



## KEY FEATURES

- Wireless low power, dependable mesh network
- Autonomous deployment, configurable and self healing
- Network automatically reconfigures to track mobile assets
- Data storage of up to 1.5 MB on each node enables sensor and inventory data storage
- Easily integrated into legacy business systems
- Node to Node communication greatly extends reader/tag read distance
- Web enabled, standards based system
- Up to 32 individual plug and play sensors per mesh node
- Wide range of sensor types
- GPS, Iridium and Wi Fi connectively optional
- Enable nesting of active & passive inventory information

# AWAVE™ Wireless Mesh Sensor Networks

## APPLICATIONS

- Tracking assets in a dynamic environment
- Asset monitoring for tamper, damage and theft
- Monitoring the transport and storage of perishable goods
- Tracking assets in remote or areas lacking infrastructure, worldwide
- Monitoring and tracking hazardous materials
- Asset condition based monitoring
- Industrial process monitoring
- Inventory monitoring and location
- Nested RFID for warehouse inventory control. Control, collect, store and post inventory data to mesh
- Many more ...

## AWAVE™ - ACTIVE WIRELESS ASSET VISIBILITY ELECTRONICS

### MESH NETWORK

The mesh network is automatically setup up on deployment and needs no user intervention or wired infrastructure. Information is passed through the network eliminating the need for line-of-sight visibility. In the mesh, distance between the tag of interest and reader is often irrelevant. Each node can collect and store inventory data from passive tags and barcode label, i.e., nested RFID.

### MESH SENSOR SYSTEM

Each node can support up to 32 sensors of virtually any type. The sensors interface to the node via a SAIL™ interface.

### PERFORMANCE

The mesh uses spread spectrum transmission and is extremely robust even when used in the vicinity of other devices operating at a similar frequency. Each node can collect and retain data for future transmission of alert generation. The innovative mesh protocol manages the data traffic and routing extending the battery life of each node.

### COMMUNICATION

Each node communicates using an 802.15.4 standard radio. The mesh algorithms have been optimized to increase data flow and data routing. The communications scheme is robust and aggressive, often communicating from inside containers or other metal boxes that are not completely RF sealed.

PRODUCT INFORMATION SHEET

61-100004-00 Rev 1.1

© 2007 Phase IV Engineering Incorporated. All rights reserved. AWAVE, xTango, SAIL and all Phase IV Engineering product names and the Phase IV logo are trademarks of Phase IV Engineering, Inc. All other brands and product names are trademarks or registered trademarks of their respective owners. Phase IV reserves the right to change specifications and features without notice.



CORPORATE OFFICE  
Phase IV Engineering, Incorporated  
2820 Wilderness Place, Boulder, Colorado 80301  
Tel: (303) 443 6611 | Fax: (303) 443 8379 | [www.phaseivengr.com](http://www.phaseivengr.com)