# ISM Transceiver PAN2341



IRELESS

ODULES

#### **OUTLINES - ENW59605N**

This extremely reliable module is mainly intended for the ISM (Industrial, Scientific and Medical) and SRD (Short Range Device) frequency bands at 868 and 915 MHz. Other frequency bands possible on request.

It provide a wireless radio reception and can be linked to a wide range of devices including home appliances, keyless entry and many other applications.

This module complies with EN 300-220 and FCC CFR47 part 15 and offers a low cost, fully integrated solution for many ISM-applications. Our model PAN2341 is the newest development which based on our experience from the PAN2340, but now in a smaller size.

PAN2341 is specially made for all applications where a **wide band** bidirectional data transfer is needed.

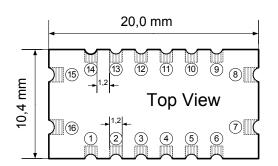
## **FEATURES**

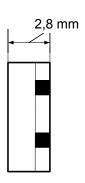
- Maximum datarate up to 76.8 kBaud (NRZ mode)
- Very low current consumption
- Frequency range 300 1000 MHz
- High sensitivity (typ. -110 dBm at 2.4 kBaud, Manchester)
- Programmable output power -20 dBm to +5 dBm
- Low supply voltage (2.1 V to 3.6 V)
- Operating temperature range -40°C to +85°C
- Small size (10.4mm x 20.0mm x 2.8mm)
- Analog RSSI output
- Single port antenna connection
- Programmable frequency in 250 Hz steps makes crystal temperature drift compensation possible

#### **APPLICATIONS**

- RKE Two-way Remote Keyless Entry
- Home Automation Systems
- AMR Automatic Meter Reading
- Low Power Telemetry
- Toys
- Remote Control Systems

# DIMENSIONS





Pin no.	Pin name	
5,6,7,8,13, 15,16	GND	
1	VCC	
2	CHP-OUT	
3	DCLK	
4	DIO	
9	PALE	
10	RSSI	
11	PDATA	
12	PCLK	
14	ANT	

# TECHNICAL CHARACTERISTICS

Parameter	Value	Condition / Note
Receiver Sensitivity, Optimum sensitivity (11.8 mA), Low current consuption (9.6 mA)	-107 dBm -105 dBm	more details in datasheet
Output Power	-20 to 5 dBm	Delivered to 50 $\Omega$ load. The output power is programmable.
RSSI dynamic range	-105 to -50 dBm	
PLL lock time (Rx /Tx turn time)	200 μs	up to 1MHz frequency step
PLL turn-on time, crystal oscillator on in power down mode	250 µs	Crystal oscillator running
Power Down Mode	0.2 μA typ.	Oscillator core off
Current Consumption receive mode	9.6 mA	Current is programmable and can be increased for improved sensitivity
Current Consumption transmit mode P=3mW (5dBm)	25.4 mA typ.	Delivered to 50 $\Omega$ load. The output power is programmable.

#### Note

All parameters are vaild for  $V_{DD} = 3.0V$ ,  $T_{ADD} = 25^{\circ}C$  and 868MHz

If you are interest in lower frequencies, e.g. 433 MHz offers better conditions, please send an e-mail to wireless@ecom.panasonic.de.

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