Application Report

PSA-3402 –January 2026

SIFOs 802.3at Conformance Report, v5.4.10, DN-95333

1 Sifos Technologies

Sifos Technologies provides a one-box solution to facilitate complete testing and analysis of Power Sourcing Equipment (PSE) behaviors and overall compliance to the IEEE 802.3at specification. The PSE Conformance Test Suite serves as a virtual industry standard for PSE specification compliance. SIFOS test coverage exceeds 95% of 802.3at PSE PICS

2 Enhanced Test Conditions

In additional to just running the basic conformance testing on an individual port and to better recreate the system-level environment, we individually tests all ports of its PSE controller devices while having the background ports running at various PoE-application conditions. We further, repeats testing conditions over extended periods of time to ensure performance is consistent after multiple hours, days and/or continued operation.

PSE Conformance Test Suite

January 19 2026 **5:21 PM**

Port Count..... 1

Loop Count..... 1

PSE Tested: **Unspecified Type-2 30W**

Sifos® Technologies

802.3at Conformance Report

version ***5.4.09***

Test Mode: **30 Watt PHY** *report ver. 5.4.03*

Sifos Interop Index*: **100%** *S/N: 34020093A*

Error Log: None

Chassis ID: 192.168.221.105	**PSA-3402 Ports**					**Low**	**P/F**	**High**	**P/F**
TestLoop: 1	**1-1**	**UNITS**	**Min**	**Max**	**Average**	**Limit**		**Limit**	
Test: det_v									
Open_Circuit_Det_Voc=	15.03	V	15.03	15.03	15.03	2.8	Pass	30	Pass
Peak_Det_Vvalid=	6.23	V	6.23	6.23	6.2	3.8	Pass	10	Pass
Min_Det_Vvalid=	4.18	V	4.18	4.18	4.2	2.8	Pass	9	Pass
Det_Volt_Step_dVtest=	2.05	V	2.05	2.05	2.1	1	Pass	7.2	Pass
Detection_Slew=	0	V/usec	0	0	0	0	Pass	0.1	Pass
Good_Sig_Det_Pulse=	1	edges	1	1	1	1	Pass	9	Pass
Backoff_Voltage=	0.6	V	0.6	0.6	0.6	0	Pass	2.8	Pass
Non_802_Discr_?=	0	****	0	0	0	0	Pass	0	Pass
Detect_Strategy=	1	****	1	1	1	0	Pass	2	Pass
Test: det_i									
Init_Current_Isc=	0.16	mA	0.16	0.16	0.16	0	Pass	5	Pass
Det_Current_Isc=	0.15	mA	0.15	0.15	0.15	0	Pass	5	Pass
Test: det_range									
Rgood_Max=	30	Kohm	30	30	30	26	Pass	32	Pass
Rgood_Min=	17	Kohm	17	17	17	16	Pass	19	Pass
Rmid_det=	30	Kohm	30	30	30	26	Pass	33	Pass
Cgood_Max=	0.1	uF	0.1	0.1	0.1	0	Pass	10	Pass
Rbad_Cbad_Stat=	0	****	0	0	0	0	Pass	0	Pass
4Pair_Pwr_?=	0	****	0	0	0	0	Pass	0	Pass
Test: det_time									
Backoff_Time_Tdbo=	1016	msec	1016	1016	1016	-1	Pass	1500	Pass
Eff_Backoff_Tdbo_eff=	1016	msec	1016	1016	1016	-1	Pass	1500	Pass
Backoff_Type=	0	****	0	0	0	0	Pass	0	Pass
Detection_Time_Tdet=	373	msec	373	373	373	5	Pass	500	Pass
Total_Det_Time=	377	msec	377	377	377	5	Pass	1000	Pass
Test: det_rsource									
PSE_Detect_Source=	1	****	1	1	1	0	Pass	1	Pass
Output_Impedance_Zout=	450	Kohm	450	450	450	45	Pass	2000	Pass
Test: class_v									
Vclass_Max=	18.8	V	18.8	18.8	18.8	15.5	Pass	20.5	Pass
Vclass_Min=	18.4	V	18.4	18.4	18.4	15.5	Pass	20.5	Pass
Mark_Voltage_Vmark=	8.7	V	8.7	8.7	8.7	7	Pass	10	Pass
Mark_Voltage_Min=	8.5	V	8.5	8.5	8.5	7	Pass	10	Pass
Test: class_time									
Class_0_Count=	1	****	1	1	1	1	Pass	2	Pass
Class_Time_Tpdc=	10.8	msec	10.8	10.8	10.8	6	Pass	75	Pass

Class_4_Count=	2	****	2	2	2	2	Pass	2	Pass
Event1_Tcle1=	11.7	msec	11.7	11.7	11.7	6	Pass	30	Pass
Event2_Tcle2=	11.7	msec	11.7	11.7	11.7	6	Pass	30	Pass
Mark_Tme1=	11.7	msec	11.7	11.7	11.7	6	Pass	12	Pass
Mark_Tme_Last=	253.1	msec	253.1	253.1	253.1	6	Pass	376	Pass
Mark_Tme1_LowI=	11.7	msec	11.7	11.7	11.7	6	Pass	12	Pass
Test: class_err									
Class_lim=	68	mA	68	68	68	51	Pass	100	Pass
Pwr_Cl_lim=	0	****	0	0	0	0	Pass	0	Pass
Pwr_Cl_55=	0	****	0	0	0	0	Pass	0	Pass
Mark_lim=	6	mA	6	6	6	5	Pass	100	Pass
Pwr_Cl_Uneven=	0	****	0	0	0	0	Pass	0	Pass
Treset=	211	msec	211	211	211	15	Pass	10000	Pass
Test: pwrup_time									
Power-On_Trise_c0=	146	usec	146	146	146	15	Pass	50000	Pass
Power-On_Tpon_c0=	271.5	msec	271.5	271.5	271.5	0	Pass	400	Pass
Power-On_Trise_c4=	161	usec	161	161	161	15	Pass	50000	Pass
Power-On_Tpon_c4=	294.9	msec	294.9	294.9	294.9	0	Pass	400	Pass
Test: pwrup_inrush									
Init_Iinrush=	432.13	mA	432.13	432.13	432.1	400	Pass	450	Pass
Max_Iinrush_c0=	427.38	mA	427.38	427.38	427.4	400	Pass	450	Pass
Max_Iinrush_c4=	427.63	mA	427.63	427.63	427.6	400	Pass	450	Pass
Min_Iinrush=	413.25	mA	413.25	413.25	413.3	400	Pass	450	Pass
Tinrush=	60	msec	60	60	60	50	Pass	75	Pass
Inrush_45m=	54	V	54	54	54	50	Pass	57	Pass
Inrush_Voltage=	30.7	V	30.7	30.7	30.7	30	Pass	57	Pass
Inrush_Strategy_c0=	0	****	0	0	0	0	Pass	1	Pass
Inrush_Strategy_c4=	0	****	0	0	0	0	Pass	1	Pass
LowV_Inrush=	419.3	mA	419.3	419.3	419	60	Pass	450	Pass
Test: pwron_v									
Vport_min=	53.3	V	53.3	53.3	53.3	50	Pass	57	Pass
Vport_max=	54.1	V	54.1	54.1	54.1	50	Pass	57	Pass
Vport_ripple=	76	mVpp	76	76	76	0	Pass	500	Pass
Vport_noise=	71	mVpp	71	71	71	0	Pass	200	Pass
Vtrans_min=	53.1	V	53.1	53.1	53.1	50	Pass	57	Pass
Vtrans_max=	54.2	V	54.2	54.2	54.2	50	Pass	57	Pass
Test: pwron_pwrcap									
Pcon_c0=	18.5	W	18.5	18.5	18.5	14.2	Pass	22.7	Pass
Icon_%_c0=	134.1	%	134.1	134.1	134.1	100	Pass	9999	Pass
Pcon_c1=	5.8	W	5.8	5.8	5.8	3.9	Pass	22.7	Pass
Icon_%_c1=	147.3	%	147.3	147.3	147.3	100	Pass	9999	Pass
Pcon_c2=	8.2	W	8.2	8.2	8.2	6.8	Pass	22.7	Pass
Icon_%_c2=	122.2	%	122.2	122.2	122.2	100	Pass	9999	Pass
Pcon_c3=	18.5	W	18.5	18.5	18.5	14.2	Pass	22.7	Pass
Icon_%_c3=	134.1	%	134.1	134.1	134.1	100	Pass	9999	Pass
Pcon_c4=	34	W	34	34	34	28.7	Pass	38.9	Pass

Icon_%_c4=	116.4	%	116.4	116.4	116.4	100	Pass	9999	Pass
Type-2_Enable=	1	****	1	1	1	1	Pass	1	Pass
Test: pwron_maxi									
Ilim_Peak_1=	496.8	mA	496.8	496.8	496.8	0	Pass	1750	Pass
Ilim_Min_1=	401.3	mA	401.3	401.3	401.3	400	Pass	1750	Pass
Tlim_1=	61.7	msec	61.7	61.7	61.7	10	Pass	9999	Pass
Vlim_1=	53.5	V	53.5	53.5	53.5	50	Pass	57	Pass
Ilim_Max_1=	494	mA	494	494	494	400	Pass	1750	Pass
Ktran_lo_1=	106.9	%	106.9	106.9	106.9	92.4	Pass	115	Pass
Ilim_Peak_2=	863.8	mA	863.8	863.8	863.8	0	Pass	1750	Pass
Ilim_Min_2=	684.8	mA	684.8	684.8	684.8	683	Pass	1750	Pass
Tlim_2=	61.3	msec	61.3	61.3	61.3	10	Pass	75	Pass
Vlim_2=	53	V	53	53	53	50	Pass	57	Pass
Ilim_Max_2=	844.8	mA	844.8	844.8	844.8	683	Pass	1750	Pass
Ktran_lo_2=	105.7	%	105.7	105.7	105.7	92.4	Pass	115	Pass
Test: pwron_overld									
%Ipeak_1=	125	%	125	125	125	100	Pass	125	Pass
Vport_Ipeak_1=	53.6	V	53.6	53.6	53.6	50	Pass	57	Pass
Vport_5%DC_1=	53.6	V	53.6	53.6	53.6	50	Pass	57	Pass
%Ipeak_2=	125	%	125	125	125	100	Pass	125	Pass
Vport_Ipeak_2=	53.1	V	53.1	53.1	53.1	50	Pass	57	Pass
Vport_5%DC_2=	53.1	V	53.1	53.1	53.1	50	Pass	57	Pass
Test: mps_dc_valid									
Min_Valid_Time_Tmps=	10	msec	10	10	10	1	Pass	60	Pass
Duty_Cycle_tol=	1	****	1	1	1	1	Pass	1	Pass
Test: mps_dc_pwrdn									
Min_Valid_I_hold=	7	mA	7	7	7	5	Pass	10	Pass
Time-to-Shutdown_Tmpdo=	361	msec	361	361	361	300	Pass	400	Pass
Test: pwrdn_overld									
Icut_1=	382	mA	382	382	382	-1	Pass	1750	Pass
Tcut_1=	61.8	msec	61.8	61.8	61.8	50	Pass	9999	Pass
Isoft_1=	-1	mA	-1	-1	-1	-1	Pass	683	Pass
Tsoft_1=	-1	msec	-1	-1	-1	-1	Pass	2000	Pass
Icut_2=	655	mA	655	655	655	-1	Pass	1750	Pass
Tcut_2=	61.6	msec	61.6	61.6	61.6	10	Pass	9999	Pass
Isoft_2=	-1	mA	-1	-1	-1	-1	Pass	683	Pass
Tsoft_2=	-1	msec	-1	-1	-1	-1	Pass	2000	Pass
Test: pwrdn_time									
Turn-Off_Time_Toff=	18	msec	18	18	18	0	Pass	500	Pass
Output_Cap_Cout=	0.0916	uF	0.0916	0.0916	0.09	-1	Pass	0.52	Pass
Output_Load_Rp=	87.8	Kohm	87.8	87.8	88	45	Pass	50000	Pass
Test: pwrdn_v									
Avg_Idle_Voff=	0.6	V	0.6	0.6	0.6	0	Pass	2.8	Pass
Error_Delay_Ted=	1835.9	msec	1835.9	1835.9	1836	750	Pass	10000	Pass
Peak_Error_Delay_Ved=	1	V	1	1	1	0	Pass	20.5	Pass
Test Port Model Number:	**3202**								

Test Port Hardware Version:	**11**
Test Port Firmware Version:	**4.19 Ic19**