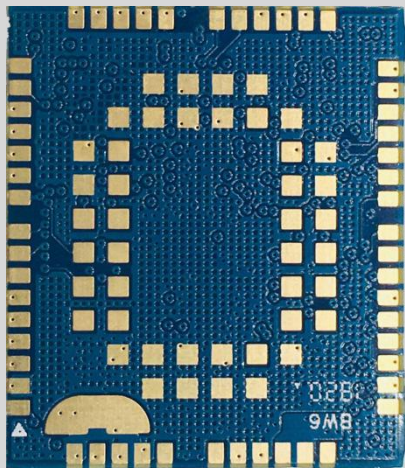


LPM2100_bm

Multi-Band NB-IoT + GSM Module



NB-IoT

NB-IoT



GSM/GPRS



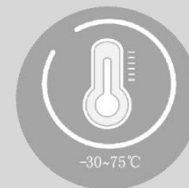
LCC package



2 wires UART



Small size



-30°C~75°C



AT command



USB driver



Multiple network protocols

Product description

The LPM2100 bm is a multi-band NB-IoT + GSM quad-band dual-mode module that complies with 3GPP Release 13. The module has 98 pins, $(23.6 \pm 0.15) \text{ mm} \times (19.9 \pm 0.15) \text{ mm} \times (2.2 \pm 0.15) \text{ mm}$, which can meet almost all M2M requirements. The module is a chip module and is packaged in an LCC to meet the hardware interface between the customer's motherboards. The LPM2100 bm series modules feature low power technology with standby power consumption of less than 1mA and low sleep down to 5uA.

Product advantages

- ❖ Support NB-IoT
- ❖ Support GSM/GPRS-CLASS12
- ❖ Super power saving, PSM mode $\leq 5\mu\text{A}$
- ❖ LCC package for M2M design
- ❖ Stable performance and high cost performance
- ❖ CCC ROHS certification
- ❖ Wide range of application scenarios

LPM2100_bm

Multi-Band NB-IoT + GSM Module

General characteristics		Electrical characteristics	
Frequency band	GSM 900/850/1800/1900MHZ	✧ Output Power	
	GPRS 900/850/1800/1900MHZ	Class 4 (33dBm ±2dB) GPRS/CLASS12	
	NB-IoT B3/B5/B8/20/28	(23dBm ±2dB) for Cat NB1	
Voltage range: 3.5V~ 4.2V Typical voltage 3.7V		✧ Sensitivity	
Normal operating temperature: -20 °C ~ +75 °C		NB B3:127dBm ± 1dB	NB B5:127dBm ± 1dB
Extreme working temperature: -30 °C ~ +80 °C		NB B8:127dBm ± 1dB	
3D size: (23.6mm×19.9mm×2.2mm) ±0.15mm		GSM900:-112dBm ± 1dB	GSM850:-112dBm ± 1dB
Antenna: MIMO 2*2, support diversity		DCS:-110dBm ± 1dB	PCS:-110dBm ± 1dB
AT : Meet the 3GPP TS27.007 instruction set		Interface	
Specification details			
		GPIO interface x6	Reset interface x1
NB-IoT:Single-tone:25.5kbps(DL),16.7kbps(UP)		Serial interface x2	SPI interface x1
NB-IoT:Multi-tone:25.5kbps(DL),62.5kbps(UP)		I2C interface x1	ADC interface x1
GPRS DL 107kbps, UP 85.6kbps		PSM_EINT interface x1	WAKEUP
Other characteristics		NB-IoT antenna interface x1	
		SIM card interface (3V/1.8V supports hot swap) x1	
USB driver supports Windows 2000/XP/7/8		Bluetooth antenna interface x1 (reserved)	
Windows CE/Mobile/ Linux/Android		Network indicator interface x1	
RIL supports Android/WindowsCE/Mobile		Charging interface (reserved)	
NIDS supports Windows XP/7/8/CE		Development function*	
Upgrade software via USB			
TCP/IP/IPV4/V6 Multi-PDP, MT PDP		USIM card detection	