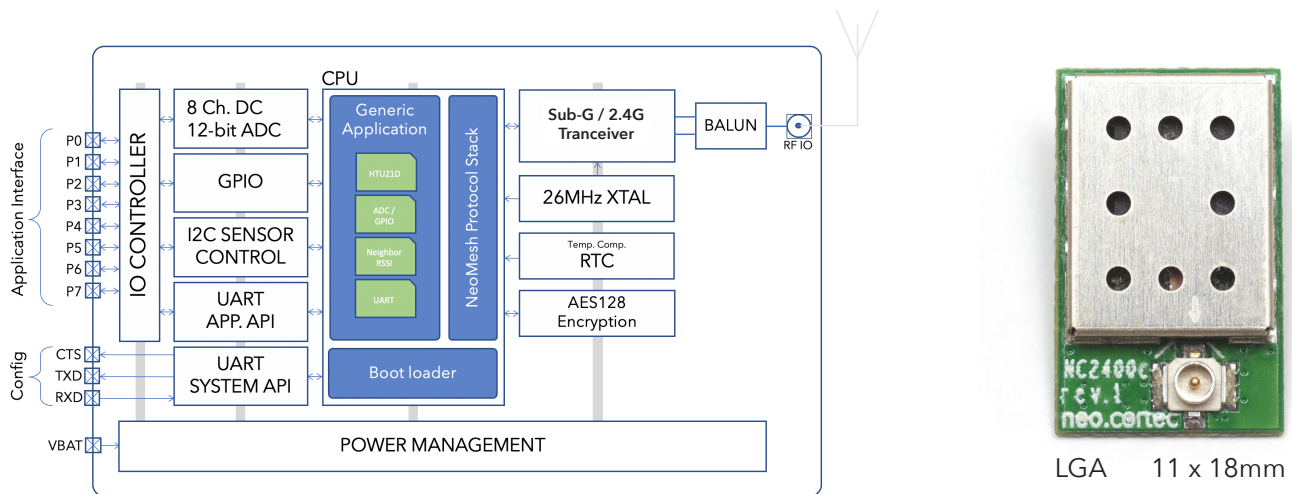


# NCxxxx NeoMesh Module Series

Ultra low power wireless mesh network module  
 Patented NeoMesh Mesh Network Protocol Stack integrated  
 System-in-module with direct sensor integration support  
 Multi-band variants - 868MHz, 915MHz, 2.4GHz



## KEY FEATURES:

- Ultra low system current consumption
  - Down to <20uA avg. current in active mode
  - Built-in power mgmt. for direct battery operation
- Patented NeoMesh protocol stack
  - Highly scalable architecture
  - Real time, dynamic routing in flexible topologies
- Full system in a module
  - Configurable embedded sensor-sampling app
  - UART interface for external app processor
  - Embedded radio with single ended 50 Ohm I/O

## APPLICATIONS:

- Highly reliable IoT
- Wireless Sensor Networks
- Automatic Meter Reading
- Advanced Metering Infrastructure
- Mobile Ad-Hoc Networks
- Home Control & Building Automation
- Industrial Automation
- Alarm and Security Systems
- Agricultural and Forest Monitoring

## NEOMESH AT A GLANCE:

- Time synchronized operation allows for industry leading current consumption for active mesh network nodes
- Full AES128 encryption combined with 32bit CRC takes reliability and security to the next level
- Distributed network intelligence, with autonomous nodes capable of operating with no central network manager
- Patented routing algorithm optimized for dynamic low power mesh network topologies
- Channel hopping ensures highest level of noise immunity and interoperability in all frequency bands
- Up to 300m node to node range combined with limitless hop count provides for very large deployments
- All modules are pre-certified for major markets with European CE, United States FCC & Canada

## NEOMESH - A FULL END TO END ECO SYSTEM:

### Pre certified modules:



#### NC1000-8/9:

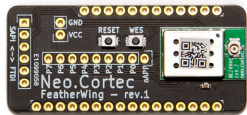
- Two versions - 868MHz (EU) & 915MHz (US)
- Up to 300 meter node to node range
- Pre certified for CE, FCC & IC



#### NC2400:

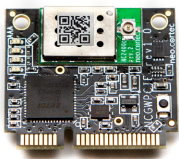
- 2.4GHz ISM band for world wide operation
- Up to 100 meter node to node range
- Pre certified for CE, FCC & IC

### Assemblies for rapid prototyping and short time to market:



#### FWNCxxxx Breakout boards:

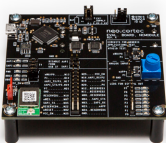
- Available with all module variants
- Compatible with Adafruit Feather series of controller boards
- Stand alone breakout board for easy sensor integration



#### PCNCxxxx miniPCle express boards:

- Available with all module variants
- Fits with most industrial PC's and similar
- Utilises the USB interface of the miniPCle

### Evaluation platform



#### NCxxxx Evaluation Board

- Available with all module variants
- Eval board contains all relevant circuitry to evaluate the module
- USB interface for the Serial interface & GPIO test circuit



#### NCxxxx Evaluation Kit

- Available with all module variants
- Contains 5 eval boards
- USB stick with PC software for evaluation and configuration

## ORDERING INFORMATION:

Part number format:

xxxxNCyyyy-y

xxxx:

Blank: module

FW : FeatherWing Breakout Board

PC : miniPCle plugin module

EVB : Evaluation board

EVAL: Evaluation kit

Example: PCNC1000-8 is a miniPCle module with the NC1000-8(868MHz) module

yyyy-y:

1000-9: 915MHz variant

1000-8: 868MHz variant

2400 : 2.4GHz variant

### Headquarters

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### For more information

Visit [neocortec.com](http://neocortec.com) for the full product specifications, and download white papers.

### About NeoCortec

NeoCortec specializes in state of the art mesh network technology. Founded in Denmark in 2008 and is marketing the products world wide through its distribution network.