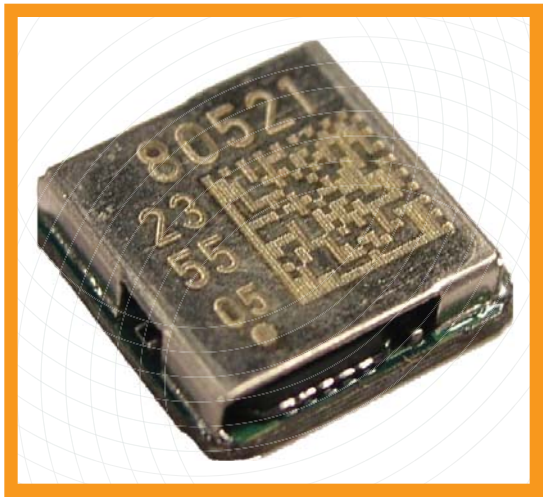
This extremely compact and multi-functional module is intended for the ISM frequency bands at 868 and 915 MHz with other frequencies between 300 and 1000 MHz available on request. This wireless transceiver can be linked to a wide range of devices including home appliances and keyless entry through SPI. Programming the vast functionalities is done via SPI or UART. The PAN2355 is made for all applications where a wide band bidirectional data transfer with high speed is needed. It has a small size with a 8 x 8.2mm footprint and very low power consumption and is ideal for battery driven applications.



Product Performance:

- Programmable Data-Rate Up To 500 kBaud (NRZ Mode)
- Very Low Current Consumption
- Frequency Range 300 - 1000 MHz
- High Sensitivity, Typical -100 dBm at 2.4 kBaud, Manchester
- Programmable Output Power: -30 dBm to +10 dBm
- Low Supply Voltage: 2.1V to 3.6V
- Operating Temperature Range: -40°C to +85°C
- Small Size: 8.0mm x 8.2mm x 1.9mm, Including Shielding (Only 65.6 mm^2)
- Digital RSSI Output
- Single Port 50 Ω Antenna Connection
- Programmable Frequency in 400 Hz Steps Makes Crystal Temperature Drift Compensation Possible

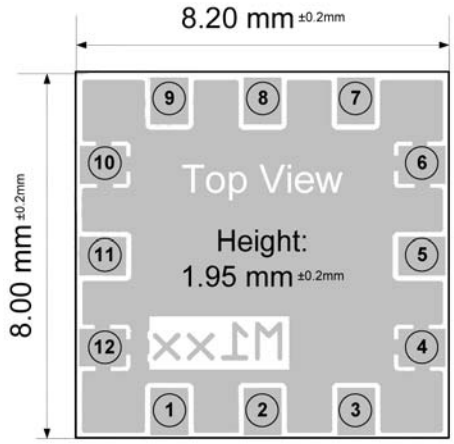
Applications:

- RKE - Two-Way Remote Keyless Entry
- Home Automation Systems
- Automated Meter Reading
- Low Power Telemetry
- Toys
- Remote Control Systems

Part Numbers:

Part Number	Description
ENW59611N3A	PAN2355, 868~915MHZ, 156.8KBPS, Tx 10 dBm
EVAL_PAN2355	Evaluation Kit For The PAN2355 Module

Dimensions & Pin Layout:



Pin No.	Pin Name
4,6,10,12	GND
1	SPI SI
2	SPI SCLK
3	SPI SO
5	GDO 0
7	SPI CSN
8	Vcc
9	GDO 2
11	50 Ω RF

Technical Specifications:

Parameter	Value	Condition / Notes
Receiver Sensitivity, at 2.4 kbps, 2-FSK at 250 kbps, 2-FSK	 -100 dBm -85 dBm	
Output Power	-30 to 10 dBm	Delivered to 50 Ω load. The output power is programmable.
RSSI Dynamic Range	-136 to -8 dBm	
PLL Lock Time (Rx/Tx turn time)	10 μs	For 1x IF frequency step
PLL turn-on time, crystal oscillator on in power down mode	80 μs	Crystal oscillator running
Power Down Mode	900 nA typ.	Standby with WOR enabled
Current Consumption (Receive Mode @ 2.4 kbps)	14.2 mA typ.	Current is programmable and can be increased for improved sensitivity
Current Consumption (Transmit Mode) P=3mW (5dBm)	19.7 mA typ.	Delivered to 50 Ω load.
Operating Temperature Range	-40°C to +85°C	

Notes:
All parameters are valid for VDD = 3.0V, Tamb = 25°C and 868MHz
Maximum output power is 10dBm. All other frequencies, e.g. 315 MHz, 433 MHz and 915MHz are also available on request.