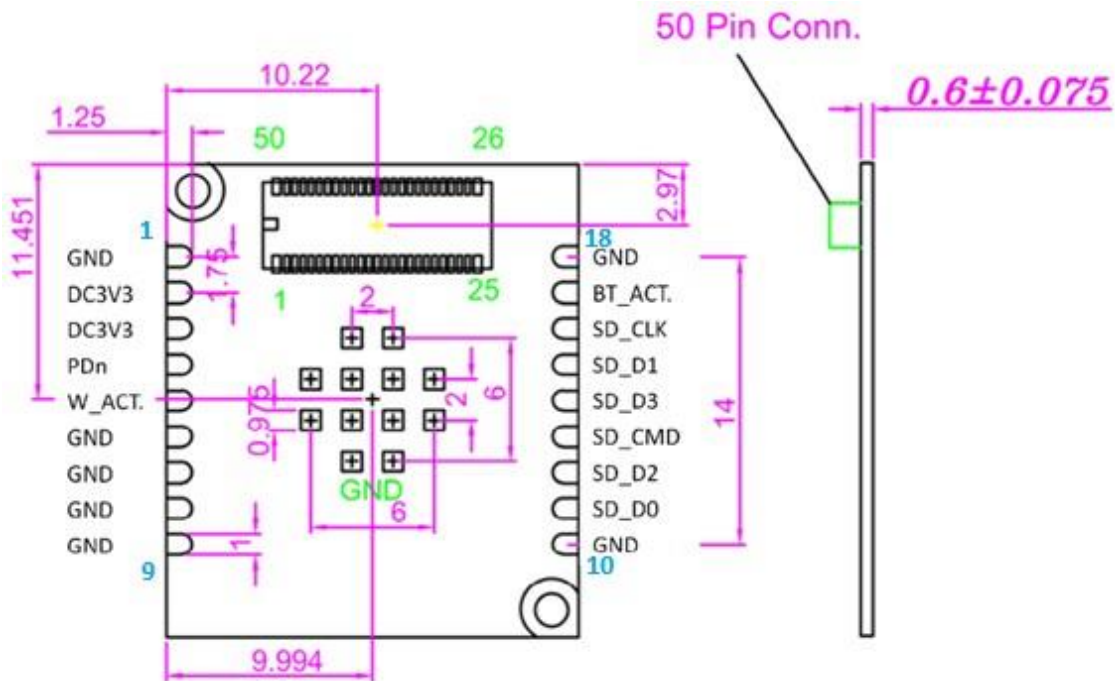
<b>Environmental</b>	
Operating Temperature	-30 ~ +75°C
Operating Humidity	10 ~ 90% relative humidity non-condensing
Storage Temperature	-30 ~ +80°C
Storage Humidity	10 ~ 90% relative humidity non-condensing
Green	RoHs/REACH compliant
Warranty	12 months

<b>Approvals</b>	
FCC	FCC Part 15B FCC Part 15C

# AC-180M Specifications

## SDIO Pin Definition



# AC-180M Specifications



Pin	Name	Description	Pin	Name	Description
1	GND	Ground	26	GND	Ground
2	BT_ACTIVE	BT Enable / LED Output	27	NC	Not Connected
3	NC	Not Connected	28	NC	Not Connected
4	NC	Not Connected	29	NC	Not Connected
5	NC	Not Connected	30	NC	Not Connected
6	NC	Not Connected	31	NC	Not Connected
7	NC	Not Connected	32	SD_CLK	Clock
8	NC	Not Connected	33	NC	Not Connected
9	SD_CMD	Command	34	SD_D1	Data 1
10	SD_D2	Data 2	35	SD_D3	Data 3
11	NC	Not Connected	36	NC	Not Connected
12	NC	Not Connected	37	DC3V3_DUT	3V3 or Not Connected
13	DC3V3_DUT	3V3	38	DC3V3_DUT	3V3
14	DC3V3_DUT	3V3 or Not Connected	39	GPIO2	WLAN Active / LED Output
15	NC	Not Connected	40	NC	Not Connected
16	NC	Not Connected	41	NC	Not Connected
17	NC	Not Connected	42	NC	Not Connected
18	NC	Not Connected	43	NC	Not Connected
19	NC	Not Connected	44	NC	Not Connected
20	NC	Not Connected	45	PDn	Full Power Down
21	NC	Not Connected	46	NC	Not Connected
22	NC	Not Connected	47	NC	Not Connected
23	NC	Not Connected	48	NC	Not Connected
24	NC	Not Connected	49	NC	Not Connected
25	SD_D0	Data 0	50	GND	Ground

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