



PSA-3000 Upgrade

PowerSync® Analyzer

IEEE 802.3at Power over Ethernet

PSA-3000 Highlights

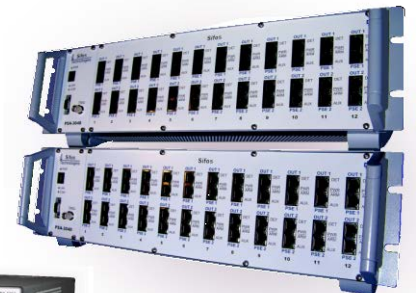
- ✓ PSE Loading to 42 Watts / Port
- ✓ New 802.3at PSE Conformance Suite
- ✓ PoE LLDP Emulation & Analysis
- ✓ Multi-Port Live PD Emulation
- ✓ Fully Compatible with PSA-1200 Applications



the new standard

Unique PSA-3000 Advantages

- ❑ Aggregate Continuous Power Loading > 1000 Watts
- ❑ Fully Configurable LLDP Messaging & Protocol Analysis from Each Test Port
- ❑ New 802.3at PSE Conformance Test Coverage (> 95% 802.3at PICS Coverage)
- ❑ New Multi-Port Live PD Emulation for Type-1 & Type-2 (including LLDP)
- ❑ Improved DC Metering (Voltage & Current) Accuracies and Resolutions
- ❑ Pulse Current Loads to 1.8 A Per Port
- ❑ PSE Foldback Suppression Capability
- ❑ Noise Immune Edge Triggering with Selectable Noise Rejection
- ❑ Improved Trigger Level Accuracy
- ❑ Flexible, Noise Immune Time-Interval Measurements from 6 μ sec to 16 sec
- ❑ Programmable Transition Band & Mark Load Current
- ❑ Accurate, 2-Band AC Peak Measurements
- ❑ Smart Fan Control – Runs Cool and Quiet
- ❑ Minimized Packet Transmission Channel Impairment
- ❑ Faster Command/Query Processing
- ❑ 4-Pair PSE (uPoE, PoE⁺⁺) Capable Testing
- ❑ Sample Test Script for High Throughput PSE Testing (including Type-2, LLDP capable PSE's!)



Verification, Simplified.

PSA-3000 Specification Comparison

Feature	PSA-1200	PSA-3000	PSA-3000 Advantages
Max. Continuous Load Current per port	511 mA	750 mA	Test "AT" PSE's and Beyond
Maximum Transient Load per port	511 mA	1,800 mA	Assess PSE Line and Output Protection Performance
Edge Triggering	Zero Edge Noise Rejection	Configurable Noise Rejection	Highly Reliable Triggering & Time Interval Measurements
Programmable Load Activation Range(s)	15 – 60 VDC	15 – 60 VDC <i>activation</i> 14 – 6 VDC <i>transition</i>	Programmable 2-Event PD Classification Emulation, PSE Fold-Back Analysis
Load Current Granularity, 0 mA to Maximum Load	0.5 mA	0.25 mA	More Granular Power Configuration, Class Signature and MPS Margining Range
Load Current and Current Metering Accuracies	< ±11% @ 12mA < ±4% @ > 50mA	± 0.5% ± 0.25mA	More Accurate Power Configuration, Class Signature and MPS Margining Accuracy
Edge Triggering Granularity	0.25 V	0.125 V	Small Signal Edge Triggering including Load Response Pulses
Edge Triggering Accuracy	Not Specified	± .0625mV <i>ref. to DC Meter</i>	Predictable and accurate triggering of Meter Measurements
PSE Fold-Back Inhibition	None	> 30 VDC @ > 400 mA	Optionally Prevent or Limit PSE Inrush and Short Circuit Fold-Backs In Current Limiting Tests
Time Interval Measurement Range	20 µsec to 6,600 msec	6 µsec to 16 seconds	Improved Slew Rate Measurements, Long Back-Off Measurements
Faster Slews (Voltage and Current)	Not Specified	> 10 mA/µsec > 8 V/µsec	Accurate Rise Time measurements, improved transient response coverage
AC Peak Meter	Not Fully Specified	16–500Hz, 3dB 1.5-300KHz, 3dB	More Accurate Ripple and Noise Measurements on Powered Ports
AC Meter Input Impedance	Not Specified	.1µF	Properly mimic worst case PD loading during AC Peak measurements
Detection Crossover	10.1 VDC	12 VDC	Improved PSE Detection and Output Impedance Measurements
Pair Connectivity	ALT A or ALT B	ALT A, ALT B, or ALT A + ALT B	Enable Testing of 4-Pair (2 Independent Channel) PSE's
Event Trigger Sources	PD Connects, Load Changes, User, Other Ports	ADD: Layer 2 LLDP Transactions	Enable Metering and Load Adjustments Time-Synchronized to Layer 2 Message Transactions
Effective Differential LAN Pair Through Channel Load	51 µH	> 350 µH	Reduced Impairments to 100BaseT and 1000BaseT Transmission Tests
Fan Operation	Continuous at Power-Up	PSA Test Blade Temperature Activated	Quiet PSA operation during PSE Conformance and Low Power Testing
Average Query Time	~ 80 msec	~ 50 msec	Faster test execution potential

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