

## DECLARATION OF CONFORMITY

Manufacturer's Name:	FedEx Corporate Services, Inc.		
Manufacturer's Address	3660 Hacks Cross Rd, Memphis TN 38125		
Declares under distribution responsibility product	FedEx SenseAware <sup>SM</sup>		
Device Market Release Name/Model No.	SenseAware M4	FedEx Part No:	330314
Device Alias-Pre-Production Name(s)	SenseAware 4000, EUT-SA4000, HM4		
Equipment UN Classification	UN 3481 Section II - P.I. 967 (Rechargeable Lithium Ion Battery Installed In Equipment)		
Equipment Export Classification (ECCN)	5A991g (AT)		
Equipment HS Code	8526.91 - Radio Navigational Apparatus - Telecommunications Equipment		

FedEx SenseAware presents the following to establish compliance with AC 91.21 D (10/2017)/AMC1 CAT.GEN.MPA.140/ED-2014/029/R:

### Device Specifications:

The FedEx SenseAware M4 device (FedEx P/N 330314) is an environment and location monitoring device designed to operate with shipments and packages as cargo in all modes of transport. The device can monitor temperature, humidity, light exposure, pressure, motion and can determine location using GPS and cell tower look-up. The device communicates via cellular, Wi-Fi (2.4GHz) and BLE radios that operate within the ISM spectrum safe for aircraft and multi-modal transportation. Extended temperature ranges can be monitored with the use of our dry ice or cryogenic probes.

### Device Front w/Product Label



NOTE: Each device has a unique product identifier shown as "M4XXXXXX" below the bar code

### Device Back Label



Dimensions: 115mm x 115 mm x 19 mm  
(4.5in x 4.5in x .75in)



Quectel LTE Cat M1 Module – BG96
FCC ID: XMR201707BGG96
IC ID: 10224A-201709BG96
Telit WiFi (802.11 b/g)-GS2200MIZ
FCC ID: YOPGS2200M
IC ID: 9154A-GS2200M
Nordic nRF52840 Bluetooth 5 SoC (PENDING)
FCC ID: 2AKUXM4
IC ID: 22325-M4

**Device Functionality** - The M4 model radios are by default OFF and power on at a predetermined interval to transmit logged data. This functionality is disabled when the device is in Flight Mode. The M4 model radios only operate in a burst mode for transmission of the logs and then returns to an OFF state until the next reporting interval.

**Flight Mode Methodology** - The M4 model utilizes a proprietary and patented Aircraft Mode which disables the device transmitters during flight. The M4 model leverages the use of redundant and independent sensors to disable the device transmitters in accordance FAA AC91.21D and EASA AMC1.CAT.GEN/MPA.140. The M4 model also employs a third method to disable transmitters using a fail-safe route-based transit timer in the event the redundant sensors fail to function as designed.

### EU Nom Article Matrix

	Requirement	Referenced Standards
Safety Health	Low Voltage Equipment Safety	EN 62368-1 ED3.0 (2018)
	RF Exposure	EN 50385 (2017)
EMC	Protection requirements with respect to Electromagnetic Compatibility	EN 301 489-1 v2.2.3 (2019) EN 301 489-3 v2.1.1 (2019) EN 301 489-17 v3.2.4 (2020) EN 301 489-52 v1.1.2 (2020) EN 300-440-1 v1.6.1 (2010) EN 300-440-2 v1.4.1 (2010)
Radio Spectrum	Means of the efficient use of the radio frequency spectrum	EN 301 511 v12.5.1 (2016) EN 301 908-1 v.11.1.1 (2016)

### Battery Specifications:

Battery Vendor	Alium - Ascent International Group Co. Ltd.
Battery Type/Part No	Lithium Ion Rechargeable (P/N: ABI-H506971)
Battery Qualification Report/Date	UN 38 Report: S2005074301001(05/2020)
Battery Voltage/Wattage for Air Transport	Watt-Hour Rating: 3.7 V – 3000mAh – 11.1Wh

### Avionic Testing:

RTCA DO-160 Section 21.5 Category H and M	Report No: TR-PR127682 V.0 Date: 12-03-2020 Nation Technical Systems – OP0548841
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**DECLARATION:** I declare under our sole responsibility that the essential radio test suites have been carried out and that that above product to which this declaration relates is in conformity with all the applicable essential requirements of the EU Radio Directive 2014/53/EU, when used for its intended purpose.

Amy B. Mays - Sr, International Regulatory Advisor – FedEx Express – SenseAware

Dated: Jun 2021