![COMPAL logo]

picoNode _(Preliminary)

Innovative ultra-small and power-saving RPMA module for IoT/M2M solution

RPMA features

- The broadest and deepest coverage - 12.8 km range and 240 km² coverage per AP
- High system capacity - Supporting up to 64,000 devices per AP
- Unlicensed spectrum - Using 2.4 GHz ISM band which is cost-free and available around the world
- Longest battery life - 5 years or longer with a single battery
- Reliable and Secure - Using SSL to protect transmitting data

Product description

The picoNode is a small form factor wireless network module that easily integrates with a micro-controller or applications processor using a Serial Peripheral Interface (SPI). The top side of the printed circuit board (PCB) is enclosed with a radio frequency (RF) shield. The picoNode is an LGA-style module designed to be soldered directly onto a host board via SMT processes.
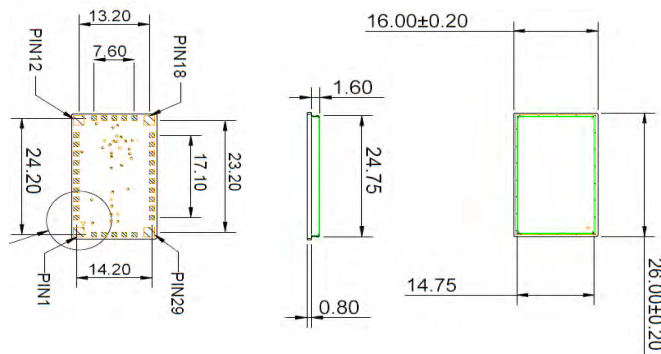
Successful Application & Solutions

- Oil, Gas, Mining
- Asset Tracking
- Automotive
- Smart Grid & City
- Shipping
- Security
- Agriculture
- Consumer

Dimensions	26 x 16 x 2.4 mm
Transmit Power	+22 dBm
RX Sensitivity	-133 dBm
Operating Temperature	-40 ~ 85 ℃
Interfaces	7-wire SPI
Wireless Frequency	2.4 GHz

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Product diagram

Specification

Physical characteristics	Dimensions	26 x 16 x 2.4	mm
	Weight	< 3	Grams
Features	FOTA	Updating FW over the Air	
	Signal Modulation	Direct Sequence Spread Spectrum - Differential Binary Phase Shift Keying (DSSS-DBPSK)	
	Multiple Access Scheme	Random Phase Multiple Access (RPMA)	
	Interfaces	7-wire SPI	
environment data	Operating Temperature	-40 ~ 85	℃
	Storage Temperature	-40 ~ 85	℃
	Humidity	5 ~ 95	%
Electrical characteristics	Transmit Power	+22	dBm
	Receiver Sensitivity	-133	dBm
	Input voltage, VBATT	2.5 ~ 5.5	V
	3.3V Input	3.2 ~ 3.4	V
	Power Off Current	19	µA
	Deep Sleep Current	15	µA
	Idle Current	20	mA
	Receive Current	100	mA
	Transmit Current	330	mA
Digital characteristics	Wireless Frequency	2.4	GHz
	SPI Clock	0.1 ~ 8.6	MHz
	Signal Bandwidth	1.0	MHz

Inquiries

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