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Q-SYS VALIDATION TEST REPORT

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DEVICE AND TEST PLAN INFORMATION	
Device Under Test (DUT)	Switch ABC
Test Specification/Suite	Q-SYS Validation Test Plan, Version Revision: 1.0, May 2019
UNH-IOL Test Result ID	X86DF

CONTACT INFORMATION		
Testing Completed by	Alex Smith	asmith@iol.unh.edu
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SUMMARY OF RESULTS

This table contain the summary of performance results. The definition of result types can be found in the Result Key.

	Low Interference Traffic Rate (256 Mbps)	Medium Interference Traffic Rate (512 Mbps)	High Interference Traffic Rate (950 Mbps)
High Audio Channel (512)	**PASS**	**PASS**	**PASS**
Medium Audio Channel (256)	**PASS**	**PASS**	**PASS**
Low Audio Channel (128)	**PASS**	**PASS**	**PASS**

TESTING NOTES

The following table contains any notes on the testing process or on general DUT behavior.

NOTES
No unusual device activity was observed during this testing.

REVISION HISTORY

The following table contains a revision history for this report.

REVISION	DATE	AUTHOR	EXPLANATION
1.0	8/8/2018	John Smith	Initial version

DEVICE UNDER TEST AND INITIALIZATION INFORMATION

The following table contains the state of the DUT during testing.

COMPONENT	DESCRIPTION
Product Name	Switch ABC
UNH-IOL Device Identification Number	IPv6-AAA-9763590
Device Description	PoE Switch
Software Version	10.0
Product Category	Switch

TEST TOOL AND ENVIRONMENT INFORMATION

The following table contains the test tool and test suite versions used during testing.

TOOL	DESCRIPTION
IOL INTACT® Version	3.2.6.3
Wireshark Version	N/A
Test Script Version	1.0.0
Test Specification	Q-SYS
Q-SYS Software Version	7.1.2

INTEROP PARTNER INFORMATION

TOOL	DESCRIPTION
Design Version	v6
QSC I/O USB	Yes
QSC I/O Flex	Yes
QSC Touch	Yes
QSC Audio Panel	Yes

QSC Camera	Yes

RESULTS

The following table contains all results from testing.

TEST NUMBER & LABEL	USGv6 RESULT
Test Q-SYS.Interoperability.1.1: Baseline measurements	**PASS**
Test Q-SYS.Interoperability.1.2: Baseline measurements with interference	**PASS**
Test Q-SYS.Interoperability.2.1: Low Audio – Low Interference	**PASS**
Test Q-SYS.Interoperability.2.2: Low Audio – Medium Interference	**PASS**
Test Q-SYS.Interoperability.2.3: Low Audio – High Interference	**PASS**
Test Q-SYS.Interoperability.3.1: Medium Audio – Low Interference	**PASS**
Test Q-SYS.Interoperability.3.2: Medium Audio – Medium Interference	**PASS**
Test Q-SYS.Interoperability.3.3: Medium Audio – High Interference	**PASS**
Test Q-SYS.Interoperability.4.1: High Audio – Low Interference	**PASS**
Test Q-SYS.Interoperability.4.2: High Audio – Medium Interference	**PASS**
Test Q-SYS.Interoperability.4.3: High Audio – High Interference	**PASS**

DETAILED TEST DATA

TEST Q-SYS.INTEROPERABILITY.1.1: BASELINE MEASUREMENTS

Run	Audio Jitter	PTP Jitter	Audio Loss	PTP Loss	Audio Latency	PTP Latency
1	100	100	0	0	100	100
2	100	100	0	0	100	100
3	100	100	0	0	100	100
4	100	100	0	0	100	100
5	100	100	0	0	100	100
6	100	100	0	0	100	100
7	100	100	0	0	100	100
8	100	100	0	0	100	100
9	100	100	0	0	100	100
10	100	100	0	0	100	100
AVG	100	100	0	0	100	100

TEST Q-SYS.INTEROPERABILITY.1.2: BASELINE MEASUREMENTS WITH INTERFERENCE

Run	Audio Jitter	PTP Jitter	Audio Loss	PTP Loss	Audio Latency	PTP Latency
1	100	100	0	0	100	100
2	100	100	0	0	100	100
3	100	100	0	0	100	100
4	100	100	0	0	100	100
5	100	100	0	0	100	100
6	100	100	0	0	100	100
7	100	100	0	0	100	100
8	100	100	0	0	100	100
9	100	100	0	0	100	100
10	100	100	0	0	100	100
AVG	100	100	0	0	100	100

TEST Q-SYS.INTEROPERABILITY.2.1: LOW AUDIO – LOW INTERFERENCE

Run	Audio Jitter	PTP Jitter	Audio Loss	PTP Loss	Audio Latency	PTP Latency
1	100	100	0	0	100	100
2	100	100	0	0	100	100
3	100	100	0	0	100	100
4	100	100	0	0	100	100
5	100	100	0	0	100	100
6	100	100	0	0	100	100

7	100	100	0	0	100	100
8	100	100	0	0	100	100
9	100	100	0	0	100	100
10	100	100	0	0	100	100
AVG	100	100	0	0	100	100

TEST Q-SYS.INTEROPERABILITY.2.2: LOW AUDIO – MEDIUM INTERFERENCE

Run	Audio Jitter	PTP Jitter	Audio Loss	PTP Loss	Audio Latency	PTP Latency
1	100	100	0	0	100	100
2	100	100	0	0	100	100
3	100	100	0	0	100	100
4	100	100	0	0	100	100
5	100	100	0	0	100	100
6	100	100	0	0	100	100
7	100	100	0	0	100	100
8	100	100	0	0	100	100
9	100	100	0	0	100	100
10	100	100	0	0	100	100
AVG	100	100	0	0	100	100

TEST Q-SYS.INTEROPERABILITY.2.3: LOW AUDIO – HIGH INTERFERENCE

Run	Audio Jitter	PTP Jitter	Audio Loss	PTP Loss	Audio Latency	PTP Latency
1	100	100	0	0	100	100
2	100	100	0	0	100	100
3	100	100	0	0	100	100
4	100	100	0	0	100	100
5	100	100	0	0	100	100
6	100	100	0	0	100	100
7	100	100	0	0	100	100
8	100	100	0	0	100	100
9	100	100	0	0	100	100
10	100	100	0	0	100	100
AVG	100	100	0	0	100	100

TEST Q-SYS.INTEROPERABILITY.3.1: MEDIUM AUDIO – LOW INTERFERENCE

Run	Audio Jitter	PTP Jitter	Audio Loss	PTP Loss	Audio Latency	PTP Latency
1	100	100	0	0	100	100
2	100	100	0	0	100	100
3	100	100	0	0	100	100
4	100	100	0	0	100	100
5	100	100	0	0	100	100
6	100	100	0	0	100	100

7	100	100	0	0	100	100
8	100	100	0	0	100	100
9	100	100	0	0	100	100
10	100	100	0	0	100	100
AVG	100	100	0	0	100	100

TEST Q-SYS.INTEROPERABILITY.3.2: MEDIUM AUDIO – MEDIUM INTERFERENCE

Run	Audio Jitter	PTP Jitter	Audio Loss	PTP Loss	Audio Latency	PTP Latency
1	100	100	0	0	100	100
2	100	100	0	0	100	100
3	100	100	0	0	100	100
4	100	100	0	0	100	100
5	100	100	0	0	100	100
6	100	100	0	0	100	100
7	100	100	0	0	100	100
8	100	100	0	0	100	100
9	100	100	0	0	100	100
10	100	100	0	0	100	100
AVG	100	100	0	0	100	100

TEST Q-SYS.INTEROPERABILITY.3.3: MEDIUM AUDIO – HIGH INTERFERENCE

Run	Audio Jitter	PTP Jitter	Audio Loss	PTP Loss	Audio Latency	PTP Latency
1	100	100	0	0	100	100
2	100	100	0	0	100	100
3	100	100	0	0	100	100
4	100	100	0	0	100	100
5	100	100	0	0	100	100
6	100	100	0	0	100	100
7	100	100	0	0	100	100
8	100	100	0	0	100	100
9	100	100	0	0	100	100
10	100	100	0	0	100	100
AVG	100	100	0	0	100	100

TEST Q-SYS.INTEROPERABILITY.4.1: HIGH AUDIO – LOW INTERFERENCE

Run	Audio Jitter	PTP Jitter	Audio Loss	PTP Loss	Audio Latency	PTP Latency
1	100	100	0	0	100	100
2	100	100	0	0	100	100
3	100	100	0	0	100	100
4	100	100	0	0	100	100
5	100	100	0	0	100	100

6	100	100	0	0	100	100
7	100	100	0	0	100	100
8	100	100	0	0	100	100
9	100	100	0	0	100	100
10	100	100	0	0	100	100
AVG	100	100	0	0	100	100

TEST Q-SYS.INTEROPERABILITY.4.2: HIGH AUDIO – MEDIUM INTERFERENCE

Run	Audio Jitter	PTP Jitter	Audio Loss	PTP Loss	Audio Latency	PTP Latency
1	100	100	0	0	100	100
2	100	100	0	0	100	100
3	100	100	0	0	100	100
4	100	100	0	0	100	100
5	100	100	0	0	100	100
6	100	100	0	0	100	100
7	100	100	0	0	100	100
8	100	100	0	0	100	100
9	100	100	0	0	100	100
10	100	100	0	0	100	100
AVG	100	100	0	0	100	100

TEST Q-SYS.INTEROPERABILITY.4.3: HIGH AUDIO – HIGH INTERFERENCE

Run	Audio Jitter	PTP Jitter	Audio Loss	PTP Loss	Audio Latency	PTP Latency
1	100	100	0	0	100	100
2	100	100	0	0	100	100
3	100	100	0	0	100	100
4	100	100	0	0	100	100
5	100	100	0	0	100	100
6	100	100	0	0	100	100
7	100	100	0	0	100	100
8	100	100	0	0	100	100
9	100	100	0	0	100	100
10	100	100	0	0	100	100
AVG	100	100	0	0	100	100

APPENDICES

APPENDIX 1: RESULT KEY

The following table contains possible results and their meanings.

RESULT	MEANING	INTERPRETATION
PASS	Pass	The Device Under Test (DUT) was observed to exhibit conformant behavior.
FAIL	Fail	The Device Under Test (DUT) was observed to exhibit non-conformant behavior.
N/A	Not Applicable	This test does not apply to the device type or is not applicable to the testing program selected.
N/S	Not Supported	The Device Under Test (DUT) was not observed to support the necessary functionality required to perform these tests or the requirement is optional and not supported by this device.
N/T	Not Tested	This test was not performed and therefore this is not a complete test report. Please see the comments for additional reasons.
UA	Unavailable	The test was not performed due to limitation of the test tool(s) or interoperable systems, or the test methodology is still under development.