

**VIX Technology UK Limited**

8 The Irwin Centre
Dry Drayton
Cambridge
CB23 8AR

11th August 2025

ITSO POST Compliance Certificate

Certificate Number: C00203-2 (PT)
Product/Service name: PCP6100 Rail Validator,
Version: 214.12 with CAST version 1.0
Compliant with: Partial features in Phase 2 of ITSO TS 1000 Specification version 2.1.5

Dear Craig,

ITSO received a request submitted by VIX Technology UK Limited, for the certification of the PCP6100 Rail Validator (software version 214.12 with CAST version 1.0). As indicated in Certification Test Report (ref. Test Report POST-1733834686 – VIX PCP6100 Rail Validator Certification of C00203-1 to Partial Phase 2 of ITSO TS Specification version 2.1.5), ITSO has found reasonable evidence that the submitted product/service complies to ITSO TS 1000 Specification Version 2.1.5.

Your product/service will be included in the certified products list, published on ITSO website.

Please note that the present Certification is subject to the following general terms and conditions along with conditions/constraints as detailed in Schedule B:

- i. The present Certification is granted on the basis of the ITSO Certification & Compliance Policy and therefore is valid as of today and will expire 2 years from issue, however if the Product/service contains a sub-assembly, the above referenced product will only be valid if the sub-assembly holds a valid ITSO certificate.
- ii. If the Product version number is changed, VIX Technology UK Limited must notify ITSO of this fact in writing by supplying the release notes. Any change in the Product that may generate a different behaviour with respect to the ITSO TS 1000 Specification version 2.1.5 standards may be considered a major modification subject to a new evaluation in order to maintain the present Certification.
- iii. The present Certification granted to VIX Technology UK Limited for the above referenced Product is non-transferable to any other vendor.
- iv. When request by an ITSO Licenced Operator, the ITSO Registered Supplier must supply a copy of the Test Report.

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PCP6100 Rail Validator

Schedule A

The VIX PCP6100 POST consists of a not-always-online rail validator and depot service (CAST) communicating with HOPS. The PCP6100 connects periodically to the CAST device manager via ethernet (over wired or mobile data channels).

The CM supported by this device is shown in the following table:

CMD2	CMD4	CMD7 SFR1 ¹	CMD7 SFR2	CMD9	CMD10	CMD11	CMD12
✓		✓					✓

¹CMD7 SFR1 is deprecated in ITSO version 2.1.5 – support is retained solely for backwards compatibility.

The IPEs supported are represented in the following table:

IPE	Accept	Create ²	Modify	Delete ³
TYP 0 – Private Application				
TYP 2 – Stored Travel Rights	✓	✓	✓	
TYP 3 – Loyalty (Type 1)				
TYP 4 – CTA (Mode 1)				
TYP 5 – CTA (Mode 2)				
TYP 14 IFR1 – Entitlement	✓		✓	
TYP 14 IFR2 – Entitlement				
TYP 16 IFR1 – ITSO ID & Entitlement	✓		✓	
TYP 16 IFR2 – ITSO ID & Entitlement				
TYP 17 – Loyalty (Type 2)				
TYP 22 IFR1 – Area Based Ticket	✓	✓	✓	✓
TYP 22 IFR2 – Area Based Ticket	✓	✓	✓	✓
TYP 22 IFR3 – Area Based Ticket				
TYP 23 IFR1 – Journey Ticket	✓	✓	✓	✓
TYP 23 IFR2 – Journey Ticket	✓	✓	✓	✓
TYP 23 IFR3 – Journey Ticket				
TYP 24 – Journey Ticket with Reservations and Special Restrictions	✓	✓	✓	✓
TYP 25 – Travel Voucher				
TYP 26 – Open System Tolling				
TYP 27 – Period Pass (space saving)				
TYP 28 – Carnet (space saving)				
TYP 29 – Multi Journey Ticket (space saving) – FR1				
TYP 29 – Multi Journey Ticket (space saving) – FR2				
Transient Ticket Log FR 1	✓		n/a	n/a
Transient Ticket Log FR 2	✓		n/a	n/a
Transient Ticket Log FR 4	✓	✓	n/a	n/a

² and ³ – Creation and Deletion of IPE via Actionlist

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Registered address 302 Witan Gate West, Milton Keynes, MK9 1EJ

Schedule A (cont.)

The optional functionality supported by this device is shown in the following tables:

Hot listing support			
Multi (0602)	Manually Block	Manually Unblock	Storage
✓			100,000 items

Action list support		
Single (OC03)	Multi (0603)	Storage
✓	✓	30,000 items

Action list Action to Take (ATT) support															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓

Interoperability/parameter list support/multi record receipt of multiple types				
ListFR1 Receive 0Axx	List FR1 Receive 0Bxx	List FR2 Receive 0Axx	List FR2 Receive 0Bxx	Receive multiple types 0600

Miscellaneous						
POST HOPS queries	Additional Shell Data 0807	Log 1	UD Frames Generate 0Exx	UD Frames Receive 0Exx	UD Frames Generate 0Fxx	UD Frames Receive 0Fxx
		✓				

RSPS3002 Rail Supplementary Functions							
Check in	Check out	Undo Check in	Break of Journey	Inter- change	Pass Activation	Lists	Inspection

Schedule A (cont.)

Benchmarking Times

ITSO Test Ref	Test Summary	Average time
POST.0085	CMD2: IPE with Transient Ticket Record Creation	226.1ms
POST.0781	CMD2: IPE with Value Record Data Group Modification	203.2ms
POST.0117	CMD7: IPE with Transient Ticket Record Creation	194.0ms
POST.0783	CMD7: IPE with Value Record Data Group Modification	164.0 ms
POST.1503	CMD12 Non-Pseudo Profile 1: IPE with Transient Ticket Record Creation	179.9 ms
POST.1502	CMD12 Non-Pseudo Profile 1: IPE with Value Record Data Group Modification	174.7 ms
POST.1483	CMD12 Non-Pseudo Profile 6: IPE with Transient Ticket Record Creation	201.7 ms
POST.1482	CMD12 Non-Pseudo Profile 6: IPE with Value Record Data Group Modification	199.0 ms
POST.1505	CMD12 Pseudo Profile 1: IPE with Transient Ticket Record Creation	209.0 ms
POST.1509	CMD12 Pseudo Profile 1: IPE with Transient Ticket Record Creation - Mobile	288.7 ms
POST.1504	CMD12 Pseudo Profile 1: IPE with Value Record Data Group Modification	185.2 ms
POST.1508	CMD12 Pseudo Profile 1: IPE with Value Record Data Group Modification - Mobile	282.8 ms
POST.1487	CMD12 Pseudo Profile 6: IPE with Transient Ticket Record Creation	292.2 ms
POST.1486	CMD12 Pseudo Profile 6: IPE with Value Record Data Group Modification	224.1 ms

Image of POST



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Schedule B

List of conditions and/or constraints applied by ITSO:

- The certified Partial Phase 2 features EPOCH and CMD12.
- The POST supports Auto-renew.
- The POST does not support Transaction Reversal.



Certificate No. C00203-2 (PT)

ITSO Certificate of Compliance

Supplier: **VIX Technology UK Limited**
Product/service: **PCP6100 Rail Validator**
Version: **214.12 with CAST version 1.0**

This is to certify that the above product/service has been tested as required by ITSO for compliance against:

ITSO TS 1000 Specification Version: 2.1.5

**Test Report Ref: Test Report POST-1733834686 – VIX PCP6100 Rail Validator
Certification of C00203-1 to Partial Phase 2 of ITSO TS Specification version 2.1.5.**

This product supports the functions: ITSO POST and communicates within an ITSO environment as listed in Schedule A of this Certificate.

This product may only be used by ITSO Licensed Members complying with the conditions and constraints listed in Schedule B.

Signed for and on behalf of ITSO: _____

Name: Darren Marshall-Sewell

Title: Technology Manager

Dated: 11th August 2025

Certificate Valid until: 10th August 2027

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