

# Test Report

**Test Started:** 2022-12-01 13:42:51

**Test Run Time:** 37.76s

**Test Status:** Fail

**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.

## Error Summary

Cont Continuity DPDM2  
 DCR DCR D-GND1  
 E-Marker Validate Down SOP' speed

Cont VConn Thru - Presence  
 E-Marker Validate Up SOP' speed

## E-Marker

### "D" Port

SOP' Data		
Field	Read Value	Expected Value
✓ Product Type	Passive Cable	Passive Cable
Product ID	0x0000	Not Specified
Test ID	0x11020	Not Specified
Vendor ID	0x0000	Not Specified
Vendor Name		
Hardware Version	0	Not Specified
Firmware Version	0	Not Specified
Latency	< 10ns (~1m)	Not Specified

### "U" Port

SOP' Data		
Field	Read Value	Expected Value
✓ Product Type	Passive Cable	Passive Cable
Product ID	0x0000	Not Specified
Test ID	0x11020	Not Specified
Vendor ID	0x0000	Not Specified
Vendor Name		
Hardware Version	0	Not Specified
Firmware Version	0	Not Specified
Latency	< 10ns (~1m)	Not Specified

Termination	Passive Cable, V <sub>CONN</sub> not required	Not Specified
✓ Current	5A	5A
✓ V <sub>BUS</sub> Through	True	True
SOP'' present	False	Not Specified
✗ Speed	undefined	USB 3.1 Gen1 and Gen2

Termination	Passive Cable, V <sub>CONN</sub> not required	Not Specified
✓ Current	5A	5A
✓ V <sub>BUS</sub> Through	True	True
SOP'' present	False	Not Specified
✗ Speed	undefined	USB 3.1 Gen1 and Gen2

<b>SOP'' Data</b>
SOP'' Controller Not Found

<b>SOP'' Data</b>
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 <sub>BUS</sub> Voltage Reference		
	Voltage	Valid Range
✓	4.75 V	4.75 - 5.10 V

Power Shorts		
	Wires	Shorts
✓	V <sub>BUS</sub> to GND	None
✓	CC to GND	None
✓	CC to V <sub>BUS</sub>	None

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

Functional Signals		
	Wire	Present
✓	CC	Present
✓	V <sub>CONN</sub>	Present
✗	V <sub>CONN</sub> Thru	Absent
✓	SBU	Present
✓	DP/DM1	Present

✓	SBU2	SBU1
✓	TX1	RX1
✓	RX1	TX1
✓	TX2	RX2
✓	RX2	TX2

✗	DP/DM2	Absent
	SOP'	Present
	SOP''	Absent
✓	TX1	Present
✓	RX1	Present
✓	TX2	Present
✓	RX2	Present
	R <sub>A</sub>	Present

## DC Resistance

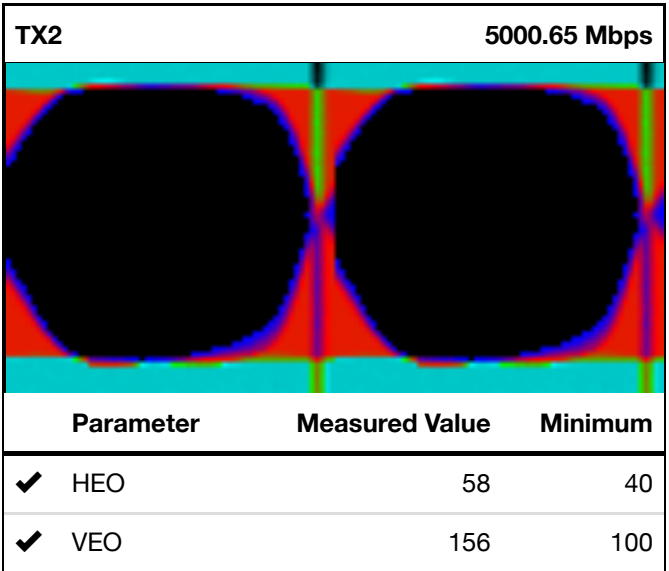
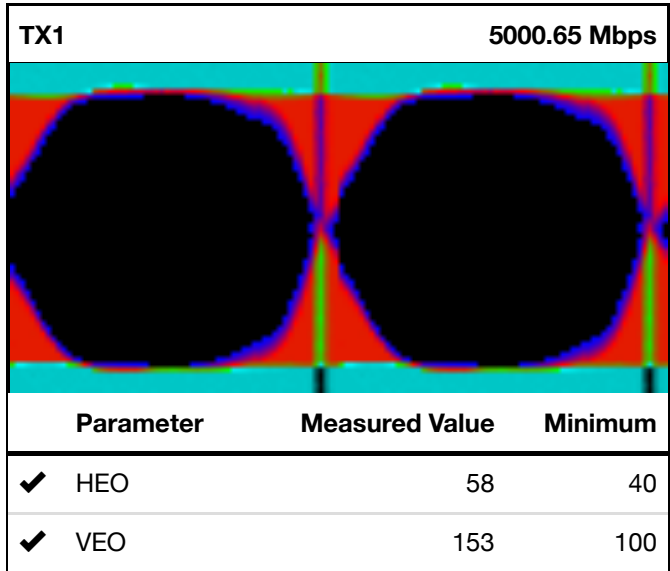
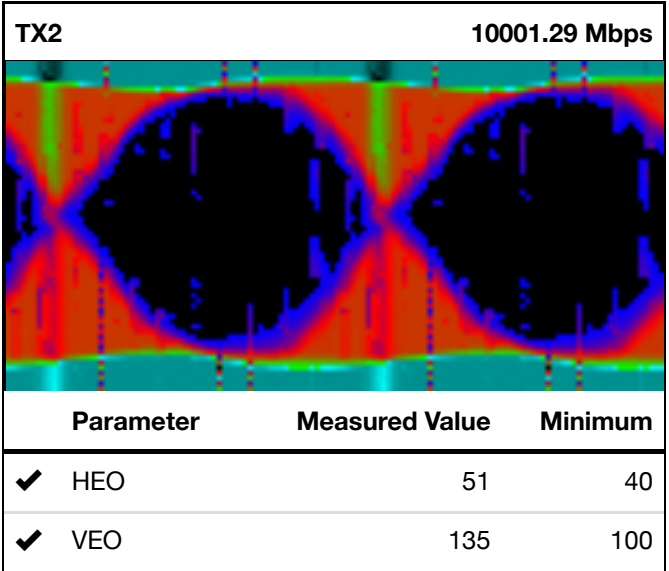
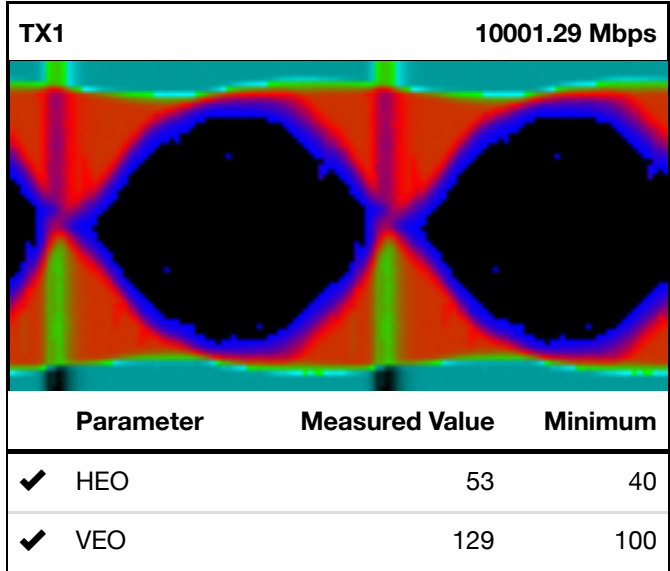
Power Wires			
	Wire	Measured Value	Maximum
✓	GND	30.65 mΩ	50.00 mΩ
✓	V <sub>BUS</sub>	71.70 mΩ	100.00 mΩ

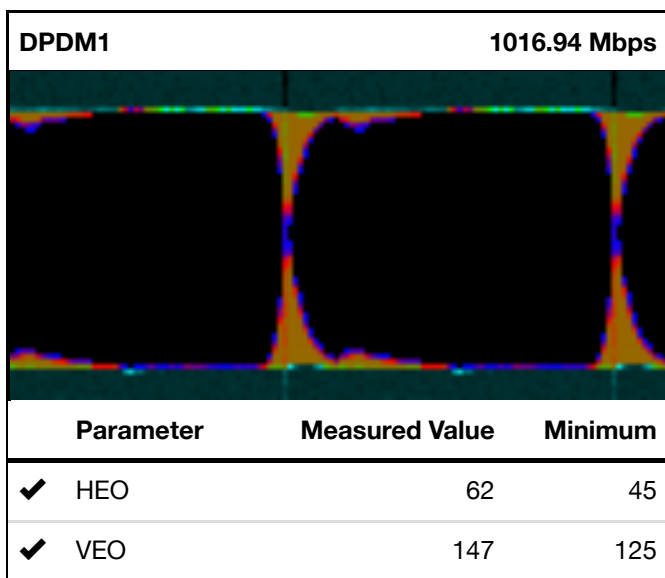
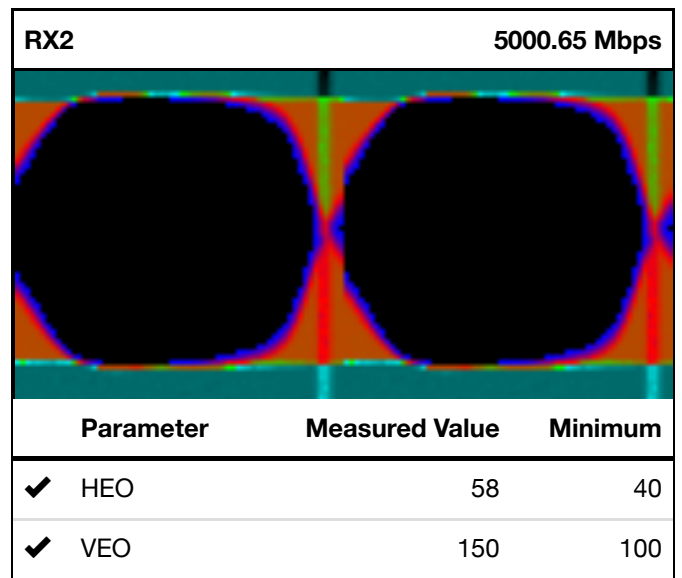
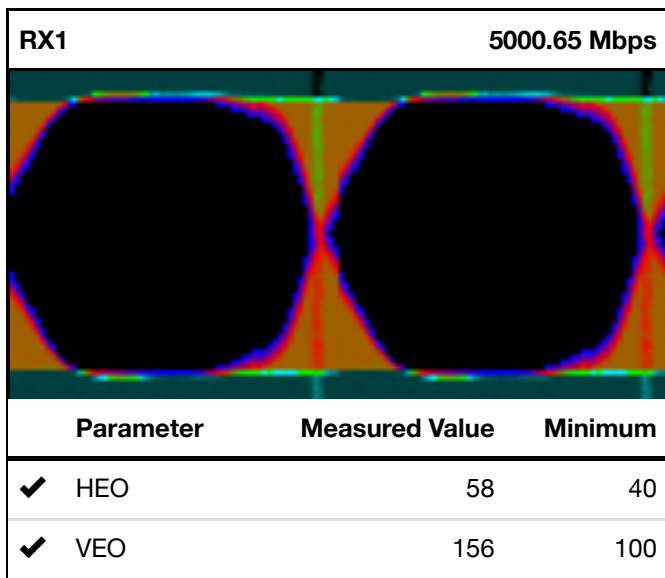
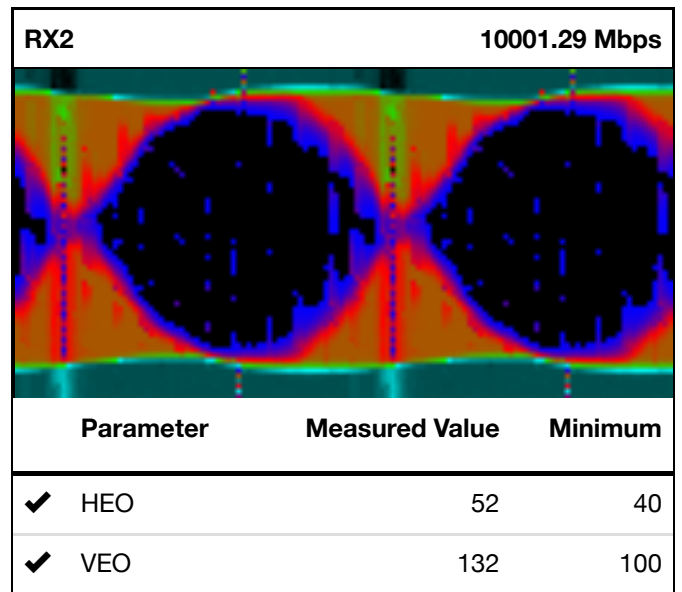
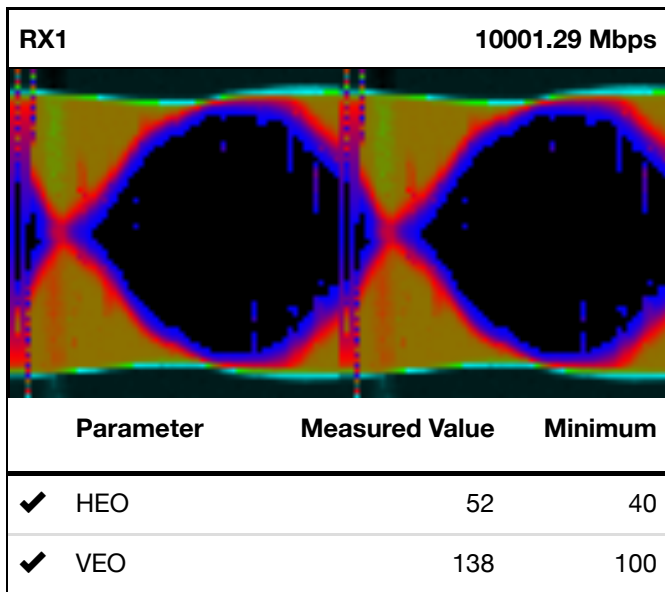
GND Pins			
	Pin	Measured Value	Maximum
✓	U-A1	15.33 mΩ	40.00 mΩ
✓	U-A12	28.06 mΩ	40.00 mΩ
✓	U-B1	10.20 mΩ	40.00 mΩ
✓	U-B12	10.42 mΩ	40.00 mΩ
✗	D-A1	43.66 mΩ	40.00 mΩ
✓	D-A12	17.66 mΩ	40.00 mΩ
✓	D-B1	10.83 mΩ	40.00 mΩ
✓	D-B12	26.57 mΩ	40.00 mΩ

V <sub>BUS</sub> Pins			
	Pin	Measured Value	Maximum
✓	U-A9	13.57 mΩ	40.00 mΩ
✓	U-B4	7.70 mΩ	40.00 mΩ
✓	U-B9	8.10 mΩ	40.00 mΩ
✓	U-A4	12.34 mΩ	40.00 mΩ
✓	D-A9	16.39 mΩ	40.00 mΩ
✓	D-B4	10.62 mΩ	40.00 mΩ

✓	D-B9	10.63 mΩ	40.00 mΩ
✓	D-A4	17.08 mΩ	40.00 mΩ

## Signal Integrity






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**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	166
Downstream	USB 3.1 Type-C	166
Upstream Adapter	None	
Downstream Adapter	None	