

# SGX 5150

IoT Device Gateway

CONNECT YOUR  
**BUSINESS-CRITICAL**  
ASSETS AND DATA  
securely to your enterprise network.



Accelerate your path to IoT with our next generation Lantronix® SGX 5150 IoT device gateway. Its advanced turnkey design provides everything you need for secure wireless connectivity.



## High-Performance Wi-Fi®

Your device requires a trustworthy wireless connection. Equipped with industry-leading high-performance 5GHz (802.11ac) Wi-Fi®, the SGX 5150 ensures reliable and persistent wireless enterprise connections and bandwidth for high-speed data processing.

## TruPort® Security

The SGX 5150 platform was designed from the ground up to support critical enterprise, government and military standards, so that your private data is delivered securely with absolute data integrity.



## Essential IoT Applications

IoT deployment and network integration has never been easier. The SGX 5150 includes essential IoT apps that deliver multi-interface connectivity, full networking, extensive security, industry-leading device configuration management and robust system diagnostics so that you can quickly accelerate to an IoT business solution.



## Multi-Interface Access

The SGX 5150 provides multiple interface options to connect to virtually any asset with singular or dual RS-232/485 serial ports, USB 2.0 with host and device modes and Ethernet interfaces. The SGX 5150 provides an elegant and robust solution for organizations seeking compatibility with multiple devices or product lines.



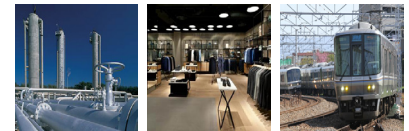
## Perfect For:



Energy

Cities

Medical



Industrial

Retail

Transportation

## Advanced Turnkey Design

- 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
- Linux SDK and Python runtime services allow quick development and deployment of custom apps
- Experience the Lantronix industrial design quality and reliability
- Wi-Fi® Alliance and USB Certification\*

LANTRONIX



## 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
  - Transmit Beamforming
  - Tx/Rx Low Density Parity Check (LDPC)
  - Rx Space Time Block Coding (STBC)
- Bluetooth/WLAN Coexistence
- Ethernet Specifications
  - IEEE 802.3 MAC and PHY, 10BaseT and 100BaseT
  - 802.3at Class 2 Powered Device
- USB Specifications
  - Configurable USB 2.0 HS/FS port with USB type C connector
  - USB Device (default setting) powered by a VBUS 5V
- Physical Interface
  - 2xRJ-45 Serial Ports, can be RS-232 or Multi-protocol RS-232/422/485
  - Data rates – up to 921 Kbps
  - 15 KV ESD Protection
  - (1) USB port – Type C Host / Device Connector
- LED Indicators
  - System Status
  - Wi-Fi Wireless Signal Strength
  - Green/Red Simplified Diagnostics
- Protocols
  - DHCP Client, DHCP Server, DHCPv6 Client
  - uPnP (Discovery), LCAP (77FE), Telnet, (S)FTP, HTTP(S)
- TruPort™ Security
  - FIPS 140-2 Level 1 Certification\*
  - Enterprise Security (WPA2-Enterprise)
  - EAP-TLS
  - EAP-TTLS (MS-CHAPv2)
  - EAP-PEAPv0/EAP-MS-CHAP v2)
  - EAP-PEAPv1
  - EAP-FAST
- WLAN Security
  - AES/CCMP and TKIP encryption, 802.11i
  - WPA/WPA2 Pre-Shared Key (PSK) or IEEE 802.1X, AES-CCMP
- Management Interfaces
  - DeviceInstaller™
  - Web Manager (HTML5 Browser HTTP/HTTPS)
  - CLI (over serial ports, telnet or SSH)
  - OTA Field upgradeable
- Wireless Features
  - Soft Access Point
  - Wi-Fi Direct
  - Multiple Soft AP Connections
- Environmental
  - Extended Operating Temp: -40° to 70° C (-40° to 158° F)
  - Extended Storage Temp: -40° to 85° C (-40° to 185° F)
  - IP Rating: 30
- Power
  - Input: DC barrel, 9-30 VDC (standard)
  - Input: Power over Ethernet (optional)
  - Input: USB Type C I/O connector
  - Power Consumption = 1.9W typical without USB Load
  - Power Consumption = 5.5W max with USB Load

- 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
- Auto-Negotiation/Auto MDIX, Full-duplex and Half-duplex
- USB configurable host can provide VBUS 5V 0.5A (power supply or PoE)
- (1) RJ-45 Ethernet port, 10/100Mbps, 1.5 KV Surge Isolation
- (1) Reset Button
- (1) WPS Button
- (1) Barrel jack for 9-30VDC power input
- RJ-45 Ethernet (Activity/Link) – status handled through ports
- IPv4/IPv6, TCP, UDP, ICMP, ARP, Auto-IP, DNS, SNMP v2/v3
- Supports SNMP v2, V3
- XML Configuration records via CLI or FTP
- Simultaneous Soft AP and Client mode
- Secure Com Port Redirector™
- Relative Humidity: 5 to 95%, Non-condensing
- ESD tolerance: Contact Discharge= 4Kv; Air Discharge=15Kv
- Optional Power Supply – (100-240 VAC, 50-60 Hz, 12 VDC @ 1A) with regional adapters
- Output: 5V / 500 mA via USB Type C connector (in Host mode) when used with the Optional Power Supply

### Certifications

- FCC Part 15 Subpart B, Class B, Subpart C 15.247, Subpart E 15.407
- ICES-003:2012 Issue 5, Class B, RSS-Gen, Issue 4, 2014, RSS-102, Issue 5, 2015, RSS-247, Issue 1, 2015
- RED 2014/53/EU, EMCD 2014/30/EU, EN 300 328 V1.9.1, EN 301 489-1 V1.9.2, EN301 489-17 V2.2.1, EN 301 893 V1.8.1, EN 62311: 2008
- AS/NZS CISPR 22, AS/NZS 4268: A1: 2013, AS/NZS 2772.2VCCI, Japan Radio Cert Article 2-1 (19), (19-2), (19-3), (19-3-2)
- EN 55022:2010, EN 55024:2010, EN 61000-3-2:A2 2009, EN 61000-3-3: 2008 (or 62368-1)
- UL 60950/CSA 22.2 No. 60950, IEC 60950 (or 62368-1)
- CE LVD 2014/35/EU, (CB, EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 +A2 2013) or (62368-1)

### Physical Dimensions

- Dimensions: 11cm (4.3 in) X 8.9cm (3.5 in) x 2.6cm (1.0 in)
- Weight: 0.35 kg (0.77 lb)

### Warranty

- Industry-leading 5-Year Limited Warranty
- \* Planned Features

| Part Number  | Description                                                                                    |
|--------------|------------------------------------------------------------------------------------------------|
| SGX5150000US | SGX 5150 Wireless IoT Gateway, 802.11a/b/g/n/ac, USB, 10/100 Ethernet, US                      |
| SGX5150102US | SGX 5150 Wireless IoT Gateway, 802.11a/b/g/n/ac, 1xRS232 (RJ45), USB, 10/100 Ethernet, US      |
| SGX5150103US | SGX 5150 Wireless IoT Gateway, 802.11a/b/g/n/ac, 1xRS232 (RJ45), USB, 10/100 Ethernet, PoE, US |
| SGX5150202US | SGX 5150 Wireless IoT Gateway, 802.11a/b/g/n/ac, 2xRS232 (RJ45), USB, 10/100 Ethernet, US      |
| SGX5150205US | SGX 5150 Wireless IoT Gateway, 802.11a/b/g/n/ac, 2xRS485 (RJ45), USB, 10/100 Ethernet, PoE, US |

|              |                                                                                                |
|--------------|------------------------------------------------------------------------------------------------|
| SGX5150000ES | SGX 5150 Wireless IoT Gateway, 802.11a/b/g/n/ac, USB, 10/100 Ethernet, EU                      |
| SGX5150102ES | SGX 5150 Wireless IoT Gateway, 802.11a/b/g/n/ac, 1xRS232 (RJ45), USB, 10/100 Ethernet, EU      |
| SGX5150103ES | SGX 5150 Wireless IoT Gateway, 802.11a/b/g/n/ac, 1xRS232 (RJ45), USB, 10/100 Ethernet, PoE, EU |
| SGX5150202ES | SGX 5150 Wireless IoT Gateway, 802.11a/b/g/n/ac, 2xRS232 (RJ45), USB, 10/100 Ethernet, EU      |
| SGX5150205ES | SGX 5150 Wireless IoT Gateway, 802.11a/b/g/n/ac, 2xRS485 (RJ45), USB, 10/100 Ethernet, PoE, EU |

|              |                                                                                                   |
|--------------|---------------------------------------------------------------------------------------------------|
| SGX5150000JS | SGX 5150 Wireless IoT Gateway, 802.11a/b/g/n/ac, USB, 10/100 Ethernet, Japan                      |
| SGX5150102JS | SGX 5150 Wireless IoT Gateway, 802.11a/b/g/n/ac, 1xRS232 (RJ45), USB, 10/100 Ethernet, Japan      |
| SGX5150103JS | SGX 5150 Wireless IoT Gateway, 802.11a/b/g/n/ac, 1xRS232 (RJ45), USB, 10/100 Ethernet, PoE, Japan |
| SGX5150202JS | SGX 5150 Wireless IoT Gateway, 802.11a/b/g/n/ac, 2xRS232 (RJ45), USB, 10/100 Ethernet, Japan      |
| SGX5150205JS | SGX 5150 Wireless IoT Gateway, 802.11a/b/g/n/ac, 2xRS485 (RJ45), USB, 10/100 Ethernet, PoE, Japan |

| Accessories | Description                                                                                                                               |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| SGX5150BKT  | SGX 5150 Mounting Bracket                                                                                                                 |
| 520-154-R   | Power Supply, Wall Cube, 12VDC 10W, 2.1mm Barrel Connector, 4 AC Plugs, Efficiency Level VI, PSE, RoHS                                    |
| 520-141-R   | Power Supply, Desktop, 60601-1, 100-240VAC, 12VDC 10W, 2.1mm Barrel Connector, 150cm Cord, C14 AC Input, 0-40C, Efficiency Level VI, RoHS |
| 500-247-R   | Cable, USB Type C to USB-A Male 2.0, 1000mm, Black, RoHS                                                                                  |
| 500-110-R   | Cable, CAT5E Ethernet, 10'                                                                                                                |
| 500-101     | Cable, RJ45 to DB9M DTE, 6' for Connection to a DB9F DCE Device                                                                           |
| 200.2071    | Adapter, RJ45 to DB9M DTE, for Connection to a DB9F DCE Device                                                                            |

## Ordering Information

### Americas

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