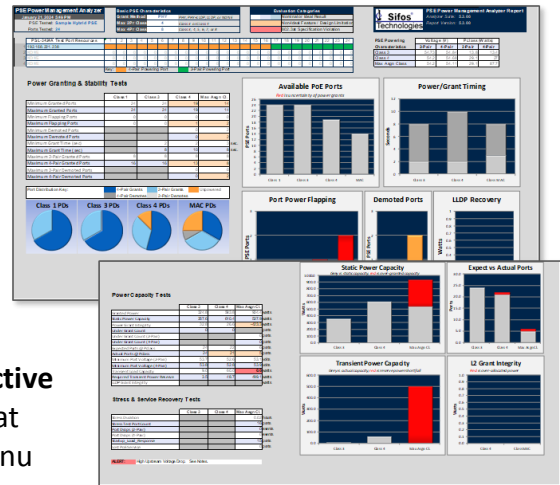


## PSA 5.4.00 Release Notes

The PSA 5.4.00 Release Note is applicable to the PSA-3000, PSL-3424, and PVA-3000 family of test instruments.

### Highlights

With the PSA 5.4.00 release, Sifos introduces a new **Power Management Analyzer Suite** for the PSL-3424. This fully automated test suite analyzes PSE's with any combination of 2-pair (up to 30W) ports and 4-pair (up to 90W) ports to assess class-based admission behaviors, powering instabilities, power granting policies, static power capacity, transient reserve capacity, LLDP granting policies, and a variety of other PSE power management behaviors. For further information regarding this one-of-a-kind capability, see Sifos datasheet **PSE PM Analyzer Suite for PSL-3424 Overview**.



Also, new with this release are enhancements to **PSA Interactive** software for the PSA/PSL-3000 and PSL-3424 instruments that add a new Power Management Analyzer (PMA) Suite tab menu for managing both the 2<sup>nd</sup> generation PSA/PSL-3000 Power Management Analyzer (formerly **Multi-Port Test Suite**) as well as the new (3<sup>rd</sup> generation) PSL-3424 Power Management Analyzer Suite. The new menu automatically adapts to the currently connected test instrument in order to manage the associated suite.

The **PSA/PSL-3000 Power Management Analyzer Suite** for testing 2-Pair (802.3at) PSE's has been re-branded from Multi-Port Test Suite to better describe its overall purpose. For further information, see Sifos datasheet PSE PM Analyzer Suite for PSA,PSL-3000 Overview.

### PSE Conformance Test Suite Tracking Service

The PSA 5.4.00 release requires updated Product Keys for installing the 2-Pair and 4-Pair PSE Conformance Test Suites. These keys are available from the Sifos website to all customers with active Tracking Service agreements.

### EA Gen1 and Gen2 Certification Testing

PSA software version 5.4.00 is not certified for EA 1<sup>st</sup> party Gen1 (802.3at) and Gen2 (802.3bt) certification testing. The most current version of PSA software certified for EA 1<sup>st</sup> Party testing is version 5.3.01 (available from the Sifos website). While there are a number of enhancements to the 4-Pair PSE Conformance Test Suite, it is not certain at this time that those enhancements will warrant a re-certification under this release. PSA software version 5.3.01 will remain available from the Sifos website.

### PSA 5.4.00 Enhancements

Software Entity	Impact	Feature
2-Pair PSE Conformance Test Suite	Minor	<b>class_time</b> : Improved reliability of the <b>Mark_Tme1_LowI</b> measurement with PSE's that take longer than 200msec to complete classification.

## PSA 5.4.00 Release Notes

Software Entity	Impact	Feature
	Minor	<b>class_lldp</b> : Modified to time the initial PSE LLDP frame to first link-up rather than power-up. Generally, this will reduce measured LLDP time by around ½ second.
4-Pair PSE Conformance Test Suite	Moderate	<b>Detection Signaling Analysis</b> : Increased adaptability to PSE's with various connection check signaling schemes.
	Moderate	<b>class_err</b> : In the <b>Treset</b> analysis, added some de-bouncing in signal analysis to prevent possible mis-timed measurement.
	Minor	<b>class_lldp</b> : Modified to time the initial PSE LLDP frame to first link-up rather than power-up. Generally, this will reduce measured LLDP time by around ½ second.
Power Management Analyzer Suite for PSL-3424	Important	All new 3 <sup>rd</sup> generation automated test suite including graphical spreadsheet reporting made available to PSL-3424A and PSL-3424L test instruments. The suite requires a new license, <b>PSL-3424-PMA</b> , and requires the Live PD Emulation license, <b>PSL-3424-EMUL</b> , as a prerequisite. The test suite can be managed from a new PSA Interactive tab menu or from PowerShell PSA.
	Moderate	Re-partitioned messaging routing to PSA Interactive display and to log files so as to prevent "overload" to the status display while preserving test details in the log files.
Power Management Analyzer Suite for PSL-3424	Important	The former 2 <sup>nd</sup> generation Multi-Port Test Suite for PSA/PSL-3000 has been rebranded to the Power Management Analyzer Suite for PSA/PSL-3000. Reporting has been updated to reflect this. The test suite can be managed from a new PSA Interactive tab menu or from PowerShell PSA. The test suite is available for PSA-3000's under the license <b>PSA-3000-MPT</b> and to PSL-3000's under the license <b>PSA-3000-MPT</b> .
PSA Interactive	Important	A new <b>PMA Suite</b> tab menu replaces the prior M-P Test tab menu. This new menu adapts to the presently connected instrument (PSA-3000, PSL-3000 vs PSL-3424) to allow configuration and sequencing of the respective Power Management Analyzer Suites.
	Minor	Live PD Emulation tab menu modified re-size status display and adjust how Multi-Port Resource Configurations are displayed.
	Minor	Multi-Port Resource Configuration menus for both PSA/PSL-3000 and PSL-3424 adapted so that inter-chassis trigger bus connections are performed by both Tally Ports and Done buttons and reported as WARNING messages when not connected.
	Minor	Loads tab menu: For PSL-3424, added new "Mid" duration transient load (45 msec).
	Minor	[Help][Features] drop down menu modified to provide more descriptive names for various feature licenses.

## PSA 5.4.00 Release Notes

Software Entity	Impact	Feature
Test Suite Reporting with Excel	Important	Added new test report, <b>pma_report_3424.xlsm</b> , associated with the new 3 <sup>rd</sup> generation Power Management Analyzer suite for the PSL-3424.
	Moderate	Modified previously named Multi-Port test report, mp_report_30.xlsm, to pma_report_3000.xlsm reflecting the rebranding of this test suite to Power Management Analyzer Suite.
	Minor	Revised the EA report for 2-Pair 802.3bt PSE testing, <b>psa_report_ea_gen2_2p.xlsm</b> , to bring it up to date with the non-EA 2-Pair test report (psa_report.xlsm) and to correct some issues in EA test plan traceability tables.
PowerShell PSA	Moderate	<b>psl_conn_check</b> for PSL-3424 revised to improve accuracy/reliability and to run quicker.
	Minor	<b>pse_lldp_wait</b> : Altered 802.3bt frame qualification criteria to not depend on a valid value in Power_type_ext field so that function will work with defective field values from PSE.
	Minor	<b>psa_enable ?</b> modified to provide more descriptive names for the various feature licenses.
	Minor	<b>psa_trace</b> will not produce a more obvious error message if executed from PowerShell Tcl as it requires PowerShell Wish.

### PSA 5.4.00 Bug Fixes

Software Entity	Impact	Feature
4-Pair PSE Conformance Test Suite	Minor	<b>pwrn_pwracap</b> : Removed a vulnerability in reporting of <b>Pclass_2p_c5</b> parameter where if failed on some but not all ports, it would be reported as a PASS in the test report.
PowerShell PSA	Minor	<b>power_bt</b> modified to accept a Class 0 PD emulation with an <b>802.3bt LLDP</b> power-up. Previously this produced an error that could also appear using the Power-Up tab menu in PSA Interactive.
	Minor	<b>power_pse</b> for PSL-3424 modified to correct an issue in mapping an incorrect default load current to certain PD classes. Also corrected issue with selecting dual signature classification using 'c' argument (rather than 'ca', 'cb').

# PSA 5.4.00 Release Notes

## PSA/PVA Firmware Versions

PSA 5.3 software requires certain minimum versions of PSA/PSL test port firmware. The following versions are the current versions for each product. Sifos recommends updating firmware to these.

<b>PSA-3000 Controller:</b> ver <b>3.1E</b> <b>PSA-3402 Controller:</b> ver <b>3.1E</b> <b>PSA-3424 Controller:</b> ver <b>3.1E</b> <b>PSA-3002 Controller:</b> ver <b>3.1E</b> <sup>1</sup>	<b>PSA-3202, PSL-3202 , PSA-3402:</b> Test Port ver <b>4.19</b> , ALC ver <b>19</b>	<b>PSL-3424 Test Port:</b> ver <b>5.04</b>
<b>PSA/PSL-3102 or PSA-3002</b> Test Port ver <b>3.2B</b>	<b>PVA-3102</b> Test Port ver <b>3.0B</b>	

1 PVA-3002 controller should use v3.14 unless PSA software version is 5.3.00 or later.

## PSA-3202/PSL-3202/PSA-3402 ALC Version 19 Update

The ALC firmware within a PSA-3202/PSL-3202/PSA-3402 is a vital element affecting the instrument’s ability to reliably emulate all **802.3bt** PD’s and to test **802.3bt** PSE’s under a wide variety of conditions. The current version of ALC firmware is **version 19** that was introduced with the PSA **5.2.03** release. Any instruments that are used for 802.3bt PSE testing either now or in the future should be updated to this version if they have not already had that update.

To examine current ALC firmware version, simply open **PowerShell Tcl** or **Wish** and execute:

```
psa_config -alc
```

## ALC Version 19 Update Instructions

Updating any PSA/PSL test instrument to ALC version 19 is a very simple task. However, it should be performed when the instrument is not needed for a while as it will consume 10 minutes PER TEST PORT to complete. It is recommended to simply run this update overnight from a PC that is not busy performing other tasks.

To perform the ALC version 19 update to all PSA/PSL-3202 test ports:

After installing PSA version 5.2.03 or 5.2.04 software, open PowerShell (Wish or Tcl), connect to instrument that will be updated, and execute:

```
alc_updater_19
```

When the update is completed, look for the indication:

```
alc_updater_19: UPDATES COMPLETED !!!!  
Ports **** Updated Successfully!
```