



On behalf of STA

Certification Body : **CNA-PayCert**

48 rue de Montmartre

75002 Paris

France

Paris, 22/01/2019

Mr Yongsoo Lee
Bluebird Inc.
39, Eonju-ro 30-gil, Gangnam-gu
Seoul, 06292
Rep. Korea

CEN TS 16794 Compliance Certificate - PCD

Certificate Number: CNAPC/PCD-00002
Product/System name: EF501 (commercial identification)
Compliant with : CEN/TS 16794-1:2017
Operational temp. range : Class A (Ambient)

Dear Mr Yongsoo Lee,

CNA-PayCert has received a request, submitted by Bluebird Inc., your company, for the Certification of the PCD product EF501 (Software version: bluebird_bootimg_20181109_v79, Hardware version: REV0.3), hereafter referred to as the Product and identified above as "EF501".

In connection with your request, we have received your Implementation Conformance Statement (ICS), referred to as PAY.BBRD.PCD.CEN16794.2017.2019-001 and we have assessed your Test Report(s) (ref. KLE.RE.1803.004_v1.1 (Analog) and KLE.RE.1803.005_v1.0 (Digital)), which was generated by KEOLABS, following the Test Plan "CEN/TS 16794-2:2017".

Based on these elements, as indicated in PayCert's Certification Report (ref. CER/EVR/PCD/2019-003 v1.0.1) the Certification Body has found reasonable evidence that the submitted samples of the Product complies to the CEN/TS 16794-1:2017.

The Certification Body hereby grants the Product Certification of compliance with the requirements stated by the CEN/TS 16794-1:2017 standard and will include your Product in the certified products list, published on CNA-PayCert website (<http://cna-paycert-certification.com>).



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Please note that the present Certification is subject to the following terms and conditions as listed hereafter :

i) The present Certification is granted on the basis of the Smart Ticketing Alliance Certification Policy and therefore is valid as of today and will expire on the 22/01/2026.

ii) If the Product is changed, Bluebird Inc. must notify the Certification Body of this fact in writing. Any change in the Product that may generate a different behaviour with respect to the CEN/TS 16794-1:2017 standard or a difference in the Product Implementation Conformance Statement will be considered a major modification subject to a new evaluation in order to maintain the present Certification.

iii) The present Certification granted to Bluebird Inc. for the above referenced Product is non-transferable to any other vendor.

The Certification Body has the right to terminate or revoke the Certification should any of the aforementioned terms and conditions be not respected.

Name: Ludovic VERECQUE

Title: General Manager

**The present certification letter supersedes the certification letter
ref. CER_CLE_PCD_2019-003_v1.0.0 Bluebird_EF501 issued on 21/01/2019**



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a. PCD Product Description

[PCD1] Administrative data

[PCD1.1] (*) Brand name: EF501

[PCD1.2] (*) Trade name: EF501

[PCD1.3a] (*) Hardware version: REV0.3

[PCD1.3b] (*) Software version: bluebird_bootimg_20181109_V79

[PCD1.4] (*) Reference of the contactless reader or antenna module: PN5120A0HN

[PCD1.4a] (*) Hardware version of the contactless reader or antenna module: C2

[PCD1.4b] (*) Software version of the contactless reader or antenna module: 2.0

[PCD1.5] (*) EMVCo Approval number (if applicable): Not applicable

b. PCD General Technical Characteristics

[PCD2.1] (*) PT Reader Type: IFM reader (full range A and B)

[PCD2.3] (*) Operational temperature range supported: Class A (Ambient)

[PCD2.7] (*) Reference of the PCD Zero Point – Range A (target ID marked on sample or photo or diagram)



[PCD2.11] (*) Reference of the PCD Zero Point – Range B (target ID marked on sample or photo or diagram)





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c. PCD Supported Options

[PCD3] Protocol characteristics

[PCD3.1] (*) Protocol(s) supported: Type A Type B Other: Type B' Innovatron

[PCD4] Type A

[PCD4.1] (*) PCD -> PICC bit rates supported: fc/128 (~106 kbit/s)

Other:

[PCD4.2] (*) PICC -> PCD bit rates supported: fc/128 (~106 kbit/s)

Other:

[PCD5] Type B

[PCD5.1] (*) PCD -> PICC bit rates supported: fc/128 (~106 kbit/s)

Other:

[PCD5.2] (*) PICC -> PCD bit rates supported: fc/128 (~106 kbit/s)

Other: