



SGX 5150 MD

Wireless IoT Gateway Medical Devices



CONNECTED HEALTHCARE

Optimize your healthcare operation with our highly versatile, secure, and IEC-60601 certified Lantronix® SGX 5150 MD wireless IoT gateway for medical devices. Its advanced turnkey design provides everything you need to benefit from tracking hospital assets to managing critical patient data.



Improve Patient Care

The [SGX 5150 MD](#) enables healthcare professionals to access and monitor patients' health status in real-time. With accurate and on-demand insight into a patient's health status, doctors and nurses can deliver more personalized treatments and improve their patients' quality of care.



Strong Security with *InfiniShield™* Technology

The SGX 5150 MD platform was designed to support critical assets and protect your operation from unauthorized access, giving you peace of mind that your data always remains secure. The SGX 5150 MD is also protected from unauthorized configuration with Secure boot support.



Lower Operational Costs

The SGX 5150 MD facilitates the delivery of data to your private or public cloud infrastructure and mobile app so that you can track your organization's assets at all times. This increase in asset visibility substantially lowers the cost and likelihood of losing expensive medical devices. For expedited asset tracking, utilize the Lantronix MACH10® Device Management Software.



Past. Present. Future—All Covered

The SGX 5150 MD offers a future-proof path for connectivity to any medical device. It provides multiple interface options to connect to virtually any medical asset. The SGX 5150 MD supports legacy serial interfaces with a single or dual RS-232 ports, USB 2.0 with host and device modes and Ethernet interfaces.



High-Performance Wireless Connectivity

The SGX 5150 MD offers *Bluetooth®* and *Wi-Fi®* connectivity. It is equipped with industry-leading high-performance 5GHz (802.11ac) Wi-Fi, offering reliable, persistent wireless connections and bandwidth for high-speed data processing.

Perfect For:



Hospital



Clinics



EMS



ER

Feature Rich Turnkey Design

- Medical certifications IEC60601-1-2 4th edition, FCC, EU RED
- Easily configure and connect to the enterprise network, out-of-the-box
- Unique Device ID feature allows you to make your device visible to authorized users
- Standards-based runtime services allow quick development and deployment of custom apps
- Experience the Lantronix industrial design quality and reliability
- For wired healthcare IoT device gateways, refer to the [FDS-MD](#) product series

Features and Specifications

Wireless Specifications

5G Wi-Fi (IEEE 802.11ac)

- 1x1 ac (MCS0 - MCS9)
- 20, 40 and 80 MHz Channels with optional SGI

IEEE 802.11 n

- 1x1 n (MCS0 - MCS7)
- 20 MHz and 40 MHz channel width with optional SGI

Advanced 802.11 n/ac Features

- Transit Beamforming
- Tx/Rx Low Density Parity Check (LDPC)
- Rx Space Time Block Coding (STBC)

Bluetooth and WLAN Coexistence

Compatible with IEEE 802.11 a/b/g and Supports IEEE 802.11 d/h/j/i

Dual band 2.4 GHz and 5 GHz

- 2.412 GHz - 2.484 GHz - Channels 1 - 14
- U-NII-1 (5.15 - 5.25 GHz) Channels 36, 40, 44, 48
- U-NII-2 (5.25 - 5.35 GHz) Channels 52, 56, 60, 64
- U-NII-2e (5.47 - 5.725 GHz) Channels 100 - 140
- U-NII-3 (5.725 - 5.825 GHz) Channels 149 - 165

Ethernet Specifications

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

USB Specifications

- Configurable Host/Device USB 2.0 HS/FS port with USB type C connector
- USB configurable host can provide VBUS 5V 0.5A

Physical Interface

- (1 or 2) RJ-45 RS232 Serial Ports, with Baud rate up to 921 Kbps
- 15 KV ESD Protection
- (1) USB port - Type C Host / Device Connector
- (1) RJ-45 Ethernet port, 10/100Mbps, 1.5 KV Surge Isolation
- (1) Reset-to-default Button
- (1) WPS Button
- (1) Barrel jack for 12 VDC power input

LED Indicators

- System Status LED
- WLAN Status LED
- Wi-Fi Receive Signal Strength Indicator LEDs
- Ethernet Link/Activity LEDs (on RJ45)
- Serial Port TX/RX LEDs (on RJ45)

Protocols

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

InfiniShield™ Security

- FIPS 140-2 Level 1 Certification

WLAN Security

- AES/CCMP and TKIP encryption, 802.11i
- WPA/WPA2 Pre-Shared Key (PSK) or IEEE 802.1X, AES-CCMP

Enterprise Security (WPA2-Enterprise)

- EAP-TLS
- EAP-TTLS (MS-CHAPv2)
- EAP-PEAPv0/EAP-MS-CHAP v2)
- EAP-PEAPv1
- EAP-FAST
- IPSec

Firmware Authentication and Secure Data Storage

- ECDSA 256-bit verification

Management Interfaces

- *DevicelInstaller™* utility
- Web Manager (HTML5 Browser HTTP/HTTPS)
- CLI (over serial ports, telnet or SSH)
- OTA Field upgradeable
- Supports SNMP v2, V3
- XML Configuration records via CLI or FTP

Wireless Features

- Soft Access Point
- Wi-Fi Direct
- Multiple Soft AP Connections
- Simultaneous Soft AP and Client mode
- Secure *Com Port Redirector™* software

Environmental

- Operating Temp: 0° C to +45° C (32° F to 113° F)
- Extended Storage Temp: -40° to 85° C (-40° to 185° F)

- IP Rating: 20
- Relative Humidity: 5 to 95%, Non-condensing
- ESD tolerance: Contact Discharge= 4KV; Air Discharge=15KV

Power

- Input: DC barrel, 12 VDC from Medical Power Supply shipped with unit
- Power Consumption = 1.9W typical without USB Load
- Power Consumption = 5.5W max with USB Load
- Output: 5V / 500 mA via USB Type C connector (in Host mode) when used with the medical power supply provided

Certifications

- FCC, IC, EU RED, UL/CE, 60601-1, 60601-1-2 4th Edition.
- For a complete list of compliance details, refer to the SGX 5150 User Guide

Physical Dimensions

- Dimensions: 10.8 cm (4.3 in) x 7.2 cm (2.8 in) x 3.3 cm (1.3 in)
- Weight: 0.35 kg (0.77 lb)

Warranty

- Industry-leading 5-Year Limited Warranty

Part Number Description

| Part Number | Description |
|--------------|--|
| SGX51501M2US | SGX 5150 MD Wireless IoT Gateway for Medical Devices 1 Serial Port, 802.11ac, 10/100 Ethernet, USB with Power Supply Level 6 (ACC-520-160-R) and 2 antennas included in the box. North American Version. |
| SGX51502M2US | SGX 5150 MD Wireless IoT Gateway for Medical Devices, 2 Serial Ports, 802.11ac, 10/100 Ethernet, USB with Power Supply Level 6 (ACC-520-160-R) and 2 antennas included in the box. North American Version. |
| SGX51501M2ES | SGX 5150 MD Wireless IoT Gateway for Medical Devices, 1 Serial Port, 802.11ac, 10/100 Ethernet, USB with Power Supply Level 6 (ACC-520-160-R) and 2 antennas included in the box. European Version. |
| SGX51502M2ES | SGX 5150 MD Wireless IoT Gateway for Medical Devices, 2 Serial Ports, 802.11ac, 10/100 Ethernet, USB and 2 antennas included in the box. European Version. |

Accessories Description

| Accessories | Description |
|-----------------|--|
| ACC-520-160-R | Medical-grade Power Supply, Desktop, 60601-1, 100-240VAC, 12VDC IA, EFF Level 6.5.5*2. Imm Barrel, 150cm Cord, C14 AC Input, 0-40C, RoHS |
| ACC-500-216-R | Power Cord, Packaged, US, Hospital Grade, 250VAC, 10A, 8 ft, RoHS |
| ACC-500-217-R | Power Cord, Packaged, Europe, 250VAC, 10A, 8 ft, RoHS |
| ACC-500-218-R | Power Cord, Packaged, UK, 250VAC, 10A, 8 ft, RoHS |
| ACC-930-076-R | Power Cord, Packaged, Australia, Hospital Grade, 250VAC 10A, 8ft, RoHS |
| ACC-500-220-R | Power Cord, Packaged, Israel, 250VAC, 10A, 8 ft, RoHS |
| ACC-930-0150-00 | Antenna, 2.4 & 5 GHz, 2.15 DBI, Reverse Polarity - SMA, RoHS Single Pack with boot (2pcs) |
| ACC-500-244-R | Cable, USB Type C to USB-A Male 2.0, 1000mm, BLACK, RoHS |
| ACC-500-242-R | Cable, RJ45 PLUG to DB9M, ACC-500mm, 6 ft, BLACK |
| ACC-500-243-R | Cable, RJ45 PLUG to DB15M, ACC-500mm, 6 ft, BLACK |
| ACC-500-245-R | Cable, RJ45 PLUG to DB9F, ACC-500mm, 6 ft, BLACK |

Ordering Information

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