NXTCore ARINC801 Fiber Optic Terminus Qualification Test Plan

1. Scope

To define the test samples, test sequence and test methods used to validate the optical performance of NXTCon ARINC 801 fiber optic terminus. It is understood that the standard optical channel performance is governed by the optical terminus in conjunction with the connector and cable options. Optical performance has been generally governed by the performance criteria outlined in the ARINC Specification 801-2; Fiber Optic Connectors. NXTCon has utilized outside testing facilities certified by to ISO/IEC-17025:2005, Mil-STD-790 and ITL FOC to ensure the independent and quality nature of all data presented. Termini were installed onto cables and into connectors by a ISO9001/2008 supplier prior to submittal to the testing organization.

2. Order of Precedence

In case of a conflict between the text of this document and the applicable referenced documents, the text of this document shall take precedence.

3. Description of Test Articles

Item	Part Number	Qty	Description
1	TA-1260-S-P	98	Optical terminus, loose structure
2	N/A	12	Cable assembly, Item 1 to Item 1, 62.5/125 multi-mode fiber, 1.8mm to 2.0mm diameter, 4 meters in length, -55ºC to 125ºC minimum rating, loose structure (Fiber: Carlisle P/N NFO(EP)-125-1) supplied pre-conditioned
3	N/A	25	Cable assembly, Item 1 to Item 1, 62.5/125 multi-mode fiber, 1.8mm to 2.0mm diameter, 4 meters in length, standard temperature rating, loose structure with Aramid strength member (Fiber: OFS)
4	N/A	1	Cable assembly, Item 9 to Item 9, 62.5/125 multi-mode fiber, 1.8mm to 2.0mm diameter, 4 meters in length, standard temperature rating, loose structure with Arimid strength member (Fiber: OFS)
5	N/A	4	Cable assembly, Item 1 to Item 1, 9/125 single-mode fiber, 1.8mm to 2.0mm diameter, bend insensitive, 4 meters in length, -55ºC to 125ºC minimum rating, semi-loose structure (Fiber: Carlisle P/N NFO(EP)-125-5B) supplied pre-conditioned
6	N/A	8	Cable assembly, Item 1 to Item 1, 9/125 single-mode fiber, 1.8mm to 2.0mm diameter, 4 meters in length, standard temperature rating, loose structure with Arimid strength member (Fiber: TBD by cable assembly supplier)
7	N/A	36	Patch cord, 900 µm, FC UPC to FC UPC, 62.5/125 multimode fiber, 4 meters in length
8	N/A	12	Patch cord, 900 µm, FC APC to FC APC, 9/125 single-mode fiber, 4 meters in length
9	N/A	2	Optical terminus, 801-conforming, Radial P/N F725 003 419

Termini intended for multimode cables with loose structure and termini intended for single-mode cables with loose structure, shall be installed in ARINC801 capable connectors. The termini and connectors are intended for continuous operation at any temperature between -55ºC and 125ºC. Fiber optic termini supplied are certified to be of production source and quality.

Cable/Terminus assembly and crimping of the crimp sleeve shall be performed by an outside source cable assembly supplier using standard termination methods per the applicable ARINC documents. Fiber optic cable, supplied to the cable assembly supplier will be pre-conditioned for 5 cycles, -55°C to 135°C with a 5 minute ramp time between temperature extremes and each temperature plateau stabilized for at least 30 minutes. The cable assembly supplier will affix a unique label to each cable assembly to ensure performance and end face traceability throughout the entire test regimen. The cable assembly supplier will complete and record end face geometry per Telcordia Core GR-326 and per TIA/EIA-568-C.3. These measurements shall be made using a calibrated interferometer. The cable assembly supplier shall perform and record initial attenuation and return loss testing on all cable assemblies. All necessary test fixtures will be supplied by the selected independent testing laboratory.

The test connectors shall be populated according to the following table:

Connector Variant	Multimode position	Single-mode position
Connector 1	A1, A3	---
Connector 2	A1, A2, A4, A5	---
Connector 3	A1, A5	A2, A4
Connector 4	A1, A2, A6, A7	A3, A5

***Note**: Item 4 containing the Radial terminus shall be populated into connector according to the above table and considered part of Group D. This will be considered for intermate performance.*

4. Guide Pins

When using NXTcon optical termini within ARINC801 connector systems all mating conditions are to be tested with standard ARINC801 specification guidance features installed into connectors.

5. Test Sequence

The test plan is divided into four (4) groups of test sequences. Groups A, B and C shall each be comprised of four mated, fully populated connector pairs and each group will consist of 16 optical channels or 32 total termini. Group D shall be comprised of one mated, fully populated connector pair and will consist of 2 optical channels or 4 total termini. Each pair of connectors shall go through the listed tests in the order specified. The test sequence is given in the table on the following page.

Test Procedure	Group A Environmental	Group B Mechanical Environment	Group C Mechanical Usage	Group D Intermate
Attenuation and splicing	X	X	X	X
Return loss	X	X	X	
Thermal cycling	X			
Humidity	X			
Temperature life	X			
Salt spray	X			
Thermal shock	X			
Vibration		X		
Mechanical shock		X		
Maintenance aging			X	
Mating durability			X	
Cable Pull-out			X	
Termini retention force			X	
Return loss	X	X	X	X

6. Test Procuredures

All electrical configuration specifications, tests or electrical failure criteria associated with the following referenced test specifications are not applicable for the following tests.

6.1 Optical

All the following optical performance tests shall be performed at a nominal wavelength of 1300 nm for multimode and 1550 nm for single-mode. Multimode tests shall use overfill launch conditions as defined in TIA-455-54B (FOTP-54) or IEC 60793-1-40 (TIA-455-78B (FOTP-78)), paragraph A.1.3.

6.1.1 Attenuation

Requirements:
Test in accordance with TIA-455-171A (FOTP-171), Method D1 (multimode) and D3 (single-mode).

Criteria:
Fiber optic connector assemblies shall have a maximum attenuation of 0.3 dB for multimode connections. For all single-mode connections, measure and record only. No failure criterion exists for single-mode connections.

6.1.2 Return Loss

Requirements:
Test as specified in paragraph 2.4.3.2 of ARINC Specification 801-2 and in accordance with TIA/EIA-455-107A (FOTP-107). Return loss should be a minimum of 20 dB for multimode PC polish termini and 30 dB for single-mode PC polish termini.
Criteria: Measure and record return loss measurements.

6.1.3 Change in Transmittance (CIT)

Requirements:
Where tests specify a CIT measurement, CIT should be measured in accordance with TIA-455-20B (FOTP-20), Method A. Launch conditions for CIT measurements should be an Equilibrium Modal Distribution profile. Measurements shall be recorded before, during, and after the test, unless otherwise specified. The measurement made during a test need not be continuous, unless otherwise specified, but should be made at the extremities of the test conditions.

Criteria:
Unless otherwise specified in this test plan, the CIT for any test should not exceed 0.5 dB for multimode connections. For all single-mode connections, measure and record only. No failure criterion exists for single-mode connections.

6.2 Environmental Category

6.2.1 Thermal Cycling

Requirements:
Test as specified in ANSI/TIA-455-3B (FOTP-3) with the following procedure and criteria, which is based from paragraph 2.4.4.1 of ARINC Specification 801-2 with exceptions.

Procedure:
Connectors shall be tested using Test Condition D, 10 cycles, with Step 1 set at -55°C ±2°C and Step 2 set at 125°C ±2°C. Both of these temperature plateau intervals shall not be less than 30 minutes. The rate of the environmental chamber air temperature change, between the minimum and maximum temperature

extremes, shall be between 50 and 70 minutes. No stabilization is necessary for Step 3 as it is the indicator of the start/end of each cycle. At the completion of the last cycle, the connector assemblies shall be returned to 23ºC ±5°C and there shall be no damage detrimental to operation of the assembly after being subjected to the temperature extremes. The CIT measurements shall be taken continuously throughout and at 23ºC ±5°C at the end of the test. The frequency of CIT measurements taken throughout the test will be up to the discretion of the testing laboratory, although an absolute minimum frequency of CIT measurements taken every 5 minutes will be herein required. Stabilization shall be considered achieved at least 30 minutes after the start of each plateau interval.

Criteria:
Fiber optic connector assemblies shall pass the CIT test as stated in 6.1.3 of this test plan and a visual inspection in accordance with the requirements of TIA-455-13A (FOTP-13).

6.2.2 Humidity

Requirements:
Test as specified in paragraph 4.5.15 of MIL-DTL-24308G and in accordance with EIA-364-31B, Method IV (-10ºC to +65ºC, 10 cycles, 240 hours). Optional cold shock required. Connectors are to remain in a mated condition throughout the test using the provided jackscrew hardware system. Panel mounting not required.

Procedure:
The CIT measurements shall be taken upon stabilization at every temperature plateau and at 25ºC at the end of the test. Stabilization shall be considered achieved at least 30 minutes after the start of each plateau interval.

Criteria:
Fiber optic connector assemblies shall pass a CIT test.

6.2.3 Temperature Life:

Requirements:
Test as specified in TIA/EIA-455-4C (FOTP-4) with the following procedure and criteria, which is based from paragraph 2.4.4.2 of ARINC Specification 801-2 with exceptions.

Procedure:
The temperature exposure shall be 125ºC ± 2ºC for the duration of 1,000 hours. CIT measurements shall initially be recorded at 25ºC ±2°C, once every hour for the duration of the test and at the conclusion of testing upon return to 25ºC ±2°C. Cleaning of the termini is permitted prior to and post testing, but not during the test.

Criteria:
Fiber optic connector assemblies shall pass a CIT test and a visual examination using the failure criteria referenced in paragraph 5.9 of TIA/EIA-455-4C (FOTP-4).

6.2.4 Salt Spray:

Requirements:
Test as specified in paragraph 2.4.4.5 of ARINC Specification 801-2 the testing requirements of TIA-455-16A (FOTP-16), test condition C.

Procedure:
After exposure, a CIT test shall be performed. The connector assemblies shall then be thoroughly washed with tap water to remove all salt deposits and then shall be dried in a circulating air oven at a temperature of 38ºC ± 3ºC for a period of 12 hours. They shall then be visually examined for evidence of corrosion.

Criteria:
Fiber optic connector assemblies shall pass a CIT test and visual inspection. Mating and un-mating force testing is not required during final inspection of the connector assemblies.

6.2.5 Thermal Shock

Requirements:
Test as specified in paragraph 4.5.13.1 of MIL-DTL-24308G and in accordance with EIA-364-32F with the exception that no plateau interval shall be less than 30 minutes.
Procedure:
Connectors shall be tested using Method A, Test Condition I, 5 cycles, unless otherwise specified. At the completion of the last cycle, the connector assemblies shall be returned to 25ºC and there shall be no damage detrimental to operation of the assembly after being subjected to the temperature extremes. The CIT measurements shall be taken continuously throughout and at 25°C at the end of the test. The frequency of CIT measurements taken throughout the test will be up to the discretion of the testing laboratory, although an absolute minimum frequency of CIT measurements taken every 5 minutes will be herein required. Stabilization shall be considered achieved at least 30 minutes after the start of each plateau interval.

Criteria:
No CIT failure criterion exists for this test; measure and record only. Visual inspection, using the failure criteria outlined in paragraph 4.6 of EIA-364-32F, is required.

6.3 Mechanical Environment

6.3.1 Mechanical Vibration

Requirements:
Test as specified in paragraph 4.5.13.1 of MIL-DTL-24308G and in accordance with EIA-364-32F with the exception that no plateau interval shall be less than 30 minutes.

Procedure:
Connectors shall be tested using Method A, Test Condition I, 5 cycles, unless otherwise specified. At the completion of the last cycle, the connector assemblies shall be returned to 25ºC and there shall be no damage detrimental to operation of the assembly after being subjected to the temperature extremes. The CIT measurements shall be taken continuously throughout and at 25°C at the end of the test. The frequency of CIT measurements taken throughout the test will be up to the discretion of the testing laboratory, although an absolute minimum frequency of CIT measurements taken every 5 minutes will be herein required. Stabilization shall be considered achieved at least 30 minutes after the start of each plateau interval.

Criteria:
No CIT failure criterion exists for this test; measure and record only. Visual inspection, using the failure criteria outlined in paragraph 4.6 of EIA-364-32F, is required.

6.3.2 Mechanical Shock

Requirements:
Phase 1: Test as specified in paragraph 4.5.16 of MIL-DTL-24308G and in accordance with EIA-364-28F, test condition IV.
Phase 2: Test as specified in paragraph 4.5.16 of MIL-DTL-24308G and in accordance with EIA-364-28F, test condition IV with the following exception:

The 20-minute cycle shall be performed two times in each of the three mutually perpendicular directions (total of six times), so that the motion shall be applied for a total period of approximately 2 hours.

Procedure:
Phase 1 & 2: Two separate tests consisting of Phase 1 & 2 are to be performed. The first test will consist of a test fixture with two mated pair test sample mounted. The second test will consist of a test fixture with a secondary mated pair test sample mounted. Connector pairs shall be held together by their locking mechanism.

Phase 1: CIT shall be measured before and after the vibrations, and shall not be monitored during the vibration application when the discontinuity detector is in use.

Phase 2: The test laboratory is restricted to two simultaneous channels when monitoring for a 1µsec discontinuity. For this reason, it is necessary to only use two multi-mode channels, one from each connector test sample.

Criteria:
During phase 1 of the test, there shall be no optical discontinuities in excess of 50 microseconds and a change in power >0.5 dB. At the conclusion of phase 1, fiber optic connector assemblies shall pass a CIT test. In addition, the mated connectors shall not be damaged and there shall be no loosening of parts due to vibration.
During phase 2 of the test, there shall be no optical discontinuities in excess of 1 microsecond and a change in power >1.0 dB. Failure of this phase of the test will not constitute a failure of the test samples. A CIT test and visual inspection are not required after phase 2.

6.4 Mechanical Use

6.4.1 Maintenance Aging

Requirements:
Test as specified in paragraph 2.4.5.7 of ARINC Specification 801-2 and in accordance with EIA-364-24B.

Procedure:
All termini shall be removed and reinstalled ten times using the appropriate insertion and removal tools.

Criteria:
The termini insertion force should be measured during the first and last cycles and should not exceed 36 N (8 pounds).

6.4.2 Mating Durability

Requirements:
Test as specified in paragraph 4.5.18 of MIL-DTL-24308G and in accordance with EIA-364-09C, which meets or exceeds the testing requirements of TIA-455-21A (FOTP-21). The following detail applies:

a. Manual mating and un-mating of test samples, 500 cycles at a rate between 100 and 300 cycles per hour.

b. (Salt spray requirement removed here due to its absence in ARINC 801-2 and 2008 test plan)

Procedure:
500 cycles of engagement and separation shall be performed. A cycle shall be defined as the point at which optical termini are fully disengaged to a point at which the connectors are fully mated and termini are fully engaged. Connector shells are not required to be fully unmated.

A CIT test shall be performed after every 100 cycles. Termini may be cleaned prior to each measurement.

Criteria:
Fiber optic connector assemblies shall pass CIT tests and at the conclusion of the test, the connectors, adapters and termini shall be inspected for visual damage using the failure criteria outlined in paragraph 4.6 of TIA-455-21A (FOTP-21).

6.4.3 Cable Pull-out Force

Requirements:
Test as specified in TIA-455-6B (FOTP-6) Method 1.

Procedure:
This test applies only to cables with 1.8mm to 2.1mm outer jacket diameter and reinforced with an Aramid strength member. Mount the test sample in a test fixture such that adequate support is provided.
The test load shall be applied as follows with a rate of pull being 89N/min ±4N:
Load 1: Apply 12 lb force at 0° for at least 5 seconds but no more than 10 seconds.

Criteria:
For the procedure above, remove the load and after at least 10 seconds, measure and record the CIT.

6.4.4 Terminus Retention Force

Requirements:
Test as specified in paragraph 2.4.5.3 of ARINC Specification 801-2 and in accordance with EIA-364-38C, either Method A or B.
Procedure:
The test load shall be 12 lb force. *Note: This test is intended to prove the integrity of the connector terminus retention feature and not to prove the attachment of the cable terminus.*
Criteria:
All termini shall be retained with no damage to the termini, the connector inserts or to the retention mechanisms.

Test Datasheet

Test Report by:
Experior Laboratories, Inc.

Start Date	Completion Date	Product Name	Purchase Order #	Service Project Number SPN	Test ID #	Temperature	Humidity	DS Revision
3/21/2012	3/21/2012	NXTCore	177125	11965	GA-1	23 °C	29 %RH	03/23/12

Test Title	Test Specification / Standard	Specific Test Conditions	Measurements / Inspection
IL-RL	TIA-455-171A (FOTP-171), Method D1 (multimode) and D3 (single-mode) 2.4.3.2 of ARINC Specification 801-2 and in accordance with TIA/EIA-455-107A (FOTP-107).	Fiber optic connector assemblies shall have a maximum attenuation of 0.3 dB for multimode connections. For all single-mode connections, measure and record only. No failure criterion exists for single-mode connections Return loss should be a minimum of 20 dB for multimode PC polish termini and 30 dB for single-mode PC polish termini	IL [dB], RL [dB]

Anomaly / Interruption	Nonconformity / Deviation
none	none

Instrum. Number	Manufacturer	Model Number	Serial Number	Instrument Description	Last Cal Date	Cal Due Date
1260	Extech	42280	9069033	Temperature Humidity Datalogger	5/3/2011 1:03:12 PM	5/3/2012
1402	Fujikura	FSM-50S	12161	Fiber Fusion Splicer	Reference Only	Reference Only
1405	Fujikura	CT-30	63162	Fiber Cleaver	Reference Only	Reference Only
1103	Hewlett Packard	81524A	3248G01181	Optical Power Head	10/31/2011 2:10:44 PM	10/31/2012
1254	Hewlett Packard	81533B	3411G05264	Optical Head Interface	Reference Only	Reference Only
1451	Rifocs	781RL-13-110	122785	1300nm MM Return Loss Meter	9/6/2011 5:38:40 PM	9/6/2012
1400	Fujikura	FSM-17S	687	Fiber Fusion Splicer	Reference Only	Reference Only
1407	Fujikura	CT-30	21094	Fiber Cleaver	Reference Only	Reference Only
1224	JGR	BR5	750004	Quad-Wave Backreflection Meter	1/3/2012 10:43:29 AM	1/3/2013
1102	Hewlett Packard	81533B	3411G05696	Optical Head Interface	Reference Only	Reference Only
1258	Hewlett Packard	HP 81524A	3248G01541	Optical Power Head	3/8/2012 3:22:08 PM	3/8/2014

Test Sample Description	Part Number	Experior Test Procedure # (if applicable)	Customer Witness
ARINC801 Connector	CBD3W3M000T2S-MOS, CBD3W3F000E2S-MOS CBD5W5M000T2S-MOS, CBD5W5F000E2S-MOS CBD17W5M200T2S-MOS, CBD17W5F200E2S-MOS CBD24W7M200T2S-MOS, CBD24W7F200E2S-MOS	EPTP-1002 Transmittance EPTP-1005 Return Loss	none

Project Engineer	Performed By		Bench Cleaning	Equipment List	Post Test Cleanup	Setup Check	Event Log	Signoff by Technical Director
Norman Metzner	JZ/HR	Signoff	JZ/HR	JZ/HR	HR	NM	NM	john kim
		Date/Time	3/21/2012 9:25 AM	3/21/2012 9:28AM	3/21/12 1pm	3/21/2012 9:25 AM	3/23/2012	

Results Summary

Category	Requirement	Max/Min Measurement Value	Compliance
Insertion Loss [dB]	0.3 (for MM only)	0.28	4/4
Return Loss [dB]	20 for MM and 30 for SM	45	4/4

Date	Time	Event Log	Initials
03/21/12	9:30 AM	Starting IL/RL measurements for SM samples.	JZ
02/21/12	9:00AM	Started Preparation for Initial IL-RL Measurements for all MM Samples	HR
	12:00PM	Finished Initial IL-RL Measurements for all MM Samples	
03/21/12	1:00 PM	Completed IL/RL measurements for SM samples. Retested 24W7 A5 due to high IL. Cleaned ferrule endface and now passes. Also did the same to 17W5 A2.	JZ/HR

MULTIMODE @1300nm, Singlemode @1550nm					
Sample #	**Channel**	**Power [dBm]**	**Cutback [dbm]**	**IL [dB]**	**RL [dB]**
3W3	A1 mm	-11.43	-11.37	0.06	>45
	A3 mm	-11.42	-11.36	0.02	>45
5W5	A1 mm	-11.54	-11.49	0.05	>45
	A2 mm	-11.53	-11.5	0.03	>45
	A4 mm	-11.55	-11.51	0.04	>45
	A5 mm	-11.56	-11.52	0.04	>45
17W5	A1 mm	-11.42	-11.40	0.02	>45
	A2 sm	-5.68	-5.43	0.25	55.5
	A4 sm	-5.67	-5.41	0.26	56.4
	A5 mm	-11.42	-11.39	0.03	>45
24W7	A1 mm	-11.42	-11.39	0.03	>45
	A2 mm	-11.40	-11.38	0.02	>45
	A3 sm	-5.67	-5.39	0.28	55.8
	A5 sm	-5.62	-5.39	0.23	52.1
	A6 mm	-11.42	-11.39	0.03	>45
	A7 mm	-11.42	-11.38	0.04	>45
Initial Results					
17W5	A1 mm			0.00	
	A2 sm	-5.78	-5.39	0.38	56.8
	A4 sm			0.00	
	A5 mm			0.00	
24W7	A1 mm			0.00	
	A2 mm			0.00	
	A3 sm	-5.67	-5.39	0.28	55.8
	A5 sm	-5.75	-5.39	0.36	55.9
	A6 mm			0.00	
	A7 mm			0.00	
	A5 sm	-5.72	-5.39	0.33	56.1

SPN 11965 G1-1
Initial IL-RL
Before Vibration test
3/13/12

Test Datasheet

Test Report by:
Experior Laboratories, Inc.

Start Date	Completion Date	Test Item	Purchase Order #	Service Project Number SPN	Test ID #	Temperature	Humidity	DS Revision
3/30/2012	4/12/2012	NXTCore	177125	11965	GA-3	23 °C	29 %RH	04/12/12

Test Title	Test Specification / Standard	Specific Test Conditions	Measurements / Inspection
Humidity	4.5.15 of MIL-DTL-24308G and in accordance with EIA-364-31B, Method IV, optional cold shock required.	-10ºC to +65ºC, 10 cycles, 240 hours	CIT [dB], Temperature [C]

Anomaly / Interruption	Nonconformity / Deviation
none	none

Instrum. Number	Manufacturer	Model Number	Serial Number	Instrument Description	Last Cal Date	Cal Due Date
1264	Rifocs	753R-1300	129236	Triple 1300nm LED Source	11/7/2011 6:08:50 PM	11/7/2012
1198	Rifocs	715RF-24	124741	Multimode 62.5 Optical Switch	Ref Only	Ref Only
1020	Agilent	81637B	DE41300321	Fast Optical Power Meter	9/29/2011 2:47:02 PM	9/29/2013
1072	JDS	SC Series	EG001153	2x44 Optical Switch	Reference Only	Reference Only
1071	JDS	SC Series	EG001152	2x44 Optical Switch	Reference Only	Reference Only
1155	JDS Uniphase	SB Series	ED155457	1x8 Optical Switch	Reference Only	Reference Only
1191	Optotest	OP750	10397	1310/1490/1550/1625nm Laser	2/3/2012 4:56:12 PM	2/3/2014
1016	Agilent	81637B	DE41300332	Fast Optical Power Meter	9/29/2011 2:45:32 PM	9/29/2013
1187	Agilent	81610A	DE40500226	Return Loss Module	12/8/2011 11:47:26 AM	12/8/2012
1460	Cincinnati Subzero	ZH-2	Z9913064	2 cu ft Environmental Chamber	4/20/2011 7:15:11 PM	4/20/2012

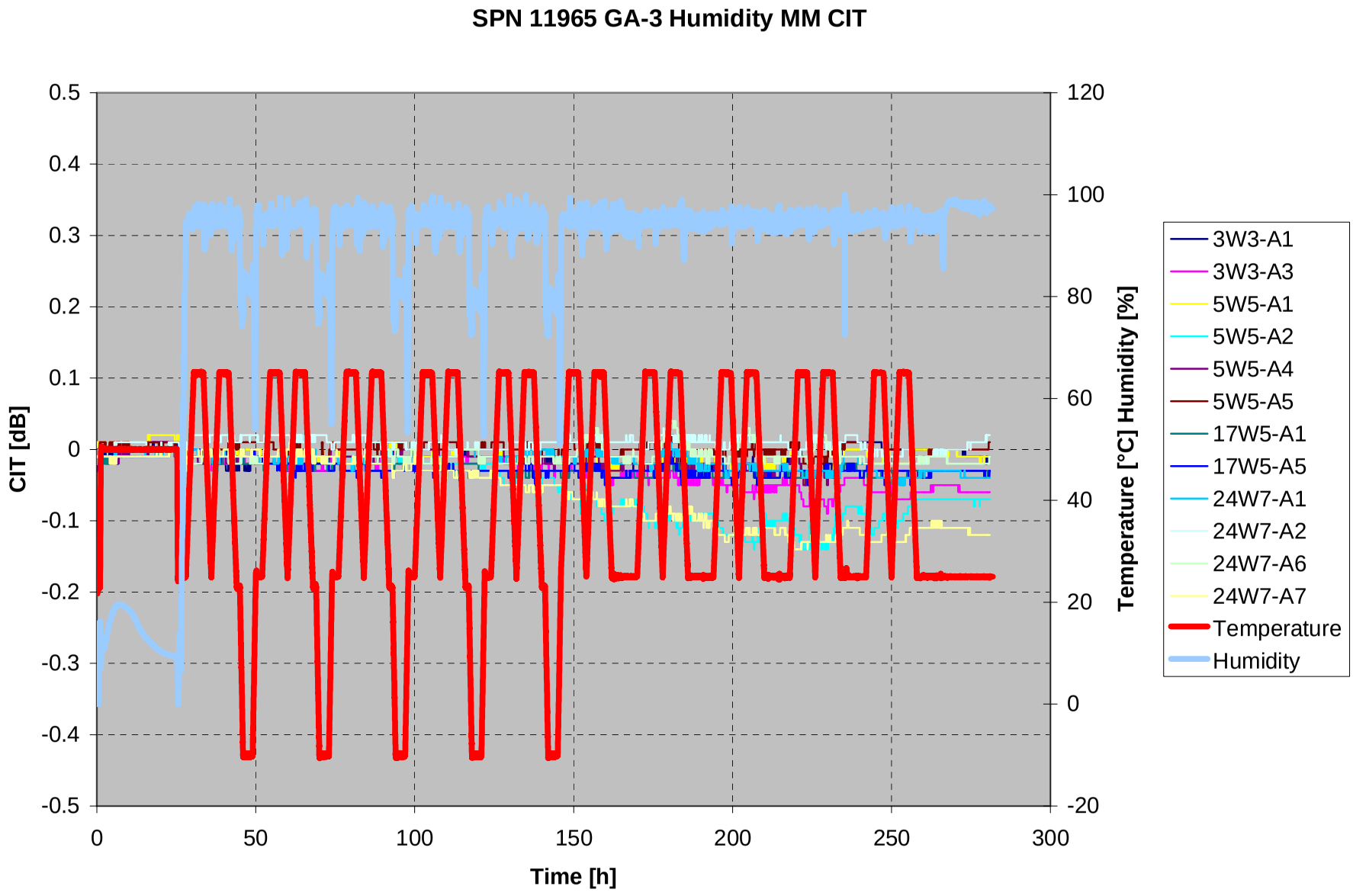
Test Sample Description	Part Number	Experior Test Procedure # (if applicable)	Customer Witness
ARINC801 Connector	CBD3W3M000T2S-MOS, CBD3W3F000E2S-MOS CBD5W5M000T2S-MOS, CBD5W5F000E2S-MOS CBD17W5M200T2S-MOS, CBD17W5F200E2S-MOS CBD24W7M200T2S-MOS, CBD24W7F200E2S-MOS	EPTP-1002 Transmittance EPWI-1044 Chamber controller programming	none

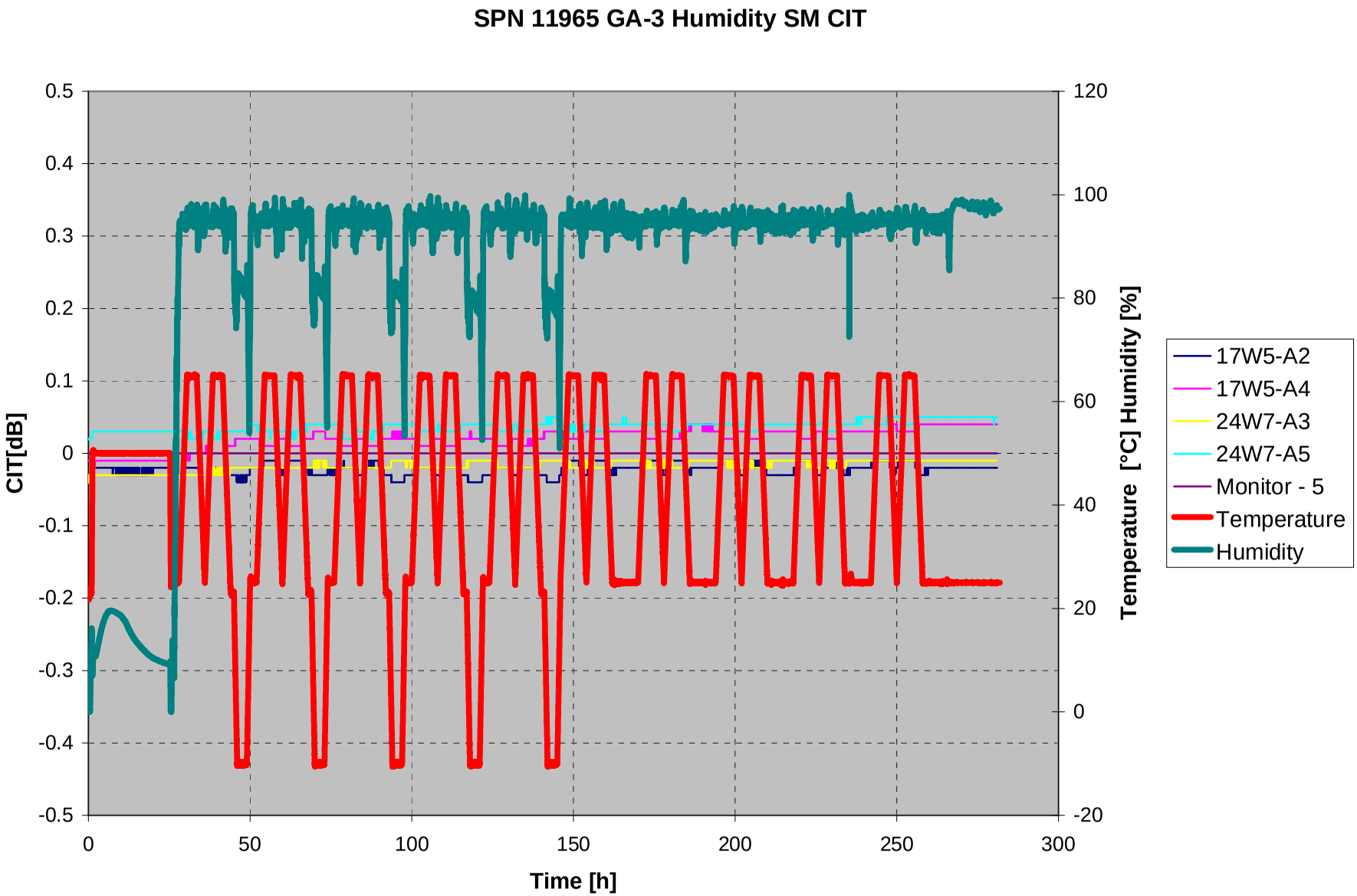
Project Engineer	Performed By		Bench Cleaning	Equipment List	Post Test Cleanup	Setup Check	Event Log	Signoff by Technical Director
Norman Metzner	NM	Signoff	NM	NM	N/A	NM	NM	john kim
		Date/Time	3/30/12 6:30 AM	3/30/12 6:30 AM	4/12/12 9am	3/30/12 6:30 AM	4/12/12 9am	

Results Summary

Category	Requirement	Max/Min Measurement Value	Compliance
CIT [dB] MM	0.5	-0.14	4/4
CIT [dB] SM	0.5	0.05	2/2

Date	Time	Event Log	Initials
03/30/12	6:30 PM	Started Humidity test	NM
04/02/12	8:00 AM	Collected interim data and checked compliance as well as system performance	
04/03/12	8:00 AM	Collected interim data and checked compliance as well as system performance	
04/04/12	8:00 AM	Collected interim data and checked compliance as well as system performance	
04/05/12	9:30 AM	Collected interim data and checked compliance as well as system performance	
04/06/12	7:55 AM	Collected interim data and checked compliance as well as system performance	
04/09/12	8:55 AM	Collected interim data and checked compliance as well as system performance	
	1:00 PM	Paused test and collected data due to expected power outage	
04/10/12	9:48 AM	Baselined and resumed test	
04/11/12	8:11 AM	Collected interim data and checked compliance as well as system performance	
04/12/12	8:25 AM	Test completed	


SPN 11965 GA-3 Humidity MM CIT
CIT [dB]
Time [h]
Temperature [°C] Humidity [%]
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
0
50
100
150
200
250
300
120
100
80
60
40
20
0
-20
3W3-A1
3W3-A3
5W5-A1
5W5-A2
5W5-A4
5W5-A5
17W5-A1
17W5-A5
24W7-A1
24W7-A2
24W7-A6
24W7-A7
Temperature
Humidity


SPN 11965 GA-3 Humidity SM CIT
CIT[dB]
Temperature [°C] Humidity [%]
Time [h]
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
120
100
80
60
40
20
0
-20
0
50
100
150
200
250
300
17W5-A2
17W5-A4
24W7-A3
24W7-A5
Monitor - 5
Temperature
Humidity

SPN 11965
GA-2 through GA-4
Temp Life
3/29/12

Test Datasheet

Test Report by:
Experior Laboratories, Inc.

Start Date	Completion Date	Customer Name	Purchase Order #	Service Project Number SPN	Test ID #	Temperature	Humidity	DS Revision
6/5/2012	6/8/2012	NXTCon	177125	11965	GA-6	23 °C	29 %RH	06/08/12

Test Title	Test Specification / Standard	Specific Test Conditions	Measurements / Inspection
Thermal Shock	4.5.13.1 of MIL-DTL-24308G and in accordance with EIA-364-32F	Method A, Test Condition I, 5 cycles -55 °C (+0, -3), 125 °C (+3, -0)	CIT [dB], Temperature [C]

Anomaly / Interruption	Nonconformity / Deviation
Test was performed twice: One time with 85C as high temperature, the second time with 125C as high temperature	none

Instrum. Number	Manufacturer	Model Number	Serial Number	Instrument Description	Last Cal Date	Cal Due Date
1264	Rifocs	753R-1300	129236	Triple 1300nm LED Source	11/7/2011 6:08:50 PM	11/7/2012
1198	Rifocs	715RF-24	124741	Multimode 62.5 Optical Switch	Ref Only	Ref Only
1020	Agilent	81637B	DE41300321	Fast Optical Power Meter	9/29/2011 2:47:02 PM	9/29/2013
1072	JDS	SC Series	EG001153	2x44 Optical Switch	Reference Only	Reference Only
1071	JDS	SC Series	EG001152	2x44 Optical Switch	Reference Only	Reference Only
1155	JDS Uniphase	SB Series	ED155457	1x8 Optical Switch	Reference Only	Reference Only
1191	Optotest	OP750	10397	1310/1490/1550/1625nm Laser	2/3/2012 4:56:12 PM	2/3/2014
1016	Agilent	81637B	DE41300332	Fast Optical Power Meter	9/29/2011 2:45:32 PM	9/29/2013
1187	Agilent	81610A	DE40500226	Return Loss Module	12/8/2011 11:47:26 AM	12/8/2012
1057	Cinncinati SubZero	VTS 1.5	93-VT12231	1.5 cu ft Thermal Shock Chamber	12/2/2011 10:53:32 AM	12/2/2012
1005	Agilent	81635A	DE38601594	Dual Optical Power Meter	9/29/2011 1:19:01 PM	9/29/2013
1220	Agilent	81654A	DE38A00785	1310/1550nm Laser Source	12/9/2011 3:56:59 PM	12/9/2012
1283	Rifocs	715RF-24	121439	1x24 Singlemode Optical Switch	Reference Only	Reference Only
1001	Agilent	81635A	DE38601565	Dual Optical Power Meter	9/29/2011 1:20:11 PM	9/29/2013

Test Sample Description	Part Number	Experior Test Procedure # (if applicable)	Customer Witness
NXTCore	TA0001 w/connectors	EPTP-1002 Transmittance EPWI-1044 Chamber controller programming	none

Project Engineer	Performed By		Bench Cleaning	Equipment List	Post Test Cleanup	Setup Check	Event Log	Signoff by Technical Director
Norman Metzner	NM	Signoff	JB	NM	HR	NM	NM	john kim
		Date/Time	6/5/12 1pm	6/5/12 5pm	6/6/12 4pm	6/5/12 1pm	6/6/12 4pm	

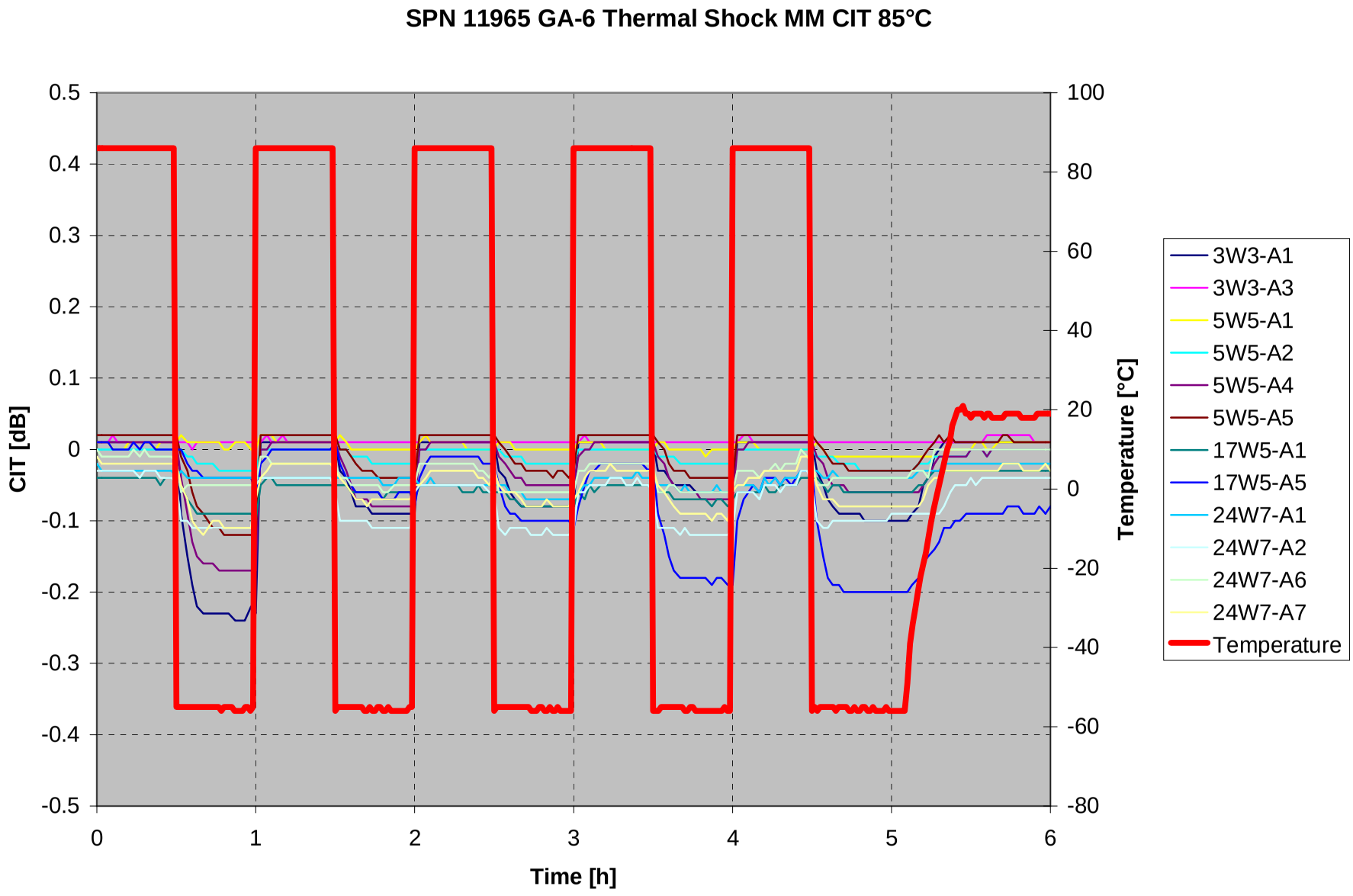
Results Summary

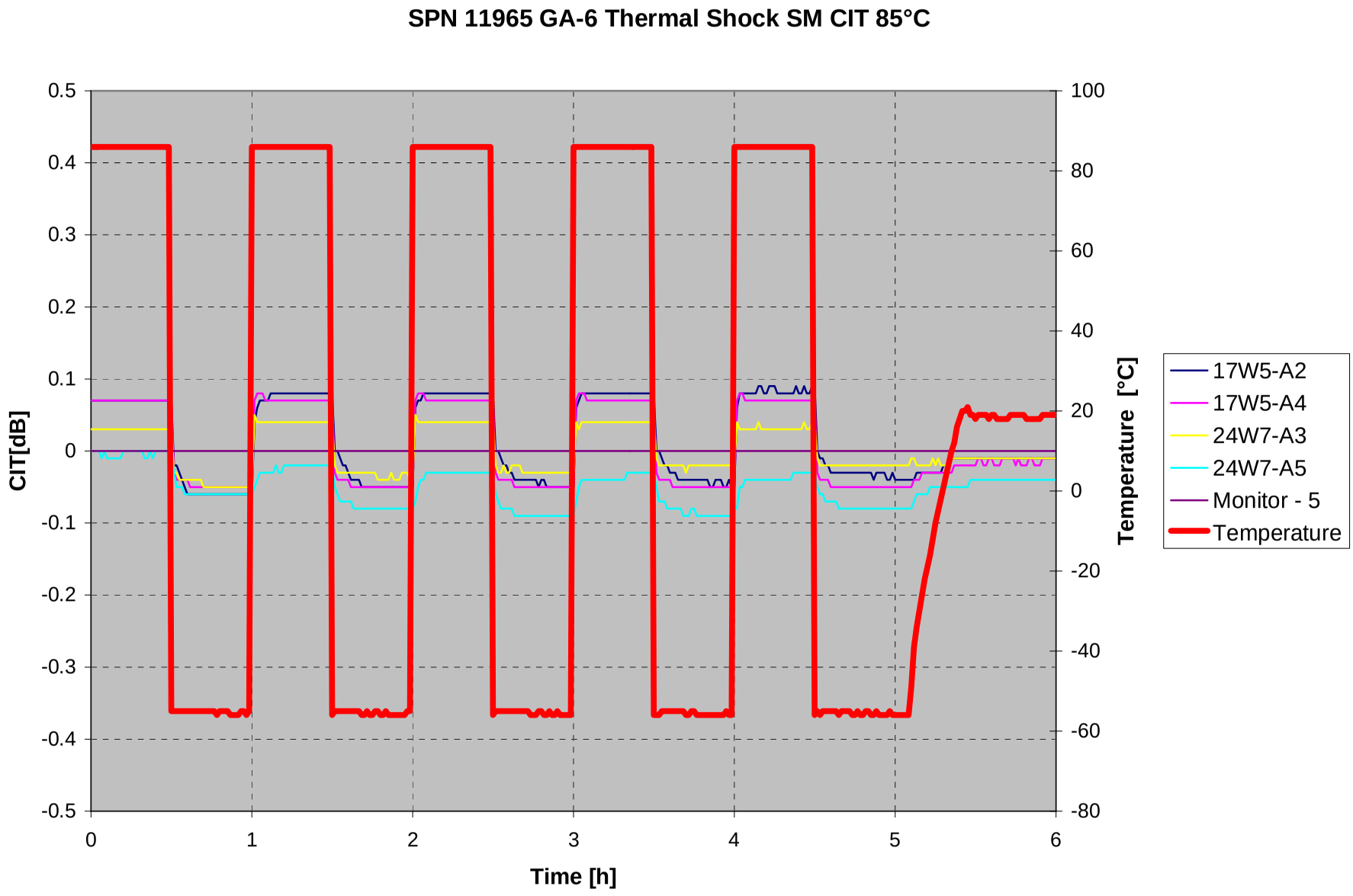
Category	Requirement	Max/Min Measurement Value	Compliance
CIT [dB] MM	-	0.02/-0.24	-
CIT [dB] SM	-	0.09/-0.09	-

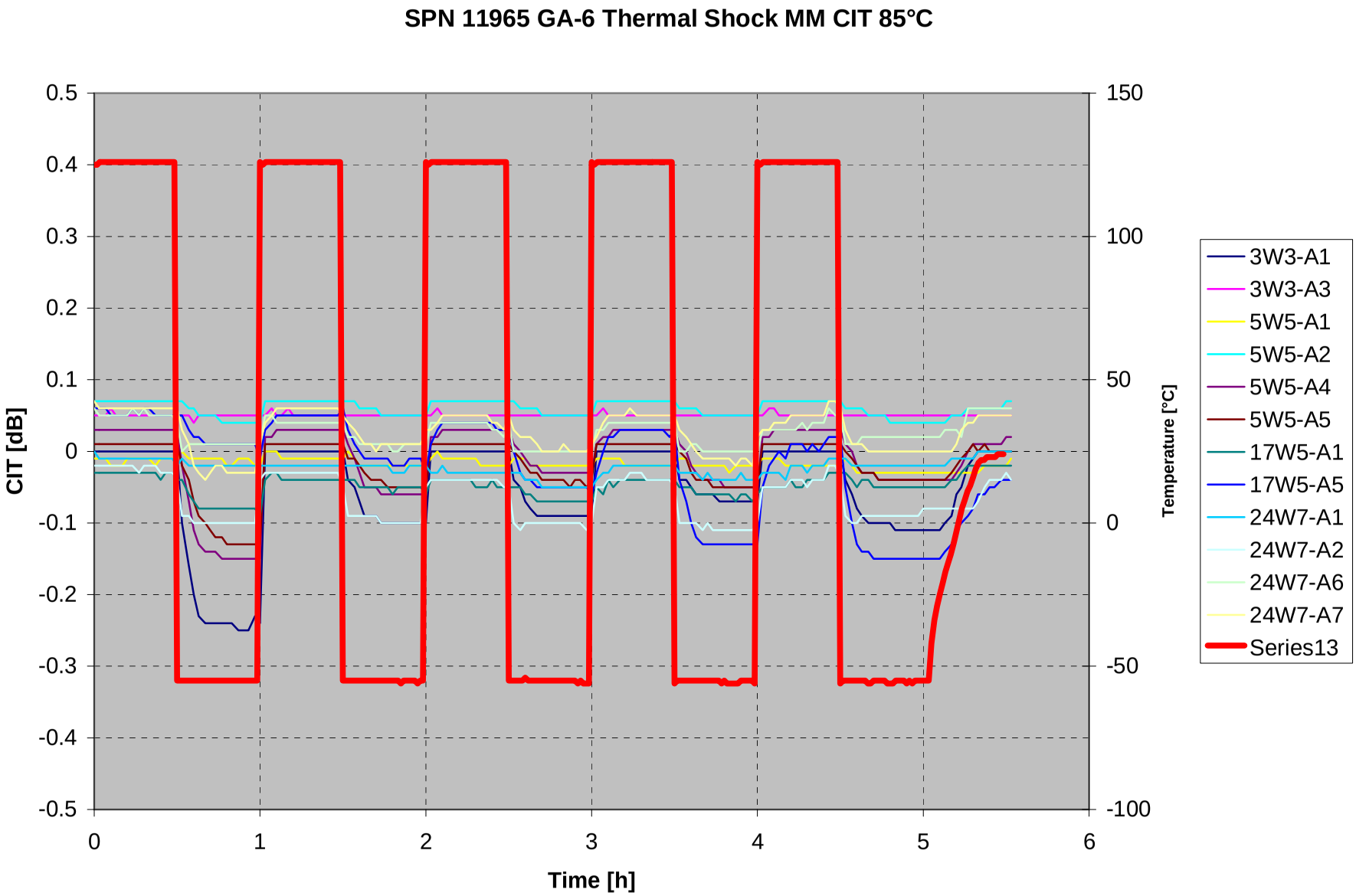
Test Datasheet

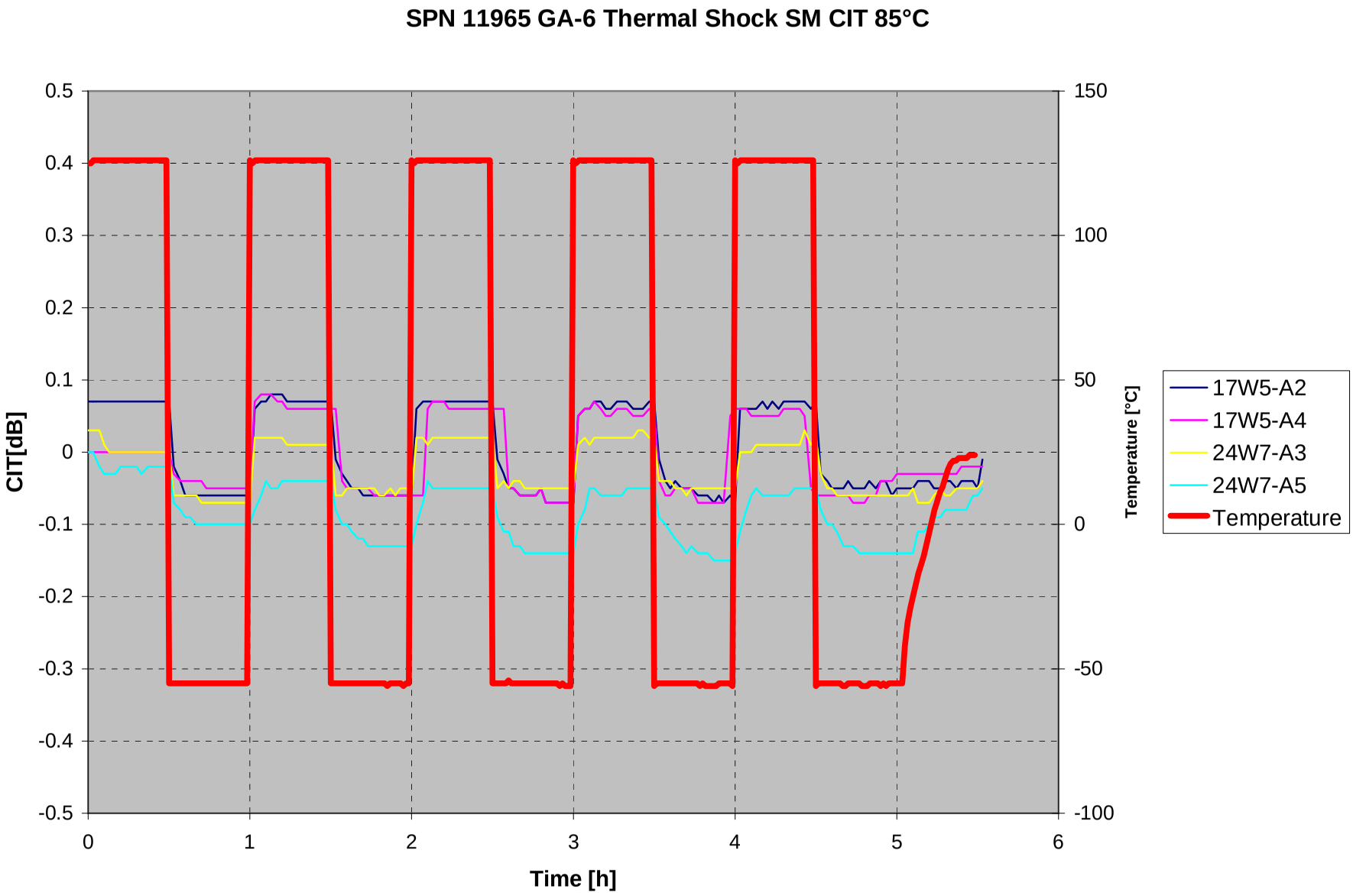
Visual Inspection	no damage detrimental to the performance of the connector	no damage observed	4/4

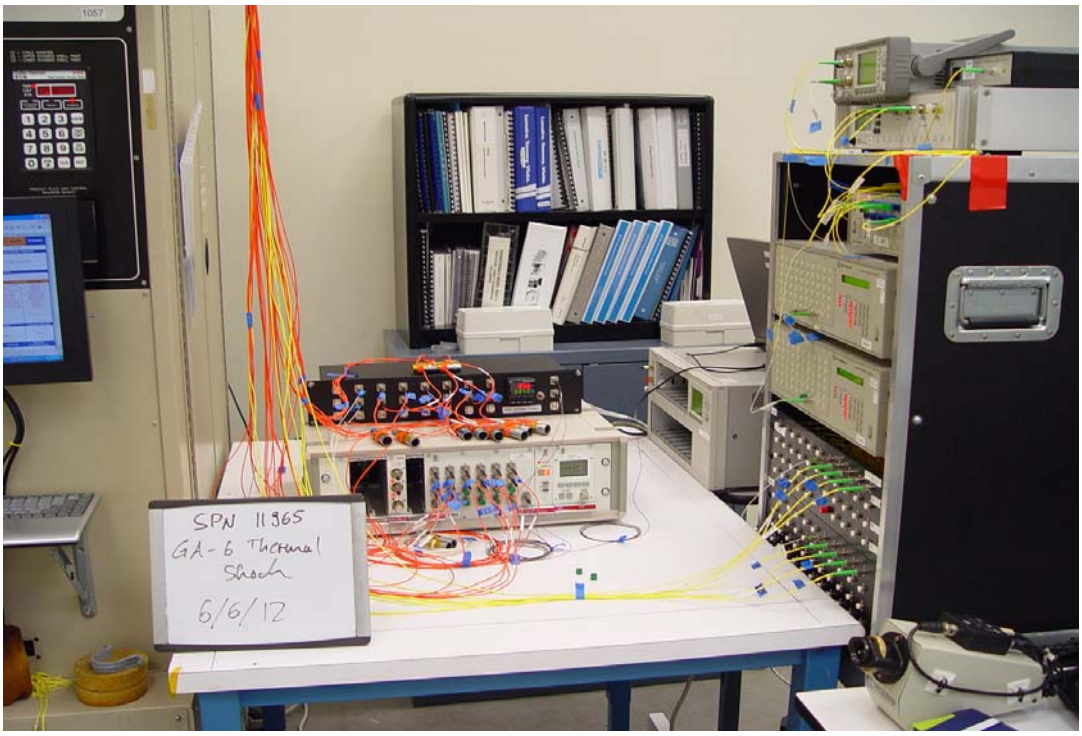
Date	Time	Event Log	Initials
06/05/12	1:00 PM	Started equipment setup and routed samples in chamber	JB
	5:00 PM	baselined optical system	NM
06/06/12	8:15 AM	Started rammping chamber to temperature	
	8:45 AM	chamber at temperature, started thermal shock	
	1:45 PM	Thermal shock cycling completed, returned samples to ambient	
06/07/12	3:00 PM	Started equipment setup and routed samples in chamber to prepare for thermal shock at 125C	
	5:00 PM	baselined optical system	
06/08/12	7:45 AM	Started rammping chamber to temperature	
	8:00 AM	chamber at temperature, started thermal shock	
	1:00 PM	Thermal shock cycling completed, returned samples to ambient	

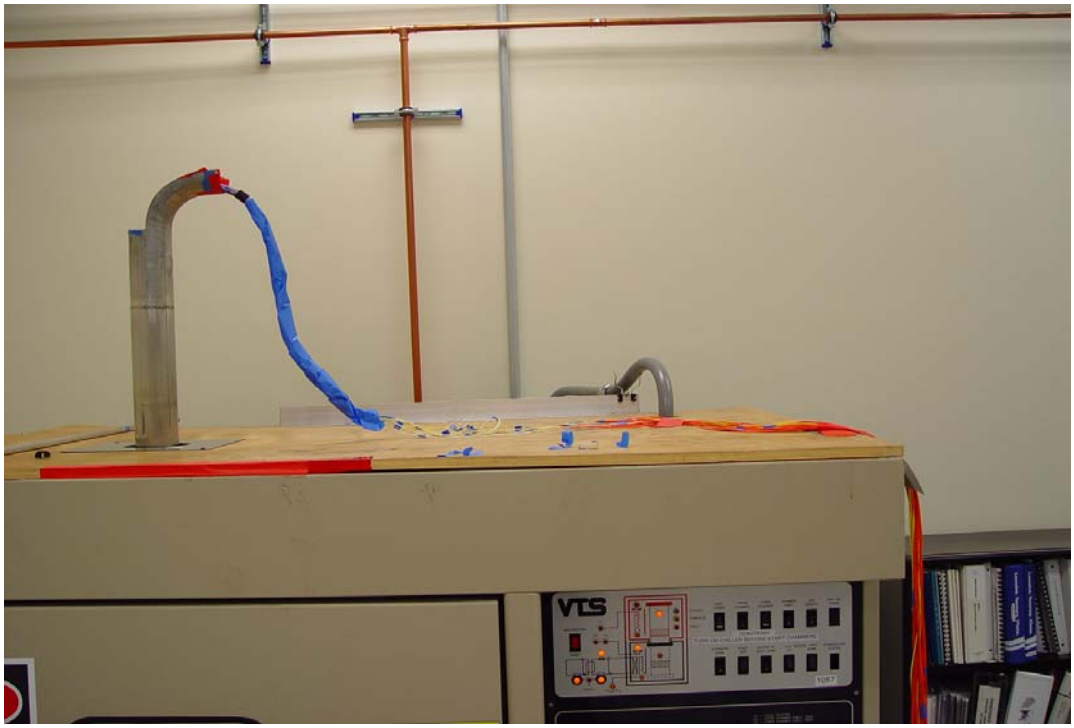

SPN 11965 GA-6 Thermal Shock MM CIT 85°C
CIT [dB]
Temperature [°C]
Time [h]
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
100
80
60
40
20
0
-20
-40
-60
-80
0
1
2
3
4
5
6
3W3-A1
3W3-A3
5W5-A1
5W5-A2
5W5-A4
5W5-A5
17W5-A1
17W5-A5
24W7-A1
24W7-A2
24W7-A6
24W7-A7
Temperature


SPN 11965 GA-6 Thermal Shock SM CIT 85°C
CIT[dB]
Temperature [°C]
Time [h]
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
100
80
60
40
20
0
-20
-40
-60
-80
0
1
2
3
4
5
6
17W5-A2
17W5-A4
24W7-A3
24W7-A5
Monitor - 5
Temperature


SPN 11965 GA-6 Thermal Shock MM CIT 85°C
CIT [dB]
Temperature [°C]
Time [h]
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
150
100
50
0
-50
-100
0
1
2
3
4
5
6
3W3-A1
3W3-A3
5W5-A1
5W5-A2
5W5-A4
5W5-A5
17W5-A1
17W5-A5
24W7-A1
24W7-A2
24W7-A6
24W7-A7
Series13


SPN 11965 GA-6 Thermal Shock SM CIT 85°C
CIT[dB]
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
0
1
2
3
4
5
6
Time [h]
150
100
50
0
-50
-100
Temperature [°C]
17W5-A2
17W5-A4
24W7-A3
24W7-A5
Temperature


SPN 11365
GA-6 Thermal
Shock
6/6/12


VTS

Test Datasheet

Test Report by:
Experior Laboratories, Inc.

Start Date	Completion Date	Product Name	Purchase Order #	Service Project Number SPN	Test ID #	Temperature	Humidity	DS Revision
3/28/2012	3/30/2012	NXTCore	177125	11965	GA-2	23 °C	29 %RH	04/02/12

Test Title	Test Specification / Standard	Specific Test Conditions	Measurements / Inspection
Thermal Cycling	TIA-455-20B (FOTP-20), Method A ANSI/TIA-455-3B (FOTP-3), 2.4.4.1 of ARINC Specification 801-2	Test Condition D, 10 cycles, with Step 1 set at -55°C ±2°C and Step 2 set at 125°C ±2°C temperature plateau intervals shall not be less than 30 minutes. The rate of the environmental chamber air temperature change, between the minimum and maximum temperature extremes, shall be between 50 and 70 minutes. CIT measured every 2 minutes	CIT [dB], Temperature [C]

Anomaly / Interruption	Nonconformity / Deviation
none	none

Instrum. Number	Manufacturer	Model Number	Serial Number	Instrument Description	Last Cal Date	Cal Due Date
1264	Rifocs	753R-1300	129236	Triple 1300nm LED Source	11/7/2011 6:08:50 PM	11/7/2012
1198	Rifocs	715RF-24	124741	Multimode 62.5 Optical Switch	Ref Only	Ref Only
1020	Agilent	81637B	DE41300321	Fast Optical Power Meter	9/29/2011 2:47:02 PM	9/29/2013
1072	JDS	SC Series	EG001153	2x44 Optical Switch	Reference Only	Reference Only
1071	JDS	SC Series	EG001152	2x44 Optical Switch	Reference Only	Reference Only
1155	JDS Uniphase	SB Series	ED155457	1x8 Optical Switch	Reference Only	Reference Only
1191	Optotest	OP750	10397	1310/1490/1550/1625nm Laser	2/3/2012 4:56:12 PM	2/3/2014
1016	Agilent	81637B	DE41300332	Fast Optical Power Meter	9/29/2011 2:45:32 PM	9/29/2013
1187	Agilent	81610A	DE40500226	Return Loss Module	12/8/2011 11:47:26 AM	12/8/2012
1460	Cincinnati Subzero	ZH-2	Z9913064	2 cu ft Environmental Chamber	4/20/2011 7:15:11 PM	4/20/2012

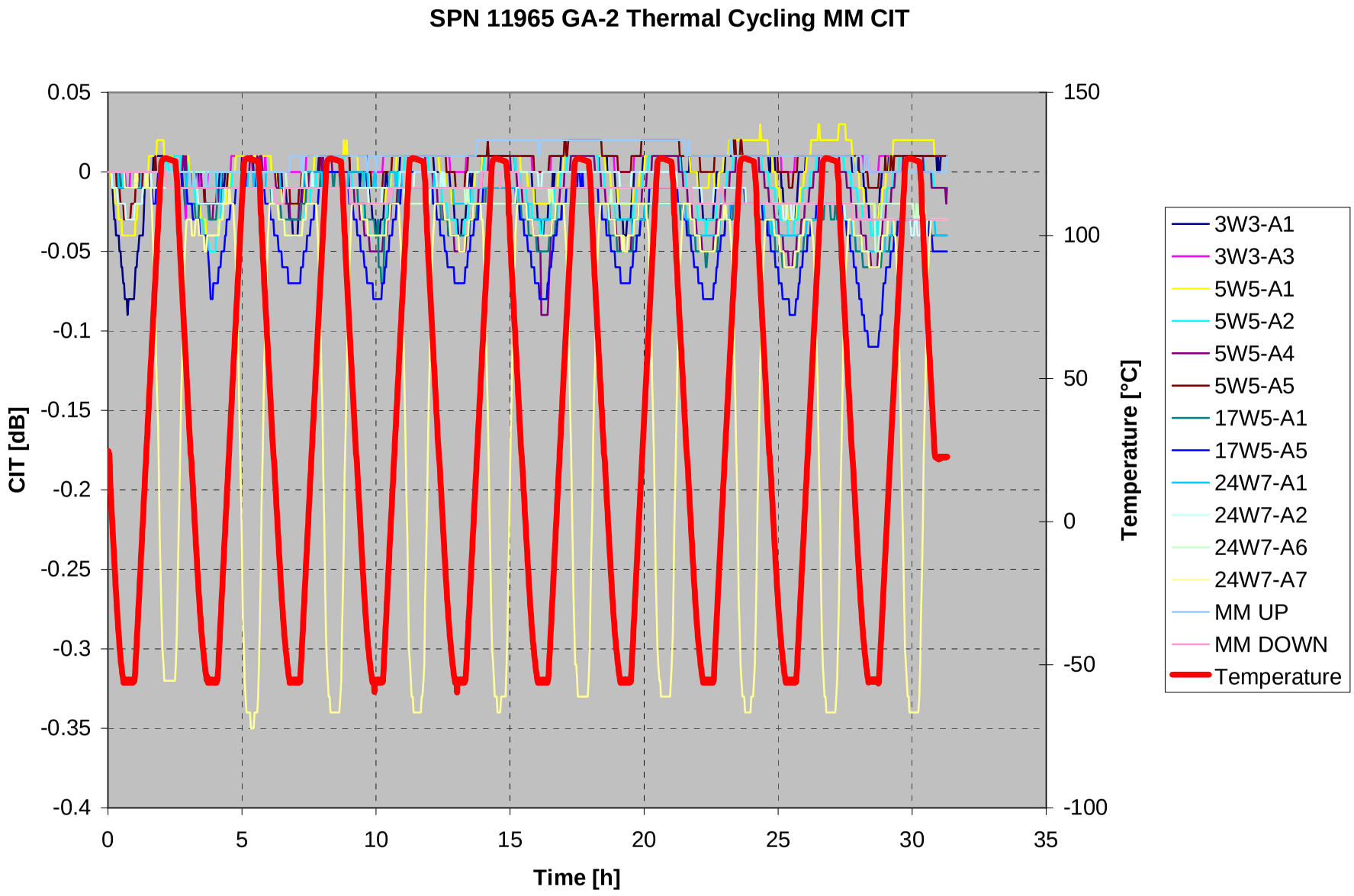
Test Sample Description	Part Number	Experior Test Procedure # (if applicable)	Customer Witness
ARINC801 Connector	CBD3W3M000T2S-MOS, CBD3W3F000E2S-MOS CBD5W5M000T2S-MOS, CBD5W5F000E2S-MOS CBD17W5M200T2S-MOS, CBD17W5F200E2S-MOS CBD24W7M200T2S-MOS, CBD24W7F200E2S-MOS	EPTP-1002 Transmittance EPWI-1044 Chamber controller programming	none

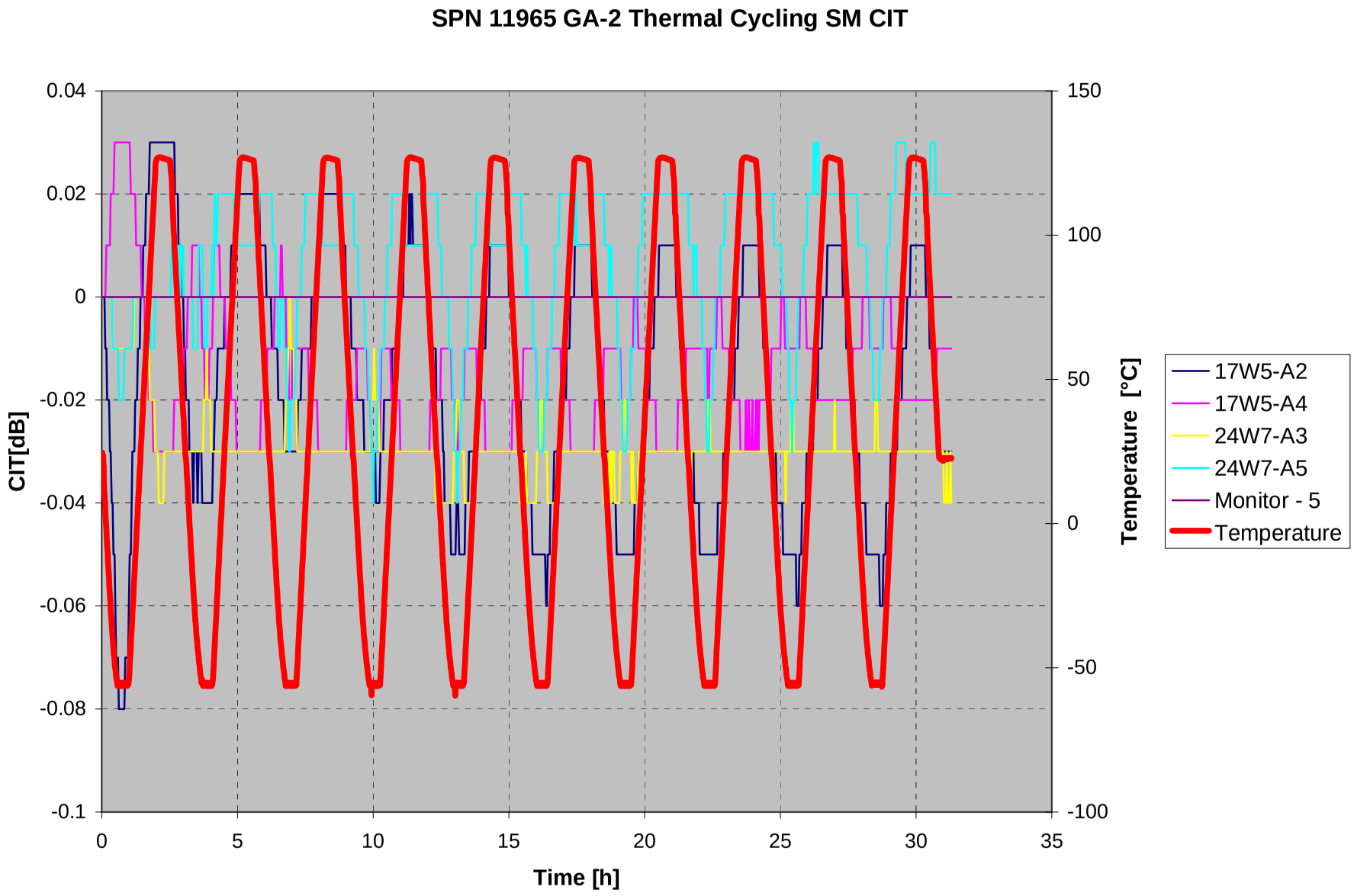
Project Engineer	Performed By		Bench Cleaning	Equipment List	Post Test Cleanup	Setup Check	Event Log	Signoff by Technical Director
Norman Metzner	NM	Signoff	NM	NM	N/A	NM	NM	john kim
		Date/Time	3/28/12 4pm	3/28/12 4pm	N/A	3/28/12 4pm	4/2/2012 11am	

Results Summary

Category	Requirement	Max/Min Measurement Value	Compliance
CIT [dB] MM	0.5	-0.35	4/4
CIT [dB] SM	--	-0.08	2/2

Date	Time	Event Log	Initials
03/28/12	4:00 PM	Started optical system setup and routed samples in chamber	NM
	6:30 PM	Finished setup and started satbility	
03/29/12	11:00 AM	Programmed chamber and started test	
03/30/12	6:30 PM	Test completed	
04/02/12	8:00 AM	Collected data	


SPN 11965 GA-2 Thermal Cycling MM CIT
CIT [dB]
Temperature [°C]
Time [h]
0.05
0
-0.05
-0.1
-0.15
-0.2
-0.25
-0.3
-0.35
-0.4
150
100
50
0
-50
-100
0
5
10
15
20
25
30
35
3W3-A1
3W3-A3
5W5-A1
5W5-A2
5W5-A4
5W5-A5
17W5-A1
17W5-A5
24W7-A1
24W7-A2
24W7-A6
24W7-A7
MM UP
MM DOWN
Temperature


SPN 11965 GA-2 Thermal Cycling SM CIT
CIT[dB]
0.04
0.02
0
-0.02
-0.04
-0.06
-0.08
-0.1
Time [h]
0
5
10
15
20
25
30
35
Temperature [°C]
150
100
50
0
-50
-100
17W5-A2
17W5-A4
24W7-A3
24W7-A5
Monitor - 5
Temperature

SPN 11365
GA-2 through GA-4
Temp Life
3/29/12

Test Datasheet

Test Report by:
Experior Laboratories, Inc.

Start Date	Completion Date	Customer Name	Purchase Order #	Service Project Number SPN	Test ID #	Temperature	Humidity	DS Revision
6/2/2012	6/5/2012	NXTCon	177125	11965	GA-5	23 °C	29 %RH	06/05/12

Test Title	Test Specification / Standard	Specific Test Conditions	Measurements / Inspection
Salt Spray	4.5.19 of MIL-DTL-24308G, EIA-364-26B, test condition B TIA-455-16A (FOTP-16), test condition C, based from paragraph 2.4.4.5 of ARINC Specification 801-2	48h of salt spray followed by dry-out at 38ºC ± 3ºC for a period of 12 hours	CIT [dB], Temperature [°C]

Anomaly / Interruption	Nonconformity / Deviation
none	none

Instrum. Number	Manufacturer	Model Number	Serial Number	Instrument Description	Last Cal Date	Cal Due Date
1264	Rifocs	753R-1300	129236	Triple 1300nm LED Source	11/7/2011 6:08:50 PM	11/7/2012
1198	Rifocs	715RF-24	124741	Multimode 62.5 Optical Switch	Ref Only	Ref Only
1020	Agilent	81637B	DE41300321	Fast Optical Power Meter	9/29/2011 2:47:02 PM	9/29/2013
1072	JDS	SC Series	EG001153	2x44 Optical Switch	Reference Only	Reference Only
1071	JDS	SC Series	EG001152	2x44 Optical Switch	Reference Only	Reference Only
1155	JDS Uniphase	SB Series	ED155457	1x8 Optical Switch	Reference Only	Reference Only
1191	Optotest	OP750	10397	1310/1490/1550/1625nm Laser	2/3/2012 4:56:12 PM	2/3/2014
1016	Agilent	81637B	DE41300332	Fast Optical Power Meter	9/29/2011 2:45:32 PM	9/29/2013
1187	Agilent	81610A	DE40500226	Return Loss Module	12/8/2011 11:47:26 AM	12/8/2012
1521	Hanna Instruments	HI98129	M-15483	ph/Conductivity Meter	Calibrated Before Use	Calibrated Before Use
1059	Associated	MX-9216	9368	Salt Spray chamber	12/16/2011 9:50:02 AM	12/16/2012
1000	Agilent	81635A	DE38601573	Dual Optical Power Meter	2/21/2012 5:25:52 PM	2/21/2014

Test Sample Description	Part Number	Experior Test Procedure # (if applicable)	Customer Witness
Combo-D connector	CBD3W3M000T2S-MOS, CBD3W3F000E2S-MOS CBD5W5M000T2S-MOS, CBD5W5F000E2S-MOS CBD17W5M200T2S-MOS, CBD17W5F200E2S-MOS CBD24W7M200T2S-MOS, CBD24W7F200E2S-MOS	EPTP-1002 Transmittance	none

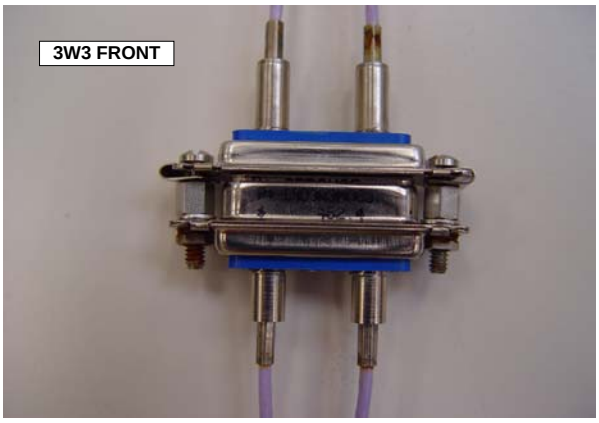
Project Engineer	Performed By		Bench Cleaning	Equipment List	Post Test Cleanup	Setup Check	Event Log	Signoff by Technical Director
Norman Metzner	MD/JB	Signoff	MD	MD	JB	NM	NM	john kim
		Date/Time	6/2/12 6:00am	6/2/12 6:30am	6/5/12 1pm	6/1/12 3pm	6/5/12 1pm	

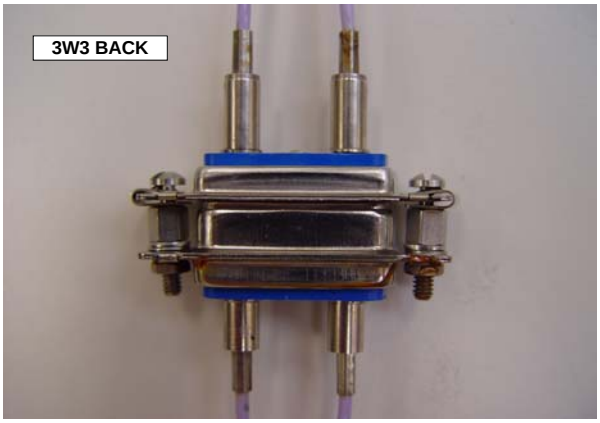
Results Summary

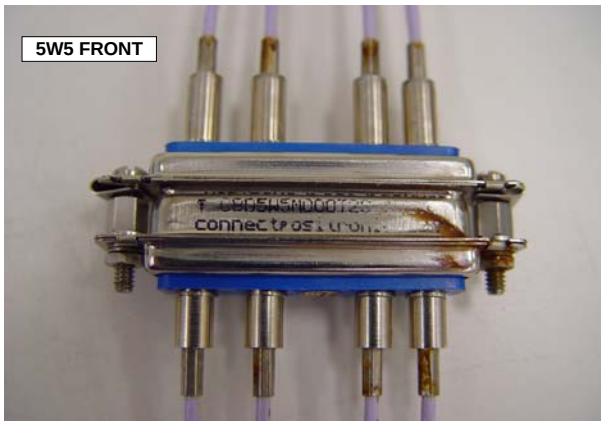
Salt Solution Collected		Pass/Fail	Temperature	Deg C	Requirement	Pass/Fail	Air Pressure		Pass/Fail	Salt Solution		Pass/Fail
Front Beaker	30 mL	Pass	Chamber Temperature	35	34-41	Pass	Requirement	12-18 psi	Pass	Requirement	6.5-7.2 pH	Pass
Rear Beaker	17 mL		Tower Temperature	42	40-42	Pass	16 psi			pH 6.63		

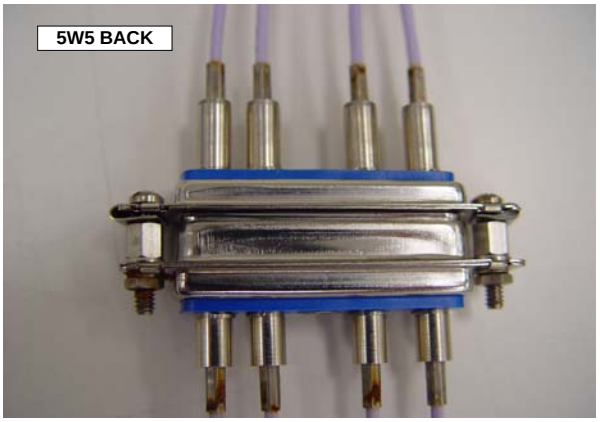
Category	Requirement	Max/Min Measurement Value	Compliance
CIT [dB] MM	0.5	-0.13/0.03	4/4
CIT [dB] SM	0.5	-0.12/-0.04	2/2
Visula Inspection	no damage due to corrosion	corrosion observed, see tab "Post Test Pictures", however, no cracking or pitting	4/4

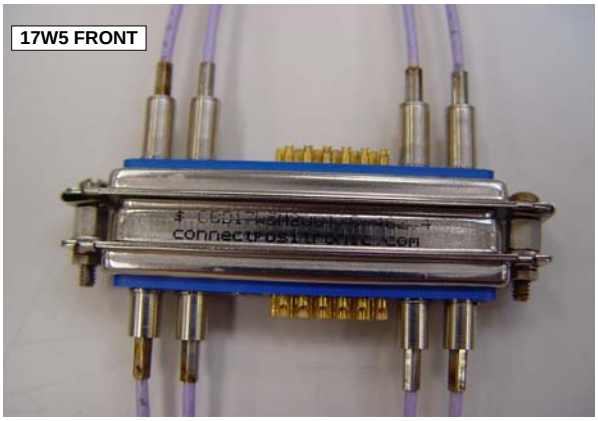
Date	Time	Event Log	Initials
6/2/2012	6:00am	Started warming up salt spray chamber	MD
	7:30am	Prepared salt solution	
	7:40am	Calibrate ph meter and checked ph of salt solution (ph = 6.55)	
	7:45am	Loaded salt solution on salt spray tank	
	8:30pm	Put samples in salt spray chamber, started 48 hour exposure @ 35c	
06/04/12	8:30am	Removed samples from salt spray, finished 48 hour exposure @ 35c	MD
	8:45am	Rinsed samples in warm water for 5 minutes and took after test pictures	
	9:00am	Started 12h dry-out period at 38 deg C	NM
	9:00pm	dry-out period completed	
06/05/12	8:30am	took samples out of oven	
	9:30am	Baselined single and multimode	
	8:45 AM	Setup Test Equipment for Post Test Measurements	JB
	1:00 AM	Started Post Test Measurements for 3W3	
	11:45 AM	Completed Post Test Measurements for all four Samples	

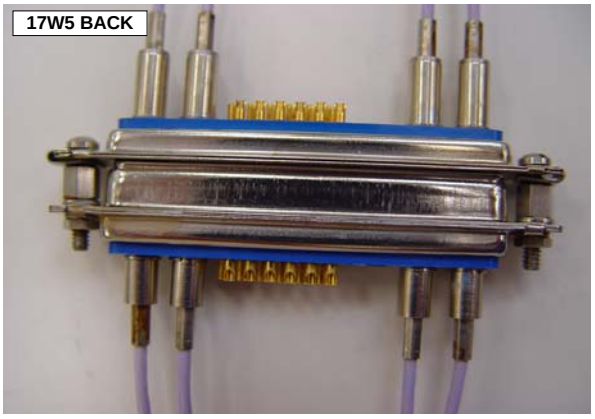

3W3 FRONT

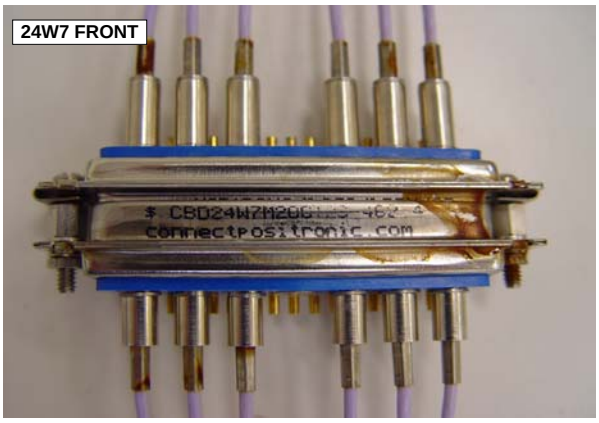

3W3 BACK

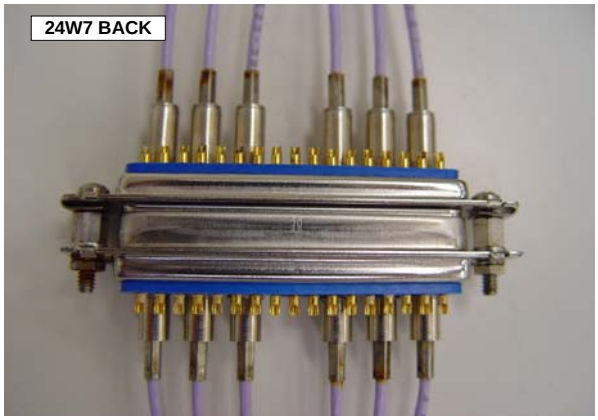

5W5 FRONT


5W5 BACK


17W5 FRONT

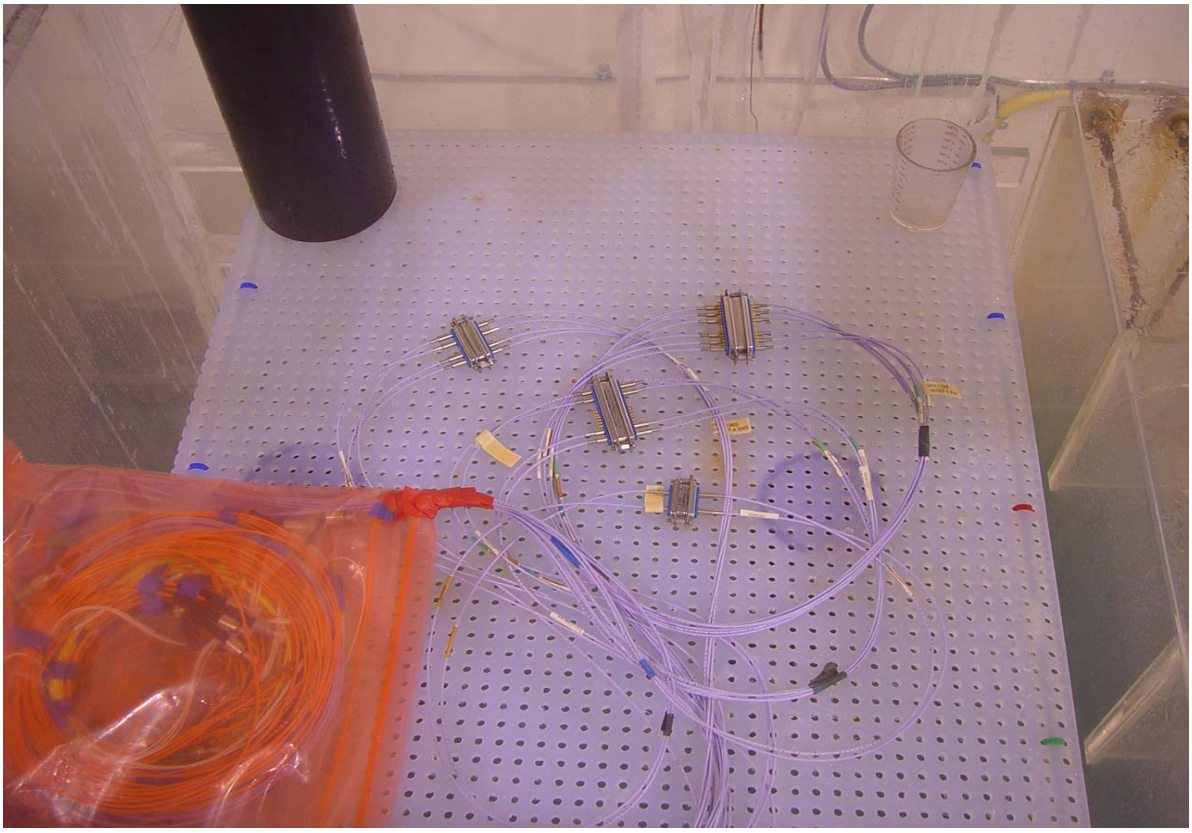

17W5 BACK

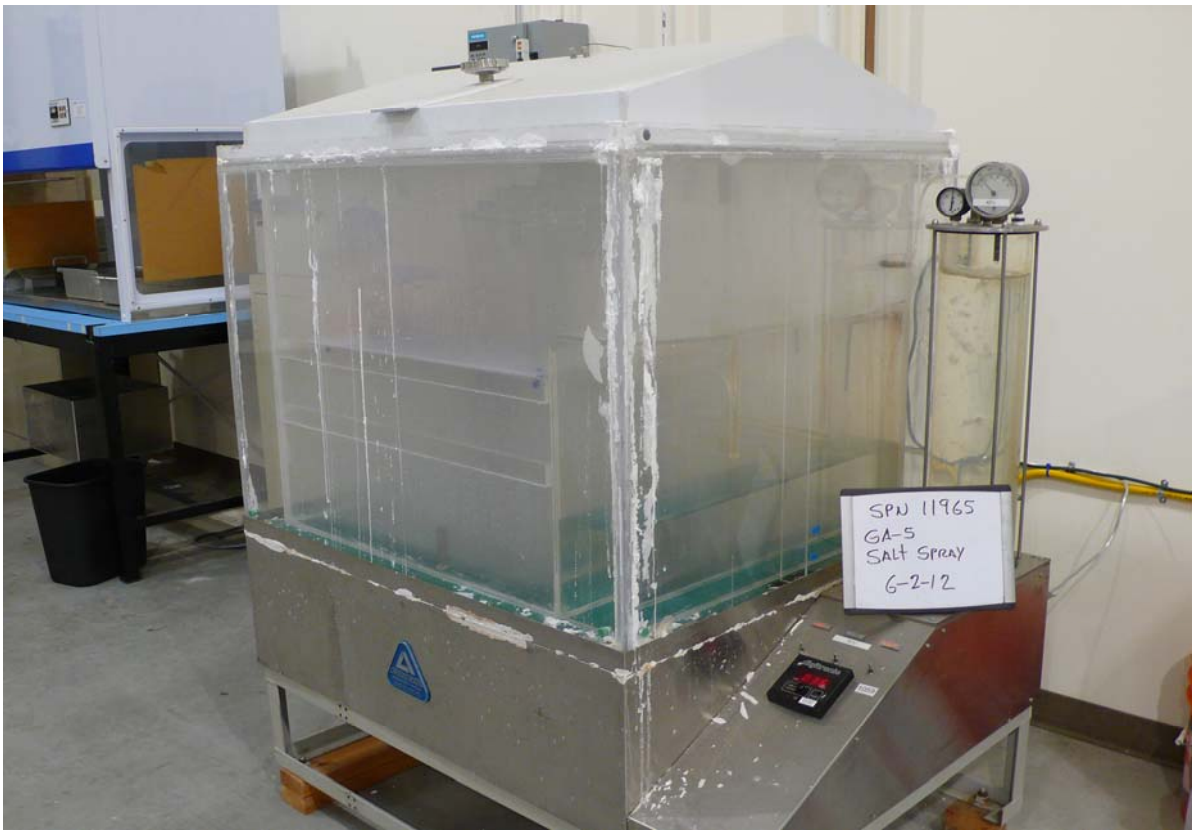

24W7 FRONT


24W7 BACK

3W3		5W5				17W5				24W7						TEST
A1 mm	A3 mm	A1 mm	A2 mm	A4 mm	A5 mm	A1 mm	A2 sm	A4 sm	A5 mm	A1 mm	A2 mm	A3 sm	A5 sm	A6 mm	A7 mm	
0.06	0.02	0.05	0.03	0.04	0.04	0.02	0.25	0.26	0.03	0.03	0.02	0.28	0.23	0.03	0.04	Initial IL
0.01	0.01	0.01	-0.01	-0.01	0.01	-0.04	-0.03	-0.01	-0.05	-0.04	-0.03	-0.04	0.02	-0.03	-0.03	CIT after Thermal Cycle
-0.01	-0.06	-0.01	-0.07	-0.03	0.01	-0.03	-0.02	0.04	-0.03	-0.04	0.02	-0.01	0.05	-0.01	-0.12	CIT after Humidity
0.00	0.04	-0.01	0.06	0.01	-0.02	0.02	0.02	0.01	0.06	0.03	0.02	0.01	-0.03	0.01	0.08	CIT after Temp Life
0.06	0.03	0.06	0.05	0.07	0.04	0.07	0.28	0.22	0.05	0.08	0.01	0.32	0.19	0.06	0.11	IL before Salt Spray
0.15	0.05	0.12	0.1	0.2	0.12	0.07	0.32	0.28	0.12	0.07	0.05	0.44	0.29	0.05	0.08	IL after Salt Spray
-0.09	-0.02	-0.06	-0.05	-0.13	-0.08	0.00	-0.04	-0.06	-0.07	0.01	-0.04	-0.12	-0.10	0.01	0.03	CIT after Salt Spray
-38.66	-38.56	-38.63	-38.61	-38.71	-38.63	-38.58	-8.49	-8.45	-38.63	-38.58	-38.56	-8.61	-8.46	-38.56	-38.59	sample power
-38.51	-38.51	-38.51	-38.51	-38.51	-38.51	-38.51	-8.17	-8.17	-38.51	-38.51	-38.51	-8.17	-8.17	-38.51	-38.51	baseline

For CIT after Salt




SPN 11965
GA-5
SALT SPRAY
6-2-12

Test Datasheet

Test Report by:
Experior Laboratories, Inc.

Start Date	Completion Date	Customer Name	Purchase Order #	Service Project Number SPN	Test ID #	Temperature	Humidity	DS Revision
4/13/2012	5/27/2012	NXTCon	177125	11965	GA-4	23 °C	29 %RH	05/30/12

Test Title	Test Specification / Standard	Specific Test Conditions	Measurements / Inspection
Temperature Life	TIA/EIA-455-4C (FOTP-4) with the following procedure and criteria, which is based from paragraph 2.4.4.2 of ARINC Specification 801-2	The temperature exposure shall be 125ºC ± 2ºC for the duration of 1,000 hours	CIT [dB], Temperature [C]

Anomaly / Interruption	Nonconformity / Deviation
none	none

Instrum. Number	Manufacturer	Model Number	Serial Number	Instrument Description	Last Cal Date	Cal Due Date
1264	Rifocs	753R-1300	129236	Triple 1300nm LED Source	11/7/2011 6:08:50 PM	11/7/2012
1198	Rifocs	715RF-24	124741	Multimode 62.5 Optical Switch	Ref Only	Ref Only
1020	Agilent	81637B	DE41300321	Fast Optical Power Meter	9/29/2011 2:47:02 PM	9/29/2013
1072	JDS	SC Series	EG001153	2x44 Optical Switch	Reference Only	Reference Only
1071	JDS	SC Series	EG001152	2x44 Optical Switch	Reference Only	Reference Only
1155	JDS Uniphase	SB Series	ED155457	1x8 Optical Switch	Reference Only	Reference Only
1191	Optotest	OP750	10397	1310/1490/1550/1625nm Laser	2/3/2012 4:56:12 PM	2/3/2014
1016	Agilent	81637B	DE41300332	Fast Optical Power Meter	9/29/2011 2:45:32 PM	9/29/2013
1187	Agilent	81610A	DE40500226	Return Loss Module	12/8/2011 11:47:26 AM	12/8/2012
1460	Cincinnati Subzero	ZH-2	Z9913064	2 cu ft Environmental Chamber	4/12/2012	4/12/2013

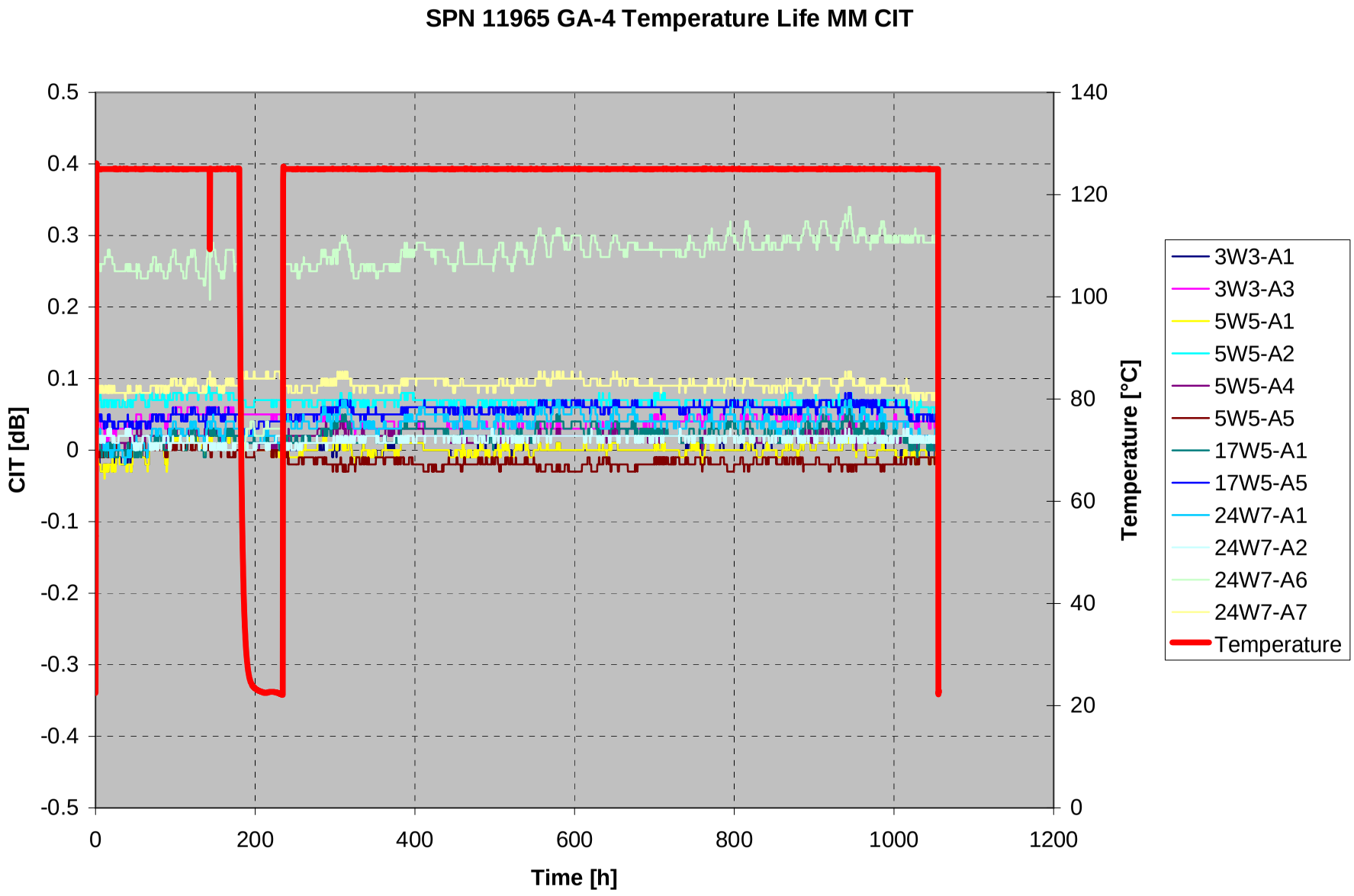
Test Sample Description	Part Number	Experior Test Procedure # (if applicable)	Customer Witness
Combo-D connector	CBD3W3M000T2S-MOS, CBD3W3F000E2S-MOS CBD5W5M000T2S-MOS, CBD5W5F000E2S-MOS CBD17W5M200T2S-MOS, CBD17W5F200E2S-MOS CBD24W7M200T2S-MOS, CBD24W7F200E2S-MOS	EPTP-1002 Transmittance EPWI-1044 Chamber controller programming	none

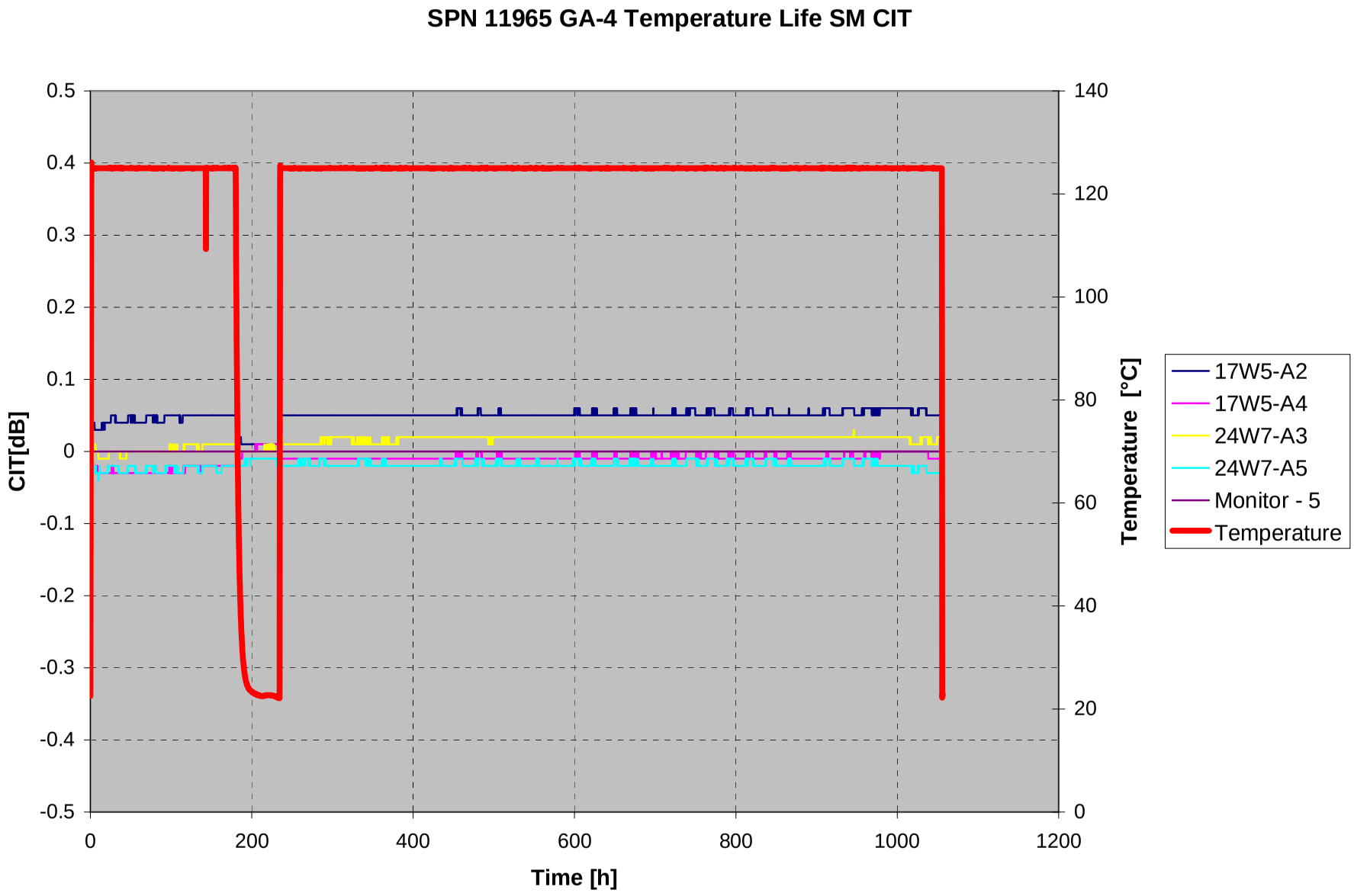
Project Engineer	Performed By		Bench Cleaning	Equipment List	Post Test Cleanup	Setup Check	Event Log	Signoff by Technical Director
Norman Metzner	NM	Signoff	NM	NM	NDY	NM	NM	john kim
		Date/Time	4/13/12 2pm	4/13/12 2pm	NDY	4/13/12 2pm	5/30/12 9am	

Results Summary

Category	Requirement	Max/Min Measurement Value	Compliance
CIT [dB] MM	0.5	0.34/-0.04	4/4
CIT [dB] SM	0.5	0.11/-0.04	2/2

Date	Time	Event Log	Initials
04/13/12	2:00 PM	Started Temperature Life test	NM
04/16/12	4:45 PM	Collected interim data and checked compliance as well as system performance	
04/17/12	4:45 PM	Collected interim data and checked compliance as well as system performance	
04/18/12	8:00 AM	Collected interim data and checked compliance as well as system performance	
04/19/12	11:30 AM	Collected interim data and checked compliance as well as system performance	
04/20/12	8:34 AM	Collected interim data and checked compliance as well as system performance	
04/23/12	8:28 AM	Collected interim data and checked compliance as well as system performance (power outage on Saturday, chamber idled at 23), restarted chamber	
04/24/12	9:00 AM	Collected interim data and checked compliance as well as system performance	
04/25/12	3:22 PM	Collected interim data and checked compliance as well as system performance	
04/26/12	10:30 AM	Collected interim data and checked compliance as well as system performance	
04/27/12	9:00 AM	Collected interim data and checked compliance as well as system performance	
04/30/12	9:00 AM	Collected interim data and checked compliance as well as system performance	
05/01/12	8:44 AM	Collected interim data and checked compliance as well as system performance	
05/02/12	8:54 AM	Collected interim data and checked compliance as well as system performance	
05/03/12	3:00 PM	Collected interim raw data	AG
05/14/12	8:45am	Collected interim data and checked compliance as well as system performance	NM
05/15/12	7:45am	Collected interim data and checked compliance as well as system performance	
05/17/12	10:30am	Collected interim data and checked compliance as well as system performance	
05/18/12	9:20am	Collected interim data and checked compliance as well as system performance	
05/21/12	8:10am	Collected interim data and checked compliance as well as system performance	
05/22/12	8:10am	Collected interim data and checked compliance as well as system performance	
05/23/12	8:20am	Collected interim data and checked compliance as well as system performance	
05/24/12	8:20am	Collected interim data and checked compliance as well as system performance, SM system crashed	
	11:00am	Baselined and restarted sm system	
05/29/12	9am	Test finished, collected data	


SPN 11965 GA-4 Temperature Life MM CIT
CIT [dB]
Temperature [°C]
Time [h]
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
140
120
100
80
60
40
20
0
0
200
400
600
800
1000
1200
3W3-A1
3W3-A3
5W5-A1
5W5-A2
5W5-A4
5W5-A5
17W5-A1
17W5-A5
24W7-A1
24W7-A2
24W7-A6
24W7-A7
Temperature


SPN 11965 GA-4 Temperature Life SM CIT
CIT[dB]
Temperature [°C]
Time [h]
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
140
120
100
80
60
40
20
0
0
200
400
600
800
1000
1200
17W5-A2
17W5-A4
24W7-A3
24W7-A5
Monitor - 5
Temperature

SPN 11365
GA-2 through GA-4
Temp Life
3/29/12

Test Datasheet

Test Report by:
Experior Laboratories, Inc.

Start Date	Completion Date	Customer Name	Purchase Order #	Service Project Number SPN	Test ID #	Temperature	Humidity	DS Revision
6/11/2012	6/11/2012	NXTCon	177125	11965	GA-7	23 °C	55 %RH	06/11/12

Test Title	Test Specification / Standard	Specific Test Conditions	Measurements / Inspection
Return Loss	2.4.3.2 of ARINC Specification 801-2 and in accordance with TIA/EIA-455-107A (FOTP-107).	Return loss should be a minimum of 20 dB for multimode PC polish termini and 30 dB for single-mode PC polish termini	RL [dB]

Anomaly / Interruption	Nonconformity / Deviation
none	none

Instrum. Number	Manufacturer	Model Number	Serial Number	Instrument Description	Last Cal Date	Cal Due Date
1260	Extech	42280	9069033	Temperature Humidity Datalogger	5/3/2012	5/3/2013
1451	Rifocs	781RL-13-110	122785	1300nm MM Return Loss Meter	9/6/2011 5:38:40 PM	9/6/2012
1224	JGR	BR5	750004	Quad-Wave Backreflection Meter	1/3/2012 10:43:29 AM	1/3/2013

Test Sample Description	Part Number	Experior Test Procedure # (if applicable)	Customer Witness
Rectangular ARINC801	CBD3W3M000T2S-MOS, CBD3W3F000E2S-MOS CBD5W5M000T2S-MOS, CBD5W5F000E2S-MOS CBD17W5M200T2S-MOS, CBD17W5F200E2S-MOS CBD24W7M200T2S-MOS, CBD24W7F200E2S-MOS	EPTP-1005 Return Loss	none

Project Engineer	Performed By		Bench Cleaning	Equipment List	Post Test Cleanup	Setup Check	Event Log	Signoff by Technical Director
Norman Metzner	Harris R	Signoff	HR	HR	HR	NM	NM	john kim
		Date/Time	6/11/12 7:30AM	6/11/12 7:30AM	6/11/12 9:30AM	6/11/12 7:30AM	6/11/12 11am	

Results Summary

Category	Requirement	Max/Min Measurement Value	Compliance
Return Loss [dB]	20 for MM and 30 for SM	45	4/4

Date	Time	Event Log	Initials
06/11/12	7:30AM	Started Preparation and Reference for RL Reference Test	HR
	9:30AM	Finished RL test to all Samples	

MULTIMODE @1300nm, Singlemode @1550nm		
Sample #	**Channel**	**RL [dB]**
3W3	A1 mm	>45
	A3 mm	>45
5W5	A1 mm	>45
	A2 mm	>45
	A4 mm	>45
	A5 mm	>45
17W5	A1 mm	>45
	A2 sm	55.9
	A4 sm	56.7
	A5 mm	>45
24W7	A1 mm	>45
	A2 mm	>45
	A3 sm	56.6
	A5 sm	56.1
	A6 mm	>45
	A7 mm	>45

Test Datasheet

Test Report by:
Experior Laboratories, Inc.

Start Date	Completion Date	Product Name	Purchase Order #	Service Project Number SPN	Test ID #	Temperature	Humidity	DS Revision
3/12/2012	3/14/2012	NXTCore	177125	11965	GA-1	23 °C	29 %RH	03/23/12

Test Title	Test Specification / Standard	Specific Test Conditions	Measurements / Inspection
IL-RL	TIA-455-171A (FOTP-171), Method D1 (multimode) and D3 (single-mode) 2.4.3.2 of ARINC Specification 801-2 and in accordance with TIA/EIA-455-107A (FOTP-107).	Fiber optic connector assemblies shall have a maximum attenuation of 0.3 dB for multimode connections. For all single-mode connections, measure and record only. No failure criterion exists for single-mode connections Return loss should be a minimum of 20 dB for multimode PC polish termini and 30 dB for single-mode PC polish termini	IL [dB], RL [dB]

Anomaly / Interruption	Nonconformity / Deviation
none	none

Instrum. Number	Manufacturer	Model Number	Serial Number	Instrument Description	Last Cal Date	Cal Due Date
1260	Extech	42280	9069033	Temperature Humidity Datalogger	5/3/2011 1:03:12 PM	5/3/2012
1402	Fujikura	FSM-50S	12161	Fiber Fusion Splicer	Reference Only	Reference Only
1405	Fujikura	CT-30	63162	Fiber Cleaver	Reference Only	Reference Only
1103	Hewlett Packard	81524A	3248G01181	Optical Power Head	10/31/2011 2:10:44 PM	10/31/2012
1254	Hewlett Packard	81533B	3411G05264	Optical Head Interface	Reference Only	Reference Only
1451	Rifocs	781RL-13-110	122785	1300nm MM Return Loss Meter	9/6/2011 5:38:40 PM	9/6/2012
1400	Fujikura	FSM-17S	687	Fiber Fusion Splicer	Reference Only	Reference Only
1407	Fujikura	CT-30	21094	Fiber Cleaver	Reference Only	Reference Only
1224	JGR	BR5	750004	Quad-Wave Backreflection Meter	1/3/2012 10:43:29 AM	1/3/2013
1102	Hewlett Packard	81533B	3411G05696	Optical Head Interface	Reference Only	Reference Only
1258	Hewlett Packard	HP 81524A	3248G01541	Optical Power Head	3/8/2012 3:22:08 PM	3/8/2014

Test Sample Description	Part Number	Experior Test Procedure # (if applicable)	Customer Witness
Combo-D connector	CBD3W3M000T2S-MOS, CBD3W3F000E2S-MOS CBD5W5M000T2S-MOS, CBD5W5F000E2S-MOS CBD17W5M200T2S-MOS, CBD17W5F200E2S-MOS CBD24W7M200T2S-MOS, CBD24W7F200E2S-MOS	EPTP-1002 Transmittance EPTP-1005 Return Loss	Scott Youngkin

Project Engineer	Performed By		Bench Cleaning	Equipment List	Post Test Cleanup	Setup Check	Event Log	Signoff by Technical Director
Norman Metzner	JZ/HR	Signoff	HR	HR/JZ	NDY	NM	NM	john kim
		Date/Time	3/12/12 12:30PM	3/13/12/ 7:30AM	NDY	3/12/12 12:30PM	3/19/12 3pm	

Results Summary

Category	Requirement	Max/Min Measurement Value	Compliance
Insertion Loss [dB]	0.3 (for MM only)	0.07	4/4
Return Loss [dB]	20 for MM and 30 for SM	45	4/4

Date	Time	Event Log	Initials
03/12/12	2:30PM	Started IL-RL measurements	HR
03/13/12	11:30AM	Retested the 2 single mode the A2 RL is too low, save the second Results	
	1:30PM	Finished IL-RL for all the Samples for Vibration Test	
03/14/12	8:00AM	Started IL-RL re-testing, samples have been unmated by customer and termini for all singlemode channels have been replaced	
	11:15 AM	Finish testing IL-RL retesting	

MULTIMODE @1300nm, Singlemode @1550nm					
Sample #	**Channel**	**Power [dBm]**	**Cutback [dbm]**	**IL [dB]**	**RL [dB]**
3W3	A1 mm	-11.42	-11.40	0.02	>45
	A3 mm	-11.40	-11.39	0.01	>45
5W5	A1 mm	-11.41	-11.39	0.02	>45
	A2 mm	-11.41	-11.39	0.02	>45
	A4 mm	-11.40	-11.39	0.01	>45
	A5 mm	-11.44	-11.41	0.03	>45
17W5	A1 mm	-11.58	-11.54	0.04	>45
	A2 sm	-5.68	-5.66	0.02	54.4
	A4 sm	-5.60	-5.57	0.03	56.5
	A5 mm	-11.47	-11.44	0.03	>45
24W7	A1 mm	-11.40	-11.36	0.04	>45
	A2 mm	-11.38	-11.33	0.05	>45
	A3 sm	-5.31	-5.24	0.07	56.6
	A5 sm	-5.25	-5.21	0.04	55.1
	A6 mm	-11.25	-11.22	0.03	>45
	A7 mm	-11.20	-11.18	0.02	>45
Retest					
5W5	A1 mm	-11.31	-11.29	0.02	>45
	A2 mm	-11.64	-11.56	0.08	>45
	A4 mm	-11.57	-11.56	0.01	>45
	A5 mm	-11.54	-11.48	0.06	>45
17W5	A1 mm	-11.47	-11.44	0.03	>45
	A2 sm	-4.49	-4.47	0.02	59.8
	A4 sm	-5.51	-5.49	0.02	59.3
	A5 mm	-11.51	-11.47	0.04	>45

SPN 11965 G1-1
Initial IL-RL
Before Vibration test
3/13/12

Test Datasheet

Test Report by:
Experior Laboratories, Inc.

Start Date	Completion Date	Product Name	Purchase Order #	Service Project Number SPN	Test ID #	Temperature	Humidity	DS Revision
3/19/2012	4/13/2012	NXTCore	177125	11965	GB-3	23 °C	38 %RH	04/16/12

Test Title	Test Specification / Standard	Specific Test Conditions	Measurements / Inspection
Mechanical Shock Phase 1	4.5.17 of MIL-DTL-24308G EIA-364-27C, test condition E	Phase 1: 50g, 18 shocks, 11ms-> no discontinuities of >0.5dB for 50us during and CIT not to exceed 0.5dB after	Acceleration [g], Frequency [Hz], Discontinuity [us], CIT [dB]

Anomaly / Interruption	Nonconformity / Deviation
none	none

Instrum. Number	Manufacturer	Model Number	Serial Number	Instrument Description	Last Cal Date	Cal Due Date
1119	Unholtz Dickie	SA30-SO92	3117 - 271	Electrodynamic Vibration System	Reference Only	Reference Only
1035	Dytran	3055A1	1145	10mV/G Triaxial Accelerometer	10/26/2011 9:31:58 AM	10/26/2012
1111	Vibration Research	VRC8555B	0dffcf	2 Channel Vibration Controller	12/9/2011	12/9/2012
1217	Rifocs	555B	122347	Optical Power Meter	10/24/2011 2:28:02 PM	10/24/2012
1219	Experior Photonics	EP-TE2000	SN 2008	QPL 8-channel 1300nm LED	2/3/12	2/3/14
1085	Experior Photonics	EP-TE1004	1002	Discontinuity Monitor 8 channel	9/11/2011 3:33:44 PM	9/11/2012
1103	Hewlett Packard	81524A	3248G01181	Optical Power Head	10/31/2011 2:10:44 PM	10/31/2012
1224	JGR	BR5	750004	Quad-Wave Backreflection Meter	1/3/2012 10:43:29 AM	1/3/2013
1254	Hewlett Packard	81533B	3411G05264	Optical Head Interface	Reference Only	Reference Only
1266	Rifocs	715RF-24-106	122114	1x24 Multimode Optical Switch	Reference Only	Reference Only
1260	Extech	42280	9069033	Temperature Humidity Datalogger	5/3/2011 1:03:12 PM	5/3/2012
1028	Agilent	81610A	DE40500414	Return Loss Module	12/16/2011 11:40:19 AM	12/16/2012

Test Sample Description	Part Number	Experior Test Procedure # (if applicable)	Customer Witness
ARINC801 Compatible Connector	CBD3W3M000T2S-MOS, CBD3W3F000E2S-MOS CBD5W5M000T2S-MOS, CBD5W5F000E2S-MOS CBD17W5M200T2S-MOS, CBD17W5F200E2S-MOS CBD24W7M200T2S-MOS, CBD24W7F200E2S-MOS	EPWI-1043 ETS Vibration System Operating Procedure EPWI-1100 Vibration Controller Programming EPTP-1002 Transmittance EPTP-1004 Optical Signal Discontinuity	none

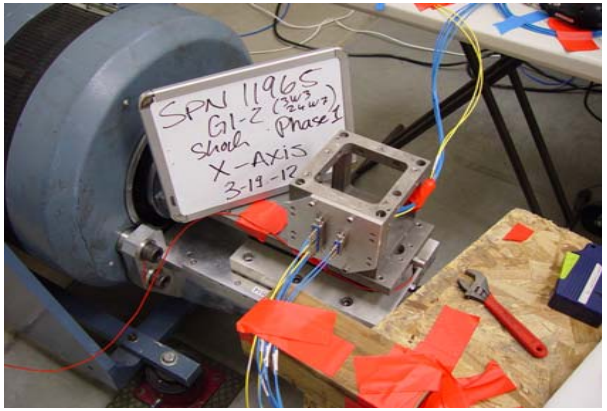
Project Engineer	Performed By		Bench Cleaning	Equipment List	Post Test Cleanup	Setup Check	Event Log	Signoff by Technical Director
Norman Metzner	NM	Signoff	NM	NM	NM	NM	NM	john kim
		Date/Time	3/19/12 11:45am	3/19/12 11:45am	4/13/12 4pm	3/19/12 11:45am	4/13/12 4pm	

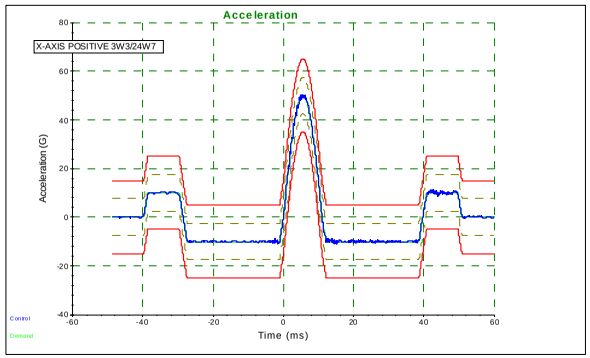
Results Summary

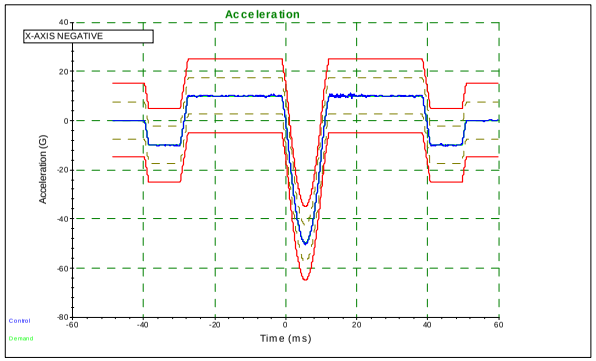
Category	Requirement	Max/Min Measurement Value	Compliance
CIT [dB] after	+/- 0.5dB	0.01/-0.06	4/4
Discontinuity	no discontinuity of +/- 0.5dB for more than 50us	no discontinuities	4/4

Date	Time	Event Log	Initials
03/19/12	11:45 AM	Started Shock setup	NM
	1:45 PM	Started X-Axis shock, 3 positive, 3 negative	
	2:00 PM	Rotated fixture, started Y-Axis shock, 3 positive, 3 negative	
	2:15 PM	Rotated fixture, started Z-Axis shock, 3 positive, 3 negative	
	2:20 PM	Took final CIT measurements	
03/23/12		Changed datasheet name from G1-3 to G1-4	NM
04/13/12	1:00 PM	Started X-Axis shock, 3 positive, 3 negative	
	1:03 PM	Rotated fixture, started Y-Axis shock, 3 positive, 3 negative	
	1:06 PM	Rotated fixture, started Z-Axis shock, 3 positive, 3 negative	
	1:09 PM	Took final CIT measurements	

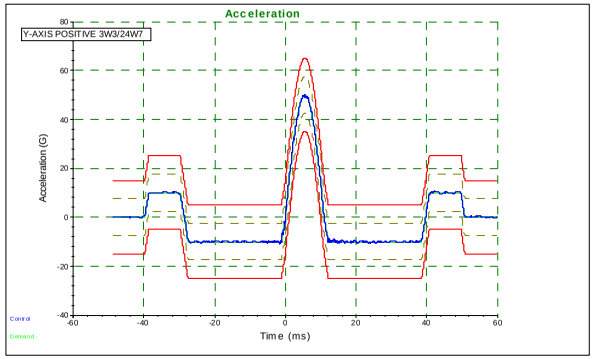
Phase 1: Mechanical Shock screening for 50us/0.5dB discontinuity							
Connector ID	Channel	X-Axis		Y-Axis	Z-Axis		
		Initial P [dBm]	Discontinuity	Discontinuity	Final P [dBm]	CIT [dB]	Discontinuity
3W3	A1 mm	-17.81	PASS	PASS	-17.82	-0.01	PASS
	A3 mm	-17.73	PASS	PASS	-17.75	-0.02	PASS
5W5	A1 mm	-18.11	PASS	PASS	-18.14	-0.03	PASS
	A2 mm	-17.72	PASS	PASS	-17.72	0.00	PASS
	A4 mm	-17.48	PASS	PASS	-17.54	-0.06	PASS
	A5 mm	-17.94	PASS	PASS	-17.93	0.01	PASS
17W5	A1 mm	-17.84	PASS	PASS	-17.84	0.00	PASS
	A2 sm	-14.67	PASS	PASS	-14.69	-0.02	PASS
	A4 sm	-14.62	PASS	PASS	-14.63	-0.01	PASS
	A5 mm	-17.79	PASS	PASS	-17.79	0.00	PASS
24W7	A1 mm	-17.47	PASS	PASS	-17.51	-0.04	PASS
	A2 mm	-17.62	PASS	PASS	-17.63	-0.01	PASS
	A3 sm	-12.14	PASS	PASS	-12.13	0.01	PASS
	A5 sm	-12.22	PASS	PASS	-12.22	0.00	PASS
	A6 mm	-17.95	PASS	PASS	-17.95	0.00	PASS
	A7 mm	-18.13	PASS	PASS	-18.13	0.00	PASS

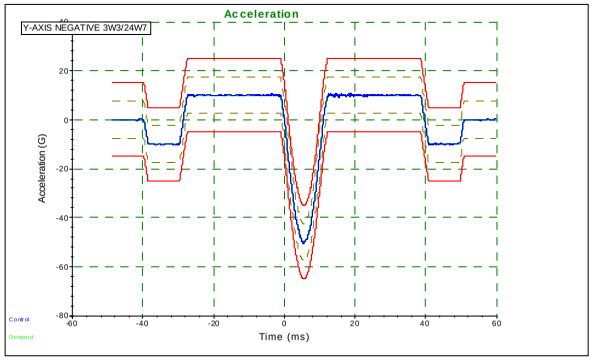

SPN 11965
G1-2 (3W3 24W7)
Shock Phase 1
X-AXIS
3-19-12


Acceleration
X-AXIS POSITIVE 3W3/24W7
Acceleration (G)
Time (ms)
Control
Demand

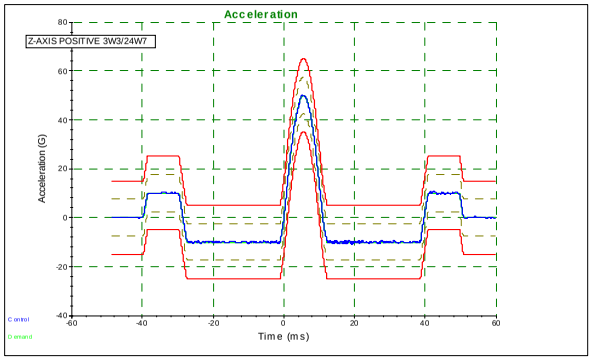

Acceleration
X-AXIS NEGATIVE
Acceleration (G)
Time (ms)
Control
Demand

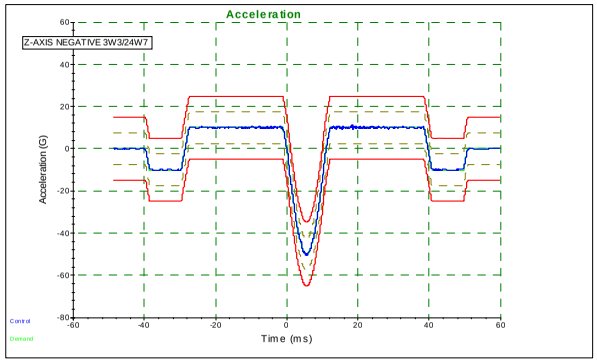
SPN 11965
G1-2 (3W3 24W7)
Shock Phase 1
Y-AXIS
3-19-12


Acceleration
Y-AXIS POSITIVE 3W3/24W7
Acceleration (G)
Time (ms)
Control
Demand

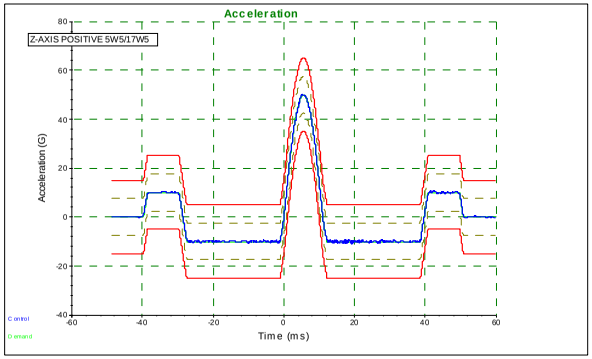

Acceleration
Y-AXIS NEGATIVE 3W3/24W7
Acceleration (G)
Time (ms)
Control
Demand

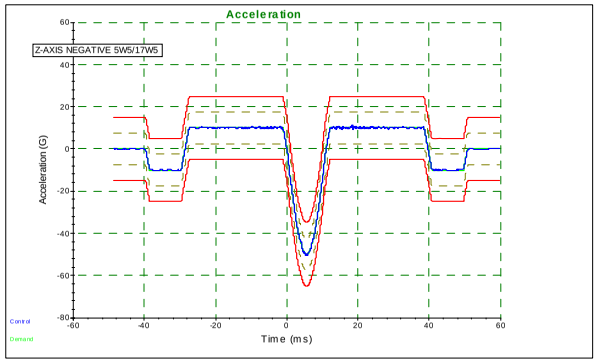
SPN 11965
G1-2 (3W3 24W7)
Shock Phase 1
Z-AXIS
3-19-12

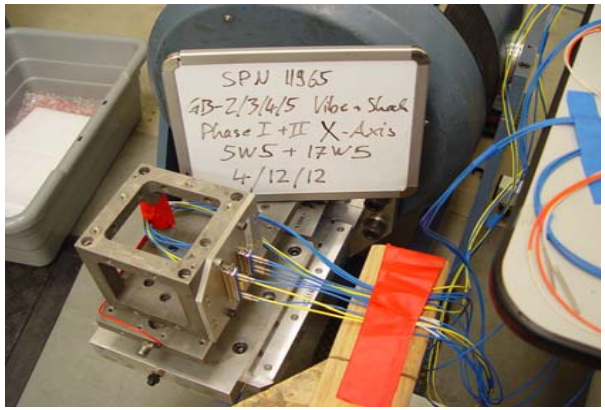

Acceleration
Z-AXIS POSITIVE 3W3/24W7
Acceleration (G)
Time (ms)
Control
Demand

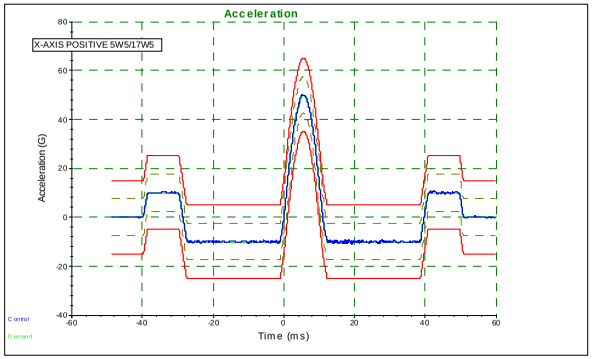

Acceleration
Z-AXIS NEGATIVE 3W3/24W7
Acceleration (G)
Time (ms)
Control
Demand

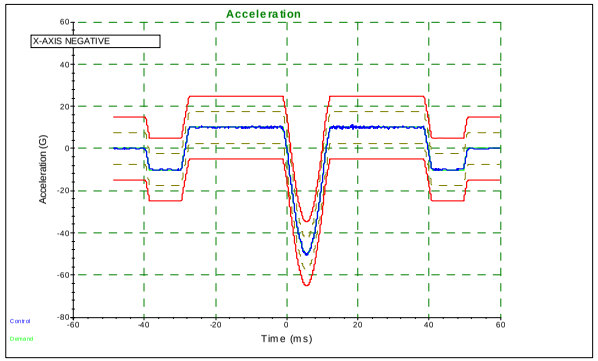
SPN 11965
GB-2/3/4/5 Vibe + Shock
Phase I + II Z-Axis
5W5 + 17W5
4/12/12

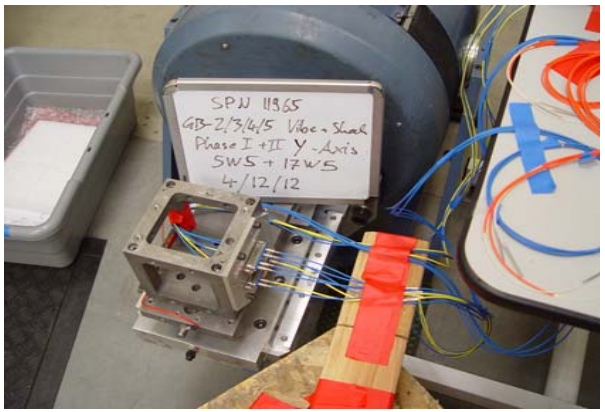

Acceleration
Z-AXIS POSITIVE 5W5/17W5
Acceleration (G)
Time (ms)
Control
Demand

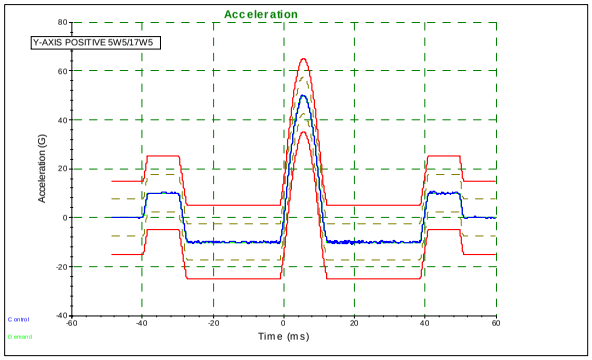

Acceleration
Z-AXIS NEGATIVE 5W5/17W5
Acceleration (G)
Time (ms)
Control
Demand

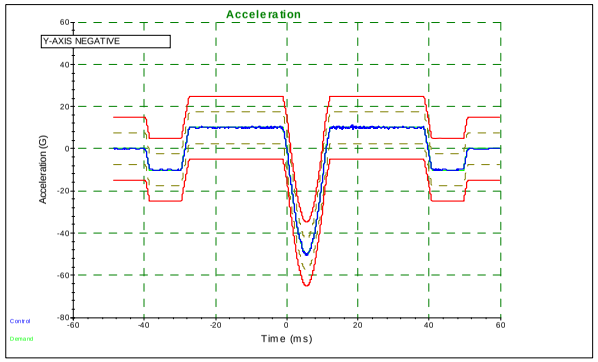

SPN 11965
GB-2/3/4/5 Vibe + Shock
Phase I + II X-Axis
5W5 + 17W5
4/12/12


Acceleration
X-AXIS POSITIVE 5W5/17W5
Acceleration (G)
Time (ms)
Control
Demand


Acceleration
X-AXIS NEGATIVE
Acceleration (G)
Time (ms)
Control
Demand


SPN 11965
GB-2/3/4/5 Vibe + Shock
Phase I + II Y-Axis
5W5 + 17W5
4/12/12


Acceleration
Y-AXIS POSITIVE 5W5/17W5
Acceleration (G)
Time (ms)
Control
Demand


Acceleration
Y-AXIS NEGATIVE
Acceleration (G)
Time (ms)
Control
Demand

Test Datasheet

Test Report by:
Experior Laboratories, Inc.

Start Date	Completion Date	Product Name	Purchase Order #	Service Project Number SPN	Test ID #	Temperature	Humidity	DS Revision
4/12/2012	4/13/2012	NXTCore	177125	11965	GB-5	23 °C	38 %RH	04/16/12

Test Title	Test Specification / Standard	Specific Test Conditions	Measurements / Inspection
Mechanical Shock Phase 2	4.5.17 of MIL-DTL-24308G EIA-364-27C, test condition E	Phase 2: 50g, 18 shocks, 11ms-> no discontinuities of >1dB for 1us during not to exceed	Acceleration [g], Frequency [Hz], Discontinuity [us], CIT [dB]

Anomaly / Interruption	Nonconformity / Deviation
none	none

Instrum. Number	Manufacturer	Model Number	Serial Number	Instrument Description	Last Cal Date	Cal Due Date
1119	Unholtz Dickie	SA30-SO92	3117 - 271	Electrodynamic Vibration System	Reference Only	Reference Only
1035	Dytran	3055A1	1145	10mV/G Triaxial Accelerometer	10/26/2011 9:31:58 AM	10/26/2012
1111	Vibration Research	VRC8555B	0dffcf	2 Channel Vibration Controller	12/9/2011	12/9/2012
1217	Rifocs	555B	122347	Optical Power Meter	10/24/2011 2:28:02 PM	10/24/2012
1219	Experior Photonics	EP-TE2000	SN 2008	QPL 8-channel 1300nm LED	2/3/12	2/3/14
1085	Experior Photonics	EP-TE1004	1002	Discontinuity Monitor 8 channel	9/11/2011 3:33:44 PM	9/11/2012
1103	Hewlett Packard	81524A	3248G01181	Optical Power Head	10/31/2011 2:10:44 PM	10/31/2012
1224	JGR	BR5	750004	Quad-Wave Backreflection Meter	1/3/2012 10:43:29 AM	1/3/2013
1254	Hewlett Packard	81533B	3411G05264	Optical Head Interface	Reference Only	Reference Only
1266	Rifocs	715RF-24-106	122114	1x24 Multimode Optical Switch	Reference Only	Reference Only
1260	Extech	42280	9069033	Temperature Humidity Datalogger	5/3/2011 1:03:12 PM	5/3/2012
1028	Agilent	81610A	DE40500414	Return Loss Module	12/16/2011 11:40:19 AM	12/16/2012

Test Sample Description	Part Number	Experior Test Procedure # (if applicable)	Customer Witness
ARINC801 Connector	CBD3W3M000T2S-MOS, CBD3W3F000E2S-MOS CBD5W5M000T2S-MOS, CBD5W5F000E2S-MOS CBD17W5M200T2S-MOS, CBD17W5F200E2S-MOS CBD24W7M200T2S-MOS, CBD24W7F200E2S-MOS	EPWI-1043 ETS Vibration System Operating Procedure EPWI-1100 Vibration Controller Programming EPTP-1002 Transmittance EPTP-1004 Optical Signal Discontinuity	none

Project Engineer	Performed By		Bench Cleaning	Equipment List	Post Test Cleanup	Setup Check	Event Log	Signoff by Technical Director
Norman Metzner	NM	Signoff	NM	NM	NM	NM	NM	john kim
		Date/Time	4/12/12 8:45am	4/12/12 8:45am	4/12/12 11:30am	4/12/12 8:45am	4/13/12 4pm	

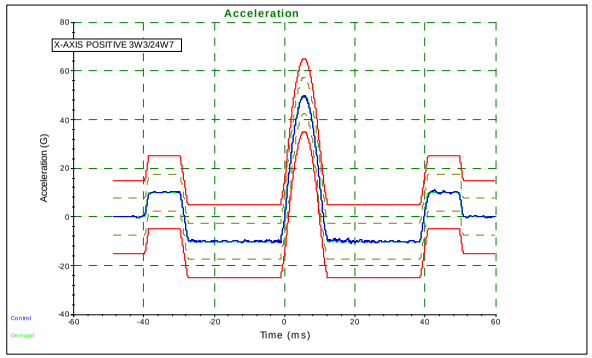
Results Summary

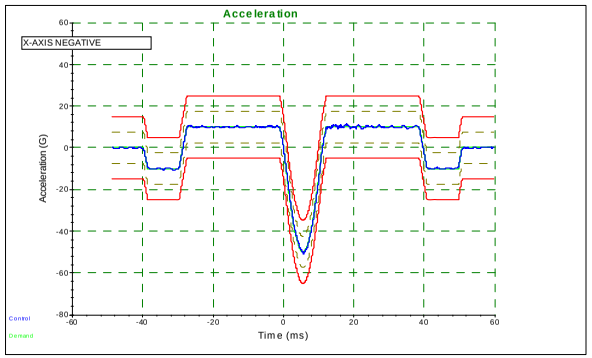
Category	Requirement	Max/Min Measurement Value	Compliance
CIT [dB] after	not required	-0.04	4/4
Discontinuity	no discontinuity of +/- 1dB for more than 1us	no discontinuities	4/4

Date	Time	Event Log	Initials
04/12/12	8:45 AM	Performed x-axis shock positive	NM
	8:46 AM	Performed x-axis shock negative	
	8:52 AM	Flipped axis, Performed y-axis shock positive	
	8:53 AM	Performed y-axis shock negative	
	9:01 AM	Flipped axis, Performed z-axis shock positive	
	9:02 AM	Performed z-axis shock negative	
04/13/12	3:32 PM	Started Z-Axis shock, 1 positive, 1 negative	
	3:34 PM	Rotated fixture, started Y-Axis shock, 1 positive, 1 negative	
	3:36 PM	Rotated fixture, started X-Axis shock, 1 positive, 1 negative	
	3:38 PM	Took final CIT measurements	

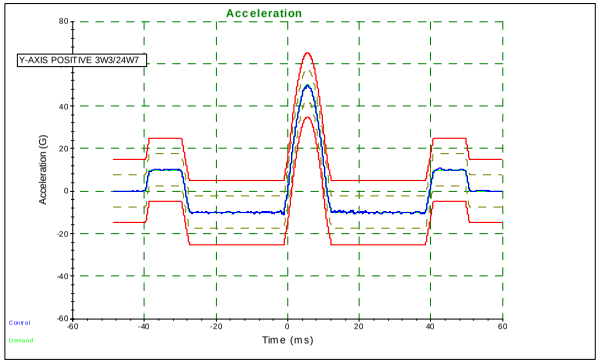
Phase 2: Mechanical Shock screening for 1us/>1dB discontinuity							
Connector ID	Channel	X-Axis		Y-Axis	Z-Axis		
		Initial P [dBm]	Discontinuity	Discontinuity	Final P [dBm]	CIT [dB]	Discontinuity
3W3	A1 mm	-17.56	PASS	PASS	-17.56	0.00	PASS
	A3 mm	-17.65	PASS	PASS	-17.63	0.02	PASS
5W5	A1 mm	-18.15	PASS	PASS	-18.14	0.01	PASS
	A2 mm	-17.74	PASS	PASS	-17.72	0.02	PASS
	A4 mm	-17.52	PASS	PASS	-17.54	-0.02	PASS
	A5 mm	-17.93	PASS	PASS	-17.93	0.00	PASS
17W5	A1 mm	-17.85	PASS	PASS	-17.84	0.01	PASS
	A2 sm	-14.73	PASS	PASS	-14.69	0.04	PASS
	A4 sm	-14.62	PASS	PASS	-14.63	-0.01	PASS
	A5 mm	-17.75	PASS	PASS	-17.79	-0.04	PASS
24W7	A1 mm	-17.97	PASS	PASS	-17.96	0.01	PASS
	A2 mm	-17.86	PASS	PASS	-17.86	0.00	PASS
	A3 sm	-14.49	PASS	PASS	-14.52	-0.03	PASS
	A5 sm	-14.70	PASS	PASS	-14.71	-0.01	PASS
	A6 mm	-18.18	PASS	PASS	-18.18	0.00	PASS
	A7 mm	-18.33	PASS	PASS	-18.33	0.00	PASS

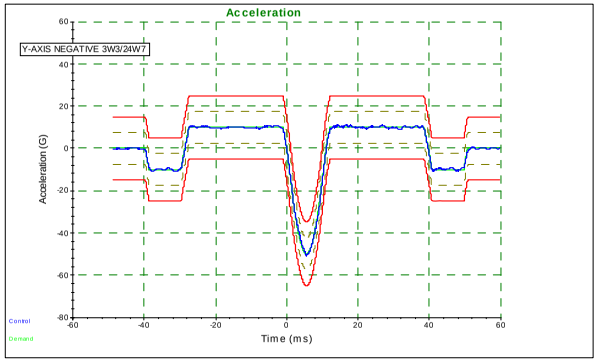
SPN 11365
GB-5 Vibration
Phase II 3W3/24W7
X-Axis
4/12/12


Acceleration
X-AXIS POSITIVE 3W3/24W7
Acceleration (G)
Time (ms)
Control
Demand

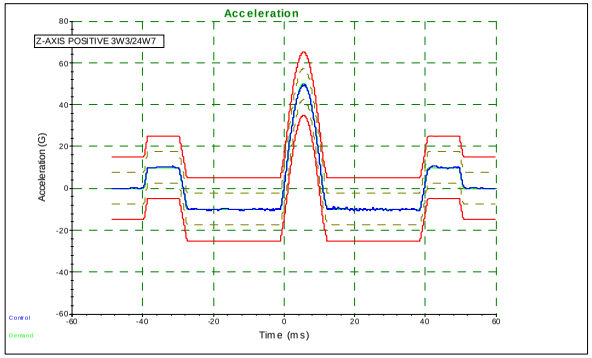

Acceleration
X-AXIS NEGATIVE
Acceleration (G)
Time (ms)
Control
Demand

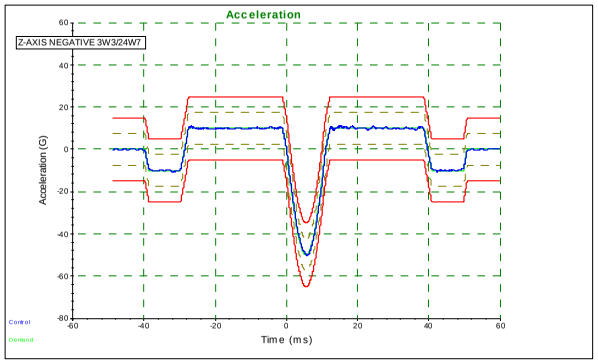
SPN 11365
GB-5 Vibration
Phase II 3W3/24W7
Y-Axis
4/12/12


Acceleration
Y-AXIS POSITIVE 3W3/24W7
Acceleration (G)
Time (ms)
Control
Demand

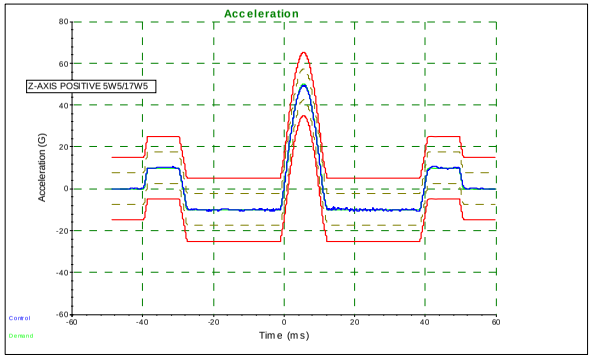

Acceleration
Y-AXIS NEGATIVE 3W3/24W7
Acceleration (G)
Time (ms)
Control
Demand

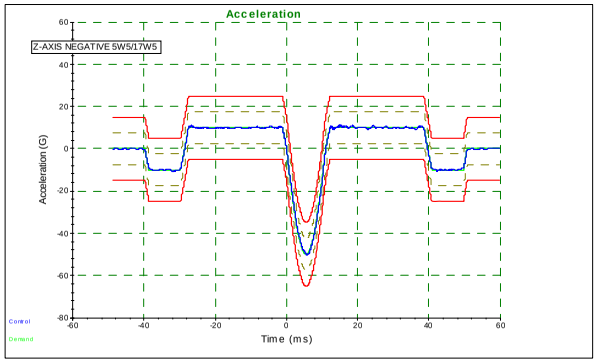
SPN 11365
GB-5 Vibration
Phase II 3W3/24W7
Z-Axis
4/12/12

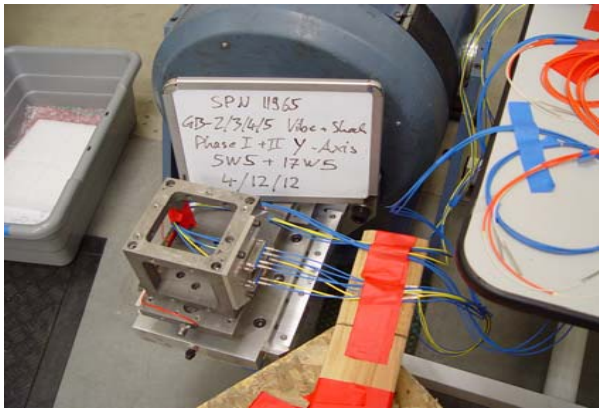

Acceleration
Z-AXIS POSITIVE 3W3/24W7
Acceleration (G)
Time (ms)
Control
Demand

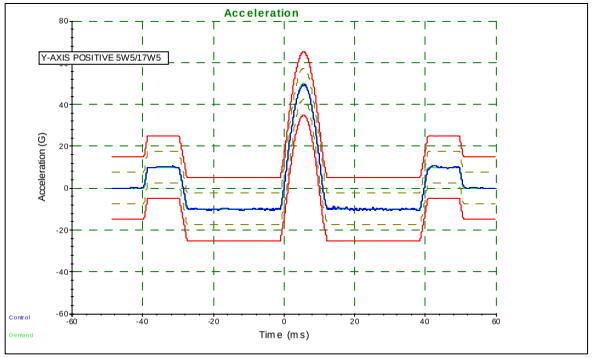

Acceleration
Z-AXIS NEGATIVE 3W3/24W7
Acceleration (G)
Time (ms)
Control
Demand

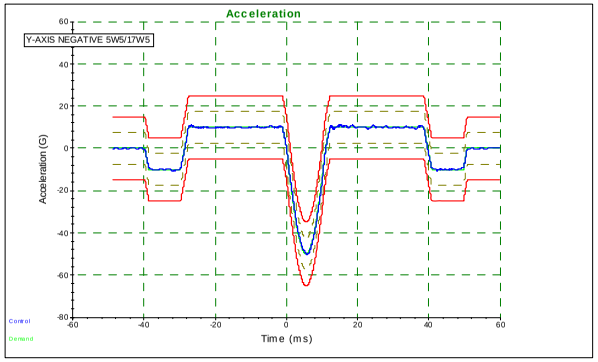
SPN 11965
GB-2/3/4/5 Vibe + Shock
Phase I + II Z-Axis
5W5 + 17W5
4/12/12

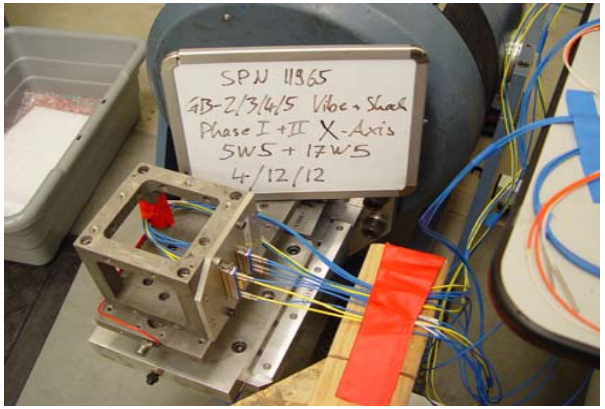

Acceleration
Z-AXIS POSITIVE 5W5/17W5
Acceleration (G)
Time (ms)
Control
Demand

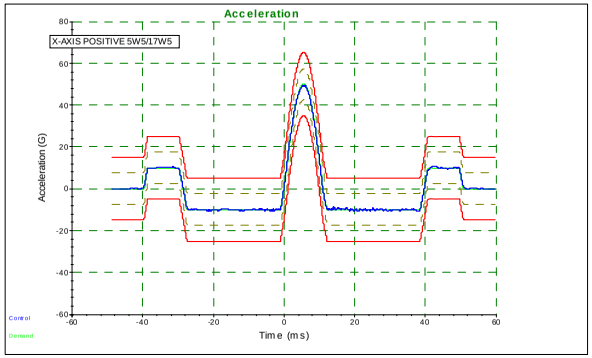

Acceleration
Z-AXIS NEGATIVE 5W5/17W5
Acceleration (G)
Time (ms)
Control
Demand

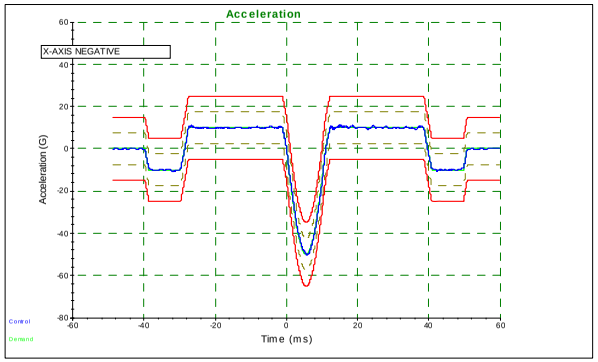

SPN 11965
GB-2/3/4/5 Vibe + Shock
Phase I + II Y-Axis
5W5 + 17W5
4/12/12


Acceleration
Y-AXIS POSITIVE 5W5/17W5
Acceleration (G)
Time (ms)
Control
Demand


Acceleration
Y-AXIS NEGATIVE 5W5/17W5
Acceleration (G)
Time (ms)
Control
Demand


SPN 11965
GB-2/3/4/5 Vibe + Shock
Phase I + II X-Axis
5W5 + 17W5
4/12/12


Acceleration
X-AXIS POSITIVE 5W5/17W5
Acceleration (G)
Time (ms)
Control
Demand


Acceleration
X-AXIS NEGATIVE
Acceleration (G)
Time (ms)
Control
Demand

Test Datasheet

Test Report by:
Experior Laboratories, Inc.

Start Date	Completion Date	Product Name	Purchase Order #	Service Project Number SPN	Test ID #	Temperature	Humidity	DS Revision
4/10/2012	4/13/2012	NXTCore	177125	11965	GB-3	23 °C	38 %RH	04/16/12

Test Title	Test Specification / Standard	Specific Test Conditions	Measurements / Inspection
Vibration Phase 2	4.5.16 of MIL-DTL-24308G EIA-364-28F, test condition IV	Phase 2: 10-2000-10Hz sine sweep in 20 minutes, 2 times in each of the 3 axes, total 2 hours -> no discontinuities of >1dB for 1us during not to exceed	Acceleration [g], Frequency [Hz], Discontinuity [us], CIT [dB]

Anomaly / Interruption	Nonconformity / Deviation
none	none

Instrum. Number	Manufacturer	Model Number	Serial Number	Instrument Description	Last Cal Date	Cal Due Date
1119	Unholtz Dickie	SA30-SO92	3117 - 271	Electrodynamic Vibration System	Reference Only	Reference Only
1035	Dytran	3055A1	1145	10mV/G Triaxial Accelerometer	10/26/2011 9:31:58 AM	10/26/2012
1111	Vibration Research	VRC8555B	0dffcf	2 Channel Vibration Controller	12/9/2011	12/9/2012
1217	Rifocs	555B	122347	Optical Power Meter	10/24/2011 2:28:02 PM	10/24/2012
1219	Experior Photonics	EP-TE2000	SN 2008	QPL 8-channel 1300nm LED	2/3/12	2/3/14
1085	Experior Photonics	EP-TE1004	1002	Discontinuity Monitor 8 channel	9/11/2011 3:33:44 PM	9/11/2012
1103	Hewlett Packard	81524A	3248G01181	Optical Power Head	10/31/2011 2:10:44 PM	10/31/2012
1224	JGR	BR5	750004	Quad-Wave Backreflection Meter	1/3/2012 10:43:29 AM	1/3/2013
1254	Hewlett Packard	81533B	3411G05264	Optical Head Interface	Reference Only	Reference Only
1266	Rifocs	715RF-24-106	122114	1x24 Multimode Optical Switch	Reference Only	Reference Only
1260	Extech	42280	9069033	Temperature Humidity Datalogger	5/3/2011 1:03:12 PM	5/3/2012
1028	Agilent	81610A	DE40500414	Return Loss Module	12/16/2011 11:40:19 AM	12/16/2012

Test Sample Description	Part Number	Experior Test Procedure # (if applicable)	Customer Witness
ARINC801 Connector System	CBD3W3M000T2S-MOS, CBD3W3F000E2S-MOS CBD5W5M000T2S-MOS, CBD5W5F000E2S-MOS CBD17W5M200T2S-MOS, CBD17W5F200E2S-MOS CBD24W7M200T2S-MOS, CBD24W7F200E2S-MOS	EPWI-1043 ETS Vibration System Operating Procedure EPWI-1100 Vibration Controller Programming EPTP-1002 Transmittance EPTP-1004 Optical Signal Discontinuity	none

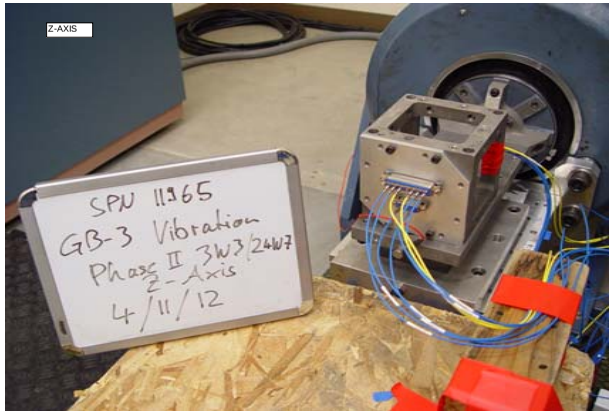
Project Engineer	Performed By		Bench Cleaning	Equipment List	Post Test Cleanup	Setup Check	Event Log	Signoff by Technical Director
Norman Metzner	NM	Signoff	NM	NM	NM	NM	NM	john kim
		Date/Time	4/11/12 8am	4/11/12 8am	4/13/12 4pm	4/11/12 8am	4/13/12 4pm	

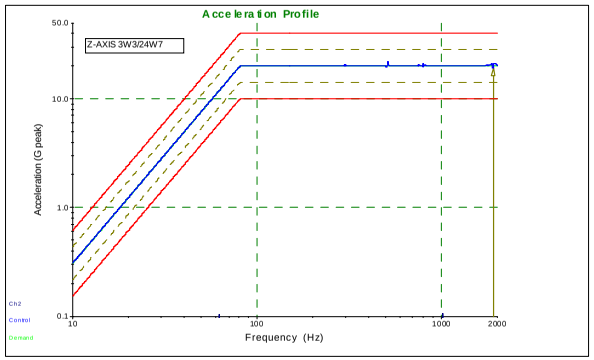
Results Summary

Category	Requirement	Max/Min Measurement Value	Compliance
CIT [dB] after	not required	-0.04	4/4
Discontinuity	no discontinuity of +/- 1dB for more than 1us	no discontinuities	4/4

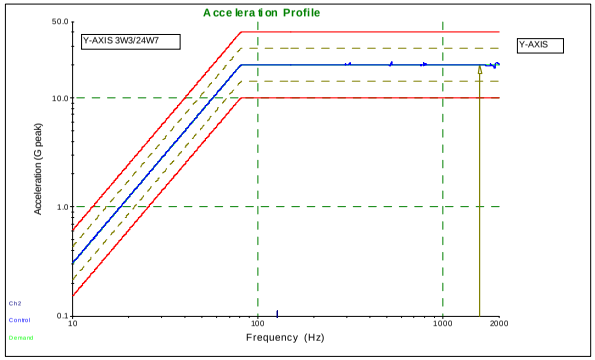
Date	Time	Event Log	Initials
04/10/12	4:00 PM	Mounted test samples to vibration cube	NM
04/11/12	8:00 AM	Routed cables and took baseline measurements	
	10:35 AM	Armed discontinuity system and started vibration z-axis	
	11:15 AM	Finished z-axis	
	11:25 AM	Changed axis to y and started vibration	
	12:05 PM	Finished y-axis	
	1:00 PM	Changed axis to x and started vibration	
	1:40 PM	Finished x-axis	
	1:45 PM	Took final power measurement	
04/13/12	1:15 PM	Armed discontinuity system and started vibration x-axis	
	1:55 PM	Finished x-axis	
	2:00 PM	Changed axis to y and started vibration	
	2:40 PM	Finished y-axis	
	2:45 PM	Changed axis to z and started vibration	
	3:25 PM	Finished z-axis	
	3:30 PM	Took final power measurement	

Phase 2: Sine Vibration screening for 1us/>1dB discontinuity							
Connector ID	Channel	Z-Axis		Y-Axis	X-Axis		
		Initial P [dBm]	Discontinuity	Discontinuity	Final P [dBm]	CIT [dB]	Discontinuity
3W3	A1 mm	-17.52	PASS	PASS	-17.56	-0.04	PASS
	A3 mm	-17.68	PASS	PASS	-17.65	0.03	PASS
5W5	A1 mm	-18.14	PASS	PASS	-18.15	-0.01	PASS
	A2 mm	-17.72	PASS	PASS	-17.74	-0.02	PASS
	A4 mm	-17.54	PASS	PASS	-17.52	0.02	PASS
	A5 mm	-17.93	PASS	PASS	-17.93	0.00	PASS
17W5	A1 mm	-17.84	PASS	PASS	-17.85	-0.01	PASS
	A2 sm	-14.69	PASS	PASS	-14.73	-0.04	PASS
	A4 sm	-14.63	PASS	PASS	-14.62	0.01	PASS
	A5 mm	-17.79	PASS	PASS	-17.75	0.04	PASS
24W7	A1 mm	-17.98	PASS	PASS	-17.97	0.01	PASS
	A2 mm	-17.87	PASS	PASS	-17.86	0.01	PASS
	A3 sm	-14.48	PASS	PASS	-14.49	-0.01	PASS
	A5 sm	-14.69	PASS	PASS	-14.70	-0.01	PASS
	A6 mm	-18.14	PASS	PASS	-18.18	-0.04	PASS
	A7 mm	-18.34	PASS	PASS	-18.33	0.01	PASS


Z-AXIS
SPN 11365
GB-3 Vibration
Phase II 3W3/24W7
Z-Axis
4/11/12


Acceleration Profile
Z-AXIS 3W3/24W7
Acceleration (G peak)
50.0
10.0
1.0
0.1
10
100
1000
2000
Frequency (Hz)
Ch2
Control
Demand

Y-AXIS
SPN 11365
GB-3 Vibration
Phase II 3W3/24W7
Y-Axis
/11/12


Acceleration Profile
Y-AXIS 3W3/24W7
Y-AXIS
Acceleration (G peak)
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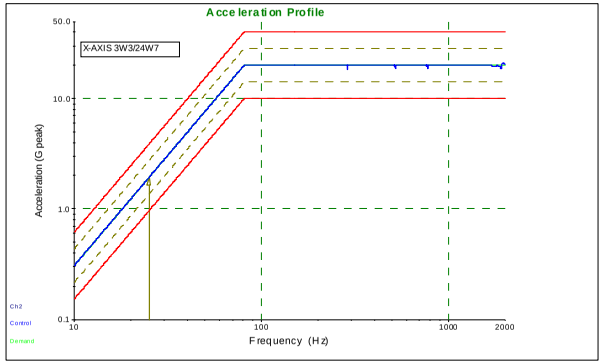
10.0
1.0
0.1
10
100
1000
2000
Frequency (Hz)
Ch2
Control
Demand

X-AXIS
SPN 11365
GB-3 Vibration
Phase II 3W3/24W7
X-Axis
4/11/12


Acceleration Profile
X-AXIS 3W3/24W7
Acceleration (G peak)
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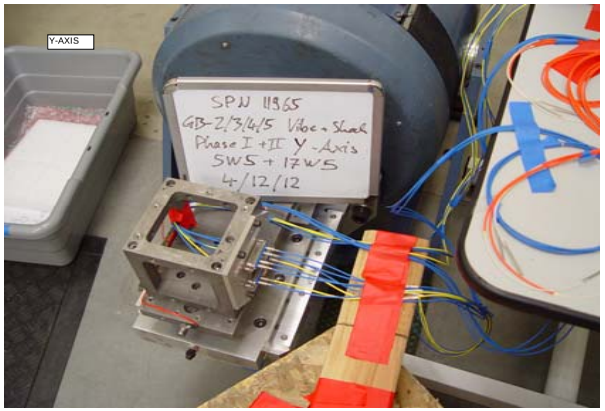
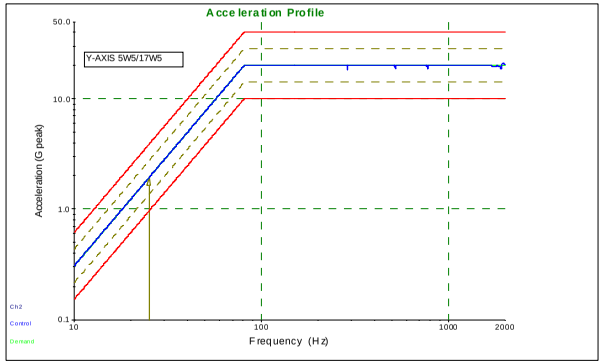
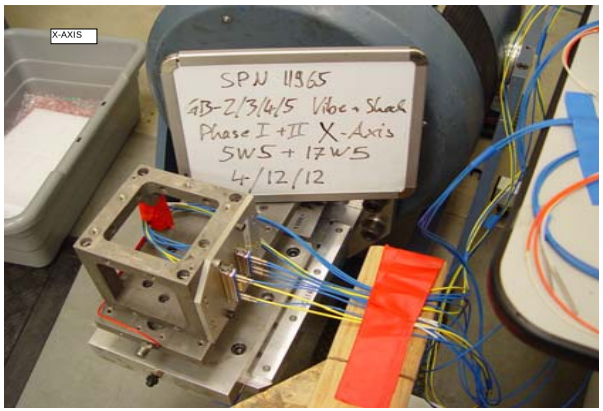
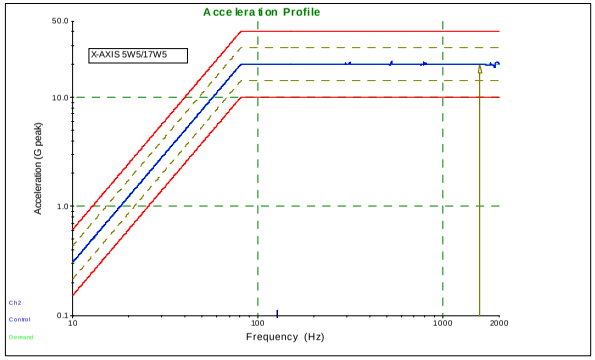
10.0
1.0
0.1
10
100
1000
2000
Frequency (Hz)
Ch2
Control
Demand

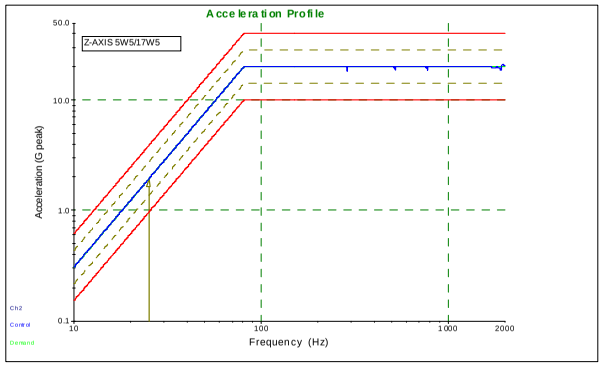

Y-AXIS
SPN 11965
GB-2/3/4/5 Vibe + Shock
Phase I + II Y-Axis
SWS + 17WS
4/12/12


Acceleration Profile
Y-AXIS 5WS/17WS
Acceleration (G peak)
50.0
10.0
1.0
0.1
10
100
1000
2000
Frequency (Hz)
Ch2
Control
Demand


X-AXIS
SPN 11965
GB-2/3/4/5 Vibe + Shock
Phase I + II X-Axis
SWS + 17WS
4/12/12


Acceleration Profile
X-AXIS 5WS/17WS
Acceleration (G peak)
50.0
10.0
1.0
0.1
10
100
1000
2000
Frequency (Hz)
Ch2
Control
Demand

Z-AXIS
SPN 11965
GB-2/3/4/5 Vibe + Shock
Phase I + II Z-Axis
SWS + 17WS
4/12/12


Acceleration Profile
Z-AXIS 5WS/17WS
Acceleration (G peak)
50.0
10.0
1.0
0.1
10
100
1000
2000
Frequency (Hz)
Ch2
Control
Demand

Test Datasheet

Test Report by:
Experior Laboratories, Inc.

Start Date	Completion Date	Product Name	Purchase Order #	Service Project Number SPN	Test ID #	Temperature	Humidity	DS Revision
4/10/2012	4/13/2012	NXTCore	177125	11965	GB-3	23 °C	38 %RH	04/16/12

Test Title	Test Specification / Standard	Specific Test Conditions	Measurements / Inspection
Vibration Phase 2	4.5.16 of MIL-DTL-24308G EIA-364-28F, test condition IV	Phase 2: 10-2000-10Hz sine sweep in 20 minutes, 2 times in each of the 3 axes, total 2 hours -> no discontinuities of >1dB for 1us during not to exceed	Acceleration [g], Frequency [Hz], Discontinuity [us], CIT [dB]

Anomaly / Interruption	Nonconformity / Deviation
none	none

Instrum. Number	Manufacturer	Model Number	Serial Number	Instrument Description	Last Cal Date	Cal Due Date
1119	Unholtz Dickie	SA30-SO92	3117 - 271	Electrodynamic Vibration System	Reference Only	Reference Only
1035	Dytran	3055A1	1145	10mV/G Triaxial Accelerometer	10/26/2011 9:31:58 AM	10/26/2012
1111	Vibration Research	VRC8555B	0dffcf	2 Channel Vibration Controller	12/9/2011	12/9/2012
1217	Rifocs	555B	122347	Optical Power Meter	10/24/2011 2:28:02 PM	10/24/2012
1219	Experior Photonics	EP-TE2000	SN 2008	QPL 8-channel 1300nm LED	2/3/12	2/3/14
1085	Experior Photonics	EP-TE1004	1002	Discontinuity Monitor 8 channel	9/11/2011 3:33:44 PM	9/11/2012
1103	Hewlett Packard	81524A	3248G01181	Optical Power Head	10/31/2011 2:10:44 PM	10/31/2012
1224	JGR	BR5	750004	Quad-Wave Backreflection Meter	1/3/2012 10:43:29 AM	1/3/2013
1254	Hewlett Packard	81533B	3411G05264	Optical Head Interface	Reference Only	Reference Only
1266	Rifocs	715RF-24-106	122114	1x24 Multimode Optical Switch	Reference Only	Reference Only
1260	Extech	42280	9069033	Temperature Humidity Datalogger	5/3/2011 1:03:12 PM	5/3/2012
1028	Agilent	81610A	DE40500414	Return Loss Module	12/16/2011 11:40:19 AM	12/16/2012

Test Sample Description	Part Number	Experior Test Procedure # (if applicable)	Customer Witness
ARINC801 Connector System	CBD3W3M000T2S-MOS, CBD3W3F000E2S-MOS CBD5W5M000T2S-MOS, CBD5W5F000E2S-MOS CBD17W5M200T2S-MOS, CBD17W5F200E2S-MOS CBD24W7M200T2S-MOS, CBD24W7F200E2S-MOS	EPWI-1043 ETS Vibration System Operating Procedure EPWI-1100 Vibration Controller Programming EPTP-1002 Transmittance EPTP-1004 Optical Signal Discontinuity	none

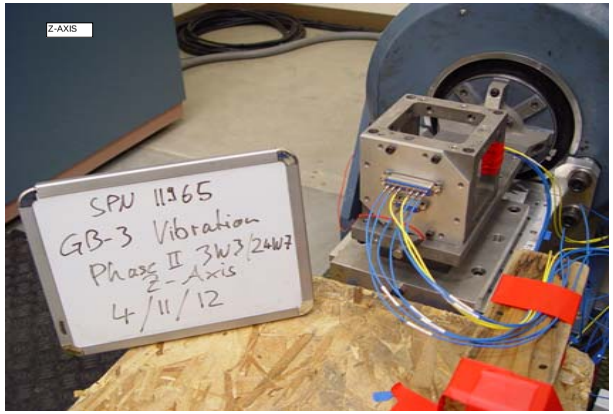
Project Engineer	Performed By		Bench Cleaning	Equipment List	Post Test Cleanup	Setup Check	Event Log	Signoff by Technical Director
Norman Metzner	NM	Signoff	NM	NM	NM	NM	NM	john kim
		Date/Time	4/11/12 8am	4/11/12 8am	4/13/12 4pm	4/11/12 8am	4/13/12 4pm	

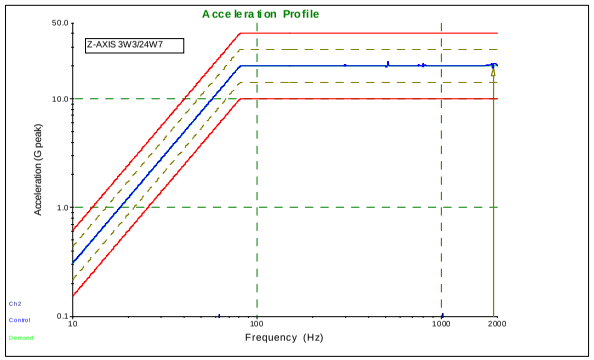
Results Summary

Category	Requirement	Max/Min Measurement Value	Compliance
CIT [dB] after	not required	-0.04	4/4
Discontinuity	no discontinuity of +/- 1dB for more than 1us	no discontinuities	4/4

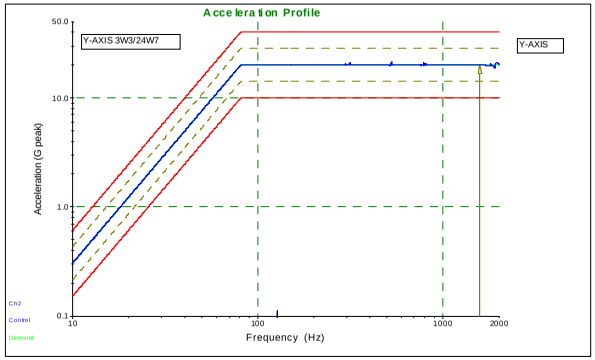
Date	Time	Event Log	Initials
04/10/12	4:00 PM	Mounted test samples to vibration cube	NM
04/11/12	8:00 AM	Routed cables and took baseline measurements	
	10:35 AM	Armed discontinuity system and started vibration z-axis	
	11:15 AM	Finished z-axis	
	11:25 AM	Changed axis to y and started vibration	
	12:05 PM	Finished y-axis	
	1:00 PM	Changed axis to x and started vibration	
	1:40 PM	Finished x-axis	
	1:45 PM	Took final power measurement	
04/13/12	1:15 PM	Armed discontinuity system and started vibration x-axis	
	1:55 PM	Finished x-axis	
	2:00 PM	Changed axis to y and started vibration	
	2:40 PM	Finished y-axis	
	2:45 PM	Changed axis to z and started vibration	
	3:25 PM	Finished z-axis	
	3:30 PM	Took final power measurement	

Phase 2: Sine Vibration screening for 1us/>1dB discontinuity							
Connector ID	Channel	Z-Axis		Y-Axis	X-Axis		
		Initial P [dBm]	Discontinuity	Discontinuity	Final P [dBm]	CIT [dB]	Discontinuity
3W3	A1 mm	-17.52	PASS	PASS	-17.56	-0.04	PASS
	A3 mm	-17.68	PASS	PASS	-17.65	0.03	PASS
5W5	A1 mm	-18.14	PASS	PASS	-18.15	-0.01	PASS
	A2 mm	-17.72	PASS	PASS	-17.74	-0.02	PASS
	A4 mm	-17.54	PASS	PASS	-17.52	0.02	PASS
	A5 mm	-17.93	PASS	PASS	-17.93	0.00	PASS
17W5	A1 mm	-17.84	PASS	PASS	-17.85	-0.01	PASS
	A2 sm	-14.69	PASS	PASS	-14.73	-0.04	PASS
	A4 sm	-14.63	PASS	PASS	-14.62	0.01	PASS
	A5 mm	-17.79	PASS	PASS	-17.75	0.04	PASS
24W7	A1 mm	-17.98	PASS	PASS	-17.97	0.01	PASS
	A2 mm	-17.87	PASS	PASS	-17.86	0.01	PASS
	A3 sm	-14.48	PASS	PASS	-14.49	-0.01	PASS
	A5 sm	-14.69	PASS	PASS	-14.70	-0.01	PASS
	A6 mm	-18.14	PASS	PASS	-18.18	-0.04	PASS
	A7 mm	-18.34	PASS	PASS	-18.33	0.01	PASS

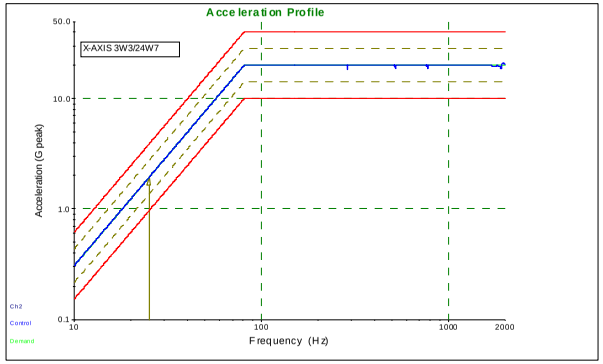

Z-AXIS
SPN 11365
GB-3 Vibration
Phase II 3W3/24W7
Z-Axis
4/11/12

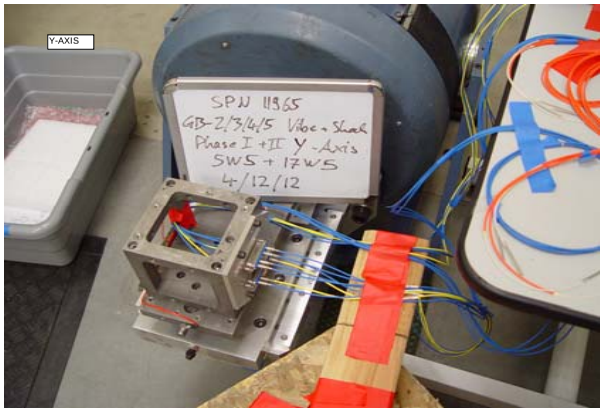

Acceleration Profile
Z-AXIS 3W3/24W7
Acceleration (G peak)
50.0
10.0
1.0
0.1
10
100
1000
2000
Frequency (Hz)
Ch2
Control
Demand

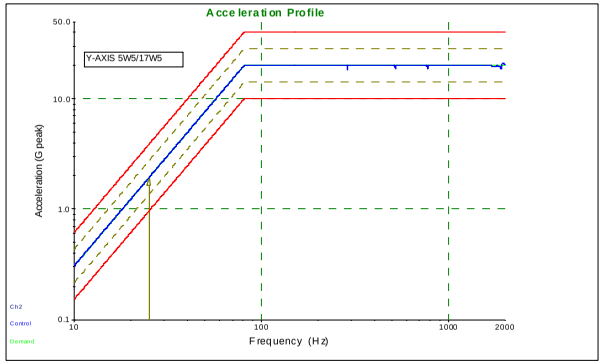
Y-AXIS
SPN 11365
GB-3 Vibration
Phase II 3W3/24W7
Y-Axis
/11/12

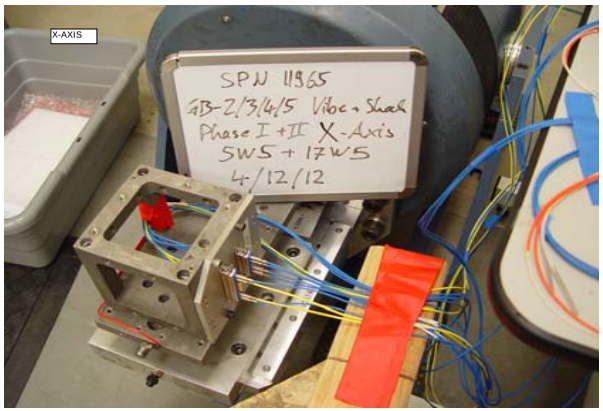

Acceleration Profile
Y-AXIS 3W3/24W7
Y-AXIS
Acceleration (G peak)
50.0
10.0
1.0
0.1
10
100
1000
2000
Frequency (Hz)
Ch2
Control
Demand

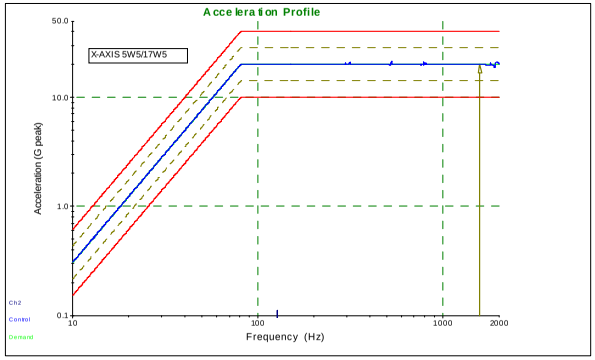
X-AXIS
SPN 11365
GB-3 Vibration
Phase II 3W3/24W7
X-Axis
4/11/12


Acceleration Profile
X-AXIS 3W3/24W7
Acceleration (G peak)
50.0
10.0
1.0
0.1
10
100
1000
2000
Frequency (Hz)
Ch2
Control
Demand

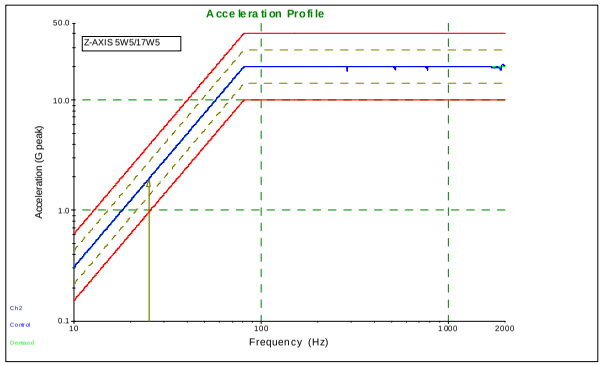

Y-AXIS
SPN 11965
GB-2/3/4/5 Vibe + Shock
Phase I + II Y-Axis
SWS + 17WS
4/12/12


Acceleration Profile
Y-AXIS 5WS/17WS
Acceleration (G peak)
50.0
10.0
1.0
0.1
10
100
1000
2000
Frequency (Hz)
Ch2
Control
Demand


X-AXIS
SPN 11965
GB-2/3/4/5 Vibe + Shock
Phase I + II X-Axis
SWS + 17WS
4/12/12


Acceleration Profile
X-AXIS 5WS/17WS
Acceleration (G peak)
50.0
10.0
1.0
0.1
10
100
1000
2000
Frequency (Hz)
Ch2
Control
Demand

Z-AXIS
SPN 11965
GB-2/3/4/5 Vibe + Shock
Phase I + II Z-Axis
SWS + 17WS
4/12/12


Acceleration Profile
Z-AXIS 5WS/17WS
Acceleration (G peak)
50.0
10.0
1.0
0.1
10
100
1000
2000
Frequency (Hz)
Ch2
Control
Demand

Test Datasheet

Test Report by:
Experior Laboratories, Inc.

Start Date	Completion Date	Product Name	Purchase Order #	Service Project Number SPN	Test ID #	Temperature	Humidity	DS Revision
3/20/2012	3/21/2012	NXTCore	177125	11965	GC-1	23 °C	29 %RH	03/23/12

Test Title	Test Specification / Standard	Specific Test Conditions	Measurements / Inspection
IL-RL	TIA-455-171A (FOTP-171), Method D1 (multimode) and D3 (single-mode) 2.4.3.2 of ARINC Specification 801-2 and in accordance with TIA/EIA-455-107A (FOTP-107).	Fiber optic connector assemblies shall have a maximum attenuation of 0.3 dB for multimode connections. For all single-mode connections, measure and record only. No failure criterion exists for single-mode connections Return loss should be a minimum of 20 dB for multimode PC polish termini and 30 dB for single-mode PC polish termini	IL [dB], RL [dB]

Anomaly / Interruption	Nonconformity / Deviation
none	none

Instrum. Number	Manufacturer	Model Number	Serial Number	Instrument Description	Last Cal Date	Cal Due Date
1260	Extech	42280	9069033	Temperature Humidity Datalogger	5/3/2011 1:03:12 PM	5/3/2012
1402	Fujikura	FSM-50S	12161	Fiber Fusion Splicer	Reference Only	Reference Only
1405	Fujikura	CT-30	63162	Fiber Cleaver	Reference Only	Reference Only
1103	Hewlett Packard	81524A	3248G01181	Optical Power Head	10/31/2011 2:10:44 PM	10/31/2012
1254	Hewlett Packard	81533B	3411G05264	Optical Head Interface	Reference Only	Reference Only
1451	Rifocs	781RL-13-110	122785	1300nm MM Return Loss Meter	9/6/2011 5:38:40 PM	9/6/2012
1400	Fujikura	FSM-17S	687	Fiber Fusion Splicer	Reference Only	Reference Only
1407	Fujikura	CT-30	21094	Fiber Cleaver	Reference Only	Reference Only
1224	JGR	BR5	750004	Quad-Wave Backreflection Meter	1/3/2012 10:43:29 AM	1/3/2013
1102	Hewlett Packard	81533B	3411G05696	Optical Head Interface	Reference Only	Reference Only
1258	Hewlett Packard	HP 81524A	3248G01541	Optical Power Head	3/8/2012 3:22:08 PM	3/8/2014

Test Sample Description	Part Number	Experior Test Procedure # (if applicable)	Customer Witness
ARINC801	CBD3W3M000T2S-MOS, CBD3W3F000E2S-MOS CBD5W5M000T2S-MOS, CBD5W5F000E2S-MOS CBD17W5M200T2S-MOS, CBD17W5F200E2S-MOS CBD24W7M200T2S-MOS, CBD24W7F200E2S-MOS	EPTP-1002 Transmittance EPTP-1005 Return Loss	none

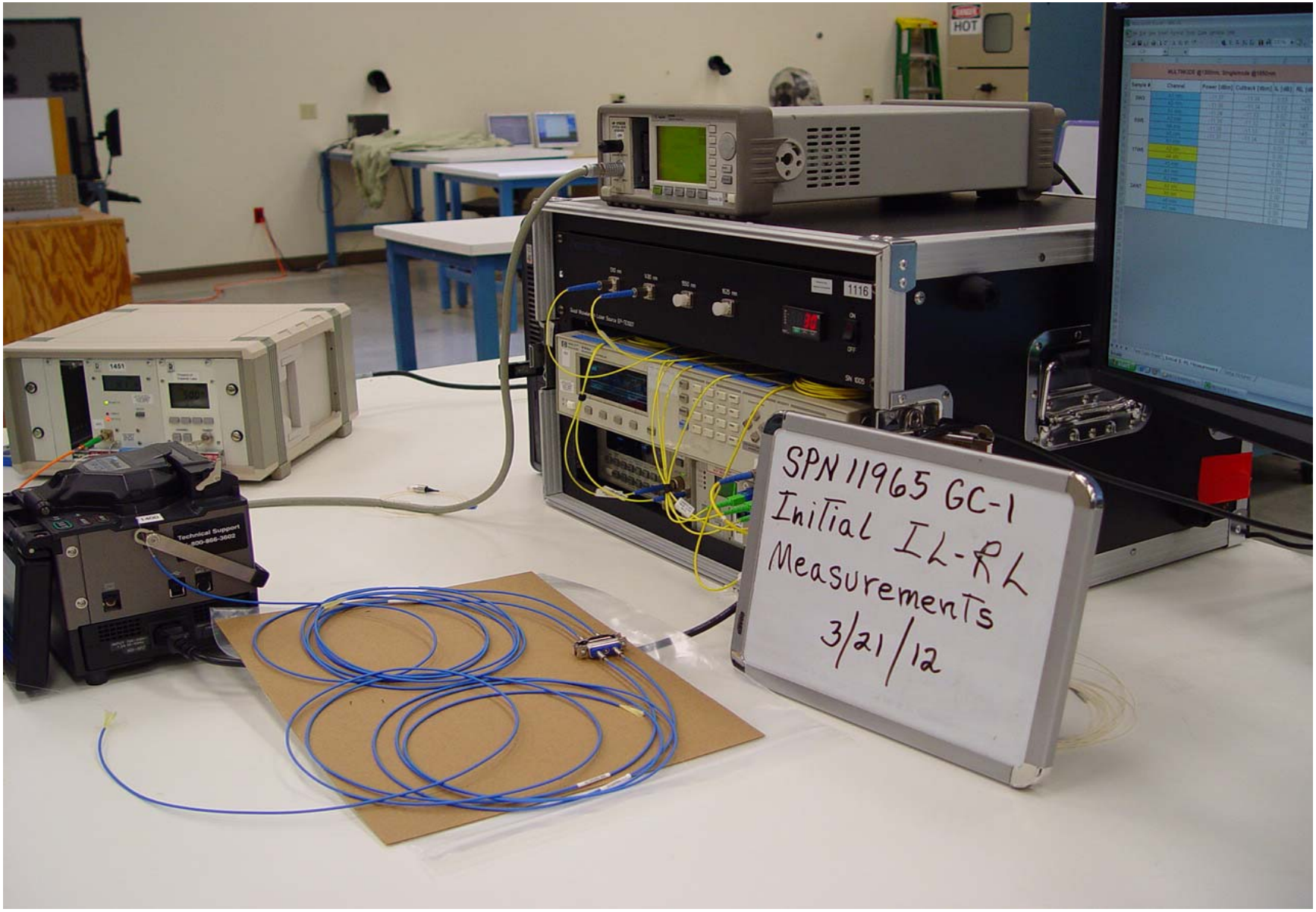
Project Engineer	Performed By		Bench Cleaning	Equipment List	Post Test Cleanup	Setup Check	Event Log	Signoff by Technical Director
Norman Metzner	JZ/HR	Signoff	JZ/HR	JZ	JZ	NM	NM	john kim
		Date/Time	3/20/2012 1:25 PM	3/20/2012 1:27PM	3/21/12 4:30pm	3/20/2012 1:25 PM	3/23/12 10am	

Results Summary

Category	Requirement	Max/Min Measurement Value	Compliance
Insertion Loss [dB]	0.3 (for MM only)	0.20	4/4
Return Loss [dB]	20 for MM and 30 for SM	45	4/4

Date	Time	Event Log	Initials
03/20/12	1:30 PM	Starting IL/RL measurements for sm samples.	JZ
03/20/12	4:25 PM	Completed IL/RL measurements for sm samples. A5 IL was high. Will inspect ferrule endfaces, clean and retest.	JZ
03/20/12	2:30PM	Starting IL/RL measurements for MM samples.	HR
03/21/12	9:00AM	Completed IL/RL measurements for MM	
03/21/12	1:30 PM	A5 = Inspected and cleaned ferrule endface. Retested and passed.	JZ/HR
03/21/12	2:00 PM	S/N's and termini position's are reversed.	JZ
03/21/12	4:30 PM	Completed IL/RL for all MM samples.	JZ

MULTIMODE @1300nm, Singlemode @1550nm					
Sample #	**Channel**	**Power [dBm]**	**Cutback [dbm]**	**IL [dB]**	**RL [dB]**
3W3	A1 mm	-11.37	-11.34	0.03	>45
	A3 mm	-11.36	.-11.34	0.02	>45
5W5	A1 mm	-11.34	-11.32	0.02	>45
	A2 mm	-11.36	-11.32	0.04	>45
	A4 mm	-11.36	-11.33	0.03	>45
	A5 mm	-11.37	-11.34	0.03	>45
17W5	A1 mm	-11.53	-11.47	0.05	>45
	A2 sm	-5.57	-5.41	0.16	56.7
	A4 sm	-5.60	-5.41	0.20	57.1
	A5 mm	-11.50	-11.48	0.02	>45
24W7	A1 mm	-11.48	-11.47	0.00	>45
	A2 mm	-11.49	-11.48	0.01	>45
	A3 sm	-5.55	-5.39	0.16	51.1
	A5 sm	-5.54	-5.40	0.14	59.5
	A6 mm	-11.53	-11.48	0.06	>45
	A7 mm	-11.53	-11.48	0.04	>45
Initial Results					
24W7	A1 mm			0.00	
	A2 mm			0.00	
	A3 sm	-5.52	-5.40	0.11	58.7
	A5 sm	-5.74	-5.40	0.34	59.8
	A6 mm			0.00	
	A7 mm			0.00	


SPN 11965 GC-1
Initial IL-RL
Measurements
3/21/12
HOT
1116
1451
Technical Support
800-866-3602

Test Datasheet

Test Report by:
Experior Laboratories, Inc.

Start Date	Completion Date	Customer Name	Purchase Order #	Service Project Number SPN	Test ID #	Temperature	Humidity	DS Revision
4/23/2012	4/25/2012	NXTCon	177125	11965	GC-3	23 °C	50 %RH	04/25/12

Test Title	Test Specification / Standard	Specific Test Conditions	Measurements / Inspection
Mating Durability	4.5.18 of MIL-DTL-24308G and in accordance with EIA-364-09C, TIA-455-21A (FOTP-21)	Manual mating and un-mating of test samples, 500 cycles at a rate between 100 and 300 cycles per hour. CIT test shall be performed after every 100 cycles. Termini shall be cleaned prior to each measurement.	CIT [dB]

Anomaly / Interruption	Nonconformity / Deviation
none	none

Instrum. Number	Manufacturer	Model Number	Serial Number	Instrument Description	Last Cal Date	Cal Due Date
1260	Extech	42280	9069033	Temperature Humidity Datalogger	5/3/2011 1:03:12 PM	5/3/2012
1256	Hewlett Packard	HP 81524A	3248G01658	Optical Power Head	Reference Only	Reference Only
1257	Hewlett Packard	HP 81533A	2949G00504	Optical Head Interface	3/8/2012 3:22:08 PM	3/8/2014
1123	Tempo	252B	D91114	850/1300nm Dual LED Source	Reference Only	Reference Only
1220	Agilent	81654A	DE38A00785	1310/1550nm Laser Source	12/9/2011 3:56:59 PM	12/9/2012
1026	Agilent	81654A	DE38A00709	1310/1550nm Laser Source	10/31/2011 2:11:01 PM	10/31/2012

Test Sample Description	Part Number	Experior Test Procedure # (if applicable)	Customer Witness
ARINC801 Compliant Connectors	CBD3W3M000T2S-MOS, CBD3W3F000E2S-MOS CBD5W5M000T2S-MOS, CBD5W5F000E2S-MOS CBD17W5M200T2S-MOS, CBD17W5F200E2S-MOS CBD24W7M200T2S-MOS, CBD24W7F200E2S-MOS	per referenced industry standard	none

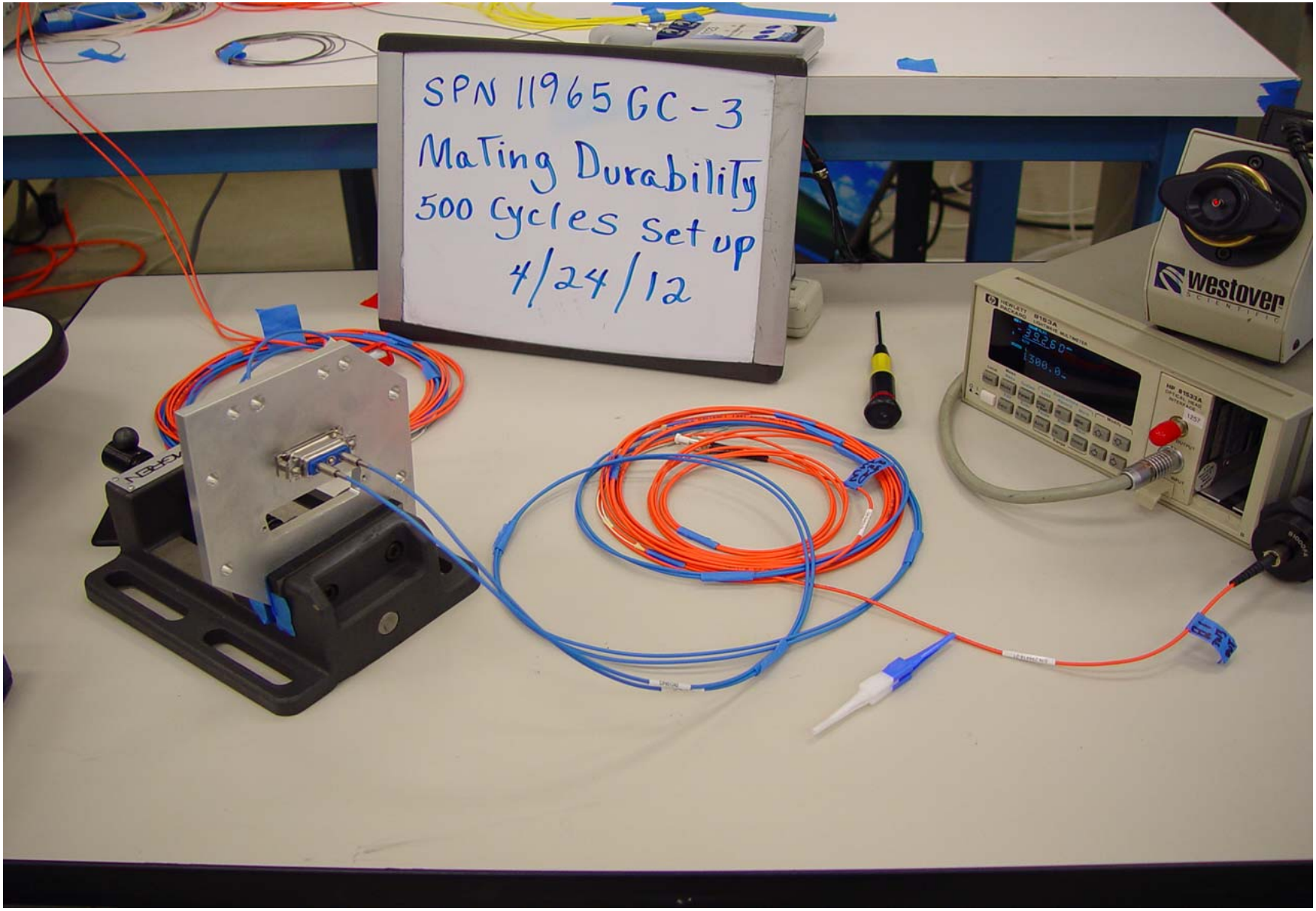
Project Engineer	Performed By		Bench Cleaning	Equipment List	Post Test Cleanup	Setup Check	Event Log	Signoff by Technical Director
Norman Metzner	Harris R	Signoff	HR	HR	HR	NM	NM	John Kim
		Date/Time	4/23/12 7:00AM	4/23/12 7:30AM	4/25/12 3:30PM	4/24/12 8am	4/25/12 4:30pm	

Results Summary

Category	Requirement	Max/Min Measurement Value	Compliance
CIT [dB] MM	0.5	0.08/-0.03	4/4
CIT [dB] SM	0.5	0.11/-0.08	2/2
Visual Inspection	No damage	no damage observed	4/4

Date	Time	Event Log	Initials
04/24/12	7:00AM	Started Mating Durability on 3W3	HR
	10:45AM	Finished 500 cycles Mating Durability on 3W3	
		Start Preparation and Mounting Sample 24W7 to the Plate to start Mating Durability	
	3:30PM	Finished 500 Cycles Mating Durability on 24W7	
04/25/12	7:00AM	Start Preparation and Mounting Sample 5W5 into the Plate to start Mating Durability	
	10:30AM	Finished 500 Cycles Mating Durability on 5W5	
04/25/12		Start Preparation and Mounting Sample 17W5 into the Plate to start Mating Durability	
	3:30PM	Finished 500 Cycles Mating Durability on 17W5	

MULTIMODE @1300nm, Singlemode @1550nm												
Sample #	Channel	Power before [dBm]	Power after 100 cycles [dBm]	CIT after 100 cycles [dB]	Power after 200 cycles [dBm]	CIT after 200 cycles [dB]	Power after 300 cycles [dBm]		Power after 400 cycles [dBm]	CIT after 400 cycles [dB]	Power after 500 cycles [dBm]	CIT after 500 cycles [dB]
3W3	A1 mm	-38.54	-38.55	-0.01	-38.55	-0.01	-38.54	0.00	-38.54	0.00	-38.54	0.00
	A3 mm	-37.55	-37.56	-0.01	-37.55	0.00	-37.55	0.00	-37.55	0.00	-37.55	0.00
5W5	A1 mm	-37.00	-37.01	-0.01	-37.01	-0.01	-37.00	0.00	-37.00	0.00	-36.99	0.02
	A2 mm	-38.07	-38.09	-0.01	-38.08	0.00	-38.09	-0.02	-38.07	0.00	-38.07	0.00
	A4 mm	-37.42	-37.42	0.00	-37.42	0.00	-37.42	0.00	-37.42	0.00	-37.42	0.00
	A5 mm	-38.53	-38.53	0.00	-38.49	0.04	-38.51	0.01	-38.49	0.04	-38.50	0.03
17W5	A1 mm	-38.68	-38.68	0.00	-38.67	0.01	-38.68	0.00	-38.66	0.02	-38.67	0.01
	A2 sm	-4.91	-4.88	0.03	-4.90	0.01	-4.90	0.01	-4.90	0.01	-4.90	0.01
	A4 sm	-2.40	-2.38	0.02	-2.38	0.02	-2.38	0.02	-2.37	0.03	-2.37	0.02
	A5 mm	-38.77	-38.77	0.01	-38.69	0.08	-38.75	0.02	-38.78	0.00	-38.75	0.02
24W7	A1 mm	-39.96	-39.90	0.06	-39.90	0.06	-39.89	0.07	-39.89	0.07	-39.89	0.07
	A2 mm	-38.36	-38.35	0.01	-38.37	-0.01	-38.36	0.01	-38.35	0.01	-38.35	0.01
	A3 sm	-3.59	-3.60	-0.01	-3.48	0.11	-3.55	0.04	-3.57	0.02	-3.58	0.02
	A5 sm	-5.62	-5.65	-0.03	-5.68	-0.06	-5.70	-0.08	-5.57	0.05	-5.60	0.03
	A6 mm	-37.47	-37.47	-0.01	-37.48	-0.01	-37.49	-0.02	-37.48	-0.01	-37.49	-0.02
	A7 mm	-38.09	-38.10	-0.01	-38.08	0.01	-38.08	0.01	-38.08	0.00	-38.12	-0.03


SPN 11965 GC-3
Mating Durability
500 Cycles Set up
4/24/12
westover

Test Datasheet

Test Report by:
Experior Laboratories, Inc.

Start Date	Completion Date	Customer Name	Purchase Order #	Service Project Number SPN	Test ID #	Temperature	Humidity	DS Revision
4/27/2012	4/30/2012	NXTCon	177125	11965	GC-4	22.8 °C	43.8 %RH	05/01/12

Test Title	Test Specification / Standard	Specific Test Conditions	Measurements / Inspection
Cable Pull-out Force	TIA-455-6B (FOTP-6) Method 1	The test load shall be applied as follows with a rate of pull being 20 lb/min (89 N/min) Load 1: Apply 12 lb force at 0° for at least 5 seconds but no more than 10 seconds.	CIT[dB], Force [lb]

Anomaly / Interruption	Nonconformity / Deviation
none	none

Instrum. Number	Manufacturer	Model Number	Serial Number	Instrument Description	Last Cal Date	Cal Due Date
1261	Extech	42280	9069034	Temperature Humidity Datalogger	5/3/2011 1:03:01 PM	5/3/2012
1080	ATS	1405 UTM	A911206-11-91	5000 lbs Universal Tensile Machi	Reference Only	Reference Only
1102	Hewlett Packard	81533B	3411G05696	Optical Head Interface	Reference Only	Reference Only
1026	Agilent	81654A	DE38A00709	1310/1550nm Laser Source	10/31/2011 2:11:01 PM	10/31/2012
1258	Hewlett Packard	HP 81524A	3248G01541	Optical Power Head	3/8/2012 3:22:08 PM	3/8/2014
1123	Tempo	252B	D91114	850/1300nm Dual LED Source	Reference Only	Reference Only

Test Sample Description	Part Number	Experior Test Procedure # (if applicable)	Customer Witness
ARINC801 Rectangular	CBD3W3M000T2S-MOS, CBD3W3F000E2S-MOS CBD5W5M000T2S-MOS, CBD5W5F000E2S-MOS CBD17W5M200T2S-MOS, CBD17W5F200E2S-MOS CBD24W7M200T2S-MOS, CBD24W7F200E2S-MOS	-	none

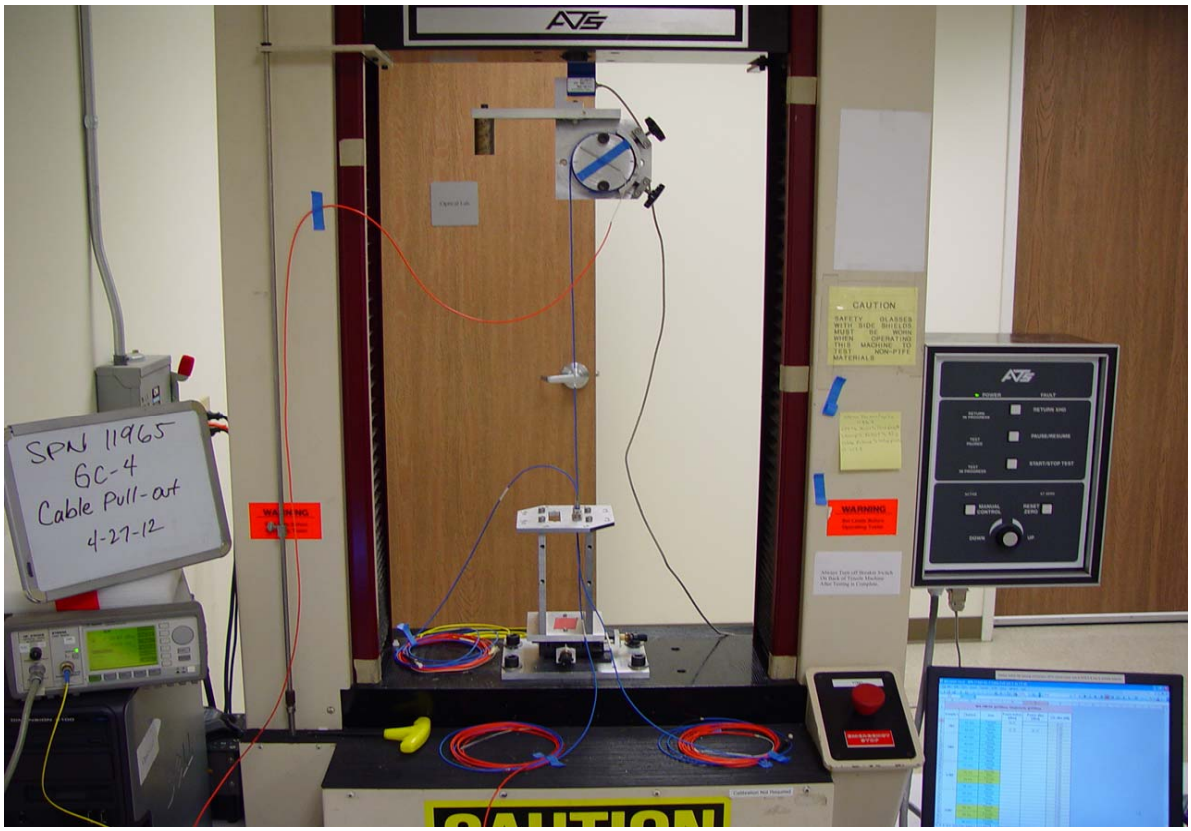
Project Engineer	Performed By		Bench Cleaning	Equipment List	Post Test Cleanup	Setup Check	Event Log	Signoff by Technical Director
Norman Metzner	JZ	Signoff	JZ	JZ	NDY	NM	NM	john kim
		Date/Time	4/27/2012 8:00AM	4/27/2012 8:00AM	NDY	4/27/2012 8:00AM	4/30/12 4:30pm	

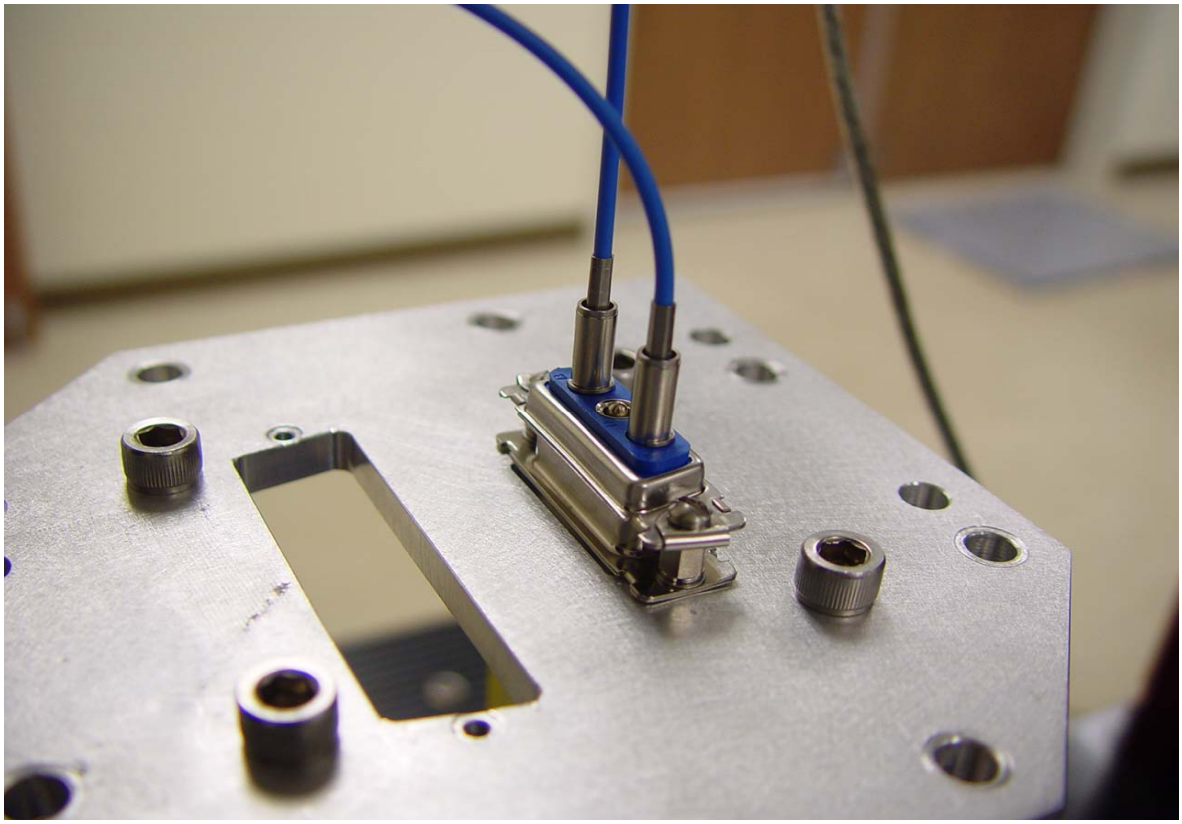
Results Summary

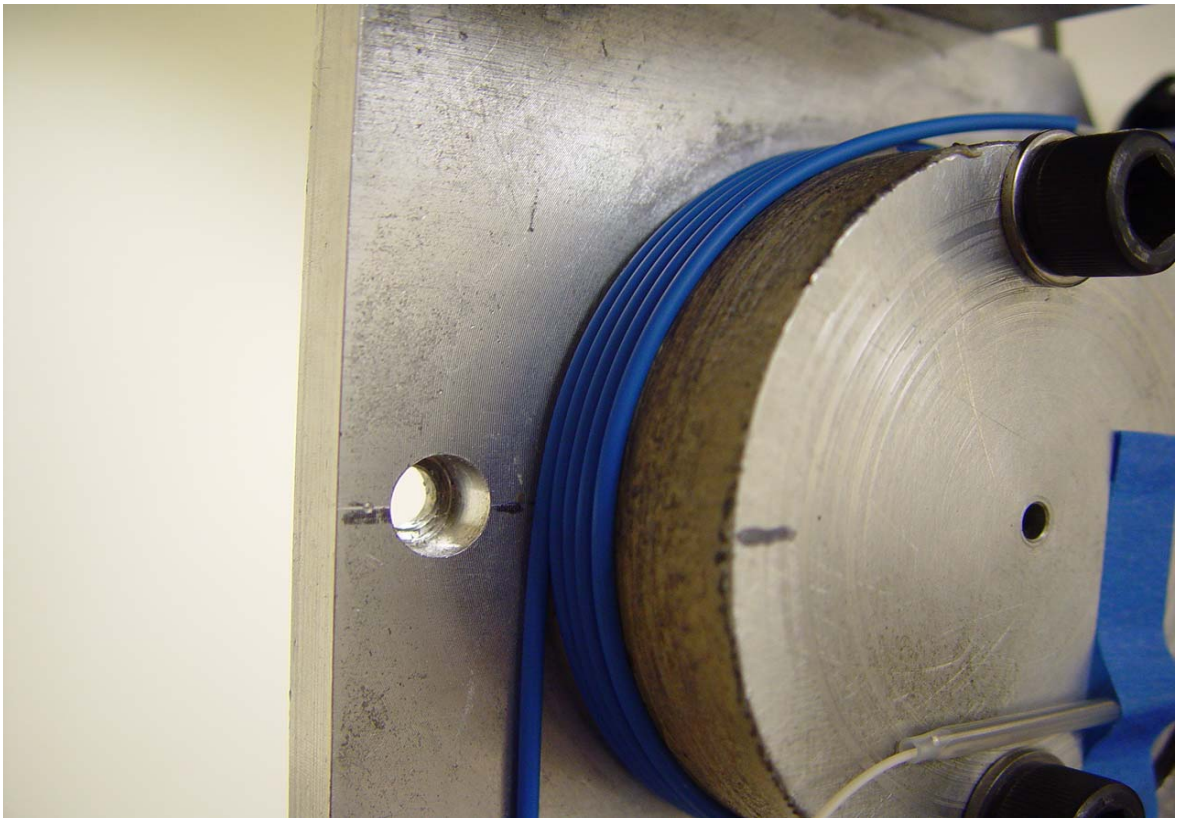
Category	Requirement	Max/Min Measurement Value	Compliance
CIT [dB] MM	0.5	0.03/-0.02	4/4
CIT [dB] SM	0.5	0.01/-0.03	2/2

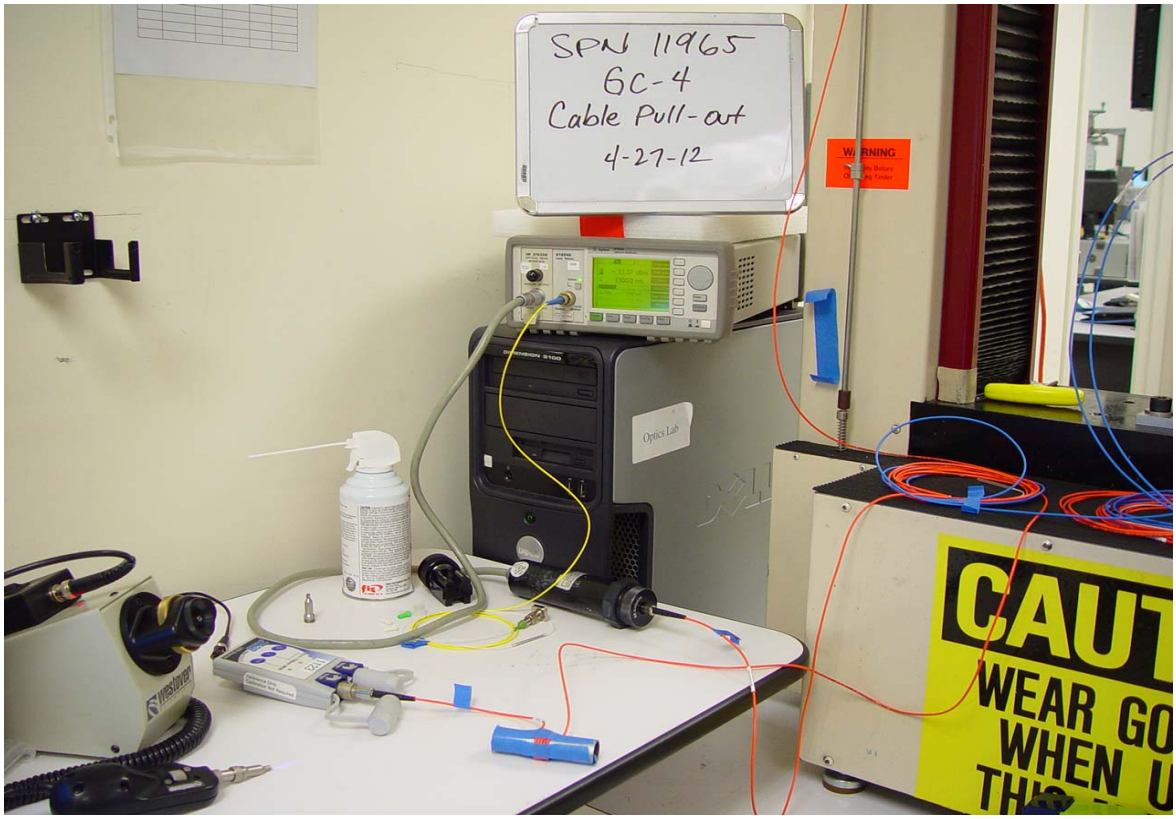
Date	Time	Event Log	Initials
04/27/12	8:00 AM	Test setup. Preparing cables.	JZ
04/27/12	11:00 AM	Starting test	JZ
04/27/12	4:30 PM	Completed 3w3 and 5w5 samples	JZ
04/30/12	8:00 AM	Test setup for 24w7 samples	JZ
04/30/12	8:30 AM	Starting test	JZ
04/30/12	4:15 PM	Completed 17w5 and 24w7 samples	JZ

MULTIMODE @1300nm, Singlemode @1550nm					
Sample #	**Channel**	**Side**	**Power before [dBm]**	**Power after [dBm]**	**CIT after [dB]**
3W3	A1 mm	Female	-20.45	-20.44	0.01
		Male	-20.42	-20.41	0.01
	A3 mm	Female	-20.25	-20.23	0.02
		Male	-21.45	-21.44	0.01
5W5	A1 mm	Female	-19.72	-19.71	0.01
		Male	-21.37	-21.38	-0.01
	A2 mm	Female	-21.10	-21.09	0.01
		Male	-21.85	-21.85	0.00
	A4 mm	Female	-21.58	-21.55	0.03
		Male	-20.98	-21.00	-0.02
	A5 mm	Female	-20.14	-20.12	0.02
		Male	-22.22	-22.22	0.00
17W5	A1 mm	Female	-20.60	-20.60	0.00
		Male	-22.33	-22.32	0.01
	A2 sm	Female	1.08	1.08	0.00
		Male	1.11	1.10	-0.01
	A4 sm	Female	1.08	1.08	0.00
		Male	1.10	1.10	0.00
	A5 mm	Female	-22.60	-22.59	0.01
		Male	-22.33	-22.32	0.01
24W7	A1 mm	Female	-20.86	-20.86	0.00
		Male	-20.56	-20.55	0.01
	A2 mm	Female	-21.01	-21.00	0.01
		Male	-21.50	-21.50	0.00
	A3 sm	Female	1.02	1.02	0.00
		Male	1.00	0.97	-0.03
	A5 sm	Female	1.10	1.11	0.01
		Male	1.10	1.10	0.00
	A6 mm	Female	-20.56	-20.57	-0.01
		Male	-21.31	-21.30	0.01
	A7 mm	Female	-21.26	-21.26	0.00
		Male	-21.29	-21.30	-0.01


SPN 11965
6C-4
Cable Pull-out
4-27-12
CAUTION
WARNING
WARNING
CAUTION






SPN 11965
GC-4
Cable Pull-out
4-27-12
Optics Lab
CAUT
WEAR GO
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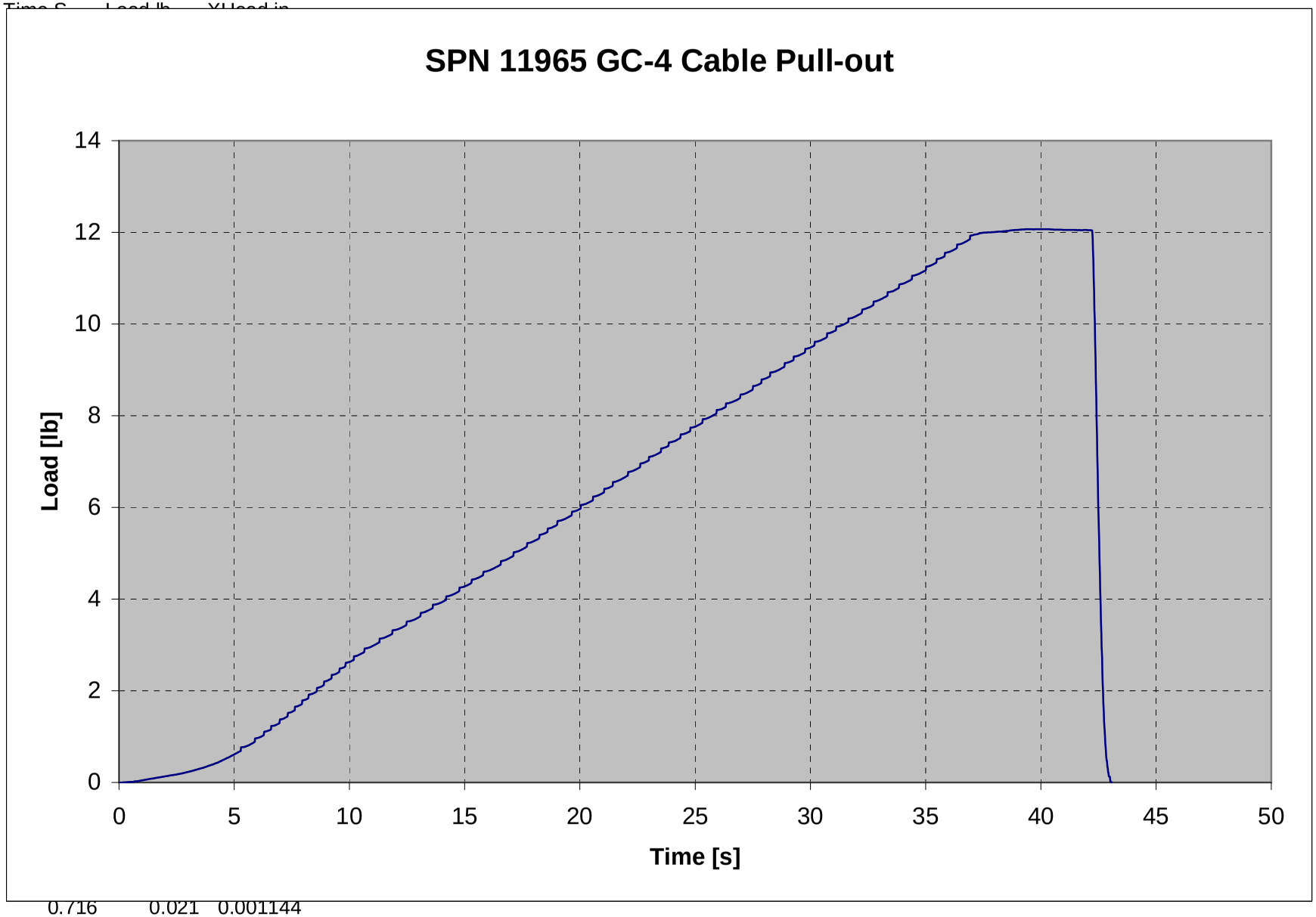


0.716 0.021 0.001144

Test Datasheet

Test Report by:
Experior Laboratories, Inc.

Start Date	Completion Date	Customer Name	Purchase Order #	Service Project Number SPN	Test ID #	Temperature	Humidity	DS Revision
5/1/2012	5/9/2012	NXTCon	177125	11965	GC-5	23 °C	46 %RH	05/15/12

Test Title	Test Specification / Standard	Specific Test Conditions	Measurements / Inspection
Termini Retention Force	2.4.5.3 of ARINC Specification 801-2 and in accordance with EIA-364-38C, either Method A or B	The test load shall be 12 lb force at a rate of 89 newtons per minute ± 4 newtons per minute (20 pounds per minute ± 1 pound per minute), maintain load for one hour Note: This test is intended to prove the integrity of the connector terminus retention feature and not to prove the attachment of the cable terminus	All termini shall be retained with no damage to the termini, the connector inserts or to the retention mechanisms.

Anomaly / Interruption	Nonconformity / Deviation
none	none

Instrum. Number	Manufacturer	Model Number	Serial Number	Instrument Description	Last Cal Date	Cal Due Date
1261	Extech	42280	9069034	Temperature Humidity Datalogger	5/3/2012	5/3/2013
1080	ATS	1405 UTM	A911206-11-91	5000 lbs Universal Tensile Machi	Reference Only	Reference Only
1203	Interface	SM-250	199710	250 lbs. Load Cell	6/21/2011 3:56:32 PM	6/21/2012

Test Sample Description	Part Number	Experior Test Procedure # (if applicable)	Customer Witness
ARINC801 Rectangular	CBD3W3M000T2S-MOS, CBD3W3F000E2S-MOS CBD5W5M000T2S-MOS, CBD5W5F000E2S-MOS CBD17W5M200T2S-MOS, CBD17W5F200E2S-MOS CBD24W7M200T2S-MOS, CBD24W7F200E2S-MOS	per referenced industry standard	none

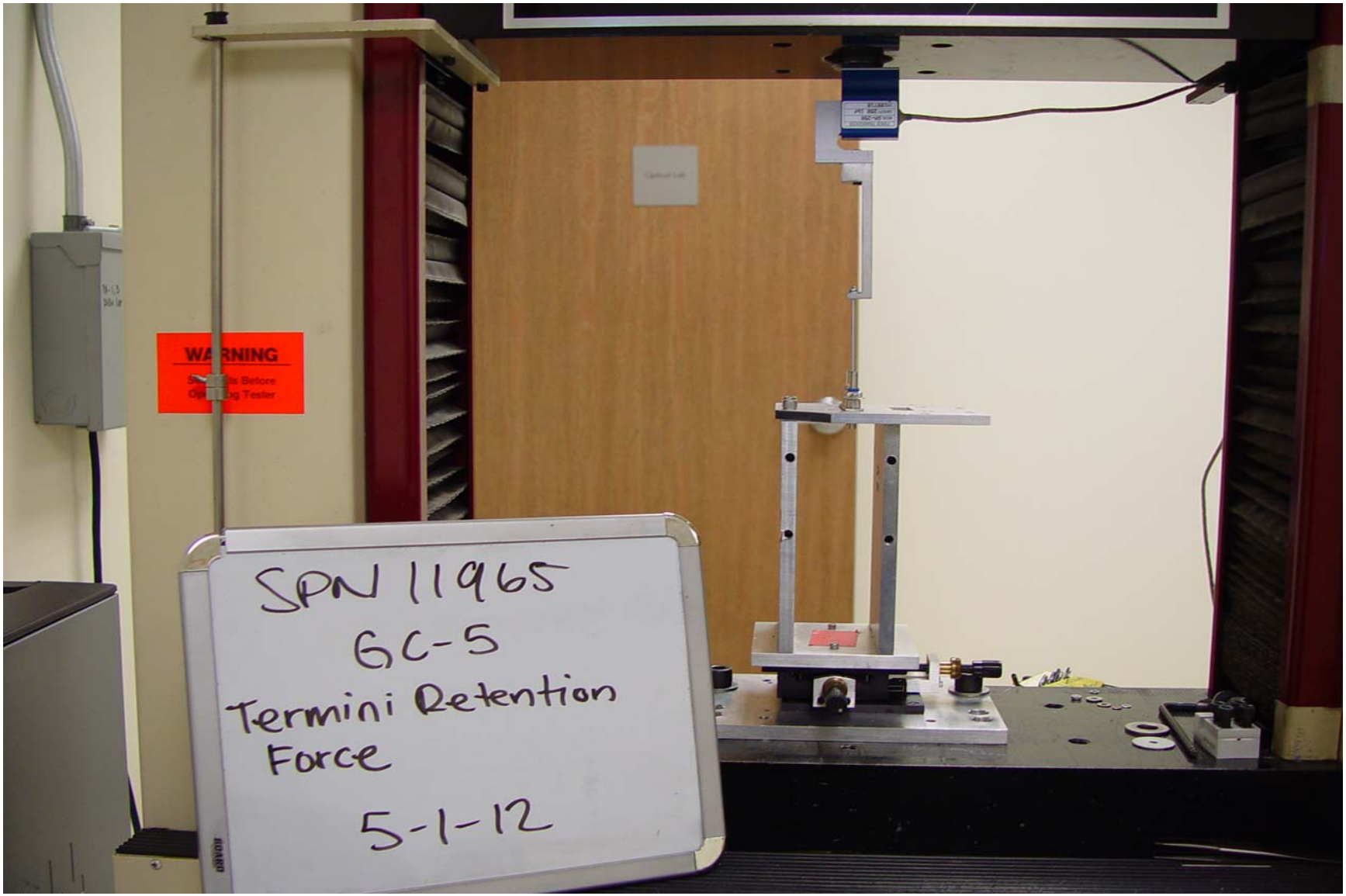
Project Engineer	Performed By		Bench Cleaning	Equipment List	Post Test Cleanup	Setup Check	Event Log	Signoff by Technical Director
Norman Metzner	JZ	Signoff	JZ	JZ	JZ	NM	NM	john kim
		Date/Time	5/1/2012 8:30AM	5/1/2012 8:30AM	5/9/2012 9:30PM	5/1/2012 8:30AM	5/15/12 8am	

Results Summary

Category	Requirement	Max/Min Measurement Value	Compliance
Visual Inspection	No damage	no damage observed	4/4

Date	Time	Event Log	Initials
05/01/12	8:30 AM	Test setup. Removing samples from termini connector	JZ
05/01/12	10:30 AM	Starting Termini Retention Force test with customer provided retention tool	JZ
05/01/12	4:25 PM	Completed female channels A1, A2, A4 and A5 of sample 17W5	JZ
05/02/12	8:00 AM	Continuing Termini Retention Force test	JZ
05/02/12	5:30 PM	Completed sample 17W5 female and male. Also 3W3 A1 female	JZ
05/03/12	8:20 AM	Continuing Termini Retention Force test	JZ
05/03/12	2:30 PM	Completed sample 3W3 Ch. A1 and A2 male and female side	JZ
05/04/12	8:00 AM	Continuing Termini Retention Force test. Started sample 5W5	JZ
05/04/12	6:15 PM	Completed sample 5W5	JZ
05/07/12	8:00 AM	Continuing with sample 24W7	JZ
05/07/12	4:45 PM	Completed A1, A2, A3, A5 and A6 (female side) of sample 24W7	JZ
05/09/12	8:00 AM	Continuing with sample 24W7 A7 female	JZ
05/09/12	3:20 PM	Complete A7 female and A1, A2, A3, and A7 male side for sample 24W7	JZ
05/09/12	6:45 PM	Continuing test with A5 male	JZ
05/09/12	9:20 PM	Completed A5 and A6 male side for sample 24W7. Completed Termini Retention Force test for all samples.	JZ

MULTIMODE @1300nm, Singlemode @1550nm			
Sample #	**Channel**	**Side**	**Tested [Y/N]**
3W3	A1 mm	Female	Y
		Male	Y
	A3 mm	Female	Y
		Male	Y
5W5	A1 mm	Female	Y
		Male	Y
	A2 mm	Female	Y
		Male	Y
	A4 mm	Female	Y
		Male	Y
	A5 mm	Female	Y
		Male	Y
17W5	A1 mm	Female	Y
		Male	Y
	A2 sm	Female	Y
		Male	Y
	A4 sm	Female	Y
		Male	Y
	A5 mm	Female	Y
		Male	Y
24W7	A1 mm	Female	Y
		Male	Y
	A2 mm	Female	Y
		Male	Y
	A3 sm	Female	Y
		Male	Y
	A5 sm	Female	Y
		Male	Y
	A6 mm	Female	Y
		Male	Y
	A7 mm	Female	Y
		Male	Y


WARNING
SPN 11965
GC-5
Termini Retention
Force
5-1-12

Test Datasheet

Test Report by:
Experior Laboratories, Inc.

Start Date	Completion Date	Product Name	Purchase Order #	Service Project Number SPN	Test ID #	Temperature	Humidity	DS Revision
4/9/2012	4/13/2012	NXTCore	177125	11965	GC-2	23°C	35%RH	04/13/12

Test Title	Test Specification / Standard	Specific Test Conditions	Measurements / Inspection
Maintenance Aging	2.4.5.7 of ARINC Specification 801-2 and in accordance with EIA-364-24B	All termini shall be removed and reinstalled ten times using the appropriate insertion and removal tools.	The termini insertion force should be measured during the first and last cycles and should not exceed 36 N (8 pounds).

Anomaly / Interruption	Nonconformity / Deviation
none	none

Instrum. Number	Manufacturer	Model Number	Serial Number	Instrument Description	Last Cal Date	Cal Due Date
1147	Mark-10	MG10	41612	10lbs. Force Gauge	4/9/2012	4/9/2013

Test Sample Description	Part Number	Experior Test Procedure # (if applicable)	Customer Witness
ARINC801 Connector	CBD3W3M000T2S-MOS, CBD3W3F000E2S-MOS CBD5W5M000T2S-MOS, CBD5W5F000E2S-MOS CBD17W5M200T2S-MOS, CBD17W5F200E2S-MOS CBD24W7M200T2S-MOS, CBD24W7F200E2S-MOS	-	none

Project Engineer	Performed By		Bench Cleaning	Equipment List	Post Test Cleanup	Setup Check	Event Log	Signoff by Technical Director
Norman Metzner	MD	Signoff	MD	MD	HR	NM	NM	john kim
		Date/Time	4/12/12 3pm	4/12/2012 3pm	4/13/12 11am	4/12/12 3pm	4/13/12 11am	

Results Summary

Category	Requirement	Max Measurement Value	Compliance
Termini Force during first and last cycle [lb]	<8	1.93	4/4

Date	Time	Event Log	Initials
04/12/12	3:00PM	Started instruments setup	MD
	3:30PM	Started testing samples	MD
04/13/12	11:00AM	Finished testing samples	HR

Sample #	Terminius	Cycle	Plug	
			Removal Force [lb]	Insertion Force [lb]
3W3	A1 mm	1st	0.67	0.35
		10th	0.71	0.41
	A3 mm	1st	0.71	0.38
		10th	0.75	0.37
5W5	A1 mm	1st	0.76	0.36
		10th	0.80	0.35
	A2 mm	1st	0.73	0.37
		10th	0.77	0.44
	A4 mm	1st	0.70	0.35
		10th	0.81	0.37
	A5 mm	1st	0.76	0.38
		10th	0.80	0.36
17W5	A1 mm	1st	0.78	0.36
		10th	0.74	0.43
	A2 sm	1st	0.71	0.45
		10th	0.76	0.51
	A4 sm	1st	0.69	0.38
		10th	0.78	0.45
	A5 mm	1st	0.71	0.45
		10th	0.77	0.34
24W7	A1 mm	1st	0.67	0.50
		10th	0.79	0.39
	A2 mm	1st	0.69	0.27
		10th	0.71	0.39
	A3 sm	1st	0.78	0.21
		10th	0.82	0.60
	A5 sm	1st	0.79	0.58
		10th	0.74	0.40
	A6 mm	1st	0.86	0.54
		10th	0.64	0.36
	A7 mm	1st	0.76	0.47
		10th	0.74	0.32

Receptacle		Comply?
Removal Force [lb]	Insertion Force [lb]	
1.75	1.47	PASS
0.87	1.12	PASS
1.44	.1.51	PASS
1.04	1.64	PASS
1.60	1.72	PASS
1.42	1.48	PASS
0.98	1.42	PASS
1.05	1.61	PASS
1.01	1.32	PASS
0.98	1.29	PASS
1.07	1.58	PASS
1.01	1.45	PASS
0.94	1.75	PASS
1.08	1.66	PASS
1.28	1.45	PASS
1.01	1.54	PASS
1.33	1.60	PASS
1.18	1.55	PASS
1.27	1.88	PASS
1.26	1.93	PASS
1.20	1.64	PASS
1.18	1.38	PASS
1.20	1.59	PASS
1.27	1.53	PASS
1.10	1.48	PASS
1.42	1.82	PASS
0.85	1.17	PASS
1.08	1.54	PASS
0.84	1.32	PASS
1.04	1.37	PASS
0.65	1.49	PASS
0.71	1.41	PASS

SPN 11965
Maintenance Aging
Remobal-Insertion Force
4/13/12
SONY
Model MG10
MARK-10
1147

Test Datasheet

Test Report by:
Experior Laboratories, Inc.

Start Date	Completion Date	Customer Name	Purchase Order #	Service Project Number SPN	Test ID #	Temperature	Humidity	DS Revision
5/3/2012	5/11/2012	NXTCon	177125	11965	GC-6	23 °C	55 %RH	05/15/12

Test Title	Test Specification / Standard	Specific Test Conditions	Measurements / Inspection
Return Loss	2.4.3.2 of ARINC Specification 801-2 and in accordance with TIA/EIA-455-107A (FOTP-107).	Return loss should be a minimum of 20 dB for multimode PC polish termini and 30 dB for single-mode PC polish termini	RL [dB]

Anomaly / Interruption	Nonconformity / Deviation
none	none

Instrum. Number	Manufacturer	Model Number	Serial Number	Instrument Description	Last Cal Date	Cal Due Date
1260	Extech	42280	9069033	Temperature Humidity Datalogger	5/3/2011 1:03:12 PM	5/3/2012
1451	Rifocs	781RL-13-110	122785	1300nm MM Return Loss Meter	9/6/2011 5:38:40 PM	9/6/2012
1224	JGR	BR5	750004	Quad-Wave Backreflection Meter	1/3/2012 10:43:29 AM	1/3/2013
1258	Hewlett Packard	HP 81524A	3248G01541	Optical Power Head	3/8/2012 3:22:08 PM	3/8/2014

Test Sample Description	Part Number	Experior Test Procedure # (if applicable)	Customer Witness
ARINC801 Connector		EPTP-1005 Return Loss	none

Project Engineer	Performed By		Bench Cleaning	Equipment List	Post Test Cleanup	Setup Check	Event Log	Signoff by Technical Director
Norman Metzner	Harris R	Signoff	HR	HR	HR	NM	NM	john kim
		Date/Time	5/3/12 7:30AM	5/3/12 9:30AM	5/11/12 2:30Pm	5/3/12 7:30AM	5/15/12 8am	

Results Summary

Category	Requirement	Max/Min Measurement Value	Compliance
Return Loss [dB]	20 for MM and 30 for SM	45	4/4

Date	Time	Event Log	Initials
05/03/12	7:30AM	Start Preparation Cleaning and Inspecting Ferrules for RL Measurements Sample 17 W 5	HR
	9:30AM	Finished RL to Sample 17 W 5	
	2:30PM	Start Preparation Cleaning and Inspecting Ferrules for RL Measurements 3 W 3	
	3:30PM	Finished RL to Sample 3 W 3	
05/07/12	7:30AM	Start Preparation Cleaning and Inspecting Ferrules for RL Measurements 5 W 5	HR
	10:00AM	Finished RL to Sample 5 W 5	
05/11/12	11:30AM	Start Preparation Cleaning and Inspecting Ferrules for RL Measurements 24W7	HR
	2:30PM	Finished RL to Sample 24W7	

MULTIMODE @1300nm, Singlemode @1550nm		
Sample #	**Channel**	**RL [dB]**
3W3	A1 mm	>45
	A3 mm	>45
5W5	A1 mm	>45
	A2 mm	>45
	A4 mm	>45
	A5 mm	>45
17W5	A1 mm	>45
	A2 sm	54.9
	A4 sm	55.7
	A5 mm	>45
24W7	A1 mm	>45
	A2 mm	>45
	A3 sm	55.2
	A5 sm	55.3
	A6 mm	>45
	A7 mm	>45

Test Datasheet

Test Report by:
Experior Laboratories, Inc.

Start Date	Completion Date	Product Name	Purchase Order #	Service Project Number SPN	Test ID #	Temperature	Humidity	DS Revision
3/22/2012	3/23/2012	NXTCore	177125	11965	GD-1	23.3 °C	43.1 %RH	03/23/12

Test Title	Test Specification / Standard	Specific Test Conditions	Measurements / Inspection
IL-RL	TIA-455-171A (FOTP-171), Method D1 (multimode) and D3 (single-mode) 2.4.3.2 of ARINC Specification 801-2 and in accordance with TIA/EIA-455-107A (FOTP-107).	Fiber optic connector assemblies shall have a maximum attenuation of 0.3 dB for multimode connections. For all single-mode connections, measure and record only. No failure criterion exists for single-mode connections Return loss should be a minimum of 20 dB for multimode PC polish termini and 30 dB for single-mode PC polish termini	IL [dB], RL [dB]

Anomaly / Interruption	Nonconformity / Deviation
none	none

Instrum. Number	Manufacturer	Model Number	Serial Number	Instrument Description	Last Cal Date	Cal Due Date
1260	Extech	42280	9069033	Temperature Humidity Datalogger	5/3/2011 1:03:12 PM	5/3/2012
1451	Rifocs	781RL-13-110	122785	1300nm MM Return Loss Meter	9/6/2011 5:38:40 PM	9/6/2012
1254	Hewlett Packard	81533B	3411G05264	Optical Head Interface	Reference Only	Reference Only
1103	Hewlett Packard	81524A	3248G01181	Optical Power Head	10/31/2011 2:10:44 PM	10/31/2012
1402	Fujikura	FSM-50S	12161	Fiber Fusion Splicer	Reference Only	Reference Only
1405	Fujikura	CT-30	63162	Fiber Cleaver	Reference Only	Reference Only

Test Sample Description	Part Number	Experior Test Procedure # (if applicable)	Customer Witness
Combo-D connector	CBD3W3M000T2S-MOS, CBD3W3F000E2S-MOS CBD5W5M000T2S-MOS, CBD5W5F000E2S-MOS CBD17W5M200T2S-MOS, CBD17W5F200E2S-MOS CBD24W7M200T2S-MOS, CBD24W7F200E2S-MOS	EPTP-1002 Transmittance EPTP-1005 Return Loss	none

Project Engineer	Performed By		Bench Cleaning	Equipment List	Post Test Cleanup	Setup Check	Event Log	Signoff by Technical Director
Norman Metzner	JZ	Signoff	JZ	JZ	JZ	NM	NM	john kim
		Date/Time	3/22/2012 11:00 AM	3/22/2012 11:03AM	3/22/12 12:45pm	3/22/2012 11:00 AM	3/23/2012	

Results Summary

Category	Requirement	Max/Min Measurement Value	Compliance
Insertion Loss [dB]	0.3 (for MM only)	0.07	1/1
Return Loss [dB]	20 for MM and 30 for SM	45	1/1

Date	Time	Event Log	Initials
03/22/12	11:05 AM	Starting IL/RL measurements.	JZ
03/22/12	12:15 PM	Completed IL/RL measurements. S/N's and pin #'s are reversed.	JZ

MULTIMODE @1300nm, Singlemode @1550nm					
Sample #	**Channel**	**Power [dBm]**	**Cutback [dbm]**	**IL [dB]**	**RL [dB]**
3W3	A1 mm	-11.59	-11.57	0.02	>45
	A3 mm	-11.64	-11.57	0.07	>45