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# Report On

Environmental Testing of the  
LT-3100 Iridium Satellite Communication System on behalf of  
LARS THRANE A/S

**COMMERCIAL-IN-CONFIDENCE**

Document 75942068 Report 10 Issue 1

August 2018



Product Service

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**REPORT ON**

Environmental Testing of the LT-3100 Iridium Satellite  
Communication System  
for LARS THRANE A/S

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August 2018

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**R L Harris**  
Authorised Signatory

**DATED**

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August 2018





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## 1 REPORT SUMMARY

### 1.1 INTRODUCTION

Objective	To perform the required testing to determine the Equipment Under Test's (EUT's) compliance with the Test Specification/Test Plan, for the series of tests carried out.
Equipment Under Test (EUT)	LT-3100 Iridium Satellite Communication System
Model Number(s)	LT-3100
Serial Number(s)	See section 1.5 product information.
Number of Samples tested	Two Complete Systems
Test Specification/Issue/Date	IEC60945:OCT2002 C1 2008, BS EN 60068-2-27:2009 (Client defined)
Test Plan/Issue/Date	June 2018
Incoming Release Date	Items received form on 16 <sup>th</sup> Mar 2018
Disposal Reference Number Date	Items returned using UPS on the 11 <sup>th</sup> Jun 2018
Order Number Date	AP/Job#75942068
Start of Test	06 April 2018
Finish of Test	08 May 2018
Name of Engineer(s)	Lewis Bull Frank Van Niekerk Chris Bowles
Related Document(s)	N/A



## 1.2 BRIEF SUMMARY OF RESULTS

A brief summary of the tests carried out is shown below.

Section	Test Description	Result	Comments
2.1	Dry heat storage – All units (+70°C)	Satisfactory	Performance tests carried out pre & post.
2.2	Dry heat operational - All units (+55°C)	Satisfactory	Performance tests carried out pre & post
2.3	Damp heat - All units (40°C - 93% RH)	Satisfactory	Performance tests carried out pre & post
2.4	Low temperature storage - Antenna (-30°C)	Satisfactory	Performance tests carried out pre & post
2.5	Low temperature operational - Handset & Control Unit (-15°C)	Satisfactory	Performance tests carried out pre & post
2.6	Low temperature operational - Antenna (-25°C)	Satisfactory	Performance tests carried out pre & post
2.7	Shock test - 20g, 11ms, 10+ & 10- pulses per axis	Satisfactory	Performance tests carried out pre & post
2.8	Vibration - All units	Satisfactory	Performance tests carried out pre & post
2.9	Exposed and Protected water tests	Satisfactory	Performance tests carried out pre & post
2.10	Corrosion - Antenna unit	Satisfactory	Performance tests carried out pre & post
2.11	Protection against access to dangerous voltages	Satisfactory	Performance tests carried out pre & post

*Satisfactory* – No damage or detrimental effects were observed and performance assessments were reported as satisfactory.