



**GDATA**

GDATA is a 2.4MHz Wireless RS485 to mesh radio Bridge.

**MAIN FIELDS OF APPLICATION**

- Geotechnical engineering
- Hydrology
- Meteorology

**> GDATA <**

GDATA is a 2.4MHz Wireless RS485 to mesh radio Bridge .  
 It is a Multi-Point Ready device allowing communication to multiple radios or modules.  
 The radio contains a long-range wireless SmartMeshIp radio transceiver.  
 GDATA is used to create a wireless RS232 or RS485 link.  
 GDATA allows you to connect RS-485 devices wirelessly in situations where direct wired connections are too costly or have insufficient range, security or noise immunity.  
 GDATA can also be used to wirelessly interconnect multiple separate RS-485 busses.  
 The 2.4 GHz band is the most globally accepted unlicensed portion of the RF spectrum.  
 GDATA module includes an on-board chip antenna and modular RF certifications.  
 Also available module which includes an MMCX antenna connector.



**> GENERAL CHARACTERISTICS <**

Supply	4-13Vdc. Optional 110/220Vac or solar panel
Current supply	40uA in standby.
Operating temperature	from -20 to +70 °C
Protection	Defined by the box type
Dimensions	36x32x90mm
Weight	75g + batt + case
Cable interface	RS485
Radio interface	Dust network

**> NETWORK FEATURES <**

- Time Synchronized, Channel Hopping Communications >99.999% network reliability in even the most challenging RF environments
- Sub 50 µA Routers Can build out a network without any line powered devices. Flexibility to be line powered or energy harvested if desired.
- Secure Mesh with 128-bit AES Encryption NIST Certified Security. Compromise of one node does not compromise network.
- Standards-based Highly Accurate Time Stamping Based on 6LoWPAN and IEEE 802.15.4e standards Time stamping on every node is available to applications with millisecond accuracy

## >MANAGER FEATURES <

- **Advanced Network Management**  
Dynamically optimizes mesh connectivity based on the changing RF environment
- **Scalable Network Management**  
Manages Networks of Up to 100 Nodes
- **Load Balancing and Optimization**  
Adds more bandwidth for the busiest nodes while maintaining normal traffic flow for the rest of network
- **Deterministic Power Management and Optimization**  
Balances traffic so that power consumption is also balanced within the network
- **Network Management and Diagnostics**  
Monitor, configure and manage the network; includes APIs to build custom management and diagnostics applications.
- **Sub 1mA Average Manager Current Consumption**  
Enables Battery-Powered Network Management
- **RF Modular Certifications**  
Pre-certified in USA, Canada, EU, Japan, and more



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