

PRM5800ac is a 5GHz ISM band wireless transceiver with Mini PCIe interface developed by Zencheer, its physical size is 52*48mm. PRM5800ac is easy to integrated to customers' network processing board and It's suitable for long distance point-to-point or point-to-multi-point applications.

Key Features

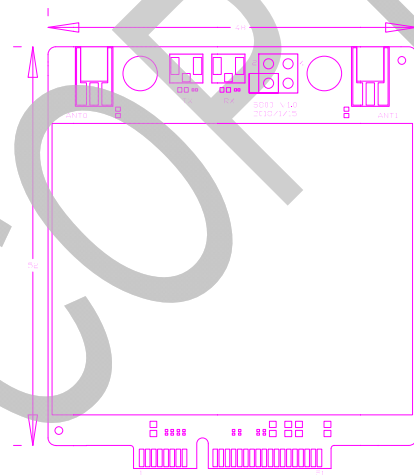
- 5.18-5.825GHz ISM Band
- 2*2 MIMO
- Output Power Up To 24dBm
- Rx Sensitivity Up To 92dBm

Specifications

Operating Frequency	5.18-5.825GHz
Channel Bandwidth	20/40/80MHz
Available Channel¹	5180-5320MHz 5500-5700MHz 5745-5825MHz
Output Power²	
BPSK VHT20/VHT40/VHT80	24dBm
64-QAM VHT20/VHT40/VHT80	20dBm
256-QAM VHT20/VHT40/VHT80	18dBm
Rx Sensitivity³	
BPSK VHT20/VHT40/VHT80	-92dBm/-90dBm/-86dBm
64-QAM VHT20/VHT40/VHT80	-72dBm/-70dBm/-66dBm
256-QAM VHT20/VHT40/VHT80	-68dBm/-64dBm/-60dBm
Modulation	OFDM BPSK/QPSK OFDM 16-QAM/64-QAM/256-QAM
Antenna	2 MMCX
Transmission Rate⁴	
256-QAM VHT80	600Mbps(with QSDK SPF 5.0.3)
Interface⁵	Mini PCI Express
Debug	
Tx Enable ⁶	1 IPX
Rx Enable ⁷	1 IPX
Power Supply	3.3V/1A, 5.0V/1.5A
Size	52*48*4.7mm
Operating Range	Storage: 40°C~+125°C Operation: -20°C~+65°C
Weight	15g



Mechanical



Linux Driver

ATH10K or QSDK

Attachment

No

¹ Channel spacing: 20MHz

² Average power of single antenna with 99% duty cycle

³ Rx sensitivity of single antenna with 10% packet loss

⁴ TCP transmission rate with multi stream

⁵ Pin definition please refer to appendix 1

⁶ Output high (3.3V) case in Tx state and output low (0V) case in Rx state

⁷ Output low (0V) case in Tx state and output high (3.3V) case in Rx state

Appendix 1 PRM5800ac Pin Definition

Number	Name	Description	Number	Name	Description
1	WAKE_L	Enable, optional	27	GND	GND, required
2	3.3V	3.3V power supply, required	28	1.5V	No connection
3	RESERVED	I/O	29	GND	GND, required
4	GND	GND, required	30	SMB_CLK	No connection
5	RESERVED	No connection	31	PETNO	Tx, required
6	1.5V	No connection	32	SMB_DATA	No connection
7	CLKREQ_L	Clock request, optional	33	PETPO	Tx+, required
8	UIM_PWR	No connection	34	GND	GND, required
9	GND	GND, required	35	GND	GND, required
10	UIM_DATA	No connection	36	USB_D-	No connection
11	REFCLK-	Reference clock-, required	37	RESERVED	5V power supply, required
12	UIM_CLK	No connection	38	USB_D+	No connection
13	REFCLK+	Reference clock+, required	39	RESERVED	5V power supply, required
14	UIM_RESET	No connection	40	GND	GND, required
15	GND	GND, required	41	RESERVED	5V power supply, required
16	UIM_VPP	No connection	42	LED_WWAN	No connection
17	UIM_C8	No connection	43	RESERVED	GND, optional
18	GND	GND, required	44	LED_WLAN	I/O, optional
19	UIM_C4	No connection	45	RESERVED	GND, optional
20	W_DISABLE	I/O, optional	46	LED_WPAN	No connection
21	GND	GND, required	47	RESERVED	No connection
22	PERST	Reset, required	48	1.5V	No connection
23	PERNO	Rx-, required	49	RESERVED	No connection
24	3.3V AUX	No connection	50	GND	GND, required
25	PERPO	Rx+, required	51	RESERVED	No connection
26	GND	GND, required	52	3.3V	3.3V power supply, required