



Comparison: Sifos Programmable Loads

IEEE 802.3at & 802.3bt Power over Ethernet

Shared Features – Common to All Instruments

- Test 802.3at and 802.3bt PSEs
- Continuous 4-Pair Loading > 99 Watts
- Continuous 2-Pair Loading > 47 Watts
- Live PD Emulation (802.3at, 802.3bt)
- PowerShell PSA Script Automation
- LAN 10/100Base-T Control Interface
- Smart, Efficient Cooling
- Certified Commercial Test Equipment (CSA, CE, FCC)

Feature Comparison

PSL-3424A, PSL-3424L	PSL-3424M	PSL-3000, PSL-3224
		
Hardware Configuration		
Test Ports		
Fixed 24 ports supporting 24 PSE port connections Simultaneously load and test one 4-Pair or 2-Pair PSE <u>per test port</u> Stackable in rack	Configure 8, 16, or 24 multiplexed ports supporting 8, 16, or 24 PSE port connections Simultaneously load and test one 4-Pair or 2-Pair PSE <u>per test slot</u> (i.e. per multiplexed port pair) Stackable in rack	PSL-3000: Configure 2 to 24 ports (2 <i>per slot</i>) supporting 2 to 24 PSE port connections PSL-3224: Fixed 24 ports (2 <i>per slot</i>) supporting 24 PSE port connections Simultaneously load, test one 2-Pair port per test port or one 4-Pair port <u>per test slot</u>
LLDP Emulation & Analysis		
Included with PSL-3424L	<i>Not Available</i>	License option for PSL-3000, PSL-3224
PD Emulation		
Passive Characteristics		
Valid Signatures: 20K Ω , 24K Ω Invalid Signatures: 14K Ω , 33K Ω PD Classes: 0 - 8, Dual 1 - 5 Mark Load: 2mA	Valid Signatures: 24K Ω Invalid Signatures: 12K Ω PD Classes: Class 0 - 8 Mark Load: 2mA	Valid Signatures: 16K Ω -32K Ω , 1K Ω steps Invalid Signatures: 9K-15K Ω , 33K Ω -39K Ω PD Classes: 0 - 8, Dual 1 - 5 Programmable Class & Mark Loads (mA)
Active Characteristics		
Independent Pairset Loading 4-Pair Mode: Startup Load, Static Load, and Transient Load: 0 - 1950mA with pairset control 2-Pair Mode: Startup Load, Static Load, and Transient Load: 0 - 975mA Startup Duration: 100msec Transient Load Duration: 6msec, 45msec, or 100msec (immediate & event trigger)	Combined Pairset Loading (Alt-A+Alt-B) 4-Pair Mode: Startup Load, Static Load, and Transient Load: 0 - 1950mA 2-Pair Mode: Startup Load, Static Load, and Transient Load: 0 - 975mA Startup Duration: 100msec Transient Load Duration: 6msec, 45msec, or 100msec (immediate & event trigger)	Independent Pairset Loading 4-Pair Mode: Static Load: 0 - 1900mA with pairset control 2-Pair Mode: Static Load: 0 - 950mA
Live PD Emulation		
License option for PSL-3424L, PSL-3424A PD Classes 0 - 8 User-specified power draw (watts) and startup load (mA) Cable loss escalation (on/off) Multi-Port configure, start, stop, and status up to 96 ports including any combination of 2-pair and 4-pair ports LLDP Emulation (802.3at, bt) ☐ on PSL-3424L	Manually configure per test slot PD Classes 0 - 8 User-specified current load (mA) and startup load (mA)	License option for PSL-3000, PSL-3224 PD Classes 0 - 4 (2-Pair loading only) User-specified power draw (watts) and cable loss (watts) Multi-Port configure, start, stop, and status up to 192 (2-pair) ports LLDP Emulation (802.3at) if instrument is licensed for LLDP

PSL-3424A, PSL-3424A	PSL-3424M	PSL-3000, PSL-3224
	Metering & Measurements	
	Voltage Measurements	
Meter per pairset (Alt-A, Alt-B) Average, Max Peak, Min Peak Aperture: 100msec, 1sec Trigger: Immediate, Event ¹ Resolution: 30mV	Meter per pairset (Alt-A, Alt-B) Average, Max Peak, Min Peak Aperture: 100msec, 1sec Trigger: Immediate, Event ¹ Resolution: 30mV	Meter per pairset (Alt-A, Alt-B) Average Aperture: 100msec, 1sec Trigger: Immediate Resolution: 100mV
	Current Measurements	
Meter per pairset (Alt-A, Alt-B) Average, Max Peak, Min Peak Aperture: 100msec, 1sec Trigger: Immediate, Event ¹ Resolution: 0.25mA (2-pair), 0.5mA (4-pair)	Combined pairset meter (Alt-A + Alt-B) Average, Max Peak, Min Peak Aperture: 100msec, 1sec Trigger: Immediate, Event ¹ Resolution: 0.5mA (2-pair, 4-pair)	Meter per pairset (Alt-A, Alt-B) Average Aperture: 100msec, 1sec Trigger: Immediate Resolution: 1mA (2-pair), 2mA (4-pair)
	Power Measurements	
Meter per pairset (Alt-A, Alt-B) Average Aperture: 100msec, 1sec Trigger: Immediate Resolution: 0.1W (2-pair, 4-pair)	Combined pairset meter (Alt-A + Alt-B) Average Aperture: 100msec, 1sec Trigger: Immediate Resolution: 0.1W (2-pair, 4-pair)	Meter per pairset (Alt-A, Alt-B) Average Aperture: 100msec, 1sec Trigger: Immediate Resolution: 0.1W (2-pair, 4-pair)
	PSA Interactive GUI	
Fully Supported	<i>Not Available</i>	Fully Supported
	Automated Test Suites	
	Power Management Analyzer Suite	
License option for PSL-3424L, PSL-3424A Power Management Analyzer Suite: 2-Pair, 4-Pair, hybrid 2/4 Pair PSE's	<i>Not Available</i>	License option for PSL-3000, PSL-3224 Power Management Analyzer Suite for 2-Pair (30W) PSE's
	PSL Quick Test PSE Inspection	
License option for PSL-3424L, PSL-3424A PSL34 2-Pair or 4-Pair Quick Inspection Test	<i>Future Release</i>	Included PSL 2-Pair (30W) Quick Inspection Test
	LAN Data Path	
	DC De-Coupling	
Multi-Gig Transformer	Multi-Gig Transformer	Capacitive ²
	Loop-Back Connection	
Adjacent Test Port	THRU (Data only) Port	THRU (Data only) Port
	Snaked Data Path Setup/Test Menu	
License option for PSL-3424L, PSL-3424A Snaked Data Path with PoE Loading	<i>Not Available</i>	<i>Not Available</i>
	Documentation	
	Datasheets	
PSL-3424M Product Overview PSE Live PD Emulation for PSL-3424 Overview PSE PM Analyzer Suite for PSL-3424 Overview	PSL-3424 Product Overview	PSL-3000 Product Overview PSE Live PD Emulation for PSA, PSL-3000 Overview PSE PM Analyzer Suite for PSA, PSL-3000 Overview
	Reference Manuals	
PSL-3424 Technical Reference Manual v5	PSL-3424M Technical Reference Manual v5	PSL-3000 Technical Reference Manual v5

Notes:

- 1 Event Triggers synchronize actions such as load transients and meter measurements across multiple ports and also synchronize measurements to stimulus events such as load transients, port connections, etc.
- 2 5G and 10G link rates restricted to short length (e.g. 1M) Cat 6A patch cables