Why Choose An RF Module Mesh Networking Wireless Solution

Panasonic Electronic Components provides powerful, highly flexible, cost-effective **RF modules** for a wide variety of **wireless Personal Area Network** (**PAN**) applications including **802.15.4 Mesh Networking**. New extended range products and small footprints combined with network firmware flexibility make Panasonic an industry leader in the development of cutting-edge RF module technology. Panasonic RF module mesh networking solutions provide:

Reduced Design Cycle

Get your **wireless** products to market faster by greatly reducing the design-to-production path. RF hardware design, development, debugging and test, board layout, quality testing and certifications are all removed by choosing a **Panasonic RF module**.

Extended Product Life Cycle

RF modules provide a constant footprint and pin out over several generations of integrated circuits to guard against the need to re-spin or redesign a wireless product to accommodate an IC that is no longer available. **RF modules** extend the product life cycle of any wireless product .

New Revolutionary Software Alternatives

The time or software resources required to learn network stacks and develop applications is daunting and expensive. **Panasonic** has partnered with several software developers for all of the major network protocols, including **Synapse SNAP®**. **SNAP** (**Synapse Network Appliance Protocol**) software is unprecedented in the industry. **SNAP** is an **IEEE 802.15.4** based auto-forming, multi-hop, mesh network stack core combined with a virtual machine layer for running application code. **SNAP** runs preinstalled on Panasonic's RF Modules. This impressive software technology is not complicated to use. There is no setup required nor complex **embedded** programming skills needed; making time to market fast and product development a SNAP! Panasonic can deliver an RF module with the firmware needed to make any project a success.

Wireless Solutions For Less.

RF modules can reduce the total cost of ownership for product development projects up to 50,000 units per year. Designing in an RF module rather than a discrete wireless solution can reduce expensive development, test, certification and production resource requirements.

New Mesh Networking RF Modules

Based on the **IEEE 802.15.4** standard, **Mesh Networking** technology was developed for the purpose of sending small amounts of data short distances using very little power. The key feature of this technology is the ability to create a self healing, mesh network where nodes "talk" to each other in a way that gets a message to a desired end point using the best path. When not in use, nodes will "sleep" using extremely little power.

- Frequency: 2.4 GHz
- Encryption: Available
- Network Size: 64K
- Battery Life: Years
- Speed: 250 kBs

Please visit mouser.com/panasonicec for details on these and other RF Module products from Panasonic.

For more information on SNAP and other protocols please visit the **Wireless Mesh Networking Protocol** page.