



mist[®] MODULE

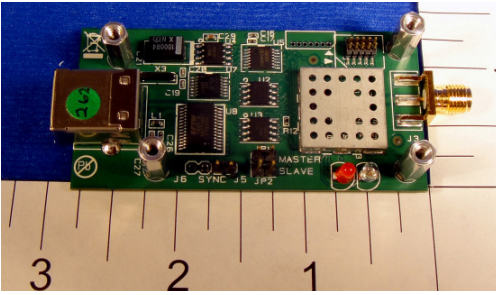
Unlock Your Data Access Potential with Next-Generation Wireless Mesh

The mist[®] mesh network solution is a combination of technologies, devices and services using a mesh network protocol optimized for ad hoc configuration, security and ultra-low power.

RSAE Labs' mist[®] mesh uses a network topology in which the tags can "talk" to each other and all tags are routers. This allows for continuous connections and dynamic reconfiguration around broken or blocked paths. Data hops from tag to tag until the information reaches a Fixed Mesh Gateway (FMG) or a Mobile Mesh Gateway (MMG).

All data is hard encrypted on the device at-rest to the end user via the internet from a FMG or by satellite and/or GSM/GPRS cellular from a MMG to the RSAE Labs Device Management Center (DMC). At the DMC, the data is authenticated, decrypted and processed. Events and customized reports are made available to authorized customers via secure web applications, API, XML data feed, SMS text message and e-mail.

Security + Mobility + Scaling + Low Power + Low Cost



Key Features and Benefits

- Message data and event reporting from user application on a Host computer via USB
- Customizable for your business, and works with your organizations back office applications
- Dynamic, self-organizing and self-healing network where every module is a node/router
- Unlimited range, because a module only needs to see another module to pass data along
- All data is encrypted from end-to-end, resulting in secure communications

What You Need

Along with the mist® module, a Fixed Mesh Gateway (FMG) is recommended, since it provides data back haul to the DMC over the internet. However, a Mobile Mesh Gateway (MMG) can also be used. To extend the mesh network, mist® Asset Tags (MAT) can be added since they are internally powered and require no USB connection. The user will be provided an account on the DMC to view and analyze the mesh network data.

Physical

- Dimensions 78 x 38 x 53 mm (3" x 1.5" x 2")
- Weight..... 64 grams (2.25 oz)

- Color Black (RAL9011)
- Connectors USB Type B
(data and power)
SMA male

Environmental

- Temperature -40 C to +85 C
- Humidity 100% @ 40 C
- Vibration SAE J1455 2006
6 G RMS all axis
- Shock (survival) 1 meter drop 6-sided

mist® Mesh Radio

- Radio Standard 802.15.4 Phy only
- Transmit 2405 MHz – 2480 MHz
- Receive 2405 MHz – 2480 MHz
- EIRP 1.27 mW
- Sensitivity -98 dBm
- Modulation DSSS

- DSSS Chip Rate 2 Mchips/sec
- Data Rate 250 Kbps
- Channels 16
- Channel Bandwidth 3 MHz
- Range
Device-Device 200 m (90° to mount)
Device-Device 100 m (±70°)
Device-Device 20 m (long axis)

Power (USB interface only)

- Peak Current @5V 30mA

Indicators

- LED Red/Green/Orange

Functional

- RSAE Labs mist® Mesh network full routing node
4 network speeds
- Encryption AES-128/CCM
- Data Storage 1 Mbyte
- Reporting Timed, network join
Host computer
- Upgrade Over the air updates