

Lantronix SGX<sup>™</sup> 5150 is a next generation IoT device gateway that allows you to connect your businesscritical assets and data securely to your enterprise network. Its advanced turnkey design provides everything you need to secure wireless connectivity.

## **High-Performance Wi-Fi**®

IoT devices require trustworthy wireless connections. The SGX 5150 is equipped with industry-leading high-performance 5GHz (802.11ac) Wi-Fi® which ensures reliable and persistent wireless enterprise connections and bandwidth for high-speed data processing.

## **Enterprise Class Security**

InfiniShield<sup>™</sup> security offers a comprehensive suite of built-in device security software with minimal integration effort for designers and developers. Secure data communications is provided through features such as secure boot, secure firmware updates, secure communications, data-at-rest protection and rolebased access control.

## **Essential IoT Applications**

Accelerate your IoT business solutions with IoT applications that deliver multiinterface connectivity, full networking, industry-leading device configuration management and with our newest addition to the SGX family the XL version, meets the needs of customers looking for increased storage of valuable data, without the need to buy flash storage with an external USB flash drive for purposes of data collection locally to the SGX 5150 XL.

## **Multi-Interface Access**

The SGX 5150 provides an elegant and robust solution for customers seeking compatibility with multiple devices. Utilizing singular or dual RS-232/485 serial ports, USB 2.0 with host and device modes or Ethernet interface options are available.

## **Centralized Device Management Platform**

Monitor, manage, and control your devices from anywhere, at any time with the ready-to-use software platform web application, providing software-defined automation with zero-touch provisioning across all of your devices and the capture of device telemetry data for event management and analysis.

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## Perfect For:



Energy





Industrial

Transportation

# **Benefits Beyond Connectivity**

- Edge-to-Cloud Integration the SGX 5150 is Microsoft Azure certified and can be integrated with 3rd party cloud services such as Amazon Web Services (AWS)
- Government and Regulated Industry Ready - the FIPS 140-2 compliance ensures the SGX 5150 is certified for government, financial and healthcare industry standards
- Reduce Development Time while increasing time to revenue by using Linux SDK, Python & Java runtime services for quicker development and deployment of custom applications
- Out-of-Box Ease configure and connect to the enterprise network quickly with our advanced turnkey design

# SGX<sup>™</sup> 5150

Wireless Specifications				
Wireless Specifications 5G Wi-Fi (IEEE 802.11ac) • 1x1 ac (MCS0 - MCS9) • 20, 40 and 80 MHz Channels with	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			
optional SGI IEEE 802.11 n	• 2.412 GHz - 2.484 GHz - Channels			
<ul><li>1x1 n (MCS0 - MCS7)</li><li>20 MHz and 40 MHz channel width with</li></ul>	1 - 14 • U-NII-1 (5.15 – 5.25 GHz) Channels 36, 40, 44, 48			
optional SGI Advanced 802.11 n/ac Features • Transit Beamforming	<ul> <li>U-NII-2 (5.25 – 5.35 GHz) Channels 52, 56, 60, 64</li> <li>U-NII-2e (5.47 – 5.725 GHz) Channels</li> </ul>			
• Tx/Rx Low Density Parity Check (LDPC)     • Rx Space Time Block Coding (STBC) Bluetooth and WLAN Coexistence	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				
<ul> <li>(1 or 2) RJ-45 RS232 Serial Ports, with Baud rate up to 921 Kbps</li> <li>15 KV ESD Protection</li> </ul>	<ul> <li>(1) RJ-45 Ethernet port, 10/100Mbps,</li> <li>1.5 KV Surge Isolation</li> <li>(1) Reset-to-default Button</li> </ul>			
• (1) USB port – Type C Host / Device Connector	• (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				
<ul> <li>DHCP Client, DHCP Server, DHCPv6 Client</li> <li>uPnP (Discovery), LCAP (77FE), Telnet, (S)FTP, HTTP(S)</li> </ul>	IPv4/IPv6, TCP, UDP, ICMP, ARP, Auto-IP, DNS, SNMP v2/v3			
InfiniShield™ Security				
<ul> <li>FIPS 140-2 Level 1 Certification</li> <li>WLAN Security</li> <li>AES/CCMP and TKIP encryption, 802.11i</li> <li>WPA/WPA2 Pre-Shared Key (PSK) or IEEE 802.1X, AES-CCMP</li> </ul>	Enterprise Security (WPA2-Enterprise) • EAP-TLS • EAP-TTLS (MS-CHAPv2) • EAP-PEAPv0/EAP-MS-CHAP v2) • EAP-PEAPv1 • EAP-FAST • IPSec			
Firmware Authentication and Sec				
ECDSA 256-bit verification	ure Data Storage			
Management Interfaces				
<ul> <li>DeviceInstaller™ utility</li> <li>Web Manager (HTML5 Browser HTTP/HTTPS)</li> <li>CLI (over serial ports, telnet or SSH)</li> <li>OTA Field upgradeable</li> </ul>	<ul> <li>Supports SNMP v2</li> <li>XML Configuration records via CLI or FTP</li> </ul>			
Wireless Features				
<ul> <li>Soft Access Point</li> <li>Wi-Fi Direct</li> <li>Multiple Soft AP Connections</li> </ul>	• Simultaneous Soft AP and Client mode • Secure Com Port Redirector™ software			
Environmental				
<ul> <li>Operating Temp: -40° C to +70° C (-40° F to 158° F)</li> <li>Extended Storage Temp: -40° to 85° C (-40° to 185° F)</li> <li>IP Rating: 20</li> </ul>	<ul> <li>Relative Humidity: 10% to 95%, Noncondensing</li> <li>ESD tolerance: Contact Discharge= 4KV; Air Discharge=8KV</li> </ul>			
Power				
<ul> <li>Input: DC barrel, 9-30 VDC (standard)</li> <li>Input: Power over Ethernet (optional)</li> <li>Input: USB Type C I/O connector</li> <li>Power Consumption = 1.9W typical without USB Load</li> <li>Power Consumption = 5.5W may with</li> </ul>	<ul> <li>Optional Power Supply – (100-240 VAC, 50-60 Hz, 12 VDC @ 1A) with regional adapters</li> <li>Output: 5V / 500 mA via USB Type C connector (in Host mode) when used with the Optional Power Complex</li> </ul>			

## 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

## **Product Models and Features**

Model #	10/100 Ethernet & Wi-Fi	USB 2.0	Serial 1	Serial 2	POE	8 GB eUSB Flash
SGX51500x0	✓	~				
SGX51501x2	√	~	RS232			
SGX51501x3	√	~	RS232		~	
SGX51502x2	✓	~	RS232	RS232		
SGX51502x5	1	~	RS232	RS232	~	
			RS485	RS485		
SGX5150xN2	~	~	RS232	RS232		~
SGX5150xN5	¥	v	RS232 RS485	RS232 RS485	~	~

Visit the SGX5150 product page for a complete list of part numbers.

## Accessories

Part Number	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 V, 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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Certifications • US (FCC), Canada (IC), EU (Red), Japan, UAÈ (TRA) · For a complete list of compliance

• Power Consumption = 5.5W max with

USB Load

details, refer to the SGX 5150 User Guide

with the Optional Power Supply