TPS23880
PoE 2 (IEEE 802.3bt)
Conformance Test Report

Texas Instruments

Document Revision: 1.0

May 13th, 2020

SLVT187

Table of Contents

Revision History

Revision	Description	Date
Rev 1.0	Initial document release including the Sifos 4-Pair PSA v5.2.00 test results	5 / 13 / 2020

Introduction

IEEE 802.3bt Compliance and PoE Interoperability:

IEEE802.3bt compliance is the foundation of interoperability and safety for any PoE enabled system. The use of non-compliant Power Sourcing Equipment (PSE) increases the risk that equipment connected to the system may not operate correctly or may even be damaged. This is further intensified with the release of the new 802.3bt standard expanding the array of equipment using PoE and the increased available power levels of up to 90W (sourced).

Sifos Technologies and UNH-IOL have established themselves as first and third-party houses for PoE suite testing.

Sifos Technologies https://sifos.com

Sifos Technologies provides a one-box solution to facilitate complete first-party testing and analysis of Power Sourcing Equipment (PSE) behaviors and overall compliance based on the IEEE 802.3bt specification. Sifos test coverage exceeds 95% of 802.3bt PSE PICS.

Ethernet Alliance (EA) https://ethernetalliance.org/

The Ethernet Alliance is a consortium of leading industry experts, university, and government professionals, and component vendors that has created a PoE Certification Program. This program is aimed specifically at simplifying the certification and identification of PoE products that are compliant to the IEEE802.3bt PoE standard through the use of logos that can be affixed to PoE equipment and a Certified Product Registry.

The EA has partnered with the University of New Hampshire InterOperability Laboratory (UNH-IOL https://www.iol.unh.edu/) to provide independent and vendor-neutral certification testing for both Gen 1 & Gen2 PoE logos (see table below). For additional information about the PoE logo certification program, feel free to read our blog on this topic.

Summary Table of PoE Compliance Terminology

Brand/ Acronym	IEEE Standard	Clause	Clause Title	Types	Classes	EA Certified Logo
PoE 1	802.3af	33	Power over Ethernet over 2-Pair	1	0-3	Gen 1
	802.3at			2	0-4	
PoE 2	802.3bt	145	Power over Ethernet	3	1-6 or 1-4 DS[1]	Gen 2
				4	7-8 or 5 DS[1]	

(1) “DS” is used to designate “Dual Signature” PDs

Sifos Test Results:

TPS23880 EVM: 4-Pair Type-4

Test Conditions:

Sifos HW: PSA-3000 Chassis with PSA-3202 Test Blades
Sifos SW: PSA v5.2.00

PSE HW: TPS23880EVM-008 + BOOST-PSEMTHR-007 evaluation module with V_{PWR} = 55V
PSE SRAM: v02
PSE Config: Auto mode with 4P Ports set to 90W (Type 4)

PSE Conformance Test Suite
May 13 2020 12:46 PM
Port Count..... 1
Loop Count..... 1
PSE Tested: TI23880_bt Type-4

Sifos Technologies
802.3bt 4Pr Conformance Report
version 5.2.00
report version 5.1.17
PSE Type: 4 MDI-X+MDI
Safety Index*: 100% Interop Index*: 100%
Error Log: None

Chassis ID: 158.218.10.73 TestLoop: 1	PSA-3000 Ports 7-1	UNITS	Min	Max	Average	Low Limit	P/F	High Limit	P/F
Test: det_v									
Open_Circuit_Voc_A=	24.7	volts	24.7	24.7	24.7	0	Pass	30	Pass
Open_Circuit_Voc_B=	24.5	volts	24.5	24.5	24.5	0	Pass	30	Pass
Backoff_Voltage_A=	0.1	volts	0.1	0.1	0.1	0	Pass	2.8	Pass
Backoff_Voltage_B=	0.1	volts	0.1	0.1	0.1	0	Pass	2.8	Pass
Backoff_Voltage_Ss=	5.8	volts	5.8	5.8	5.8	0	Pass	2.8	Info
Max_Det_Step_V_A=	7.95	volts	7.95	7.95	7.95	3.8	Pass	10	Pass
Max_Det_Step_V_B=	8.02	volts	8.02	8.02	8.02	3.8	Pass	10	Pass
Min_Det_Step_V_A=	4	volts	4	4	4	2.8	Pass	9	Pass
Min_Det_Step_V_B=	4.06	volts	4.06	4.06	4.06	2.8	Pass	9	Pass
Det_Step_Changes_A=	3	****	3	3	3	1	Pass	9	Pass
Det_Step_Changes_B=	3	****	3	3	3	1	Pass	9	Pass
Min_Step_DV_A=	2.12	volts	2.12	2.12	2.12	1	Pass	7.2	Pass
Min_Step_DV_B=	2.13	volts	2.13	2.13	2.13	1	Pass	7.2	Pass
Pre-Det_CC_Step_V_A=	3.78	volts	3.78	3.78	3.78	0	Pass	10	Pass
Pre-Det_CC_Step_V_B=	0	volts	0	0	0	0	Pass	10	Pass
Test: det_cc									
Presumed_CC_DET_SEQ=	1	****	1	1	1	0	Pass	3	Pass
Conn_Chk_SS_V_A=	7.89	volts	7.89	7.89	7.89	2.8	Pass	10	Pass
Conn_Chk_SS_V_B=	7.9	volts	7.9	7.9	7.9	2.8	Pass	10	Pass
Conn_Chk_DS_V_A=	4.32	volts	4.32	4.32	4.32	2.8	Pass	10	Pass
Conn_Chk_DS_V_B=	5.07	volts	5.07	5.07	5.07	2.8	Pass	10	Pass
High_Signature_CC_A=	1	****	1	1	1	1	Pass	1	Pass
High_Signature_CC_B=	1	****	1	1	1	1	Pass	1	Pass
4Pair_Start_Fail=	0	****	0	0	0	0	Pass	0	Pass
Test: det_i									
Isc_Init_A=	0.29	mA	0.29	0.29	0.29	0	Pass	5	Pass
Isc_Init_B=	0.27	mA	0.27	0.27	0.27	0	Pass	5	Pass
Isc_Det_A=	0.3	mA	0.3	0.3	0.3	0	Pass	5	Pass
Isc_Det_B=	0.28	mA	0.28	0.28	0.28	0	Pass	5	Pass
Det_Slew_A=	0.006	V/usec	0.006	0.006	0.006	0	Pass	0.1	Pass
Det_Slew_B=	0.0056	V/usec	0.0056	0.0056	0.0056	0	Pass	0.1	Pass
Test: det_range									
Rgood_Max_Single=	29	Kohm	29	29	29	27	Pass	32	Pass
Rgood_Min_Single=	17	Kohm	17	17	17	16	Pass	19	Pass
Cgood_Max_Single=	0.1	uF	0.1	0.1	0.1	0	Pass	10	Pass
Rgood_Max_Dual_A=	29	Kohm	29	29	29	27	Pass	32	Pass
Rgood_Max_Dual_B=	29	Kohm	29	29	29	27	Pass	32	Pass
Rgood_Min_Dual_A=	17	Kohm	17	17	17	16	Pass	19	Pass
Rgood_Min_Dual_B=	17	Kohm	17	17	17	16	Pass	19	Pass
Cgood_Max_Dual_A=	0.1	uF	0.1	0.1	0.1	0	Pass	10	Pass
Cgood_Max_Dual_B=	0.1	uF	0.1	0.1	0.1	0	Pass	10	Pass

PSE Conformance Test Suite

May 13 2020 12:46 PM

Port Count..... 1

Loop Count..... 1

PSE Tested: TI23880_bt Type-4

Sifos Technologies

Safety Index*: 100%

Error Log: None

802.3bt 4Pr Conformance Report

version 5.2.00

PSE Type: 4 MDI-X+MDI

report version 5.1.17

Interop Index*: 100%

Chassis ID: 158.218.10.73 TestLoop: 1	PSA-3000 Ports 7-1	UNITS	Min	Max	Average	Low Limit	P/F	High Limit	P/F
Test: det_time									
Detect_Time_Tdet_A=	302.7	msec	302.7	302.7	302.7	0	Pass	500	Pass
Detect_Time_Tdet_B=	298.8	msec	298.8	298.8	298.8	0	Pass	500	Pass
Backoff_Time_SS=	5.9	msec	5.9	5.9	5.9	0	Pass	9999	Pass
Det2Det_Time=	162.1	msec	162.1	162.1	162.1	0	Pass	400	Pass
Test: det_rsource									
PSE_Detect_Source=	1	****	1	1	1	0	Pass	1	Pass
PSE_Source_Zout_A=	300	Kohm	300	300	300	45	Pass	300	Pass
PSE_Source_Zout_B=	300	Kohm	300	300	300	45	Pass	300	Pass
Test: cc_response									
Single_Sig_Response=	1	****	1	1	1	1	Pass	1	Pass
Dual_Sig_Response=	1	****	1	1	1	1	Pass	1	Pass
2Pair_PD_A=	1	****	1	1	1	0	Pass	2	Pass
2Pair_PD_B=	0	****	0	0	0	0	Pass	2	Pass
Test: class_v									
Vclass_max_SS=	18.4	volts	18.4	18.4	18.4	15.5	Pass	20.5	Pass
Vclass_min_SS=	18.3	volts	18.3	18.3	18.3	15.5	Pass	20.5	Pass
Vmark_SS=	8.6	volts	8.6	8.6	8.6	7	Pass	10	Pass
Vreset_SS=	-1	****	-1	-1	-1	0	Pass	2.8	Pass
Vclass_max_DSA=	18.7	volts	18.7	18.7	18.7	15.5	Pass	20.5	Pass
Vclass_max_DSB=	18.4	volts	18.4	18.4	18.4	15.5	Pass	20.5	Pass
Vclass_min_DSA=	18.5	volts	18.5	18.5	18.5	15.5	Pass	20.5	Pass
Vclass_min_DSB=	18.3	volts	18.3	18.3	18.3	15.5	Pass	20.5	Pass
Vmark_DSA=	8.7	volts	8.7	8.7	8.7	7	Pass	10	Pass
Vmark_DSB=	8.6	volts	8.6	8.6	8.6	7	Pass	10	Pass
Vreset_DSA=	-1	****	-1	-1	-1	-1	Pass	2.8	Pass
Vreset_DSB=	-1	****	-1	-1	-1	-1	Pass	2.8	Pass
Test: class_time									
Class_Probe_SS=	0	****	0	0	0	0	Pass	1	Pass
EV_Count_7_SS=	5	Events	5	5	5	1	Pass	5	Pass
Long_EV1_Time_SS=	97.7	msec	97.7	97.7	97.7	88	Pass	105	Pass
Min_Class_EV_Time_SS=	7.8	msec	7.8	7.8	7.8	6	Pass	20	Pass
Max_Class_EV_Time_SS=	9.8	msec	9.8	9.8	9.8	6	Pass	20	Pass
Min_Mark_EV_Time_SS=	6	msec	6	6	6	6	Pass	12	Pass
Max_Mark_EV_Time_SS=	11.7	msec	11.7	11.7	11.7	6	Pass	12	Pass
Final_Mark_EV_Time_SS=	7.8	msec	7.8	7.8	7.8	6	Pass	256	Pass
Cl_Prb_Reset_Time_SS=	-1	****	-1	-1	-1	15	Pass	10000	Pass
Class_Probe_DA=	0	****	0	0	0	0	Pass	1	Pass
EV_Count_5D_DA=	4	Events	4	4	4	1	Pass	4	Pass
Long_EV1_Time_DA=	97.7	msec	97.7	97.7	97.7	88	Pass	105	Pass
Min_Class_EV_Time_DA=	7.8	msec	7.8	7.8	7.8	6	Pass	20	Pass
Max_Class_EV_Time_DA=	9.8	msec	9.8	9.8	9.8	6	Pass	20	Pass
Min_Mark_EV_Time_DA=	7.8	msec	7.8	7.8	7.8	6	Pass	12	Pass
Max_Mark_EV_Time_DA=	7.8	msec	7.8	7.8	7.8	6	Pass	12	Pass
Final_Mark_EV_Time_DA=	9.7	msec	9.7	9.7	9.7	6	Pass	256	Pass
Cl_Prb_Reset_Time_DA=	-1	****	-1	-1	-1	15	Pass	10000	Pass
Class_Probe_DB=	0	****	0	0	0	0	Pass	1	Pass
EV_Count_5D_DB=	4	Events	4	4	4	1	Pass	4	Pass
Long_EV1_Time_DB=	97.6	msec	97.6	97.6	97.6	88	Pass	105	Pass
Min_Class_EV_Time_DB=	9.8	msec	9.8	9.8	9.8	6	Pass	20	Pass
Max_Class_EV_Time_DB=	9.8	msec	9.8	9.8	9.8	6	Pass	20	Pass
Min_Mark_EV_Time_DB=	6	msec	6	6	6	6	Pass	12	Pass
Max_Mark_EV_Time_DB=	7.8	msec	7.8	7.8	7.8	6	Pass	12	Pass
Final_Mark_EV_Time_DB=	11.7	msec	11.7	11.7	11.7	6	Pass	256	Pass
Cl_Prb_Reset_Time_DB=	-1	****	-1	-1	-1	15	Pass	10000	Pass

PSE Conformance Test Suite

May 13 2020 12:46 PM

Port Count..... 1

Loop Count..... 1

PSE Tested: TI23880_bt Type-4

Sifos Technologies

Safety Index*: 100%

Error Log: None

802.3bt 4Pr Conformance Report

version 5.2.00

PSE Type: 4 MDI-X+MDI

report version 5.1.17

Interop Index*: 100%

Chassis ID: 158.218.10.73 TestLoop: 1	PSA-3000 Ports 7-1	UNITS	Min	Max	Average	Low Limit	P/F	High Limit	P/F
Test: class_response									
Class_3_Count=	1	****	1	1	1	1	Pass	1	Pass
Class_4_Count=	3	****	3	3	3	1	Pass	3	Pass
Class_5_Count=	4	****	4	4	4	1	Pass	4	Pass
Class_6_Count=	4	****	4	4	4	1	Pass	4	Pass
Class_7_Count=	5	****	5	5	5	1	Pass	5	Pass
Class_8_Count=	5	****	5	5	5	1	Pass	5	Pass
Class_2D_Count_A=	1	****	1	1	1	1	Pass	3	Pass
Class_2D_Count_B=	1	****	1	1	1	1	Pass	3	Pass
Class_3D_Count_A=	1	****	1	1	1	1	Pass	3	Pass
Class_3D_Count_B=	1	****	1	1	1	1	Pass	3	Pass
Class_4D_Count_A=	3	****	3	3	3	1	Pass	3	Pass
Class_4D_Count_B=	3	****	3	3	3	1	Pass	3	Pass
Class_5D_Count_A=	4	****	4	4	4	1	Pass	4	Pass
Class_5D_Count_B=	4	****	4	4	4	1	Pass	4	Pass
Max_SS_Class=	8	****	8	8	8	3	Pass	8	Pass
Max_DS_Class=	5	****	5	5	5	1	Pass	5	Pass
Init_Grant_Match=	1	****	1	1	1	1	Pass	1	Pass
2-Pair_Pairset=	0	****	0	0	0	0	Pass	2	Pass
PRI_4pr_Pairset=	12	****	12	12	12	1	Pass	12	Pass
Test: class_err									
Class_Ilim_A=	75.7	mA	75.7	75.7	75.7	51	Pass	100	Pass
Class_Ilim_B=	76.3	mA	76.3	76.3	76.3	51	Pass	100	Pass
Pwr_Cl_52_SS=	0	****	0	0	0	0	Pass	0	Pass
Pwr_Cl_52_DSA=	0	****	0	0	0	0	Pass	0	Pass
Pwr_Cl_52_DSB=	0	****	0	0	0	0	Pass	0	Pass
Mark_Ilim_A=	76	mA	76	76	76	0	Pass	105	Pass
Mark_Ilim_B=	77	mA	77	77	77	0	Pass	105	Pass
Inval_Sig_EV2_SS=	0	****	0	0	0	0	Pass	1	Pass
Inval_Sig_EV4_SS=	0	****	0	0	0	0	Pass	1	Pass
Inval_Sig_EV5_SS=	0	****	0	0	0	0	Pass	1	Pass
Inval_Sig_EV2_DSA=	0	****	0	0	0	0	Pass	1	Pass
Inval_Sig_EV2_DSB=	0	****	0	0	0	0	Pass	1	Pass
Inval_Sig_EV4_DSA=	0	****	0	0	0	0	Pass	1	Pass
Inval_Sig_EV4_DSB=	0	****	0	0	0	0	Pass	1	Pass
Test: pwrup_time									
Pwr_On_Time_Tpon_SS=	229.7	msec	229.7	229.7	229.7	0	Pass	400	Pass
Pwr_On_Time_Tpon_DSA=	214.1	msec	214.1	214.1	214.1	0	Pass	400	Pass
Pwr_On_Time_Tpon_DSB=	214.1	msec	214.1	214.1	214.1	0	Pass	400	Pass
Pwrup_Rise_Time_A=	21	usec	21	21	21	15	Pass	50000	Pass
Pwrup_Rise_Time_B=	21	usec	21	21	21	15	Pass	50000	Pass
Pwr_Stagger_Time_SS4=	60.1	msec	60.1	60.1	60.1	-1	Pass	75	Pass
Pwr_Stagger_Time_SS5=	60.1	msec	60.1	60.1	60.1	0	Pass	75	Pass
Pwr_Stagger_Time_DS=	489.7	msec	489.7	489.7	489.7	0	Pass	1000	Pass

PSE Conformance Test Suite

May 13 2020 12:46 PM

Port Count..... 1
Loop Count..... 1
PSE Tested: TI23880_bt Type-4

Sifos Technologies

802.3bt 4Pr Conformance Report

version 5.2.00
report version 5.1.17

PSE Type: 4 MDI-X+MDI
Safety Index*: 100%
Interop Index*: 100%
Error Log: None

Chassis ID: 158.218.10.73 TestLoop: 1	PSA-3000 Ports 7-1	UNITS	Min	Max	Average	Low Limit	P/F	High Limit	P/F
Test: pwrup_inrush									
Iinrush_min_Class_3=	413.5	mA	413.5	413.5	413.5	400	Pass	9999	Pass
Iinrush_min_Class_5=	413.8	mA	413.8	413.8	413.8	400	Pass	9999	Pass
Iinrush_min_Class_7=	832.8	mA	832.8	832.8	832.8	800	Pass	9999	Pass
Iinrush_min_Class_1D_A=	414	mA	414	414	414	400	Pass	9999	Pass
Iinrush_min_Class_1D_B=	415.5	mA	415.5	415.5	415.5	400	Pass	9999	Pass
Iinrush_4P_max_Class_3=	414.4	mA	414.4	414.4	414.4	0	Pass	450	Pass
Iinrush_4P_max2_Class_5=	414.5	mA	414.5	414.5	414.5	0	Pass	900	Pass
Iinrush_4P_max2_Class_7=	833.6	mA	833.6	833.6	833.6	0	Pass	900	Pass
Iinrush_2P_max_Class_3=	414.3	mA	414.3	414.3	414.3	0	Pass	450	Pass
Iinrush_2P_max2_Class_7=	417.8	mA	417.8	417.8	417.8	0	Pass	600	Pass
Iinrush_2p_max_Cl_1D_A=	414.8	mA	414.8	414.8	414.8	0	Pass	450	Pass
Iinrush_2p_max_Cl_1D_B=	416	mA	416	416	416	0	Pass	450	Pass
Tinrush_minPr_Class_3=	59.18	msec	59.18	59.18	59.2	50	Pass	75	Pass
Tinrush_maxPr_Class_3=	59.18	msec	59.18	59.18	59.2	50	Pass	75	Pass
Tinrush_minPr_Class_7=	59.18	msec	59.18	59.18	59.2	50	Pass	75	Pass
Tinrush_maxPr_Class_7=	59.58	msec	59.58	59.58	59.6	50	Pass	75	Pass
Tinrush_Class_1D_A=	59.18	msec	59.18	59.18	59.2	50	Pass	75	Pass
Tinrush_Class_1D_B=	59.18	msec	59.18	59.18	59.2	50	Pass	75	Pass
Delay_Inrush_Class_7=	59.58	msec	59.58	59.58	59.6	50	Pass	75	Pass
Delay_Inrush_Class_2D_A=	59.18	msec	59.18	59.18	59.2	50	Pass	75	Pass
Delay_Inrush_Class_2D_B=	59.18	msec	59.18	59.18	59.2	50	Pass	75	Pass
45ms_Pwr_Stat_Class_7=	1	****	1	1	1	1	Pass	1	Pass
45ms_Pwr_Stat_Class_2D_A=	1	****	1	1	1	1	Pass	1	Pass
45ms_Pwr_Stat_Class_2D_B=	1	****	1	1	1	1	Pass	1	Pass
Vinrush_Class_2D_A=	30.6	volts	30.6	30.6	30.6	30	Pass	60	Pass
Vinrush_Class_2D_B=	30.7	volts	30.7	30.7	30.7	30	Pass	60	Pass
Test: pwron_v									
Vpse_Max_Alt_A=	55.08	V	55.08	55.08	55.08	52	Pass	57	Pass
Vpse_Max_Alt_B=	55	V	55	55	55	52	Pass	57	Pass
Vpse_Min_Alt_A=	53.9	V	53.9	53.9	53.9	52	Pass	57	Pass
Vpse_Min_Alt_B=	53.7	V	53.7	53.7	53.7	52	Pass	57	Pass
Vport_PSE_diff=	100	mV	100	100	100	0	Pass	150	Pass
V_ripple_A=	9	mVp-p	9	9	9	0	Pass	500	Pass
V_ripple_B=	8	mVp-p	8	8	8	0	Pass	500	Pass
V_noise_A=	8	mVp-p	8	8	8	0	Pass	200	Pass
V_noise_B=	14	mVp-p	14	14	14	0	Pass	200	Pass
V_trans_A=	53.824	V	53.824	53.824	53.824	52	Pass	57	Pass
V_trans_B=	53.648	V	53.648	53.648	53.648	52	Pass	57	Pass

PSE Conformance Test Suite

May 13 2020 12:46 PM

Port Count..... 1
Loop Count..... 1
PSE Tested: TI23880_bt Type-4

Sifos Technologies

802.3bt 4Pr Conformance Report

version 5.2.00
report version 5.1.17

PSE Type: 4 MDI-X+MDI
Safety Index*: 100% Interop Index*: 100%
Error Log: None

Chassis ID: 158.218.10.73 TestLoop: 1	PSA-3000 Ports 7-1	UNITS	Min	Max	Average	Low Limit	P/F	High Limit	P/F
Test: pwron_pwrcap									
Max_Asgn_Class_SS=	8	****	8	8	8	1	Pass	8	Pass
Pcon_c1=	4	W	4	4	4	3.9	Pass	99	Pass
Icon_%_c1=	103.7	%	103.7	103.7	103.7	100	Pass	125	Pass
Pcon_c2=	7.1	W	7.1	7.1	7.1	3.9	Pass	99	Pass
Icon_%_c2=	107.4	%	107.4	107.4	107.4	100	Pass	125	Pass
Pcon_c3=	15	W	15	15	15	3.9	Pass	99	Pass
Icon_%_c3=	112.4	%	112.4	112.4	112.4	100	Pass	125	Pass
Pcon_c4=	29.8	W	29.8	29.8	29.8	3.9	Pass	99	Pass
Icon_%_c4=	110.2	%	110.2	110.2	110.2	100	Pass	125	Pass
Pcon_c5=	45	W	45	45	45	3.9	Pass	99	Pass
Icon_%_c5=	102.1	%	102.1	102.1	102.1	100	Pass	125	Pass
Pcon_c6=	59.4	W	59.4	59.4	59.4	3.9	Pass	99	Pass
Icon_%_c6=	102	%	102	102	102	100	Pass	125	Pass
Pcon_c7=	74.9	W	74.9	74.9	74.9	3.9	Pass	99	Pass
Icon_%_c7=	101.7	%	101.7	101.7	101.7	100	Pass	125	Pass
Pcon_c8=	89.3	W	89.3	89.3	89.3	3.9	Pass	99	Pass
Icon_%_c8=	101.4	%	101.4	101.4	101.4	100	Pass	125	Pass
Type_N_Enable=	1	****	1	1	1	1	Pass	1	Pass
Pclass_LLDP_95%=	1	****	1	1	1	1	Pass	1	Pass
Pclass_LLDP_75%=	1	****	1	1	1	1	Pass	1	Pass
Max_Asgn_Class_DS=	5	****	5	5	5	1	Pass	5	Pass
Pcon_c1DA=	4.1	W	4.1	4.1	4	3.9	Pass	99	Pass
Icon_%_c1DA=	104.2	%	104.2	104.2	104.2	100	Pass	125	Pass
Pcon_c2DB=	7.2	W	7.2	7.2	7	3.9	Pass	99	Pass
Icon_%_c2DB=	107.1	%	107.1	107.1	107.1	100	Pass	125	Pass
Pcon_c3DA=	15.5	W	15.5	15.5	16	3.9	Pass	99	Pass
Icon_%_c3DA=	112.3	%	112.3	112.3	112.3	100	Pass	125	Pass
Pcon_c4DB=	29.7	W	29.7	29.7	30	3.9	Pass	99	Pass
Icon_%_c4DB=	102.1	%	102.1	102.1	102.1	100	Pass	125	Pass
Pcon_c5DA=	44.6	W	44.6	44.6	45	3.9	Pass	99	Pass
Icon_%_c5DA=	101.6	%	101.6	101.6	101.6	100	Pass	125	Pass
Test: pwron_unbal									
pseP2pUnbal_c4A=	1	****	1	1	1	1	Pass	1	Pass
pseP2pUnbal_c4B=	1	****	1	1	1	1	Pass	1	Pass
pseP2pUnbal_c5A=	1	****	1	1	1	1	Pass	1	Pass
pseP2pUnbal_c5B=	1	****	1	1	1	1	Pass	1	Pass
pseP2pUnbal_c6A=	1	****	1	1	1	1	Pass	1	Pass
pseP2pUnbal_c6B=	1	****	1	1	1	1	Pass	1	Pass
pseP2pUnbal_c7A=	1	****	1	1	1	1	Pass	1	Pass
pseP2pUnbal_c7B=	1	****	1	1	1	1	Pass	1	Pass
pseP2pUnbal_c8A=	1	****	1	1	1	1	Pass	1	Pass
pseP2pUnbal_c8B=	1	****	1	1	1	1	Pass	1	Pass

PSE Conformance Test Suite

May 13 2020 12:46 PM

Port Count..... 1

Loop Count..... 1

PSE Tested: TI23880_bt Type-4

Sifos Technologies

802.3bt 4Pr Conformance Report

version 5.2.00

report version 5.1.17

PSE Type: 4 MDI-X+MDI

Safety Index*: 100%

Interop Index*: 100%

Error Log: None

Chassis ID: 158.218.10.73 TestLoop: 1	PSA-3000 Ports 7-1	UNITS	Min	Max	Average	Low Limit	P/F	High Limit	P/F
Test: pwron_maxi									
Ilim_2p_max_SSA=	516.1	mA	516.1	516.1	516.1	0	Pass	1750	Pass
Ilim_2p_max_SSB=	567.6	mA	567.6	567.6	567.6	0	Pass	1750	Pass
Tlim_SS=	59.38	msec	59.38	59.38	59.4	6	Pass	75	Pass
Ilim_2p_max_DSA=	569	mA	569	569	569	0	Pass	1750	Pass
Ilim_2p_max_DSB=	550.6	mA	550.6	550.6	550.6	0	Pass	1750	Pass
Tlim_DSA=	59.38	msec	59.38	59.38	59.4	6	Pass	75	Pass
Tlim_DSB=	59.38	msec	59.38	59.38	59.4	6	Pass	75	Pass
Ilim_min_cAB3=	400	mA	400	400	400	400	Pass	1750	Pass
Max_trans_c3=	1	****	1	1	1	1	Pass	1	Pass
Ilim_min_cAB4=	684	mA	684	684	684	684	Pass	1750	Pass
Max_trans_c4=	1	****	1	1	1	1	Pass	1	Pass
Ilim_min_cAB5=	580	mA	580	580	580	580	Pass	1750	Pass
Max_trans_c5=	1	****	1	1	1	1	Pass	1	Pass
Ilim_min_cAB6=	720	mA	720	720	720	720	Pass	1750	Pass
Max_trans_c6=	1	****	1	1	1	1	Pass	1	Pass
Ilim_min_cAB7=	850	mA	850	850	850	850	Pass	1750	Pass
Max_trans_c7=	1	****	1	1	1	1	Pass	1	Pass
Ilim_min_cAB8=	1005	mA	1005	1005	1005	1005	Pass	1750	Pass
Max_trans_c8=	1	****	1	1	1	1	Pass	1	Pass
Ilim_min_cAB3D=	400	mA	400	400	400	400	Pass	1750	Pass
Max_trans_c3D=	1	****	1	1	1	1	Pass	1	Pass
Ilim_min_cAB4D=	684	mA	684	684	684	684	Pass	1750	Pass
Max_trans_c4D=	1	****	1	1	1	1	Pass	1	Pass
Ilim_min_cAB5D=	990	mA	990	990	990	990	Pass	1750	Pass
Max_trans_c5D=	1	****	1	1	1	1	Pass	1	Pass
Vtrans_2p_A=	54.3	V	54.3	54.3	54.3	48.4	Pass	57	Pass
Vtrans_2p_B=	54.13	V	54.13	54.13	54.1	48.4	Pass	57	Pass
Iport_max_type4=	0	****	0	0	0	0	Pass	0	Pass
Ilps_type4=	0	****	0	0	0	0	Pass	0	Pass
Test: pwron_overld									
Ipeak_c1=	1	****	1	1	1	1	Pass	1	Pass
Ipeak_c2=	1	****	1	1	1	1	Pass	1	Pass
Ipeak_c3=	1	****	1	1	1	1	Pass	1	Pass
Vport_Ipeak_c3=	54.77	V	54.77	54.77	54.8	52	Pass	57	Pass
Ipeak_5%DC_c3=	1	****	1	1	1	1	Pass	1	Pass
Ipeak_c4=	1	****	1	1	1	1	Pass	1	Pass
Vport_Ipeak_c4=	54.55	V	54.55	54.55	54.6	52	Pass	57	Pass
Ipeak_5%DC_c4=	1	****	1	1	1	1	Pass	1	Pass
Ipeak_c5=	1	****	1	1	1	1	Pass	1	Pass
Vport_Ipeak_c5=	54.3	V	54.3	54.3	54.3	52	Pass	57	Pass
Ipeak_5%DC_c5=	1	****	1	1	1	1	Pass	1	Pass
Ipeak_c6=	1	****	1	1	1	1	Pass	1	Pass
Vport_Ipeak_c6=	54.05	V	54.05	54.05	54.1	52	Pass	57	Pass
Ipeak_5%DC_c6=	1	****	1	1	1	1	Pass	1	Pass
Ipeak_c7=	1	****	1	1	1	1	Pass	1	Pass
Vport_Ipeak_c7=	53.8	V	53.8	53.8	53.8	52	Pass	57	Pass
Ipeak_5%DC_c7=	1	****	1	1	1	1	Pass	1	Pass
Ipeak_c8=	1	****	1	1	1	1	Pass	1	Pass
Vport_Ipeak_c8=	53.52	V	53.52	53.52	53.5	52	Pass	57	Pass
Ipeak_5%DC_c8=	1	****	1	1	1	1	Pass	1	Pass
Ipeak_c1D=	1	****	1	1	1	1	Pass	1	Pass
Ipeak_c2D=	1	****	1	1	1	1	Pass	1	Pass
Ipeak_c3D=	1	****	1	1	1	1	Pass	1	Pass
Ipeak_c4D=	1	****	1	1	1	1	Pass	1	Pass
Ipeak_c5D=	1	****	1	1	1	1	Pass	1	Pass

PSE Conformance Test Suite

May 13 2020 12:46 PM

Port Count..... 1

Loop Count..... 1

PSE Tested: TI23880_bt Type-4

Sifos Technologies

802.3bt 4Pr Conformance Report

version 5.2.00

report version 5.1.17

PSE Type: 4 MDI-X+MDI

Safety Index*: 100%

Interop Index*: 100%

Error Log: None

Chassis ID: 158.218.10.73 TestLoop: 1	PSA-3000 Ports 7-1	UNITS	Min	Max	Average	Low Limit	P/F	High Limit	P/F
Test: mps_dc_valid									
Ihold_c3=	6	mA	6	6	6	4	Pass	9	Pass
Ihold_2p_c3A=	-1	mA	-1	-1	-1	2	Pass	5	Pass
Ihold_2p_c3B=	-1	mA	-1	-1	-1	2	Pass	5	Pass
Ihold_c5=	7	mA	7	7	7	4	Pass	14	Pass
Ihold_2p_c5A=	4	mA	4	4	4	2	Pass	7	Pass
Ihold_2p_c5B=	4	mA	4	4	4	2	Pass	7	Pass
Ihold_c7=	7	mA	7	7	7	4	Pass	14	Pass
Ihold_2p_c7A=	4	mA	4	4	4	2	Pass	7	Pass
Ihold_2p_c7B=	4	mA	4	4	4	2	Pass	7	Pass
Ihold_2p_c2DA=	4	mA	4	4	4	2	Pass	7	Pass
Ihold_2p_c2DB=	4	mA	4	4	4	2	Pass	7	Pass
LP_MPS_Tol_c3=	1	****	1	1	1	1	Pass	1	Pass
LP_MPS_Tol_c5=	1	****	1	1	1	1	Pass	1	Pass
LP_MPS_Tol_c7=	1	****	1	1	1	1	Pass	1	Pass
LP_MPS_Tol_c2D=	1	****	1	1	1	1	Pass	1	Pass
Test: mps_dc_pwrdn									
Tmpdo_c3A=	-1	msec	-1	-1	-1	320	Pass	400	Pass
Tmpdo_c3B=	361.3	msec	361.3	361.3	361.3	320	Pass	400	Pass
Tmpdo_c5A=	363.3	msec	363.3	363.3	363.3	320	Pass	400	Pass
Tmpdo_c5B=	363.3	msec	363.3	363.3	363.3	320	Pass	400	Pass
Tmpdo_c7A=	363.3	msec	363.3	363.3	363.3	320	Pass	400	Pass
Tmpdo_c7B=	363.3	msec	363.3	363.3	363.3	320	Pass	400	Pass
Tmpdo_c2DA=	361.3	msec	361.3	361.3	361.3	320	Pass	400	Pass
4pr_Stat_c2DA=	1	****	1	1	1	0	Pass	1	Pass
Tmpdo_c2DB=	361.3	msec	361.3	361.3	361.3	320	Pass	400	Pass
4pr_Stat_c2DB=	1	****	1	1	1	0	Pass	1	Pass
Test: pwrdn_time									
Turnoff_time_Toff_A=	20.4	msec	20.4	20.4	20.4	0	Pass	500	Pass
Turnoff_time_Toff_B=	19.5	msec	19.5	19.5	19.5	0	Pass	500	Pass
Cout_A=	60.2	nF	60.2	60.2	60.2	0	Pass	520	Pass
Cout_B=	61.7	nF	61.7	61.7	61.7	0	Pass	520	Pass
Output_Rp_A=	176	Kohm	176	176	176	45	Pass	9999	Pass
Output_Rp_B=	159	Kohm	159	159	159	45	Pass	9999	Pass
Test: pwrdn_v									
Error_Delay_SS_A=	1016	msec	1016	1016	1016	750	Pass	9999	Pass
Error_Delay_SS_B=	1387	msec	1387	1387	1387	750	Pass	9999	Pass
Error_Delay_DS_A=	1016	msec	1016	1016	1016	750	Pass	9999	Pass
Error_Delay_DS_B=	1426	msec	1426	1426	1426	750	Pass	9999	Pass
Idle_Voff_SS_A=	0.1	V	0.1	0.1	0.1	0	Pass	2.8	Pass
Idle_Voff_SS_B=	0.1	V	0.1	0.1	0.1	0	Pass	2.8	Pass
Idle_Voff_DS_A=	0.1	V	0.1	0.1	0.1	0	Pass	2.8	Pass
Idle_Voff_DS_B=	0.1	V	0.1	0.1	0.1	0	Pass	2.8	Pass
Test Port Model Number:	3202								
Test Port Hardware Version:	9								
Test Port Firmware Version:	4.14								

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