



**NOTIFIED BODY**  
**MODULE B: EU TYPE EXAMINATION CERTIFICATE**  
(For Council Directive 2014/53/EU)

**THIS CERTIFICATE IS ISSUED TO**

**Astronics CSC**  
804 S Northpoint Blvd.  
Waukegan, IL 60085  
USA

**TO STATE THAT THE EQUIPMENT KNOWN AS**

**Astronics CSC Cabin Ace-2 Model E71-308-01**

Conforms (following an evaluation of its associated Technical Documentation and subject to any restrictions stated in the attached Annex) with the essential requirements of Annex III, Module B, of the Council Directive **2014/53/EU** on Radio Equipment (RED) and the mutual recognition of their conformity, in relation to the essential requirements of:

Article 3.1(a) Health and Safety

Article 3.1(b) EMC

Article 3.2 Radio Spectrum

Details of this certification, standards used, RF parameters of this equipment and other information necessary for the correct interpretation and application, including any remarks, restrictions or observations are detailed in the attached Annex.

This is to certify that (a) sample(s) of the Product described herein has been investigated and found to be in compliance with the Standard(s) indicated on this Certificate. This certificate applies only to the product sample(s) submitted by the Applicant. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured products. UL has not established Follow-Up Service or other surveillance of the product. The Applicant/ Manufacturer are solely and fully responsible for conformity of all products to all applicable standard(s), specifications or requirements. This certificate shall only be used in its entirety. Authorization to apply the Notified Body Identification Number adjacent to the CE Marking is not permitted for Module B Certifications. The manufacturer shall keep a copy of the EU-type examination certificate, its annexes and additions together with the technical documentation at the disposal of the national authorities for 10 years after the radio equipment has been placed on the market.

Signed:

*Bob DeLisi*  
on behalf of UL Verification Services Inc.

Issue Date: 23 August 2018<sup>1</sup>

Certificate No: AN18C11041-1

<sup>1</sup> This certificate expires 10 years after the issue date or within one year of publication of a standard that would supersede the standard(s) used to demonstrate compliance and that would require re-assessment of the device.

# ANNEX

## SCOPE OF EXAMINATION

Article	✓/✖	Applied standard(s) (and version) or reference.
Article 3.1a (Health and Safety):	✓	RTCA/DO-160G, EN 62311: 2008
Article 3.1b (EMC)	✓	Draft EN 301 489-17 v3.2.0, Draft EN 301 489-1 v2.2.0 RTCA/DO-160G
Article 3.2 (Radio Spectrum use)	✓	EN 300 328 v2.1.1, EN 301 893 V2.1.1
Article 3.3 a-i (Special Features)		Not applicable to this device at time of assessment.

## TECHNICAL DOCUMENTATION DETAILS

Title:	N/A
Reference Number:	TDF made up of individual files.
Issue Date:	N/A
Contact Name:	James Costello (applicant)

## GENERAL PRODUCT DETAILS

Brand / Trade Name:	Astronics CSC			
Model Number(s) / Type Designation:	E71-308-01			
Build Version / Revision Level:				
Software Name and Version:	SIB 1.4.0, Aruba 6.5.3.6			
Operating Frequency and Declared Maximum Output Power (e.i.r.p.) and Minimum/Maximum Antenna Gains	802.11bgn	2412 – 2472 MHz	20.0 dBm	3.0 dBi
	802.11a/n/ac	5180 – 5240 MHz	20.0 dBm	5.0 dBi
		5260 – 5320 MHz	20.0 dBm	5.0 dBi
		5500 – 5700 MHz	20.0 dBm	5.0 dBi
	Note: software/firmware will ensure that powers do not exceed regulatory requirements.			
Additional Information (modulation)	802.11b:	CCK (BPSK, QPSK)		
	802.11a/g/n/ac:	OFDM (BPSK, QPSK, QAM)		
Description of Use / Function:	Access Point for installation in aircrafts			
Manufacturers Company Name:	Astronics Connectivity Services And Certification			
Manufacturers Address:	804 S Northpoint Blvd.			
	Waukegan, IL 60085, USA			

## ACCESSORIES

Include details of accessories covered by the scope of the certificate like power supply, antennas and any other special accessories.  
None

## PRODUCT VARIANT DETAILS

Details of Product Variant(s) covered by this Notified Body Certification:	E71-308-A01	E71-308-C01	E71-308-A11
	E71-308-C31	E71-308-C11	E71-308-C21
Variants listed above are identical to the model tested. The only difference is software features that are aircraft carrier specific. The software changes do not impact RF performance.			

## REMARKS, RESTRICTIONS AND OBSERVATIONS

This device does not fall under the scope of the limited number of harmonised listed to address the essential requirements of Article 3.1a. The standards used to assess this device for safety are based on aerospace standards which are appropriate for the application of this device (installed on an aircraft) and are considered state of the art. The RF Exposure standard applied is currently harmonised under the Low Voltage Directive for the purposes of evaluating safety with respect to RF exposure. The Low Voltage Directive has the same essential requirements with regards to safety as the RE-D.

Compliance with rf exposure requirements is based on a minimum device-to-user separation distance of 27 cm.

There are currently no harmonised standards listed to cover an assessment of this device against the essential requirements of Article 3.1b, with the exception of EN 55035:2017 which is limited in scope to broadcast receivers. The standards used are the commercial aircraft standards applicable to this type of equipment supplemented by the ETSI Radio EMC standard to cover phenomena not covered by the aircraft EMC standard.. The standards are considered state of the art as they are the most recent draft or published versions of standards applicable and appropriate for this equipment.

The manufacturer's declaration of conformity appropriately lists the standards used. The declaration is missing a batch or a serial number. The manufacturer is reminded that indication of batch or serial number in the DoC is required per the RE-D and the absence of it may cause problems with the product on the market due to inability to identify which version of DoC applies to which devices whenever the DoC is updated..

The DoC shall be shipped with each device sold. This may be a shortened form as described in Article 10(9) and Annex VII.

The product labelling contained the CE mark and a type, batch or serial number or other element allowing its identification as required by the Directive. The product supports operations in the 5150-5250 MHz band that are subject to restrictions on use. A list of all such Class 2 equipment can be found on the [Europa website](#) and on the date this evaluation was issued the publication was last updated in December 2014. The proposed packaging and manual for this device follows the current proposal for the designating act related to Article 10(10).

All other operations are in harmonised operating bands without restrictions as described in the Class 1 equipment list *Publication in accordance with Article 1(3) of Commission Decision 2000/299/EC (Version January 2018)*. As of the date this evaluation was issued the publication was available for download from the [Europa website](#).

## REVISION HISTORY

Date:8/22/2018	Original version (-1) released.
9/10/2018	Updated company name information from Telefonix to Astronics CSC due to company name change only. Updated list of variants to add additional model.
9/12/2018	Updated to include missing RF Exposure standard. -1 revised.
6/3/2019	Applicant/manufacture address updated as a result of a new location.