SqwaQ
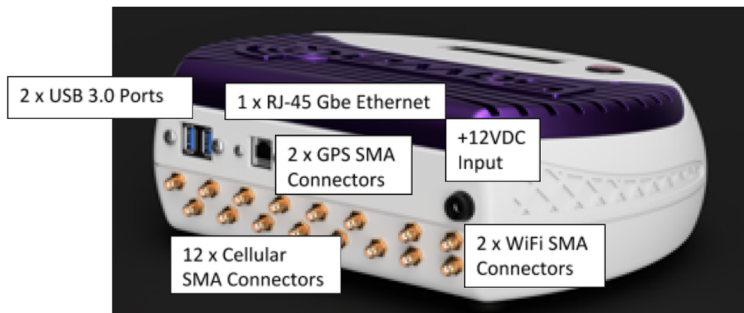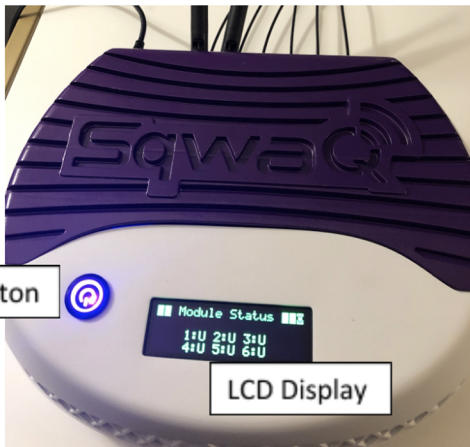
SQWAQBOX DATA SHEET AND SPECIFICATIONS

The SqwaQBox is a specialized advanced router for Aerial, Mobile, Marine, or fixed applicationswith N x 3G/4G LTE SD-WAN connectivity. It allows for up to 6 x 4G LTE channels to be aggregated together to provide a robust data service for key market demands.

SQWAQ OFFERINGS:

- SqwaQBox – fully configured router with hardened enclosure, as shown:

Power Button · Module Status ▮▮▯ 1:U 2:U 3:U 4:U 5:U 6:U · LCD Display

2 x USB 3.0 Ports · 1 x RJ-45 Gbe Ethernet · 2 x GPS SMA Connectors · +12VDC Input · 12 x Cellular SMA Connectors · 2 x WiFi SMA Connectors

PART NUMBERS

- SqwaQBoard
- SqwaQBox

WHAT'S INCLUDED

1. **SqwaQBoard**
   - Router board that supports
     - 6 LTE RF modems – various service provider capability
     - Up to 12 SIM cards – mixed/matched as needed by customer
     - 1-year warranty plan, with Techcenter Support & Service
   - SqwaQ software for SqwaQBox /SqwaQBoard operation
   - Quick-Start guide & manual

2. **SqwaQBox**
   - SqwaqBoard and contents
   - Hardened Router Enclosure with connectors
   - RF Cabling
   - Power Button
   - LED Display for diagnostics

WHAT'S NOT INCLUDED

- LTE Antennas
- WiFi Antennas
- GPS Antennas
- AC/DC PWR Converters

INTERFACES & CONNECTORS
- 1 Gigabit RJ-45 Ethernet LAN port
- 2 USB 3.0 Type-A I/O ports
- 1 RS-232 serial port (DB-9 connector internal)
- 12 SIM Card Slots (Dual SIM per RF radio)
- 12 SMA antenna connectors (6 cellular Prime, 6 cellular Diversity)
- 2 SMA antenna connectors (GPS option)
- 2 SMA antenna connectors (Wi-Fi WAN)

MANAGEMENT & DIAGNOSTICS
- SqwaQ Device Manager:
    - Cloud based Administrative Interface
    - Connectivity via Local WiFi
    - LCD Display Unit
- Dashboard showing real time alerts/reports, Utilized WebRTC
- Local management, configuration and software updates
- Location-based analytics and diagnostics:
    - Bandwidth Consumption
    - Live location tracking
    - Advanced Troubleshooting
    - Command Line Interface
    - Syslog Service

WAN INTERFACES & PROTOCOLS
- 4G LTE Modem connectivity (6 each 4G LTE modems); Cat-6
- Peak D/L (Mbps) 300MB x 6 = 1800MB, 1.8GB/s (theoretical max speed)
- Peak U/L (Mbps) 4GLTE 50MB x 6 = 300MB (theoretical max speed)
    - 4G LTE Frequency Bands
        - 2100(B1), 1900(B2), 1800(B3), AWS(B4), 850(B5), 2600(B7), 900(B8),700(B12), 700(B13), 800(B20), 1900(B25), 850(B26), 700(B29), 2300(B30),TDD 2500(B41)
    - 3G HSPA+, UMTS Failback Frequency Bands
        - 2100(B1), 1900(B2), 1800(B3), AWS 1700/2100(B4), 850(B5), 900(B8)
- Channel Aggregated & Optimized for IP Communications
- Automated WAN 4G-3G Failover/Failback support
- Taffic WAN Priority Queuing and scrambling
- Load Balancing Over Multiple WAN Links with WAN Monitors
- Static Routing
- IPsec protocol with Encryption
- Support for PPPoE, Static IP, DHCP
- WAN Link Health Check
- Bandwidth Allowance Monitor
- USB 3G/4G LTE Modem Support
- Support for Dynamic DNS services

LAN INTERFACES & PROTOCOLS
- LAN (ETHERNET/USB/ WI-FI/SERIAL)
- LAN ports (GbE): 1 RJ45 Ethernet connector
- DHCP Server, Client, Relay
- DHCP Server for LAN Clients
- QoS (DSCP and Priority Queuing)
- Intelligent Failover
- Session Persistence
- Per-Service Load Distribution
- Multiple Algorithms
- DNS Proxy for LAN Clients

VLAN PROTOCOLS
- VLAN on LAN Support
- DHCP Server VLAN
- Virtual BSSIDs PPPoE

REGULATORY COMPLIANCE
- FCC
- CE

VPN PROTOCOLS
- Site-to-Site VPN
- Bandwidth Aggregation
- Hot Failover
- 256-bit AES Encryption
- Pre-shared Key Authentication
- Dynamic Routing
- X.509 Certificate Support
- PPTP VPN Server
    - RADIUS, LDAP Authentication
- IPsec VPN (Network-to-Network)
    - X.509 Certificate Support

WIFI ACCESS & PROTOCOLS
- AAA: 802.1x/Radius authentication with Wi-Fi and Ethernet Firewall: Port forwarding and filtering
- WLAN Encryption: WPA2 Personal/Enterprise WLAN MAC Address filtering
- WWPA2 Enterprise
- Default mode: Wi-Fi as LAN and Wi-Fi built-in
- High output power 21 dBm (per channel)
- WiFi-as-LAN, with WPA2 Enterprise Authentication
- Captive Portal
- Configurable I/O GPIOs (5 pins total – 4 DB9 & 1 Power connector)
- WiFi Access Point / WiFi WAN: Built-in 802.11 b/g/n
- Up to 64 connected devices
- WWPA2 Enterprise

INTEGRATED GPS PORTS
- Dedicated Receiver supporting GPS with Tracking Sensitivity: -162 dBm
- Reports (Update Rate 1Hz): NMEA, TAIP
- Reliable Store and Forward via serial, TCP or UDP Inertial Navigation Sensors (Accelerometer and Gyro)

VIDEO SUPPORT
- Video / Audio Encoding (Option): Low Latency H.264 720p, 1080i, 1080p. AC3 Audio encoding
- USB 3.0 ports: 2 (video in)
- CDN Support: WebRTC based video servers/CDNs & others
- Video / Audio input options: 2 x USB 3.0 (non webcams require USB video encoder)

PHYSICAL SPECIFICATIONS
- Operating Temperature: -10°C to +60°C / -14°F to +140°F
- Storage Temperature: -20°C to +85°C / -4°F to +185°F
- Humidity: 95% RH @ 60C
- Input/Operating Voltage: +12 VDC
- Power Drawl in modes:
    - "Max Power" (2.2A @12V);
    - Normal Operation (1.5A)
- Built-in protection against voltage transients
- Physical Size: 272mm x 220mm x 60mm (10.71in x 8.66in x 2.36in)
- Weight: 2.4kg / 5.3 lb
- Cooling: Passive and Active solutions

CARRIER APPROVED
- Over 600 Carriers worldwide
- Usable in over 130 Countries

SQWAQBOX ADD-ON OPTIONS
- LTE Antennas
- WiFi Antennas
- GPS Antennas
- AC/DC PWR Converters