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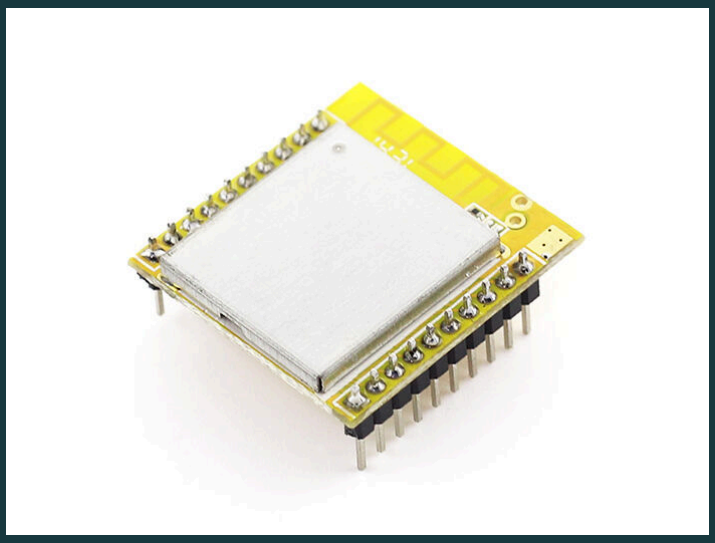
INDUSTRIAL PRODUCT DATASHEET

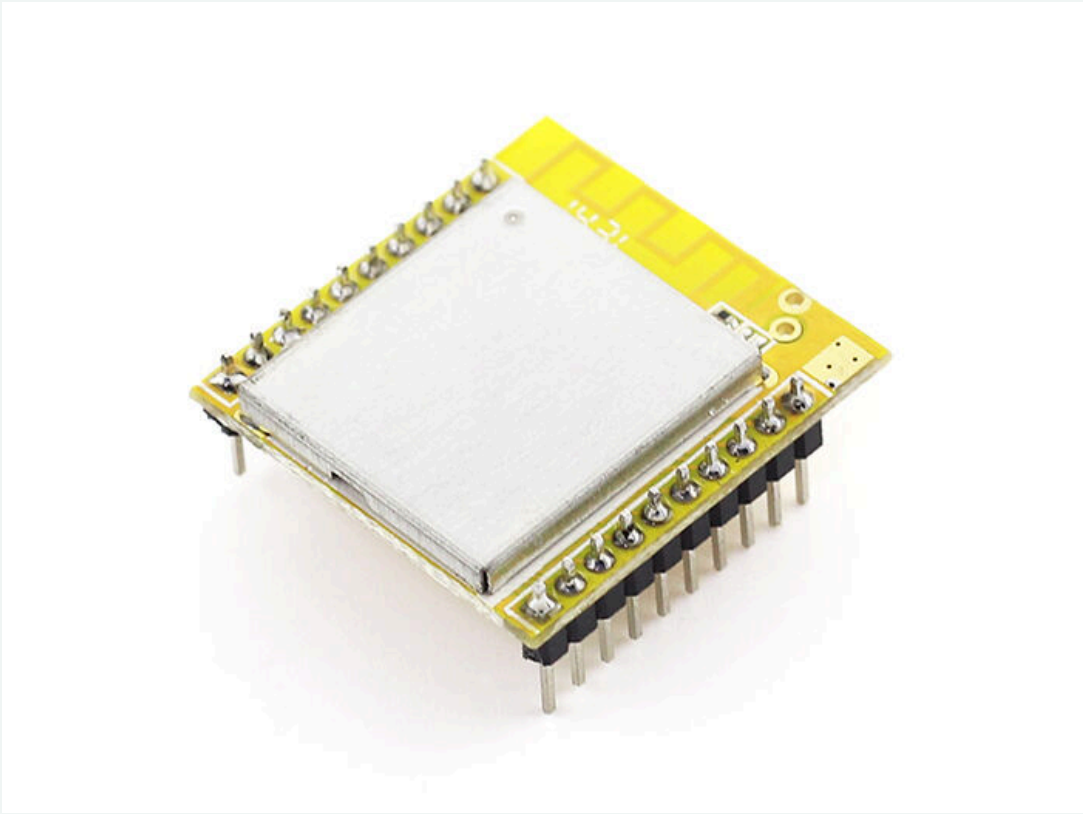
2.4GHz Micropower ZigBee Wireless module

The WT-5168CK-PA 2.4GHz micropower ZigBee module combines 20dBm transmit power, -104dBm sensitivity, and 0.8μA dormancy current with multi-protocol support for robust, low-power wireless connectivity.

SKU	UPDATED	PRICE
317990015	2024-08-09 02:02:22	$24.95(Excl. VAT)



Overview



The WT-5168CK-PA 2.4GHz Micropower ZigBee Wireless module integrates an NXP high-performance RF chip and 32-bit processor with support for IEEE 802.15.4, JenNet-IP, ZigBee Light Link, ZigBee Smart Energy, and RF4CE protocols. It delivers 20dBm transmit power, -104dBm receive sensitivity, and 0.8μA dormancy current, with automatic mesh networking and rich I/O for secondary development in applications like home automation, smart energy, and remote controls.

Key Features

This product is a based on NXP's latest high-performance radio frequency chip design from the zigbee module with high stability, low power consumption, high cost-effective, rich internal resources, 32bit processor with high-performance embedded chip and large-capacity flash, powerful function, user-friendly for customers to do secondary development. It supports multiple network protocols, wide range of usage, develop flexibly, scalably. The module has a small size, simple structure, easy to embed the customer's product

Features：

Product feature

- Micro-power transmission, standard 20dB, divides into 3 floors, can control the transmission power by setting software.
- Working band: 2.4G-2.485GHZ, global free applications operating band.
- High noise immunity and low error rate, high-efficiency circulation interleaving error correction coding techniques and frequency hopping mechanism to improve the data burst of anti-interference and noise immunity.
- Supports multiple protocols, 2.4G IEEE802.15.4, JENNet-IP, ZigBee light link, ZigBee Smart Energy and RF4CE protocol.
- Receive sensitivity up to -104dBm, transmission distance far away.
- Module reserve enough I / O digital interfaces and analog to digital conversion interface, enabling customers to secondary development and extensions.
- Free debugging produce, wide operating voltage range: 3.3V-6V, you can customize 2.0V-3.6V.
- Module of low power consumption, the dormancy current is 0.8Ua.
- Small size, light weight, easy for clients to embed devices.
- Reserved multiple antenna interfaces, including sucker antenna, glue stick antenna, antenna and IPX ceramic antenna connector.
- Automatic network, automatically find the router, automatically form a robust mesh network topology.

Application Area

- Robust and secure low power wireless applications
- RF4CE remote control
- JenNet-IP net work
- ZigBee SE net work
- ZigBee optical link network
- Lighting and home automation
- Toys and games peripherals
- Smart energy
- The energy collection, such as power of light switch

Specification：

Electrical Parameters：

Supply Voltage：2.0V-3.6V

Emission Current：130mA @20dBM

Receive Current：27mA

Dormancy Current：0.8uA

RF Technology Parameters：

Working Frequency：2.405GHZ-2.48GHZ

Transmitted Power：20dBm

Receive Sensitivity：-104dBm

Wireless Transmission Rate：250kbps

Other Technical Parameters

Sense Rate：4800bps～115200bps(can be set)

The interface data format：8E1/8O1/8N 1(choosable)

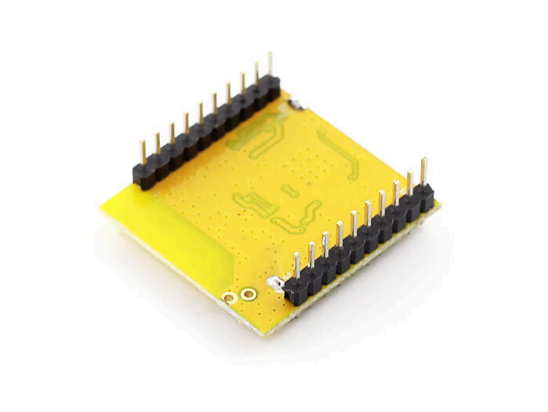
Working Temperature：-40℃ ～ +80℃ （industrial level）

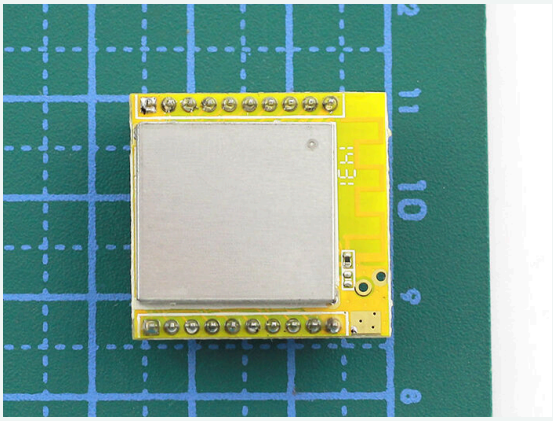
Working Humidity：10%～90% relative humidity, without condensation

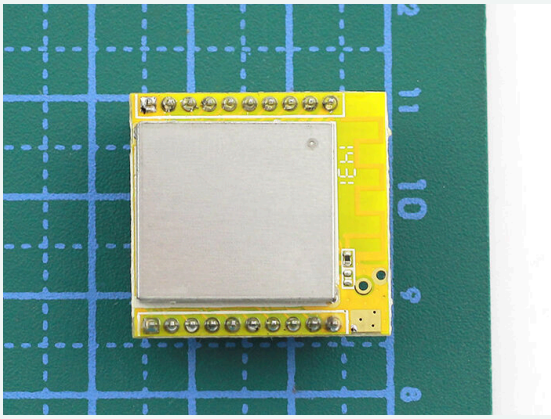
Documents:

ZigBee module WT-5168CK-PA-specification

Product Gallery







Compliance & Logistics

HSCODE	
ROHS	1

Resource Links

- https://www.seeedstudio.com/2-4GHz-Micropower-ZigBee-Wireless-module-p-2284.html

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