

## **GRL-USB-PD Compliance Test Solution**

### **DUT Information**

**Manufacturer** : Sonnet Technologies, Inc.  
**Model** : eGPU Breakaway Box 750ex  
**Serial No.** :

### **Test Information**

**Test Lab** :  
**Test\_Engineer** : Test\_Engineer  
**Remarks** : Remarks  
**Date** : 2020\_10\_12

### **Environment Information**

Parameter	Value
GRL_USB_PD_C2_Serial_No	214.028.214.024.050.
GRL_USB_PD_Software_Version	1.4.47.0
GRL_USB_PD_Firmware_Version	1.3.47
GRL USB-PD Ethernet Buffer Size	62K
GRL USB-PD Eload Firmware Version	9.7 / 9.7
Browser Application Status	Information Only
Board Calibration	Calibration Success
RX mask Power selection	Neutral Power
Device_Type	DRP

## GRL-USB-PD Compliance Test Solution

Parameter	Value
Cable Type	GRL_SPL_CABLE_1
Impedance (milli ohm)	0
COMPLIANCE_TEST_PD3 CTS Version	1.14
COMMUNICATION_ENGINE_TESTS CTS Version	1.09
VIF_File_Name	Sonnet-Technologies,-Inc._eGPU-Breakaway-Box-750ex_0001_0000.xml
Noise Pattern Generation:	Two-Tone Noise
Application mode	Compliance

**Device Info Capabilities**

Parameter	Vendor Info File	Get Capabilities
Port_Label	0	
Connector_Type	Type-C®	
USB4_Supported	NO	
USB_PD_Support	YES	
PD_Port_Type	DRP	
Type_C_State_Machine	DRP	
Port_Battery_Powered	NO	
BC_1_2_Support	None	
PD_Specification_Revision	Revision 3.0, v1.2	
SOP_Capable	YES	
SOP_P_Capable	YES	
SOP_PP_Capable	NO	
SOP_P_Debug_Capable	NO	
SOP_PP_Debug_Capable	NO	
Manufacturer_Info_Supported_Port	YES	
Manufacturer_Info_VID_Port	2A8C	
Manufacturer_Info_PID_Port	0056	
USB_Comms_Capable	YES	
DR_Swap_To_DFP_Supported	NO	
DR_Swap_To_UFP_Supported	YES	
Unconstrained_Power	YES	
VCONN_Swap_To_On_Supported	YES	
VCONN_Swap_To_Off_Supported	YES	
Responds_To_Discov_SOP_UFP	YES	
Responds_To_Discov_SOP_DFP	YES	
Attempts_Discov_SOP	YES	
Chunking_Implemented_SOP	YES	
Unchunked_Extended_Messages_Supported	YES	
Security_Msgs_Supported_SOP	NO	
Num_Fixed_Batteries		
Num_Swappable_Battery_Slots		

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Parameter	Vendor Info File	Get Capabilities
Type_C_Can_Act_As_Host	YES	
Type_C_Can_Act_As_Device	YES	
Type_C_Implements_Try_SRC	YES	
Type_C_Implements_Try_SNK	NO	
Type_C_Supports_Audio_Accessory	NO	
Type_C_Is_VCONN_Powered_Accessory	NO	
Type_C_Is_Debug_Target_SRC	NO	
Type_C_Is_Debug_Target_SNK	NO	
Captive_Cable	NO	
RP_Value	3A	
Type_C_Port_On_Hub	NO	
Type_C_Power_Source	Externally Powered	
Type_C_Sources_VCONN	YES	
Type_C_Is_Alt_Mode_Controller	NO	
Type_C_Is_Alt_Mode_Adapter	NO	
Host_Supports_USB_Data	YES	
Host_Speed	USB 3.2 Gen 2x2	
Host_Contains_Captive_Retimer	NO	
Host_Truncates_DP_For_tDHPResponse	NO	
Host_Is_Embedded	NO	
Host_Suspend_Supported	YES	
Is_DFP_On_Hub	NO	
Device_Supports_USB_Data		
Device_Speed	USB 2	
Device_Contains_Captive_Retimer	NO	
FR_Swap_Type_C_Current_Capability_As_Initial_Sink	FR_Swap not supported	
Master_Port	YES	
Accepts_PR_Swap_As_Src	NO	
Accepts_PR_Swap_As_Snk	NO	
Requests_PR_Swap_As_Src	NO	
Requests_PR_Swap_As_Snk	NO	
FR_Swap_Supported_As_Initial_Sink	NO	
XID_SOP		
Data_Capable_As_USB_Host_SOP	YES	

# GRL-USB-PD Compliance Test Solution

Parameter	Vendor Info File	Get Capabilities
Data_Capable_As_USB_Device_SOP	YES	
Product_Type_UFP_SOP	PDUSB Peripheral	
Product_Type_DFP_SOP	Undefined	
Modal_Operation_Supported_SOP	YES	
USB_VID_SOP	2A8C	
PID_SOP	0056	
bcdDevice_SOP	0667	
Product_Total_Source_Power_mW	85000	
Port_Source_Power_Type	Shared	
Port_Source_Power_Gang	Barrel Jack	
Port_Source_Power_Gang_Max_Power	85000	
PD_Power_As_Source	85000	
USB_Suspend_May_Be_Cleared	YES	
Sends_Pings	NO	
Num_Src_PDOs		
PD_OC_Protection	YES	
PD_OCP_Method	Over-Current Response	
PD_Power_As_Sink	0	
No_USB_Suspend_May_Be_Set	NO	
GiveBack_May_Be_Set	NO	
Higher_Capability_Set	NO	
FR_Swap_Reqd_Type_C_Current_As_Initial_Source	FR_Swap not supported	
Num_Snk_PDOs		
SVID_Fixed_SOP	YES	
Num_SVIDs_Min_SOP		
Num_SVIDs_Max_SOP		
Src_PDO_Supply_Type #1	Fixed	
Src_PDO_Peak_Current #1	100% IOC	
Src_PDO_Voltage #1	5000	
Src_PDO_Max_Current #1	3000	
Src_PD_OCP_OC_Debounce #1	100	
Src_PD_OCP_OC_Threshold #1	3500	
Src_PDO_Supply_Type #2	Fixed	
Src_PDO_Peak_Current #2	100% IOC	

## GRL-USB-PD Compliance Test Solution

Parameter	Vendor Info File	Get Capabilities
Src_PDO_Voltage #2	9000	
Src_PDO_Max_Current #2	3000	
Src_PD_OCP_OC_Debounce #2	100	
Src_PD_OCP_OC_Threshold #2	3500	
Src_PDO_Supply_Type #3	Fixed	
Src_PDO_Peak_Current #3	100% IOC	
Src_PDO_Voltage #3	15000	
Src_PDO_Max_Current #3	3000	
Src_PD_OCP_OC_Debounce #3	100	
Src_PD_OCP_OC_Threshold #3	3500	
Src_PDO_Supply_Type #4	Fixed	
Src_PDO_Peak_Current #4	100% IOC	
Src_PDO_Voltage #4	20000	
Src_PDO_Max_Current #4	4250	
Src_PD_OCP_OC_Debounce #4	100	
Src_PD_OCP_OC_Threshold #4	3500	
Snk_PDO_Supply_Type #1	Fixed	
Snk_PDO_Voltage #1	5000	
Snk_PDO_Op_Current #1	0	
SVID_SOP	8087	
SVID_Modes_Fixed_SOP	YES	
SVID_Num_Modes_Min_SOP	1	
SVID_Num_Modes_Max_SOP	1	
SVID_SOP	FF01	
SVID_Modes_Fixed_SOP	YES	
SVID_Num_Modes_Min_SOP	1	
SVID_Num_Modes_Max_SOP	1	

**Note** : All the test results in this report are Informational only cannot be considered for certification

### **COMPLIANCE\_TEST\_PD3 Result**

# GRL-USB-PD Compliance Test Solution

SI No	Test ID	Test Name	Test Result
1	TD.PD.SNK3.E12	TD.PD.SNK3.E12 Soft Reset sent regardless of Rp value	FAIL
		--- Failed: DUT response Time:(16.7332000 mS),Spec Limit Time interval is:[<= 16.1000000 mS]	





**USB-IF High Level Mapping Summary:**

SI No	Test Category	Test Group Description	Test Result
1	PROT_PRIMARY	Protocol Specific Primary	FAIL
2	POWER_PRIMARY	Power Source/Sink Primary	PASS

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**COMMUNICATION\_ENGINE\_TESTS Result**

SI No	Test ID	Test Name	Test Result
1	TDA.2.2.2.3	TDA.2.2.2.3 BMC PROT SEQ CHKCAB CP ACC	FAIL
		BMC_PROT_SEQ_CHKCAB_CP_ACC_1(PRSwap) >> DUT sent unexpected message(SoftReset ). Please verify the protocol capture and confirm failure	FAIL
2	TDA.2.2.2.4	TDA.2.2.2.4 BMC PROT SEQ CHKCAB NOMRK CP ACC	FAIL
		BMC_PROT_SEQ_CHKCAB_CP_ACC_1(PRSwap) >> DUT sent unexpected message(SoftReset ). Please verify the protocol capture and confirm failure	FAIL
3	TDA.2.2.3	TDA.2.2.3 BMC PROT SEQ DRSWAP	FAIL
		TDA.2.2.3 BMC PROT SEQ DRSWAP_DR-SwapDUTSrc_1_2	PASS
		PT_TDA.2.2.3 BMC PROT SEQ DRSWAP_DRSwapDUTSnk_5_6 >> DUT failed to send Reject/Accept message	FAIL
4	TDA.2.3.1.2	TDA.2.3.1.2 POW SRC LOAD CP ACC	NA
		--- DUT's Accepts PR_SWAp as Sink is "NO" in VIF.	
5	TDA.2.3.2.2	TDA.2.3.2.2 POW SRC TRANS CP ACC	NA
		--- DUT's Accepts PR_SWAp as Sink is "NO" in VIF.	

