JEPPESEN
A BOEING COMPANY

Rapid Decompression Test Results for iPad

Consolidated multi-model report

Line	Model	Released	Test Date	Test Altitude	Result
iPad mini	iPad Mini 4	2015 Sep 9	2016 Jan 21	50,000’	Pass
iPad mini	iPad Mini 5	2019 Mar 18	2019 Apr 15	51,000’	Pass
iPad	iPad (5th gen) (9.7”)	2017 Mar 24	2017 Apr 6	41,000’	Pass
	Retest 5th gen at higher alt.		2017 Dec 18	51,000’	Pass
iPad	iPad (6th gen) (9.7”)	2018 Mar 27	2018 Jun 1	51,000’	Pass
iPad	iPad (7th gen) (10.2”)	2019 Sep 10	2019 Nov 13	51,000’	Pass
iPad Air	iPad Air 2 (9.7”)	2014 Oct 22	2014 Oct 22	53,000’	Pass
iPad Air	iPad Air (3rd gen) (10.5”)	2019 Mar 18	2019 Apr 15	51,000’	Pass
iPad Pro	iPad Pro 12.9”	2015 Nov 11	2016 Jan 21	50,000’	Pass
iPad Pro	iPad Pro 9.7”	2016 Mar 31	2016 Apr 6	41,000’	Pass
	Retest Pro 9.7”, higher altitude		2017 Dec 18	51,000’	Pass
iPad Pro	iPad Pro 10.5”	2017 Jun 5	2017 Jul 12	41,000’	Pass
	Retest Pro 10.5”, higher altitude		2017 Dec 18	51,000’	Pass
iPad Pro	iPad Pro 12.9” (2nd gen)	2017 Jun 5	2017 Jul 12	41,000’	Pass
	Retest 12.9” 2nd gen, higher alt.		2017 Dec 18	51,000’	Pass
iPad	iPad Pro 12.9” (3rd gen)	2018 Nov 7	Not tested	No EFB demand due to size	n/a
iPad Pro	iPad Pro 11” (1st gen)	2018 Nov 7	2018 Dec 21	51,000’	Pass
iPad Pro	iPad Pro 12.9” (4th gen)	2020 Mar 25	Not tested	No EFB demand due to size	n/a
iPad Pro	iPad Pro 11” (2nd gen)	2020 Mar 25	2020 Jun 5	51,000’	Pass
iPad	iPad 10.2” (8th gen)	2020 Sep 18	2020 Dec 7	51,000’	Pass
iPad Air	iPad Air 10.9” (4th gen)	2020 Oct 23	2020 Dec 7	51,000’	Pass

Indicates models available from Apple at the time of report date.

This report includes Rapid Decompression test results for all iPad models that are currently supported by iOS version 14.x. This document version does not include the positive test results for early iPad models that are significantly outdated and no longer supported by Apple iPadOS (iPad mini 1/2/3, iPad 1/2/3/4, iPad Air 1).

Version 17, December 22, 2020

Provided by Jeppesen to customers, as needed. Section 2 covers distribution restrictions.

Table of Contents

DOCUMENT VERSION 17

Written by Rick Ellerbrock, Jeppesen.

Summary of changes in this version:

- Added test results for iPad (8th Gen), released by Apple 9/18/20.
- Added test results for iPad Air (4th Gen), released by Apple 10/23/20.

1. Introduction

This document provides an overview, regulatory context, and results of Rapid Decompression testing for various iPad models, as commissioned by Jeppesen. Testing for each device listed was done at NTS in Fullerton, California, https://www.nts.com/location/fullerton-ca/. Jeppesen provided the testing work statement.

The testing for each model was completed on these dates:

Device	(Release Date) Test Date	Item Tested	Models Covered	See Attachment(s)
iPad Air 2	(22 Oct 2014) 22 Oct 2014	Item: Cellular / 128GB, gold [MH2H2LL/A] S/N: DMPND08JG5YR	A1566, A1567	**A**
iPad mini 4	(9 Sep 2015) 21 Jan 2016	Item: Cellular / 128GB, white [MK9G2LL/A] S/N: DLXQ80BPGHMP	A1538, A1550	**B**
iPad Pro 12.9-inch	(11 Nov 2015) 21 Jan 2016	Item: Cellular / 128GB, white [ML0Q2LL/A] S/N: DLXQJ46TGMW5	A1584, A1652	**B**
iPad Pro 9.7-inch	(31 Mar 2016) 6 Apr 2016	Item: Cellular / 128GB, gray [MLQ32LL/A] S/N: DMPRD74TGXQ7	A1673, A1674, A1675	**C**
	(31 Mar 2016) 18 Dec 2017 *	Item: Cellular / 128GB, white [MLQ32LL/A] S/N: DMPRDHACGXPY		**F**
iPad (5th gen)	(24 Mar 2017) 6 Apr 2017 18 Dec 2017 *	Item: Cellular / 128GB, gray [MP2D2LL/A] S/N: DMPT904RHLJL	A1822, A1823	**D, F**
iPad Pro 10.5-inch	(13 Jun 2017) 12 Jul 2017 18 Dec 2017 *	Item: Cellular / 512GB, silver [MPMF2LL/A] S/N: DMPTM04THPT5	A1701, A1709, A1852	**E, F**
iPad Pro 12.9-inch (2nd gen)	(13 Jun 2017) 12 Jul 2017 18 Dec 2017 *	Item: Wi-Fi only / 512GB, gold [MPL12LL/A] S/N: DLXTQ1NFHPJ6	A1670, A1671, A1821	**E, F**
iPad (6th gen)	(27 Mar 2018) 1 Jun 2018	Item: Cellular / 128GB, gold [MRM82LL/A] S/N: DMPWC23MJF8G	A1893, A1954	**G**
iPad Pro 12.9-inch (3rd gen)	(7 Nov 2018) n/a	12.9-inch models are no longer being tested due to insufficient EFB demand.	A1876, A2014, A1895, A1983	n/a
iPad Pro 11-inch (1st gen)	(7 Nov 2018) 21 Dec 2018	Item: Cellular / 1TB, silver [MU282LL/A] S/N: DLXXK01SKD97	A1980, A2013, A1934, A1979	**H**
iPad mini (5th gen)	(18 Mar 2019) 15 Apr 2019	Item: Cellular / 256GB, gray [MUXM2LL/A] S/N: DLXYD18ELMVJ	A2124, A2125, A2126, A2133	**I**
iPad Air (3rd gen, 10.5")	(18 Mar 2019) 15 Apr 2019	Item: Cellular / 256GB, gray [MV1D2LL/A] S/N: F9FYC3KDLMX0	A2123, A2152, A2153, A2154	**I**
iPad (7th gen, 10.2")	(10 Sep 2019) 13 Nov 2019	Item: Cellular / 128GB, gray [MW702LL/A] S/N: F9FZ73QZMDG4	A2197, A2198, A2199, A2200	**J**
iPad Pro 12.9-inch (4th gen)	(25 Mar 2020) n/a	12.9-inch models are no longer being tested due to insufficient EFB demand.	A2229, A2069, A2232, A2233	n/a
iPad Pro 11-inch (2nd gen)	(25 Mar 2020) 5 Jun 2020	Item: Cellular / 512 GB, gray [MXEY2LL/A] S/N: DMPC911LNTHC	A2228, A2068, A2230, A2231	**K**
iPad (8th gen)	(18 Sep 2020) 7 Dec 2020	Item: Cellular / 128 GB, gray [MYN72LL/A] S/N: DMPD70B2Q1KY	A2270, A2428, A2429, A2430	**L**
iPad Air (4th gen)	(23 Oct 2020) 7 Dec 2020	Item: Cellular / 256 GB, green [MYJ72LL/A] S/N: DMPDJ00HQ19N	A2316, A2324, A2325, A2072	**L**

* Originally tested to 41,000 feet by mistake; re-tested to 51,000 feet on December 18, 2017. Both results retained.

The test results document can be included in EFB authorization paperwork only by Jeppesen customers who received the materials directly from Jeppesen. The test results fulfill the

requirement for Rapid Decompression testing as outlined in FAA Advisory Circular AC 120-76D section 10.2 (or as amended), "Authorization for the Use of Electronic Flight Bags."

Following testing of each representative device and post-testing evaluation for normal function, the iPad is returned by the lab to Jeppesen via overnight delivery, where it is further evaluated to further ensure normal software and hardware function, and absence of anomalies.

The test results are valid only for EFBs of the same make and model. For example, all iPad 2 EFBs are covered by the included iPad 2 test result, regardless of differences in memory size and/or Wi-Fi vs. Wi-Fi+Cellular.

A final report for each test is prepared for Jeppesen according to Jeppesen's Statement of work. Test report results for each model, suitable for FAA EFB compliance, are included at the end of this document.

2. Document Control and Restrictions

Jeppesen is pleased to share Rapid Decompression test results with Jeppesen customers who have a bona fide need to produce such records during EFB Authorization efforts. Part 91 pilots (except Part 91F and 91K) are exempt from these needs. Jeppesen reserves the right to limit distribution.

For document control, Jeppesen requires the following information from requesting operators:

- The date of the request.
- The name of the person making the request on behalf of the customer.
- Confirmation of status as a Jeppesen customer.
- We may also request general information such as assigned FSDO or CAA, to better understand distribution patterns to help with marketing and customer support plans.

The test result documents are marked Jeppesen property and the customer agrees to not forward the reports beyond their immediate EFB team and Principle Inspector(s) involved in the authorization, without written Jeppesen permission.

3. Regulatory Context

These tests meet the requirements of FAA Advisory Circular 120-76, as amended, "Authorization for the Use of Electronic Flight Bags." AC 120-76D, sections 10.2.1 and 10.2.2 include the following relevant statements. See the AC for full language.

- *Representative testing is an appropriate level of testing for modern solid-state devices. The testing of operational EFBs should be avoided when possible to preclude the infliction of unknown damage to the unit during testing.*

- *Rapid decompression testing must comply with RTCA DO-160, Section 4, Temperature and Altitude, guidelines for rapid decompression testing up to the maximum operating altitude of the aircraft in which the EFB is to be used.*

- *Similarity of a particular EFB make and model to a unit already tested may be used to comply with this requirement. It is the responsibility of the operator to provide the rationale for the similarity.*

4. Laboratory Statement of Work

This section includes the specific work statement and process followed by the laboratory, at the direction of Jeppesen, for completing the Rapid Decompression testing.

Test Standard:

RTCA DO-160, Rapid Decompression (para 4.6.2 in the latest version)

Deliverables to Jeppesen:

- Test report.
- Return the tested device.

Test sequence instructions:

1. Inspect the device for any damage.
2. Start the iPad and launch the Jeppesen EFB application.
3. Go through a representative sequence of steps to check for normal software function. (Note: Jeppesen provides instruction for this)
4. Stop with a navigation chart displayed on the screen, and place in the test chamber. (Note: the test chamber has a window through which to observe the display during the pressure change sequences).
5. Observe the device while in the chamber – see if there is any change to the display or any changes in the device's physical characteristics. Also observe to see if there are any noticeable changes or issues related to the software application.
6. At the end of the test, remove the device and re-run the application through typical functions, similar to step 4.
7. Exit the application. Check for normal iPad operation.
8. Turn off the iPad.
9. Visually inspect the device for damage.
10. During steps 1-10, observe the device for normal functionality or anomalies, and make appropriate notations in the report.
11. Return the device to Jeppesen via FedEx.

12. Write a test report and send it to Jeppesen.

5. Test Results

Indication of positive test results include observation for any physical damage or anomalies, and confirmation of continued proper function of the device including the Jeppesen EFB charting application. This is done both at the lab as observation during and immediately after the test, and also at Jeppesen as a post-test assessment once the device is returned.

All devices listed in Section 1 of this report successfully passed the Rapid Decompression test in accordance with the referenced FAA standard. Laboratory test results for each tested device are included as attachments.

Attachment A – (2014) iPad Air 2

Tested to 53,000 feet.

CUSTOMER:	**Jeppesen**	**MJO:**	**PR032877**
TEST:	Decompression	**DATE:**	**10/22/2014**
TEST ITEM:	iPad Air 2 Wi-FI/Cellular		
PART NUMBER:	MH2H2LL/A	**S/N:**	**DMPND08JG5YR**
SPECIFICATION:	RTCA-DO160G	**PARA:**	**4.6.2**
TECHNICIAN:	Heng Tieng	**TEMP:**	**82°F** **RH: 37%**
ENGINEER:	John Guzman	**DEVIATION:**	**NO [X] YES [ ]**

Date	Time	Test Description
10/22/14	1100	Begin setting up unit into chamber
	1123	Begin ramping chamber to 10.92 PSIA (8k ft)
	1126	Chamber soaking at 10.92 PSIA (8k ft)
	1210	Begin Rapid Decompression to 1..46 PSIA (53k ft)
	1210	Chamber soaking at 1.46 PSIA (53k ft)
	1232	Soak complete, chamber begins ramping to 14.77 PSIA (site)
	1237	Chamber soaking at 14.77 PSIA (site)
		TEST COMPLETE
		RESULT: No obvious signs of damage to the test item, due to altitude testing conditions. Final disposition is to be determined by customer. Rapid Decompression testing completed.

Attachment B – (2015) iPad Pro 12.9-inch & iPad mini 4

Tested to 50,000 feet.

GENERAL DATA SHEET

CUSTOMER:	Jeppesen	**MJO:**	PR043896
TEST:	Decompression	**DATE:**	1/21/2016
TEST ITEM:	IPAD PRO & IPAD MINI		
PART NUMBER:	SEE BELOW	**S/N:**	SEE BELOW
SPECIFICATION:	RTCA-DO 160G	**PARA:**	4.6.2
TECHNICIAN:	Heng Tieng	**TEMP:**	77°F **RH:** 39%
ENGINEER:	Dave Gregory	**DEVIATION:**	**NO** [X] **YES** [ ]

Date	Time	Test Description
---	---	**IPAD PRO, PN: A1652, SN: DLXQJ46TGMW5**
---	---	**IPAD MINI, PN: A1550, SN: DLXQ80BPGHMP**
1/21/2016	0937	Begin decreasing chamber pressure to 10.92 PSIA (8k ft)
	0939	Chamber soaking at 10.92 PSIA (8k ft)
	1028	Soak complete, begin Decompression to 1.69 PSIA (50k ft)
	1028	Chamber soaking at 1.69 PSIA (50k ft)
	1041	Soak complete, begin increasing chamber pressure to 14.77 PSIA (site)
	1045	Chamber soaking at 14.77 PSIA (site)
		TEST COMPLETE
		RESULT: NO FUNCTIONAL ANOMALIES DURING OR AFTER

Attachment C – (2016) iPad Pro 9.7-inch

Tested to 41,000 feet. Later tested to 51,000 feet, see attachment I.

GENERAL DATA SHEET

CUSTOMER:	Jeppesen	**MJO:**	PR046879
TEST:	Decompression	**DATE:**	4/6/2016
TEST ITEM:	9.7-inch iPad Pro w/ iPad Pro Smart Keyboard		
PART NUMBER:	SEE BELOW	**S/N:**	SEE BELOW
SPECIFICATION:	RTCA/DO-160G	**PARA:**	4.6.2
TECHNICIAN:	Heng Tieng	**TEMP:**	79°F **RH:** 36%
ENGINEER:	Dave Gregory DTG	**DEVIATION:**	**NO** [X] **YES** [ ]

Date	Time	Test Description
---	---	**9.7-inch iPad Pro: PN: A1674, SN: DMPRD74TGXQ7**
---	---	**iPad Pro Smart Keyboard: PN: A1772, SN: FTPRG99PH6Q8**
4/6/16	0830	Begin setting up unit into chamber
	0840	Begin decreasing chamber pressure to 10.92 PISA (8k ft)
	0846	Chamber soaking at 10.92 PSIA (8k ft)
	0907	Begin Decompression to 2.59 PSIA (41k ft)
	0907	Chamber soaking at 2.59 PSIA (41k ft)
	0918	Soak complete, begin increasing chamber pressure to 14.77 PSIA (site)
	0920	Chamber soaking 14.77 PSIA (site)
		TEST COMPLETE
		RESULT: NO FUNCTIONAL ANOMALIES DURING OR AFTER TESTING

Attachment D – (2017) iPad (5th gen)

Tested to 41,000 feet. Later tested to 51,000 feet, see attachment I.

GENERAL DATA SHEET

CUSTOMER:	Jeppesen	**MJO:**	PR061629
TEST:	Rapid Decompression	**DATE:**	4/6/2017
TEST ITEM:	iPad (2017)		
PART NUMBER:	A1823	**S/N:**	DMPT904RHLJL
SPECIFICATION:	email March 28, 2017,RTCA DO-160G	**PARA:**	4.6.2
TECHNICIAN:	Robert Calip	**TEMP:**	80ºF **RH:** 40%
ENGINEER:	David Gregory	**DEVIATION:**	NO [X] YES [ ]

Date	Time	Test Description
4/6/17	11:30	Unit in chamber. Precheck unit operation.
	12:15	Ramp to 8,000 feet (10.92 psia). Unit in operation.
	12:20	Start stabilization at 8,000 feet, 1 hour
	13:20	End soak, prepare for rapid decompression.
	13:21	Perform rapid decompression to 41,000 feet (2.6 psia) within 15 seconds.
	13:22	Soak for 10 minutes at 41,000 feet.
	13:35	End soak, return to site pressure.
	14:20	Conditions at ambient. End of test.
		Results: During altitude at 8000 feet and during and after rapid decommpression, unit showed no signs of malfunction or deformation as observed through the portal. At the return to ambient (site) pressure, the unit was observed to be in good operating condition and no external damage or deformation.

Attachment E – (2017) iPad Pro 10.5-inch & iPad Pro 12.9-inch (2nd gen)

Tested to 41,000 feet. Later tested to 51,000 feet, see attachment I.

GENERAL DATA SHEET

CUSTOMER:	Jeppesen	**MJO:**	PR066176
TEST:	Rapid Decompression	**DATE:**	7/12/2017
TEST ITEM:	iPad Pro 10.5-inch, iPad Pro 12.9-inch (2nd generation)		
PART NUMBER:	A1709, A1670	**S/N:**	DMPTM04THPT5, DLXTQ1NFHPJ6
SPECIFICATION:	RTCA/DO-160G and E-mail dated 7/5/2017	**PARA:**	Paragraph 4.6.2 and page 2
TECHNICIAN:	Steve Crisp	**TEMP:**	80ºF **RH:** 50%
ENGINEER:	David Gregory	**DEVIATION:**	**NO** [X] **YES** [ ]

Date	Time	Test Description
7/12/17	8:00	Set up Chamber and UUT - Power on - Inspect - no damage - Take Pictures
	8:45	Ramp to 8,000 feet 10.91 PSI
	8:48	Dwell for 10 minutes
	9:00	Decompress to 41,000 feet 2.60 PSI less than 15 seconds
	9:00	Dwell for 10 minutes at 41,000 feet
	9:12	Ramp back to ambient pressure
	9:14	Chamber at ambient Pressure dwell for 10 minutes
	9:24	Test End - Take Pictures - Inspect - no damage or functional anomalies

Attachment F – (Re-test) iPad (5th gen), Pro 9.7, Pro 10.5, Pro 12.9 (2nd gen)

Previously these were inadvertently tested to 41,000 feet. This re-test was done to 51,000 feet.

GENERAL DATA SHEET

CUSTOMER:	Jeppesen	MJO:	PR073337
TEST:	Rapid Decompression	DATE:	12/18/2017
TEST ITEM:	SEE BELOW		
PART NUMBER:	SEE BELOW	S/N:	SEE BELOW
SPECIFICATION:	RTCA-DO 160G & Email Dated 12/4/17	PARA:	4.6.2 & N/A
TECHNICIAN:	Heng Tieng	TEMP:	70°F RH: 24%
ENGINEER:	John Guzman J.G.	DEVIATION:	NO [X] YES [ ]
TECHNICAL REVIEW:	J. Guzman	TECHNICAL REVIEW DATE:	1/2/18

Date	Time	Test Description
---	---	**iPad Pro 10.5, PN: A1709, SN: DMPTM04THPT5**
---	---	**iPad (5th Gen.), PN: A1823, SN: DMPT904RHLJL**
---	---	**iPad Pro 9.7 inch, PN: A1674, SN: DMPRDHACGXPY**
---	---	**iPad Pro 12.9 (2nd Gen.), PN: A1670, SN: DLXTQ1NFHPJ6**
12/18/17	0926	Place units into chamber
	0932	Chamber begins ramping to 10.92 PSIA (8k ft)
	0937	Chamber soaking at 10.92 PSIA (8k ft)
	1032	Soak complete, begin decompression to 1.61 PSIA (51k ft) in less than 15 seconds.
	1032	Chamber soaking at 1.61 PSIA (51k ft)
	1044	Soak complete, chamber begins ramping to 14.77 PSIA (site)
	1109	Chamber soaking at 14.77 PSIA (site)
		TEST COMPLETE
		RESULT: NO FUNCTIONAL ANOMALIES DURING OR AFTER TESTING

Attachment G – (2018) iPad (6th gen)

Tested to 51,000 feet.

GENERAL DATA SHEET

CUSTOMER:	Jeppesen Sanderson Inc	**PR NO.:**	PR081284
TEST:	Rapid Decompression	**START DATE:**	6/1/2018
TEST ITEM:	iPad (6th Generation)	**END DATE:**	6/1/2018
PART NUMBER:	A1954	**SERIAL NO.:**	DMPWC23MJF8G
SPECIFICATION:	RTCA/DO-160G & email 5/23/18 **REV.** N/A	**PARA:**	4.6.2
TECHNICIAN:	Steve Crisp	**TEMP:**	78ºF **RH:** 47%
PROG. MANAGER:	David Gregory	**DEVIATION:**	☑ NO ☐ YES

DATE	TIME	TEST DESCRIPTION
6/1/2018	7:50	Setup chamber and UUT
	8:14	Start at ambient air pressure
	8:15	Ramp to 8,000 feet 10.91 PSIA
	8:16	Dwell for 10 minutes
	8:31	Decompression to 51,000 feet 1.61 PSIA
	8:31	Dwell for 10 minutes - Unit still working - no changes to display
	8:43	Ramp to ambient air pressure
	8:44	Dwell for 10 minutes
	8:54	Test end - No visual anomalies. Still functions after test.
		Ref. Specification paragraph RTCA DO-160 Rapid Decompression 4.6.2

Attachment H – (2018) iPad Pro 11-inch (1st gen)

Tested to 51,000 feet.

GENERAL DATA SHEET

CUSTOMER:	Jeppesen	**PR NO.:**	PR092266
TEST:	Rapid Decompression	**START DATE:**	12/21/2018
TEST ITEM:	iPad Pro 11-Inch	**END DATE:**	12/21/2018
PART NUMBER:	A2013	**SERIAL NO.:**	DLXXK01SKD97
SPECIFICATION:	Email Dated 12/17/18 **REV.** N/A	**PARA:**	N/A
TECHNICIAN:	Heng Tieng	**TEMP:**	76ºF **RH:** 39%
PROG. MANAGER:	Scott Miller	**DEVIATION:**	☑ NO ☐ YES

DATE	TIME	TEST DESCRIPTION
---	---	**No visual/physical anomalies observed prior to testing**
---	**---**	**Unit will have the Jeppesen program running during testing**
12/21/2018	0945	Begin setting up unit into chamber
	0956	Chamber begins ramping to 10.92 PSIA (8k ft)
	1000	Chamber soaking at 10.92 PSIA (8k ft)
	1120	Soak complete, begin Decompression to 1.60 PSIA (51k ft)
	1120	Chamber soaking at 1.60 PSIA (51k ft)
	1136	Soak complete, chamber begins ramping to 14.77 PSIA (site)
	1201	Chamber soaking at 14.77 PSIA (site)
		TEST COMPLETE
		RESULT: NO VISUAL/PHYSICAL/FUNCTIONAL ANOMALIES OBSERVED DURING
		TESTING.

Attachment I – (2019) iPad mini (5th gen) & iPad Air (3rd gen)

Tested to 51,000 feet.

GENERAL DATA SHEET

CUSTOMER:	Jeppesen	**PR NO.:**	PR097726
TEST:	Rapid Decompression	**START DATE:**	4/15/2019
TEST ITEM:	iPad mini (5th gen, 2019) & iPad Air (3rd gen, 2019)	**END DATE:**	4/15/2019
PART NUMBER:	A2126, MUXM2LL/A	**SERIAL NO.:**	DLXYD18ELMVJ
PART NUMBER:	A2153, MV1D2LL/A	**SERIAL NO.:**	F9FYC3KDLMX0
SPECIFICATION:	RTCA DO-160 & Email Dated 4/2/19 **REV.** G & N/A	**PARA:**	4.6.2 & N/A
TECHNICIAN:	Heng Tieng	**TEMP:**	79ºF **RH:** 39%
PROG. MANAGER:	John Guzman	**DEVIATION:**	☑ NO ☐ YES

DATE	TIME	TEST DESCRIPTION
---	---	**No visual/physical anomalies observed prior to testing**
---	**---**	**No functional required, unit needs to remain on with the Jeppesen application running**
4/15/2019	1017	Chamber begins ramping to 10.92 PSIA (8k ft.)
	1021	Chamber soaking at 10.92 PSIA (8k ft.)
	1055	Soak complete, begin Decompression to 1.60 PSIA (51k ft.)
	1055	Chamber soaking at 1.60 PSIA (51k ft.)
	1108	Soak complete, chamber begins ramping to 14.77 PSIA (site)
	1132	Chamber soaking at 14.77 PSIA (site)
		TEST COMPLETE
		RESULT FOR (iPad mini (5th gen, 2019): NO VISUAL/PHYSICAL ANOMALIES OBSERVED AFTER TESTING. UNIT STILL HAS JEPPESEN APPLICATION RUNNING.
		RESULT FOR (iPad Air (3rd gen, 2019): NO VISUAL/PHYSICAL ANOMALIES OBSERVED AFTER TESTING. UNIT STILL HAS JEPPESEN APPLICATION RUNNING.

Attachment J – (2019) iPad (7th gen)

Tested to 51,000 feet.

GENERAL DATA SHEET

CUSTOMER:	Jeppesen	**PR NO.:**	PR108742
TEST:	Rapid Decompresion	**START DATE:**	11/12/2019
TEST ITEM:	iPad (7th Gen, 2019)	**END DATE:**	11/12/2019
PART NUMBER:	A2200,MW702LL/A	**SERIAL NO.:**	F9FZ73QZMDG4
SPECIFICATION:	Email Dated 10/7/19 **REV.** NA	**PARA:**	NA
TECHNICIAN:	Heng Tieng	**TEMP:**	79ºF **RH:** 39%
PROG. MANAGER:	Dave Gregory	**DEVIATION:**	☑ NO ☐ YES

DATE	TIME	TEST DESCRIPTION
---	---	**No visible evidence of damage before testing.**
---	---	**Unit will be running Jeppesen software throughout testing**
11/12/2019	1345	Place unit into chamber while software running
	1353	Chamber begins ramping to 10.92 PSIA (8k ft)
	1357	Chamber soaking at 10.92 PSIA (8k ft)
	1436	Soak complete, begin Rapid Decompression to 1.60 PSIA (51k ft)
	1436	Chamber soaking at 1.60 PSIA (51k ft)
	1450	Soak complete, chamber begins ramping to 14.77 PSIA (site)
	1516	Chamber soaking at 14.77 PSIA (site)
		TEST COMPLETE
		RESULTS: NO VISUAL/PHYSICAL ANOMALIES OBSERVED AFTER TESTING. NTS TECHNICIAN DIDN'T OBSERVED ANY FUNCTIONAL ANOMALIES DURING OR AFTER TESTING

Attachment K – (2020) iPad Pro 11-inch (2nd gen)

Tested to 51,000 feet.

GENERAL DATA SHEET

CUSTOMER:	Jeppesen	**PR NO.:**	PR119522
TEST:	Rapid Decompression	**START DATE:**	6/4/2020
TEST ITEM:	iPad Pro 11-inch (2nd gen, 2020)	**END DATE:**	6/4/2020
PART NUMBER:	A2068, MXEY2LL/A	**SERIAL NO.:**	DMPC911LNTHC
SPECIFICATION:	RTCA DO-160G & Email dated 5/17/2020 **REV.** G	**PARA:**	4.6.2
TECHNICIAN:	Heng Tieng	**TEMP:**	NA **RH:** NA
PROG. MANAGER:	Marty McCormick	**DEVIATION:**	☑ NO ☐ YES

DATE	TIME	TEST DESCRIPTION
		No visible evidence of damage before testing.
6/4/2020	1300	Place unit into chamber, load Jeppesen software prior to starting test
	1330	Chamber begins ramping to 10.92 PSIA (8k ft)
	1334	Chamber chamber soaking at 10.92 PSIA (8k ft)
	14:55:27	Soak complete, begin Decompression to 1.60 PSIA (51k ft)
	14:55:30	Chamber soaking at 1.60 PSIA (51k ft) in 3 sec
	1508	Soak complete, chamber begins ramping to 14.77 PSIA (site)
	1533	Chamber soaking at 14.77 PSIA (site)
		TEST COMPLETE
		RESULTS: No visual/physical anomalies observed afte testing. Unit still running Jeppesen software after testing. Return unit to Jeppesen for further evaluation

Attachment L – (2020) iPad (8th gen) & iPad Air (4th gen)

Tested to 51,000 feet.

GENERAL DATA SHEET

CUSTOMER:	Jeppesen	**PR NO.:**	PR119522
TEST:	Rapid Decompression	**START DATE:**	12/7/20
TEST ITEM:	iPad (8th generation) & iPad Air (4th generation)	**END DATE:**	12/7/20
PART NUMBER:	A2428, MYN72LL/A & A2324, MYJ72LL/A	**S/N:**	DMPD70B2Q1KY & DMPDJ00HQ19N
SPECIFICATION:	Email dated 10/20/20 & RTCA-DO160 REV. NA & G	**PARA:**	NA & 4.6.2
TECHNICIAN:	Heng Tieng	**TEMP:**	72°F **RH:** 19%
PROG. MANAGER:	Marty McCormick	**BAROMETRIC PRESSURE:**	1011.5 hPa
		DEVIATION:	☑ NO ☐ YES

DATE	TIME	TEST DESCRIPTION
---	---	**No visible evidence of damage before testing.**
---	**---**	**NOTE: RUN JEPPESEN APP ON THE UNITS WHILE TESTING**
12/7/2020	0950	Place unit into chamber
	1013	Chamber begins ramping to 10.92 PSIA (8k ft)
	1017	Chamber chamber soaking at 10.92 PSIA (8k ft)
	1123	Soak complete, begin Decompression to 1.60 PSIA (51k ft)
	1123	Chamber soaking at 1.60 PSIA (51k ft) in 6 sec
	1136	Soak complete, chamber begins ramping to 14.77 PSIA (site)
	1201	Chamber soaking at 14.77 PSIA (site)
		TEST COMPLETE
		RESULTS: NO VISUAL/PHYSICAL ANOMALIES OBSERVED AFTER TESTING. UNITS STILL RUNNING JEPPESEN APP AT THE CONCLUSION OF RAPID DECOMPRESSION. RETURN TO JEPPESEN FOR FURTHER EVALUATION