



United States of America  
Department of Transportation  
Federal Aviation Administration

# Supplemental Type Certificate

Number: ST02722SE

This certificate issued to: Luma Technologies LLC  
13226 SE 30th St, B3  
Bellevue, WA 98005

Certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part 25 of the Federal Aviation Regulations.

Original Product **A13NM**  
Type Certificate Number:

Make: De Havilland Aircraft of Canada Limited

Model: DHC-8-100, -200, -300

### Description of Type Design Change:

Installation of LT-4098 series Integrated LED Display Panel and/or associated LT-2201 series LED Pushbutton Switches in accordance with Master Data List (MDL) MDL-4098-001, Revision A, dated October 20, 2020, or later FAA-approved revision. Maintained in accordance with Instructions for Continued Airworthiness (ICA) ICA-4098-001, Revision IR, dated July 29, 2019, and/or ICA-2201-001, Revision IR, dated July 29, 2019, as applicable, or later FAA-accepted revisions. Operated in accordance with the existing Airplane Flight Manual (AFM).

### Limitations and Conditions:

The installer must determine whether this design change is compatible with previously approved modifications.

(See continuation sheet page 3 of 3 pages)

*This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.*

Date of Application: **April 25, 2019**      Date Reissued:

Date of Issuance: **July 7, 2021**      Date Amended:

By Direction of the Administrator

**KENNETH J  
FAIRHURST**  
Signature:

Digitally signed by KENNETH J  
FAIRHURST  
Date: 2021.07.07 08:00:02  
-07'00'

for Acting Manager

Title: **Seattle ACO Branch**

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. This certificate may be transferred or made available to third persons by licensing agreements in accordance with 14 CFR 21.47. Possession of this Supplemental Type Certificate (STC) document by persons other than the STC holder does not constitute rights to the design data nor to alter an aircraft, aircraft engine, or propeller. The STC's supporting documentation (drawings, instructions, specifications, flight manual supplements, etc.) is the property of the STC holder. An STC holder who allows a person to use the STC to alter an aircraft, aircraft engine, or propeller must provide that person with written permission acceptable to the FAA. (Ref. 14 CFR 21.120).



United States of America  
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*Supplemental Type Certificate*

*(Continuation Sheet)*

Number: ST02722SE

Date of issuance: July 7, 2021

Limitations and Conditions, continued:

A copy of this certificate, the MDL, and the ICA must be maintained as part of the permanent records for the modified aircraft.

If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

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Any alteration of this certificate and/or the Type Certificate Data Sheet is punishable by a fine not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. This certificate may be transferred or made available to third persons by licensing agreements in accordance with Title 14 of the Code of Federal Regulations, part 21, section 21.47 (14 CFR 21.47). A transfer must be endorsed as provided on the reverse hereof. A Type Certificate holder who allows a person to use the Type Certificate to manufacture a new aircraft, aircraft engine, or propeller must provide that person with a written licensing agreement acceptable to the FAA. (Ref. 14 CFR 21.55).

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U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

**FEDERAL AVIATION ADMINISTRATION - PARTS MANUFACTURER APPROVAL**

**LUMA TECHNOLOGIES LLC**  
**13226 SE 30<sup>TH</sup> Street, B-3**  
**Bellevue, WA 98005**

**PMA No. PQ4012NM**  
**Supplement No. 11**  
**Date: July 19, 2021**

<u>ARTICLE NAME</u>	<u>ARTICLE NUMBER</u>	<u>APPROVED REPLACEMENT FOR ARTICLE NUMBER</u>	<u>APPROVAL BASIS AND APPROVED DESIGN DATA</u>	<u>MAKE/TCH ELIGIBILITY</u>	<u>MODEL/SERIES ELIGIBILITY</u>
LT-4098 Series Integrated LED Display Panel (ILDLP)	MDL-4098-001	Modification Article	STC ST02722SE DWG: MDL-4098-001 <u>Rev:</u> A <u>Date:</u> 10/20/2020 Or later FAA approved revisions	De Havilland Aircraft of Canada Limited	DHC-8-100 Series DHC-8-200 Series DHC-8-300 Series
LT-2201 Series LED Pushbutton Switch	MDL-4098-001	Modification Article	STC ST02722SE DWG: MDL-4098-001 <u>Rev:</u> A <u>Date:</u> 10/20/2020 Or later FAA approved revisions	De Havilland Aircraft of Canada Limited	DHC-8-100 Series DHC-8-200 Series DHC-8-300 Series

-----End of Listing-----

NOTE: The procedures that have been accepted by the type certificate or TSO authorization holder and their cognizant FAA Aircraft Certification Office, for minor changes to original articles used on type-certificated products, are also acceptable for incorporating the same minor changes on identical PMA replacement articles. The PMA holder must be able to show traceability relating to the TC, STC, or TSO authorization holder on all minor changes incorporated by this procedure. When these procedures are no longer applicable because of completion of the production contract, or termination of the licensing agreement or business relationship, all subsequent minor design changes to the PMA articles must be submitted in a manner as determined by the ACO. Major design changes (reference 14 CFR §§ 21.319 and 21.619) to drawings and specifications are to be handled in the same manner as that for an original PMA.

*for* \_\_\_\_\_  
Elizabeth C. Campbell  
Manager, MIDO Section  
System Oversight Division  
Aircraft Certification Service

## SUPPLEMENTAL TYPE CERTIFICATE

**10078064**

This Certificate/Approval is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation and in accordance with Commission Regulation (EU) No. 748/2012 to

### LUMA TECHNOLOGIES LLC

**B3 13226 SE 30TH STREET  
BELLEVUE WA 98005  
UNITED STATES OF AMERICA**

and certifies that the change in the type design for the product listed below with the limitations and conditions specified meets the applicable Type Certification Basis and, if applicable, environmental protection requirements when operated within the conditions and limitations specified below:

**Type Certificate Number:** EASA.IM.A.191

**Type Certificate Holder:** DE HAVILLAND OF CANADA

**Type:** DHC-8

**Model:** DHC-8-102

DHC-8-103

DHC-8-106

DHC-8-201

DHC-8-202

DHC-8-301

DHC-8-311

DHC-8-314

DHC-8-315

**Original STC Number:** FAA STC ST02722SE

**Description of Design Change:**

Installation of LT-4098 series Integrated LED Display Panel and/or associated LT-2201 series LED Pushbutton Switches

See Continuation Sheet(s)

**For the European Union Aviation Safety Agency**

**Cologne, Germany, 05 January 2022**



**Marco CAPACCIO**

**Section Manager**

**Small Aircraft, Balloons & Airships**





**EASA Certification Basis:**

The Certification Basis for the original product remains applicable to this certificate/ approval, except where amended by additional or later amendments if indicated on FAA STC ST02722SE.

The requirements for environmental protection and the associated certified noise and/ or emissions levels of the original product are unchanged and remain applicable to this certificate/ approval.

**Associated Technical Documentation:**

1. Master Data List (MDL) MDL-4098-001, Revision A, dated 20 October 2020, or later FAA-approved revision.
2. Instructions for Continued Airworthiness (ICA) ICA-4098-001, Revision IR, dated 29 July 2019, and/or ICA-2201-001, Revision IR, dated 29 July 2019, as applicable, or later FAA-accepted revisions.
3. Existing Airplane Flight Manual (AFM).

**Limitations/Conditions:**

Prior to installation of this change/repair it must be determined that the interrelationship between this change/repair and any other previously installed change and/ or repair will introduce no adverse effect upon the airworthiness of the product.

- End -



# Supplemental Type Certificate

**This approval is issued to:**

Luma Technologies LLC  
13226 SE 30th Street, B3  
Bellevue, Washington  
United States of America 98005

**Number:** SA22-10

**Issue No.:** 1

**Approval Date:** February 03, 2022

**Issue Date:** February 03, 2022

**Responsible Office:**

Atlantic

**Aircraft/Engine Type or Model:**

Bombardier DHC-8-101, DHC-8-102, DHC-8-103,  
DHC-8-106, DHC-8-201, DHC-8-202, DHC-8-301,  
DHC-8-311, DHC-8-314, DHC-8-315

**Canadian Type Certificate or Equivalent:**

A-142

**Description of Type Design Change:**

Installation of LT-4098 series Integrated LED Display Panel and/or associated LT-2201 series LED Pushbutton Switches in accordance with FAA STC ST02722SE

**Installation/Operating Data,  
Required Equipment and Limitations:**

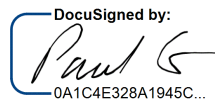
Installation to be in accordance with Luma Technologies Master Drawing List MDL-4098-001, Revision C, dated August 31, 2021, or later FAA approved revisions in accordance with FAA STC ST02722SE.

Maintenance to be in accordance with Instructions for Continued Airworthiness :-

- ICA-4098-001, Revision IR dated July 29, 2019 or later FAA accepted revisions in accordance with FAA STC ST02722SE for LT-4098 series Integrated LED display panel
- ICA-2201-001, Revision IR dated July 29, 2019 or later FAA accepted revisions in accordance with FAA STC ST02722SE for the LT-2201 Series LED pushbutton switches,

– End –

**Conditions:** This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated **will not** adversely affect the airworthiness of the modified product.

DocuSigned by:  
  
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Paul Garner  
For Minister of Transport