PremierWave® 2050

THE INDUSTRY'S FIRST PRODUCTION-READY & RELIABLE INDUSTRIAL GRADE 5G WI-FI SOLUTION FOR ETHERNET DEVICES

Delivering reliable and always on 5G Wi-Fi® (802.11ac) connectivity, the Lantronix® PremierWave® 2050 solution is a line of embedded modules designed specifically for sensitive, mission critical, industrial and commercial applications. With a production ready software stack and modular RF certification, the PremierWave 2050 simplifies deployments and accelerates availability of robust WLAN connected IoT products.

Production Ready

Building and maintaining Wi-Fi connectivity software and keeping up with the pace of innovation in Wi-Fi technologies can consume significant resources in budget and time. With the PremierWave 2050, design engineers and system architects can reduce product development time and deploy their devices with confidence that their products will connect and work as expected. With optimized hardware and robust software for Wi-Fi connection management, secure system management and configuration functions, and robust Ethernet to Wi-Fi bridging the PremierWave 2050 lets you ease the deployment and support of your Wi-Fi enabled product.

Integrated Enterprise Security

Secure Wi-Fi connectivity requires supporting scalable enterprise class Wi-Fi via Extensible Authentication Protocol (EAP) methods and secure AES (CCMP) ciphers. To protect management interfaces, PremierWave 2050 uses SSL/TLS and SSH for data encryption and PKI/ Certificate Management for authentication and key management. In addition, PremierWave 2050 offers firewall features to block ports and has NIST-certified AES encryption.

Designed for Industrial and Commercial Applications

Enterprise and industrial IoT applications are mission critical in nature and require robust, always-on, secure connectivity. Featuring a robust application stack and connection management, antenna diversity, 5 GHz Wi-Fi bands support, and the ability to operate in extended temperature environments, the PremierWave 2050 is ideal for delivering reliable wireless connectivity for a wide range of industrial and commercial applications.

PremierWave 2050 Highlights

- Industrial grade 5G (802.11ac) Wi-Fi module for high performance Enterprise IoT
- Enterprise grade security
- Fully certified module mitigates regulatory and product availability risks
- Production ready SW with compact footprint
- Simultaneous AP and Client Access
- Simplified manufacturing and deployment time provisioning workflows

Perfect For

- Medical/Healthcare
- Retail
- Industrial Automation

LANTRONIX

Features and Specifications

Network

Wireless
- IEEE 802.11ac (1x1) up to 433 Mbps; IEEE 802.11n (1x1) up to 150 Mbps
- 20, 40 and 80 MHz (ac only) channel width with optional SGI
- Dual Band 2.4 GHz and 5 GHz, Channels 1-14, UNII-1, 2, 2e and 3
- Compatible with 802.11 a/b/g, Supports IEEE 802.11 d/h/i
- Transmit Beamforming, Tx/Rx Low Density Parity Check (LDPC), Rx Space Time Block Coding (STBC)
- Bluetooth/WLAN Coexistence

Ethernet
- IEEE 802.3 MAC and PHY, 10BaseT and 100BaseT
- Auto Negotiation/Auto MDIX, Full duplex and half duplex support

Security and Authentication
- AES/CCMP and TKIP encryption, WPA/WPA2 Personal
- WPA2 Enterprise (EAP-TLS, EAP-TTLS, EAP-PEAPv0/v1, EAP-FAST)
- SSH v1/v2, SSL v3, TLS v1, PKI, Supports up to 2048-bit RSA
- NIST Certified AES (FIPS-197)

Management Interfaces
- CLI (via Serial Port, Telnet, SSH)
- Web Browser (HTTP/HTTPS), Web Services API (HTTPS)
- XML Configuration and XML Status (CLI, FTP, API)
- OTA Field upgradeable

Protocol Support
- DHCP Client, DHCP Server, DHCPv6 Client
- uPnP (Discovery), LCAP (77FE), Telnet, SSH, (S)FTP, HTTP(S)
- IPv4/IPv6, TCP, UDP, ARP, ICMP, Auto-IP, DNS , SNMP v2/v3

Wireless Features
- Soft Access Point with DHCP Server, DNS Proxy
- 14 simultaneous client connections to Soft AP interface
- Simultaneous AP and Client mode
- Connect to multiple WLAN networks, WLAN QuickConnect
- Ethernet to Wi-Fi Client Bridge (Single Host Mode), Auto-MAC ID

Power
- Input Voltage: 5 VDC
- Average Typical: 270mA
- Peak Typical: 500mA
- Boot Surge Typical: 930mA

Dimensions
- 45.66 mm (L) x 45.07 mm (W) x 3.5mm (H) +/- 0.3 mm

Packaging
- JEDEC Tray LGA, Tray - Through Hole Footprint
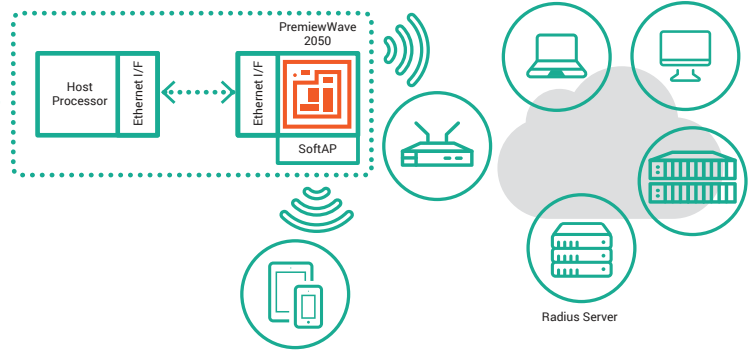- MSL Level 3 Bag - Sample

Environmental
- Operating Temp: -40°C to +85°C
- Storage Temp: -40°C to +85°C
- Relative Humidity: 0% to 90% non-condensing

Certifications
- FCC, CE, Industry Canada, Japan, Mexico, China, AUS/NZS
- UL/CUL/CB
- See Data Sheet for Details

Warranty
- 5 Year Limited

Part Number	Description
PW205020001B	PremierWave 2050, 802.11ac Enterprise Wi-Fi Module, Chip Ant + u.fl, Ind. Temp, Bulk
PW205010001B	PremierWave 2050, 802.11ac Enterprise Wi-Fi Module, dual u.fl, Ind. Temp, Bulk
PW205030001B	PremierWave 2050, 802.11ac Embedded Wi-Fi Gateway, dual u.fl, Thru-Hole Pins, Ind. Temp, Bulk
PW205020001S	PremierWave 2050802.11ac Enterprise Wi-Fi Module, Chip Ant + u.fl, Ind. Temp, Sample
PW205010001S	PremierWave 2050, 802.11ac Enterprise Wi-Fi Module, dual u.fl, Ind. Temp, Sample
PWGG2051000K	PremierWave 2050 Evaluation Kit, 802.11ac Enterprise Wi-Fi Module, dual u.fl
PWGG2052000K	PremierWave 2050 Evaluation Kit, 802.11ac Enterprise Wi-Fi Module, Chip Ant + u.fl

Ordering Information

Americas
800.422.7055
sales@lantronix.com
http://www.lantronix.com
NASDAQ: LTRX

Europe
+31 (0) 76.52.3.6.74 4
EMEA@lantronix.com

Asia/Pacific/Japan
+852 3428.2338
asiapacific_sales@lantronix.com

China: +86.21.6237.8868
Shanghai@lantronix.com

India: +91 994-551-2488
Sales_India@lantronix.com

Japan: +81.3.3273.8850
Sales_Japan@lantronix.com

LANTRONIX