Power Management Analyzer

March 16, 2024 6:06 PM

Ports Tested: **48**

PSE Type: **48 Port 802.3at PSE**

PD Emulation Characteristics		
PD Type(s)	1+2	*Type-1 and Type-2 PD's Emulated*
PM Method	LLDP2	*LLDP Used for Type-2 Only*
System Type	PSA	*Test Ports are PSA-3x02*

Evaluation Catagories
Nominal or Ideal Result
Non-Ideal Feature / Design Limitation
802.3at Specification Violation

Sifos Technologies

Power Mangement Analyzer Report

Multi-Port Suite **5.4.00**

Report Version **5.4.00**

Multi-Port Test Resources	1-1	1-2	2-1	2-2	3-1	3-2	4-1	4-2	5-1	5-2	6-1	6-2	7-1	7-2	8-1	8-2	9-1	9-2	10-1	10-2	11-1	11-2	12-1	12-2
1	192.168.221.107																							
2	192.168.221.141																							

mp_class_admit — *Port Admittance Test*

PD_Class	Powered	Granted	Flapping	Inactive	Inactive Ports	Flapping Ports	Ungranted Ports (LLDP)
0	29		0	19	192.168.221.107: NONE 192.168.221.141: 3-2 4-1 4-2 5-1 5-2 6-1 6-2 7-1 7-2 8-1 8-2 9-1 9-2 10-1 10-2 11-1 11-2 12-1 12-2	192.168.221.107: NONE 192.168.221.141: NONE	
1	48		0	0	192.168.221.107: NONE 192.168.221.141: NONE	192.168.221.107: NONE 192.168.221.141: NONE	N/A
2	48		0	0	192.168.221.107: NONE 192.168.221.141: NONE	192.168.221.107: NONE 192.168.221.141: NONE	
3	29		0	19	192.168.221.107: NONE 192.168.221.141: 1-2 2-2 3-1 5-1 5-2 6-1 6-2 7-1 7-2 8-1 8-2 9-1 9-2 10-1 10-2 11-1 11-2 12-1 12-2	192.168.221.107: NONE 192.168.221.141: NONE	N/A
4	15	15	0	33	192.168.221.107: 8-2 9-1 9-2 10-1 10-2 11-1 11-2 12-1 12-2 192.168.221.141: 1-1 1-2 2-1 2-2 3-1 3-2 4-1 4-2 5-1 5-2 6-1 6-2 7-1 7-2 8-	192.168.221.107: NONE 192.168.221.141: NONE	192.168.221.107: NONE 192.168.221.141: NONE
Grant_Instability:		0	*ports*				

mp_pwrup_time — *Group Power-Up Timing Test*

PD_Class	Fast_PwrUp	Slow_PwrUp	Avg_PwrUp	Fast_LLDP	Slow_LLDP	Avg_LLDP	
2	0.7	2.5	1.8				seconds
4	1.0	1.6	1.3	8.2	12.7	8.8	seconds

First_Powered_Port_1	192.168.221.107: 2-1	**Unpowered Ports 1**	NONE
Final_Powered_Port_1	192.168.221.141: 12-1		
First_Powered_Port_2	192.168.221.107: 2-2	**Unpowered Ports 2**	NONE
Final_Powered_Port_2	192.168.221.107: 2-1		
First_Granted_Port_1		**Ungranted Ports 1**	
Final_Granted_Port_1			
First_Granted_Port_2	192.168.221.107: 2-2	**Ungranted Ports 2**	NONE
Final_Granted_Port_2	192.168.221.107: 1-2		

mp_discx_time — *Group Disconnect Shutdown Timing Test*

Action	MPS_Level	Minimum	Maximum	Average	
Shutdown	3.0 mA	335.8	362.8	352.5	msec
Recycle	0.0 mA	4.7	6.3	5.3	seconds

First_Port_Down	192.168.221.107: 3-1		
Final_Port_Down	192.168.221.141: 12-1		
Stuck_ON_Ports	NONE		
Out_of_Service Ports	NONE		

mp_static_cap — *Static Power Capacity Test*

Static_Capacity_1:	455.8 W	Under-Alloc._Pwr._1	28.0 W
Static_Capacity_2:	446.9 W	Under-Alloc._Pwr._2	0.0 W

PD_Class	PD_Type	Pclass_PSE	Min_PD's	Alloc_Pwr/PD
0	1	14.3 W	31	15.7 W
4	2	29.0 W	15	29.8 W

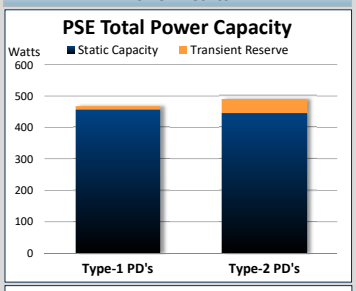
Static_Cap_Port_Count_1	29
Static_Cap_Port_Count_2	15
Out_of_Service_Ports:	
NONE	

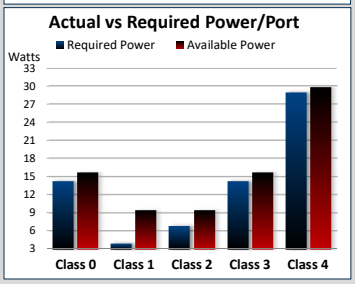
mp_trans_cap — *Transient Reserve Power Test*

PD_Type	Transient/port	Reserve@Full	%_Reserve	Reserve@Half
1	290.4 mA	10.8 W	12.5 %	237.8 W
2	596.5 mA	44.4 W	12.9 %	267.0 W

Out_of_Service_Ports:
NONE

Power Metrics





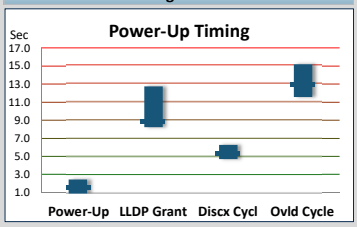
mp_port_caps — *Static Power Uncertainty Test*

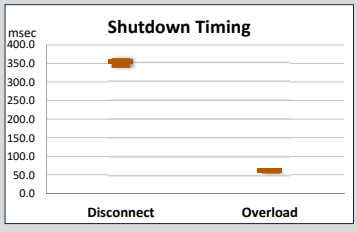
PD_Class	Max_Pwr/port	Min_Pwr/port	Avg_Pwr/port	Uncertainty/port		Variation	Premature Dropped Ports
0	15.7	15.6	15.7	0.0	W	0.6 %	NONE
1	4.5	4.5	4.5	0.0	W	0.0 %	NONE
2	7.5	7.4	7.5	0.0	W	1.3 %	NONE
3	15.7	15.6	15.7	0.0	W	0.6 %	NONE
4	30.0	29.8	29.9	0.1	W	0.7 %	NONE

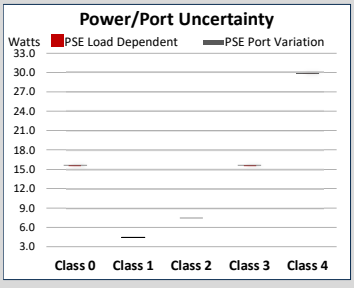
mp_overld_time — *Overload Shutdown and Restore Timing*

Operation	Ovld. Level	Minimum	Maximum	Average	
Shutdown	400 mA	57.4	61.2	59.8	msec
Recycle		11.5	15.1	12.9	seconds
First_Port_Down:	192.168.221.107: 3-1				
Last_Port_Down:	192.168.221.141: 12-2				
Stuck_ON_Ports	NONE				
Out_of_Service Ports	NONE				

Timing Metrics







mp_admit_cases — *Multi-Port Power-Up Port Groups*

Parameter	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7
Expected Ports	24	29	24	29	15	24	15
Actual Ports Powered	24	29	24	29	15	24	14

mp_cap_stress — *Multi-Port Stress Test*

	Test Duration	PD Class	Actual Load Power
Test Conditions	2 minutes	0	434.5 watts
Dropped Power Count:	0		
Power Drop Ports	NONE		
Out_of_Service Ports	NONE		