Wake up your further dream.

LSW-802P8T Lab Brick® Absorptive Phase Matched SP8T RF Switch

100 – 8000 MHz Frequency | 90 dB Isolation | 1.0 Watts

Features/Benefits

- Reliable and Repeatable Single Pole Eight Throw Solid-State RF Switch
- USB Powered
- USB or Ethernet Control
- Includes GUI, Windows and Linux SDK, LabVIEW Driver
- Phase Matched Outputs
- Standalone and Rack Mount Solutions



Applications

- Antenna Switching
- Engineering/Production Test Stations
- Automated Test Equipment (ATE)

The Lab Brick LSW series of Switches bring affordability, functionality, reliability, and simplicity to the microwave test bench.

The LSW-802 Switch series is a solid state, 50 Ohm absorptive RF/Microwave Switch with phase matched outputs. The switches are easily programmable for fast switching or sequenced switching directly from the Windows Graphical User Interface (GUI) or the WebUI. Alternatively, for users wishing to develop their own interface, Vaunix supplies LabVIEW drivers, Windows/Linux SDK files, Python examples and much more.

The Vaunix USB connection uses a native USB HID interface to avoid the difficulties inherent in using older serial or IEEE-488 interfaces implemented over USB. As a result, Lab Brick users can get to work faster without having to install kernel level drivers, and Lab Brick devices can be easily used on any system that supports USB HID devices, including low-cost embedded computers using Linux or similar operating systems.

The Vaunix advanced Ethernet functionality provides a 10/100 Ethernet network interface with selectable static/dynamic IP assignment. The included WebUI allows for simple device management and enables the user to configure the WebUI port and login credentials for maximum security.

7 New Pasture Road
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978-662-7839
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LSW-802P8T Specifications

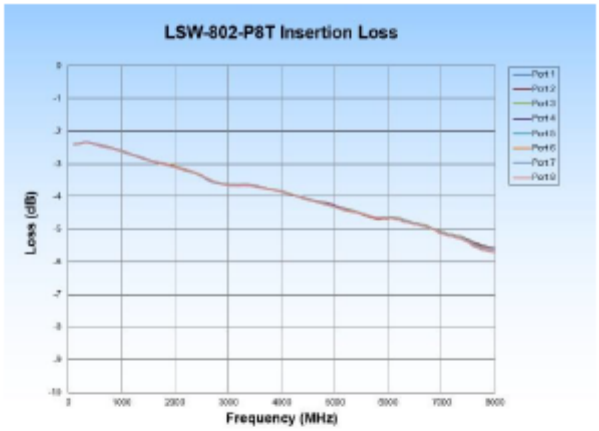
Parameter	Test Conditions	Min	Typ	Max
Frequency Range (MHz)		100		8000
Impedance (Ohms)			50	
Insertion Loss (dB)	<3 GHz		3.75	4
	<6 GHz		4.75	5
	<8 GHz		5.75	6
Insertion Loss Variation (dB)			+/- 0.1	
Phase Variation (degrees)			+/- 3	+/- 5
Isolation - RFC to RFx (dB)		75	90	
Isolation - RFx to RFx (dB)		75	90	
Switching Speed (ns)	Trise/fall (10-90% of RF Out)			50
P1dB			39	
Maximum Input Level (dBm)	IL State/Hot Switching		35/27	
	Terminated Port		27	
Input IP3 (dBm)			60	
VSWR	RFC, RFx On		1.5:1	
	RFx Off		1.5:1	

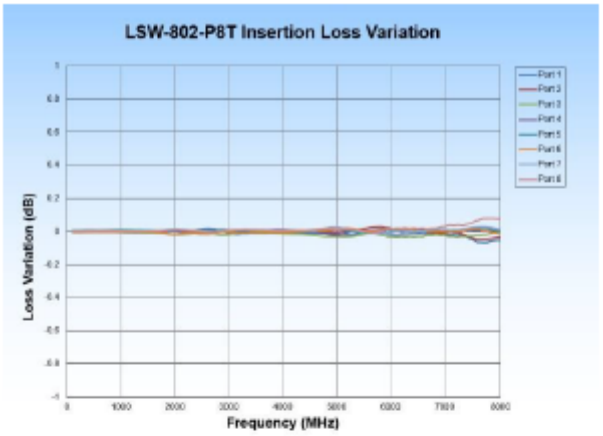
Parameter	Test Conditions/Notes	
Power Requirements	From the USB connection	+5 VDC 100 mA
Environmental	Operating Temperature	-5 °C to +55 °C
	Relative Humidity (non-condensing)	<95%
Physical Connections	Power	USB Type C
	Control	USB/Ethernet
	RF Connectors	SMA - female
	Expansion Bus	Samtec FTSH-105-01-L-D-RA-K
Operating Modes	Manual Switch Control (GUI/API)	
Mechanical Size	Single unit 1RU (up to 4 units) 2RU (up to 8 units)	7.2x3.27x0.86 in. / 182.9x83.1x21.8 mm 17x8x1.73 in / 431.8x203.2x43.9 mm 17x8x3.48 in / 431.8x203.2x88.4 mm
Weight	Single unit 1RU (up to 4 units) 2RU (up to 8 units)	<1.0 lbs / 454 g 6.5 lbs / 2.95 kg 13 lbs / 5.9 kg

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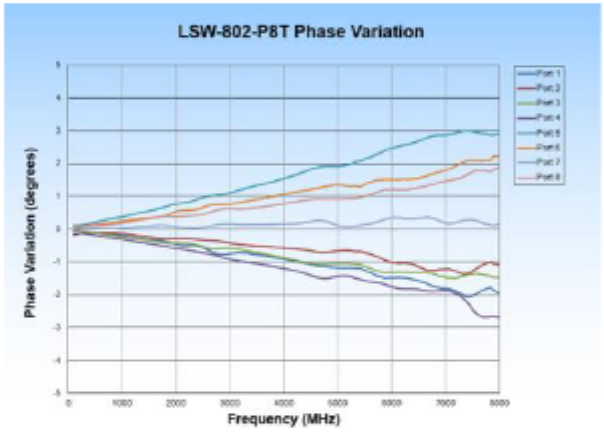
LSW-802P8T Performance Plots

Insertion Loss

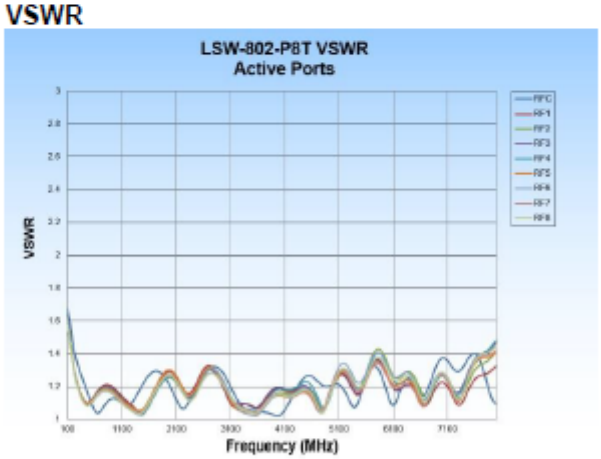


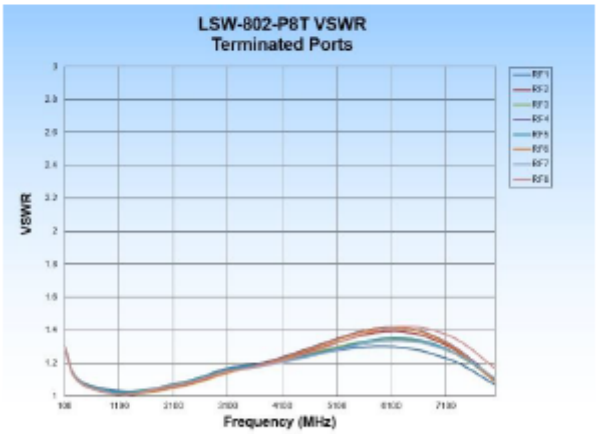


Phase



VSWR

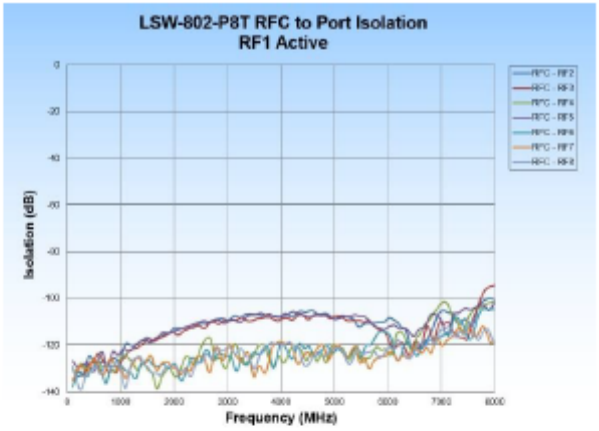


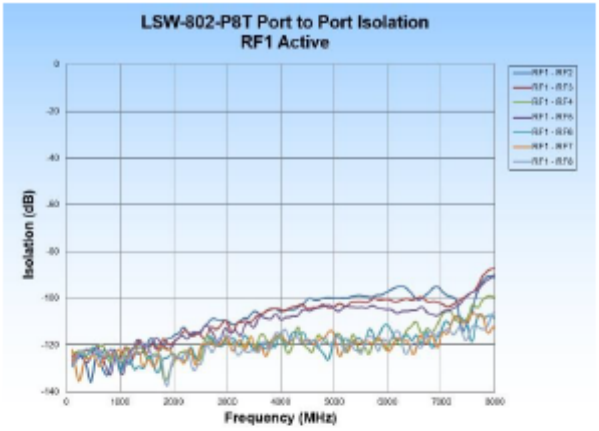


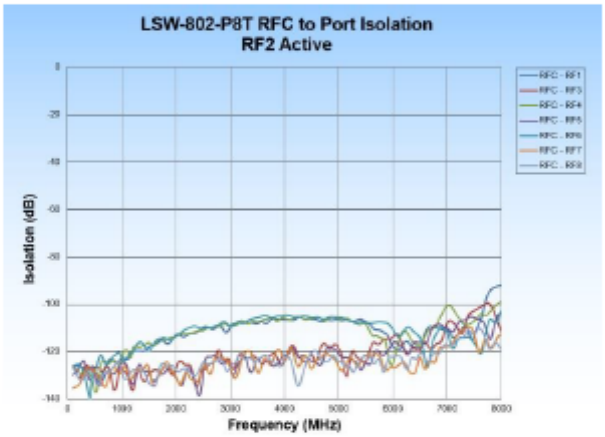
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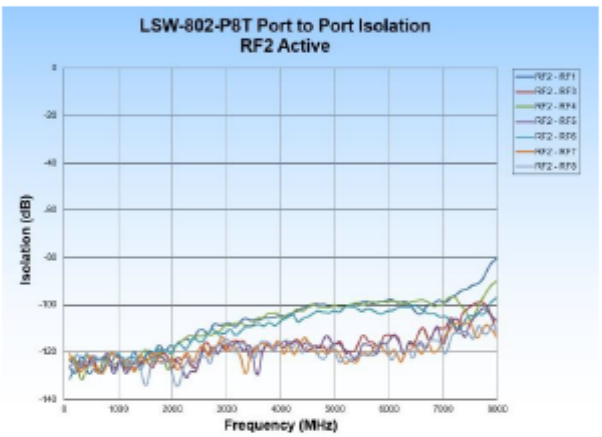
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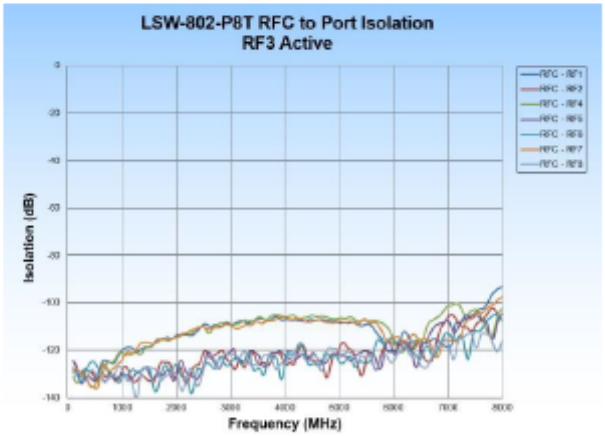
Isolation

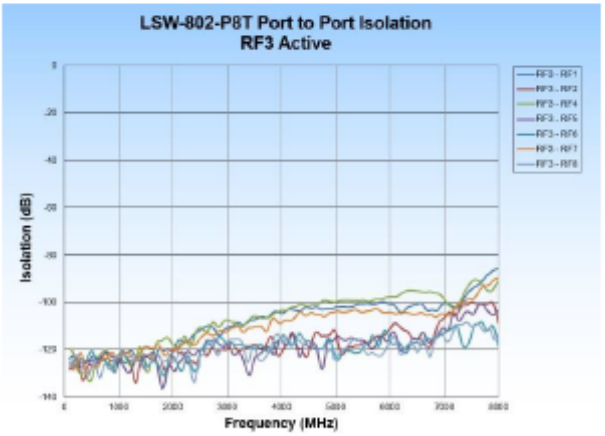






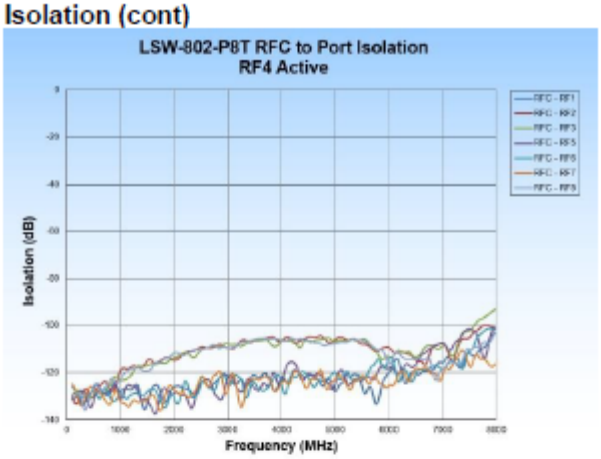


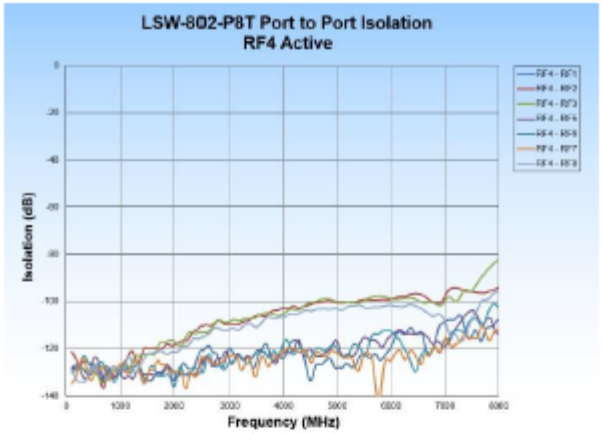


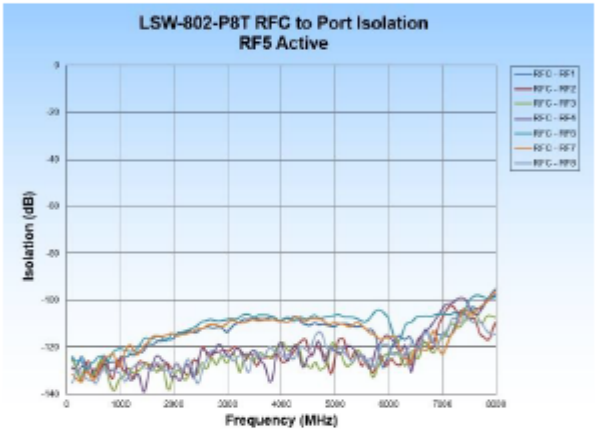


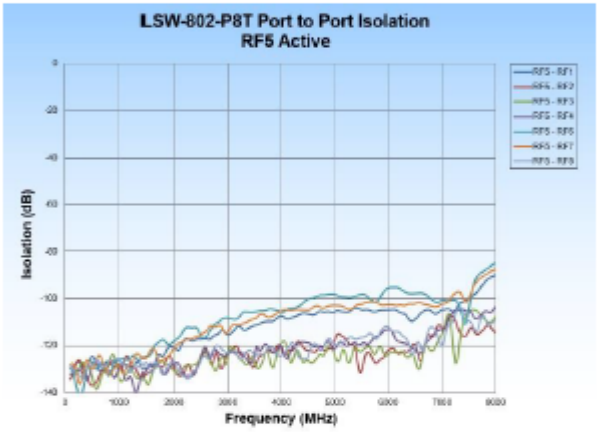
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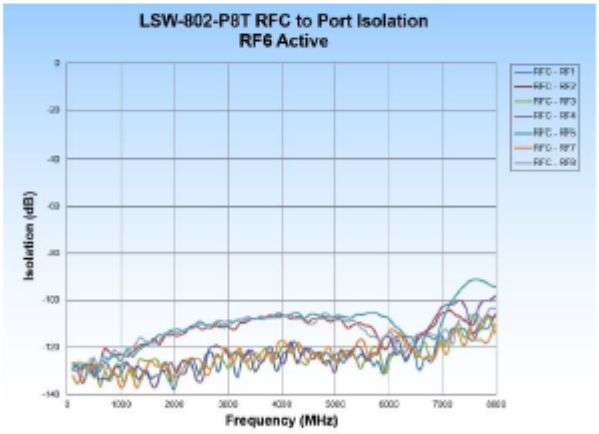
Isolation (cont)

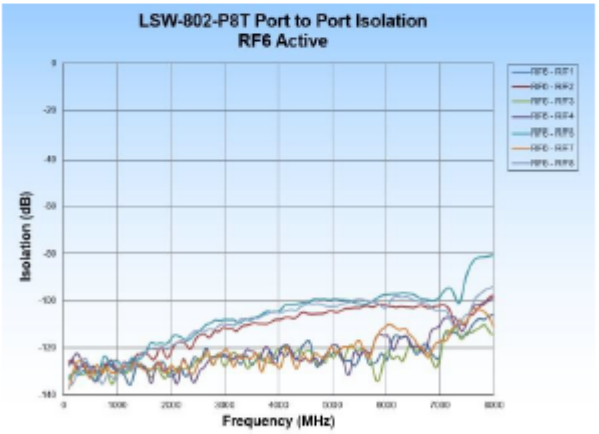






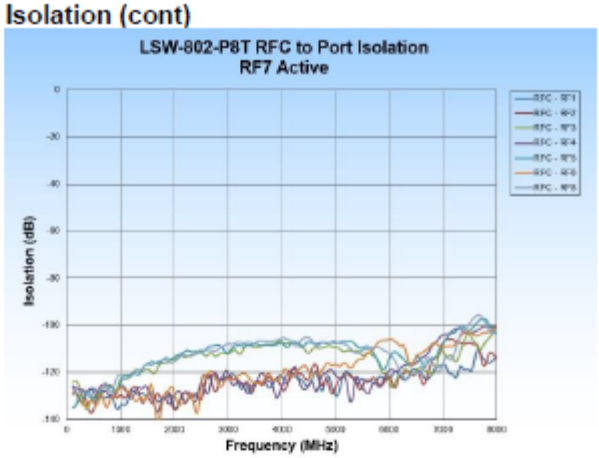


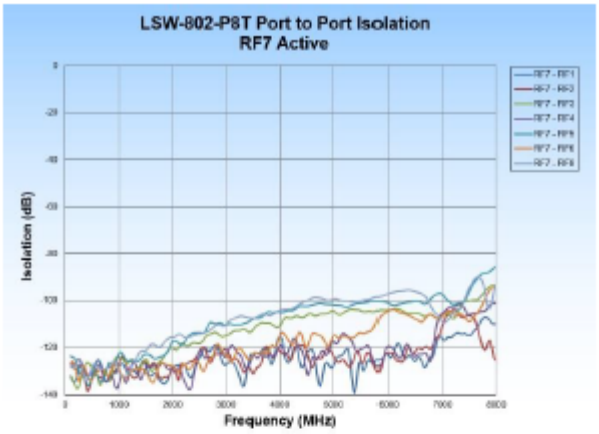


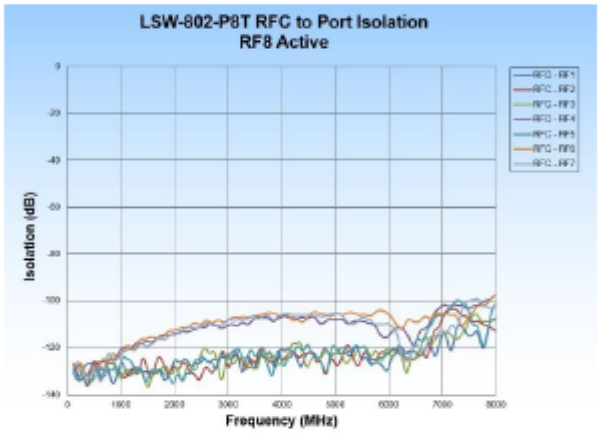


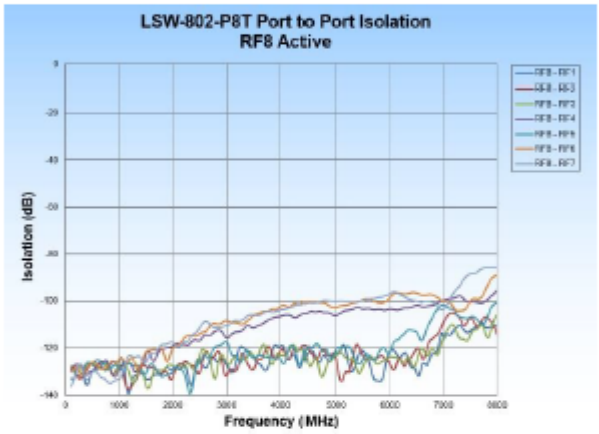
LSW-802P8T Performance Plots

Isolation (cont)



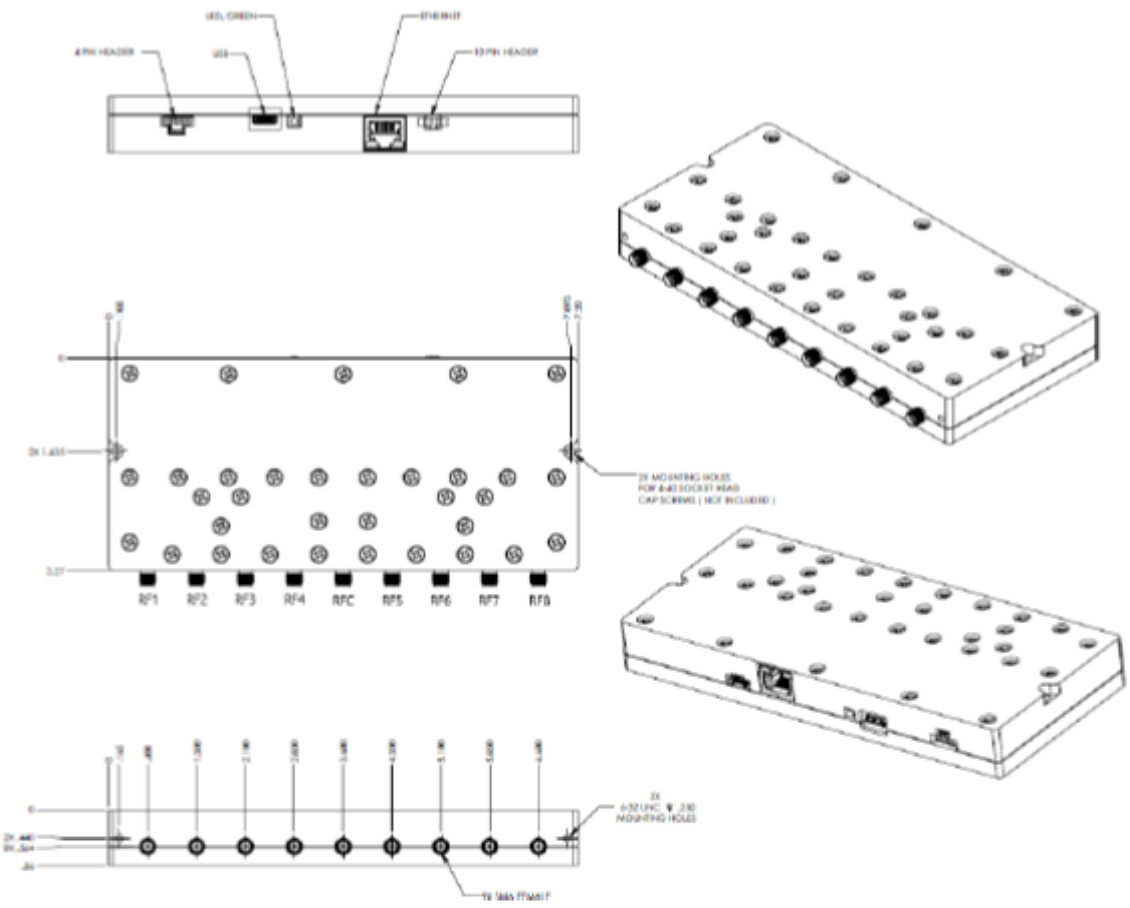






LSW-802P8T Mechanical Outline

Stand Alone:



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LSW-802P8T Configuration Guide

LSW-802P8T-X-X
Series – Size – Number of Devices

Size	
"Blank"	Stand Alone Module
1	1 Rack Unit
2	2 Rack Units

Number of Devices	
"Blank"	Stand Alone Module
1 – 4	For 1 Rack Unit Chassis
1 – 8	For 2 Rack Unit Chassis

LSW-802 Software Interface

Windows GUI



Ethernet UI

