

Test Report

Test Started: 2023-06-05 11:21:01

Test Run Time: 37.61s

Test Status: Pass

Test Profile: C-C / SS Gen 2 / 5A / SI 5/10Gbps

Test for a Full-Featured Type-C cable that can support USB 3.1 Gen 2 (10 Gbps) and 5 amps. Fails if a cable advertises different capabilities. Requires an E-Marker, all four SuperSpeed pairs, the USB 2.0 D+/D- pair, and SBU1/SBU2 to be present. Signal integrity testing at 10 Gbps and 5 Gbps on the SuperSpeed pairs and 518 Mbps on the high-speed pair is performed.

E-Marker

"D" Port

SOP' Data		
Field	Read Value	Expected Value
✓ Product Type	Passive Cable	Passive Cable
Product ID	0x0903	Not Specified
Test ID	0x0000	Not Specified
Vendor ID	0x1AAE	Not Specified
Vendor Name	Johnson Component & Equipments Co., Ltd.	
Hardware Version	1	Not Specified
Firmware Version	1	Not Specified
Latency	< 10ns (~1m)	Not Specified
Termination	Passive Cable, V _{CONN} required	Not Specified
Current	5A	Not Specified

"U" Port

SOP' Data		
Field	Read Value	Expected Value
✓ Product Type	Passive Cable	Passive Cable
Product ID	0x0903	Not Specified
Test ID	0x0000	Not Specified
Vendor ID	0x1AAE	Not Specified
Vendor Name	Johnson Component & Equipments Co., Ltd.	
Hardware Version	1	Not Specified
Firmware Version	1	Not Specified
Latency	< 10ns (~1m)	Not Specified
Termination	Passive Cable, V _{CONN} required	Not Specified
Current	5A	Not Specified

Field	Read Value	Expected Value
✓ V _{BUS} Through	True	True
SOP'' present	False	Not Specified
✓ Speed	USB 3.1 Gen1 and Gen2	USB 3.1 Gen1 and Gen2

Field	Read Value	Expected Value
✓ V _{BUS} Through	True	True
SOP'' present	False	Not Specified
✓ Speed	USB 3.1 Gen1 and Gen2	USB 3.1 Gen1 and Gen2

SOP'' Data

SOP'' Controller Not Found

SOP'' Data

SOP'' Controller Not Found

Continuity

Connector Orientation		
Port	Connector Type	Orientation
"U" Port	USB 3.1 Type-C	Normal
"D" Port	USB 3.1 Type-C	Normal

V _{BUS} Voltage Reference		
	Voltage	Valid Range
⚠	4.64 V	4.75 - 5.10 V

Power Shorts		
	Wires	Shorts
✓	V _{BUS} to GND	None
✓	CC to GND	None
✓	CC to V _{BUS}	None

Physical Wiring		
	"D" Port Pin	"U" Port Pin
✓	DM1	DM1
✓	DP1	DP1
	DM2	No Connection
	DP2	No Connection
✓	SBU1	SBU2
✓	SBU2	SBU1
✓	TX1	RX1
✓	RX1	TX1

Functional Signals		
	Wire	Present
✓	CC	Present
✓	V _{CONN}	Present
	V _{CONN} Thru	Absent
✓	SBU	Present
✓	DP/DM1	Present
	DP/DM2	Absent
	SOP'	Present
	SOP''	Absent
✓	TX1	Present

	"D" Port Pin	"U" Port Pin
✓	TX2	RX2
✓	RX2	TX2

	Wire	Present
✓	RX1	Present
✓	TX2	Present
✓	RX2	Present
	R _A	Present

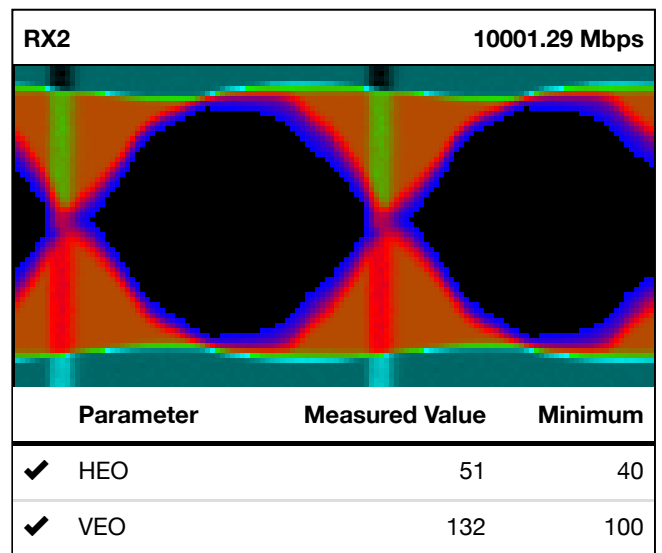
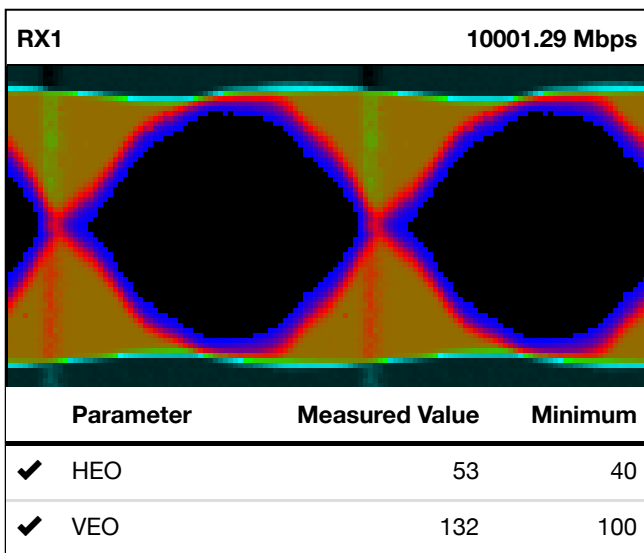
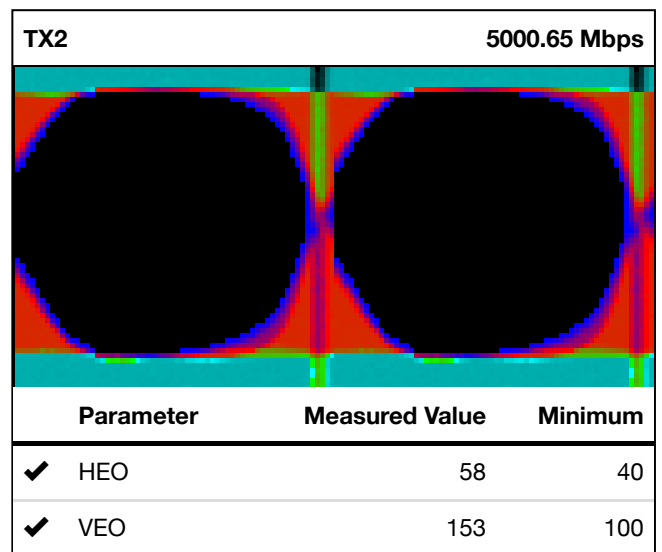
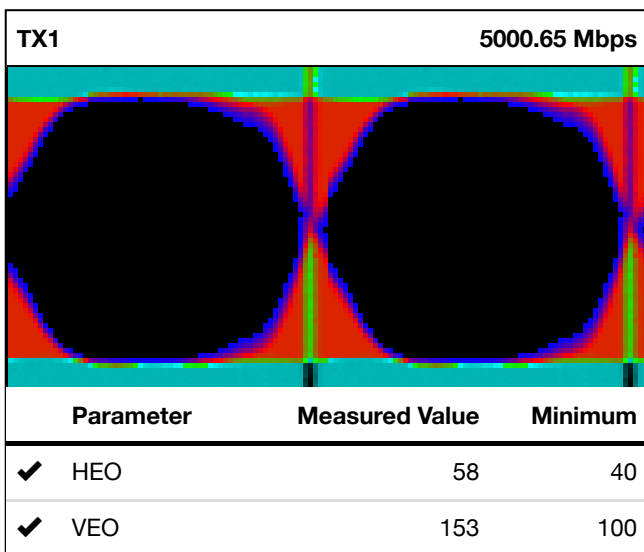
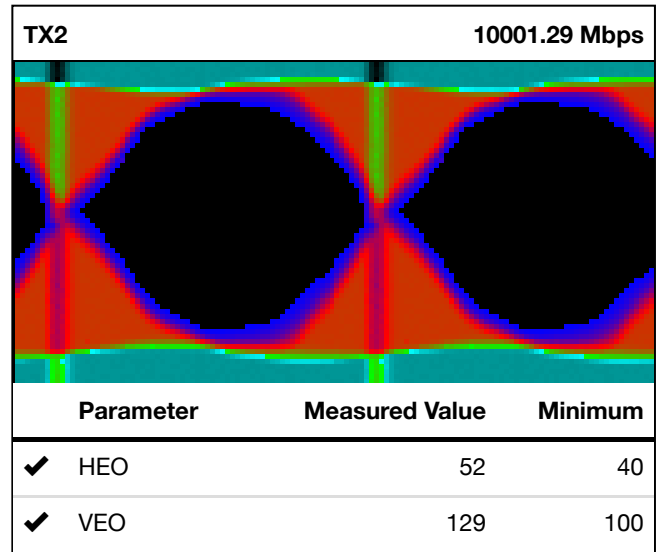
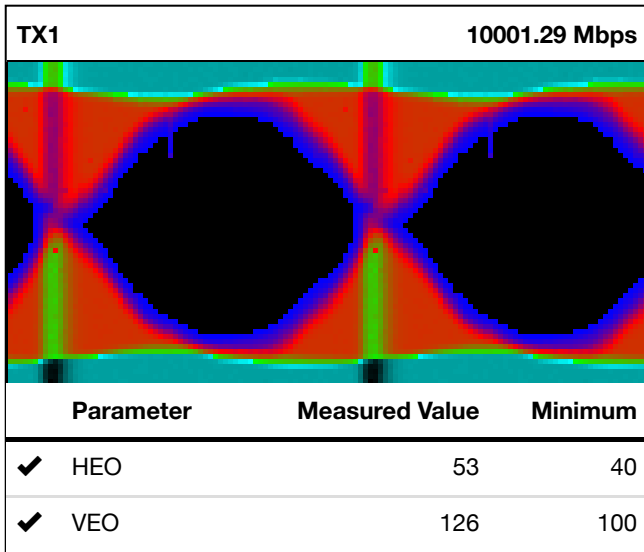
DC Resistance

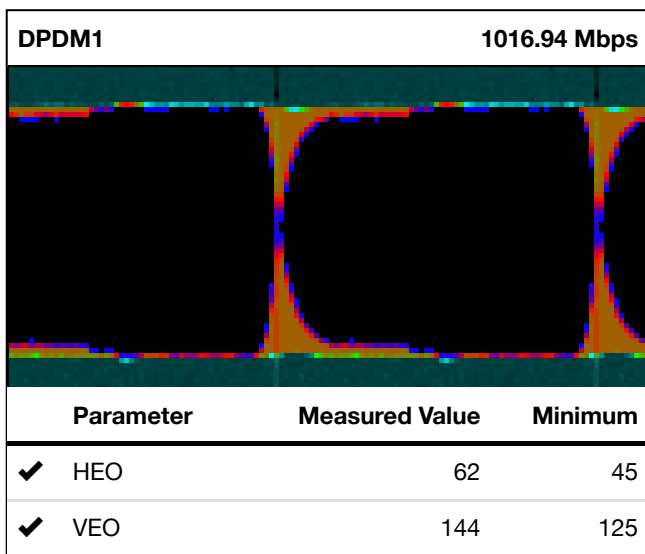
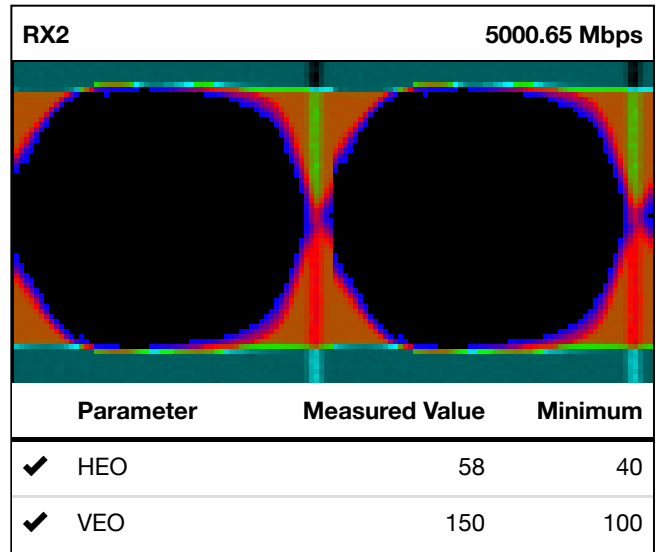
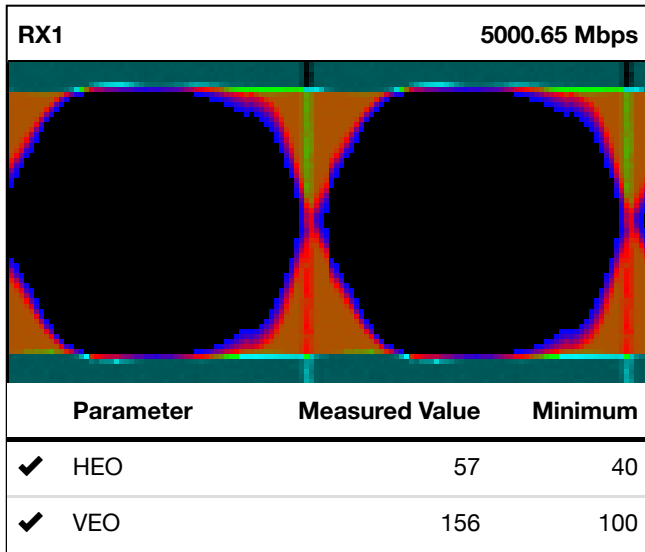
Power Wires			
	Wire	Measured Value	Maximum
✓	GND	29.31 mΩ	50.00 mΩ
✓	V _{BUS}	83.06 mΩ	100.00 mΩ

GND Pins			
	Pin	Measured Value	Maximum
✓	U-A1	7.99 mΩ	40.00 mΩ
✓	U-A12	7.97 mΩ	40.00 mΩ
✓	U-B1	8.01 mΩ	40.00 mΩ
✓	U-B12	8.27 mΩ	40.00 mΩ
✓	D-A1	13.08 mΩ	40.00 mΩ
✓	D-A12	13.13 mΩ	40.00 mΩ
✓	D-B1	6.46 mΩ	40.00 mΩ
✓	D-B12	13.11 mΩ	40.00 mΩ

V _{BUS} Pins			
	Pin	Measured Value	Maximum
✓	U-A9	8.75 mΩ	40.00 mΩ
✓	U-B4	7.91 mΩ	40.00 mΩ
✓	U-B9	8.02 mΩ	40.00 mΩ
✓	U-A4	8.92 mΩ	40.00 mΩ
✓	D-A9	14.28 mΩ	40.00 mΩ
✓	D-B4	7.79 mΩ	40.00 mΩ
✓	D-B9	6.88 mΩ	40.00 mΩ
✓	D-A4	14.75 mΩ	40.00 mΩ

Signal Integrity





Equipment

Device Information	
Name	Value
Promira Serial Platform Serial Number	2416-622816
Advanced Cable Tester Serial Number	2468-196450
Hardware Version	0.93
Firmware Version	1.13
Web Version	1.13

Connector Test & Insertion Counts		
Port	Connector	Counts
Upstream	USB 3.1 Type-C	199
Downstream	USB 3.1 Type-C	199
Upstream Adapter	None	
Downstream Adapter	None	