



**IT Certification Services
Guidelines To Micro ATM
Device Suppliers for PDS,
demonstrating compliance to
Micro ATM Specifications**

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Issue : 01

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**Guidelines to the Micro ATM Device Suppliers
for PDS, demonstrating compliance to Micro
ATM Specifications**

STQC Directorate, Department of Electronics & Information
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0.1 Approval and Issue:

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Management Representative

Approved by : _____

Chief Executive Officer

NOTE :

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2. Amendment Record:

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Guidelines to the Micro ATM Device Suppliers for demonstrating compliance to Micro ATM Specifications

Purpose:

Purpose of this document is to provide guidance to the Micro ATM Device (for PDS) Suppliers, to describe requirements for documentation and facilitate preparation of Technical Construction File (TCF) so that compliance with user department's requirements can be demonstrated.

Procedure:

The compliance demonstration can be done through technical construction file.

Requirements of Technical Construction File (TCF)

To create confidence in the Device Quality and to demonstrate compliance, Supplier shall maintain a technical construction file. This will require close collaborations of supplier with the manufacturer. The confidential part of this file may not be revealed to the Certification Body, only summary/principles used of confidential part of the file may be informed to the Certification Body on need base. The general content of the TCF are

General

- General description of the product and reference to Website (Website should clearly display the device image and technical specifications)
- Micro ATM Device Specification (may be in the form of brochure) of the Supplier
- Summary of Quality Control System in reference to supplier activities of distribution (of Micro ATM devices), maintenance and support system including remote management.
- Risk Assessment and/or recommended practice for the use of device in the Indian conditions and Mitigation Plan
- incoming quality control mechanism

Certificates

- Certificate for ISO 9001:2008 (Certification for Micro ATM Device, Design and Development, Manufacturing and Service) by the Manufacturer/OEM
- Certificate for ISO 9001:2008 (Certification for Micro ATM Device Supply and Distribution, Training, Maintenance, and Service (Supplier)
- Certificate of Incorporation in India (Supplier)
- Manufacturer's authorization to supplier to place devices in Indian market

Declaration that following critical components of the device are as per user department's specifications and the method of their quality control used.



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Supplier shall make a matrix indicating the following critical components, their make, model, catalogue number/part number, manufacturer/Supplier, distributor/source (URL), brief description and their specification, user department's requirement, internal control mechanism and **procedure and statement of compliance**.

Biometric scanner

1. Biometric scanner.
2. Connectivity
3. Security
4. Non volatile Storage
5. Display
6. Printer
7. Battery
8. Power Adaptor
9. Environment
10. Magstripe reader and pin pad
11. Speaker
12. Location
13. QR Code Reader (Optional)
14. EMV capability (Optional)
15. NFC Reader (Optional)

- Declaration to compliance with RoHS and WEEE requirements, preferably along with basis of this declaration

Test Reports

- Functional Test Report
- Security Test Report
- Battery Life Test Report
- Power Adapter Surge(EMC) Test Report
- Magstripe reader & PIN Pad Test Report
- 16 Channel NMEA Test Report
- QR Code Reader Test Report
- Smart Card Test Report
- Safety (CE) Compliance Test Report
- Environment/Durability compliance test report
- ROHS-CE or UL Test Report



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Technical Information

TCF shall provide the necessary evidence that the design is in accordance with the relevant requirements.

TCF shall identify the product and its specification consisting of its description in terms of

- Photographs, brochures
- Technical construction drawing and/or / Schematic diagram

Demonstration of Compliance

The supplier shall make a chapter in the technical construction file indicating the mechanism used to demonstrate compliance with user department's specification as specified.

Demonstration of compliance

Hardware

1. **Component**
Biometric Scanner

Minimum Requirements

All MicroATM devices should use the STQC certified Scanner+Extractor to meet the technical specifications as defined by UIDAI. Certified devices should carry the Aadhaar logo on the device. The use of the Aadhaar logo should be in accordance with the guidelines issued by UIDAI.



Detailed guidelines on the STQC certification process, and list of certified devices are available on the STQC website:

<http://www.stqc.gov.in/content/bio-metric-devices-testing-and-certification>



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Parameters	Specification
Minimum Platen Area	<p>Optical/multispectral/capacitance technology</p> <p>1. If platen area is 15.24 mm x 20.32 mm or more:</p> <p>1.1 Provisional certificate would be issued without any field testing;</p> <p>1.2 Final certification would be subject to sensor-extractor meeting <2% FRR in Aadhaar authentication system (at FAR of 0.01%) for which detailed guidelines will be published by STQC.</p> <p>2. If platen area is 12.8 mm x 16.5 mm or more but less than 15.24 mm x 20.32 mm, certification would be subject to sensor-extractor meeting <2% FRR in Aadhaar authentication system (at FAR of 0.01%) for which detailed guidelines will be published by STQC.</p> <p>Any other Technologies</p> <p>3. <2% FRR in Aadhaar authentication set up (at FAR of 0.01%) would need to be demonstrated. Detailed guidelines and other requirements specific to the technology will be published separately by STQC.</p>
Image Quality	<p>Must be listed on "IAFIS Certified Product List" posted on https://www.fbibiospecs.org/IAFIS/Default.aspx under "PIV Single Finger Capture Devices" OR Lab Test conformance report showing compliance to ISO 19794-4 Annexure A OR any other equivalent conformance report (to be approved for equivalence by expert committee appointed by Competent Authority)</p>
Extractor Quality	<ul style="list-style-type: none">· MINEX compliance· Number of Minutiae generated by extractor to be in conformance to ISO Specification. Tested for at least 12 Minutiae points generated under test conditions.



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NFIQ Quality Software	Inbuilt NFIQ quality software either at device level or extractor level.
Resolution	Minimum 500 DPI with 5% margin on the lower side
Grey scale/ Image type	8 bit, 256 levels
Extractor & Image Template Standard	ISO 19794-2 for fingerprint minutiae template and ISO 19794-4 for Fingerprint Image Template
Latent detection	Preferable
Platen	Rugged, minimum IP 54 rating preferable Prefer scratch resistant features
Preferred Operating temperature	0 to 45 degree Centigrade
Preferred Storage temperature	0 to 50 degree Centigrade
Preferred Humidity	10 to 90%
ESD	>= 8Kv
Environment, health and Safety	ROHS certification
Safety	UL or IEC60950 compliance
EMC compliance	FCC class A or equivalent
Operating system environment	Vendor needs to declare the compatible operating system
Connectivity	<ul style="list-style-type: none">· Standard USB connectivity for PC based application.· Connectivity for MicroATM devices.

Means of compliance demonstration

- Statement of conformity by Supplier with details of scanner certification.
- Supplier shall specify incoming quality control mechanism of the device. This information should be made available in TCF. Supplier to declare make, part No., Supplier/manufacturer of component.
- Check compliance and performance through tool provided by NIC

2. Component

Connectivity

Minimum Requirements

The device must provide for two channels (of service provider's choice) of network connectivity.



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Means of compliance demonstration

- Statement of conformity by Supplier
- Supplier shall specify incoming quality control mechanism of the device. This information should be made available in TCF
- Supplier/manufacturer of com Supplier to declare make, part No., Supplier/manufacturer of component.
- Perform functional test (Demonstration by supplier)

**3. Component
Security**

Minimum Requirements

2048-bit PKI, 256-bit AES, Base64, SHA-256 for full compliance with Aadhaar Authentication API specifications.

Means of compliance demonstration

- Statement of conformity by Supplier
- Supplier shall provide source and details of digital certificate
- Supplier to provide Security test report from independent test laboratory.
- Perform functional test for full compliance with Aadhaar Authentication API specifications. (Demonstration by supplier)

**4. Component
Non-volatile storage**

Minimum Requirements

Must be capable of storing audit trails of at least 1000 transactions.

Means of compliance demonstration

- Statement of conformity by Supplier
- Supplier to declare make, part No., Supplier/manufacturer of component.
- Supplier shall specify incoming quality control mechanism of the device. This information should be made available in TCF.
- Check availability of memory (Demonstration by supplier)
- Demonstration of tests by supplier (through tool provided by NIC)



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5. Component

Display

Minimum Requirements

Must be capable of displaying last 10 transactions without scrolling horizontally .Each transaction must display at least the date, type, and amount.

Means of compliance demonstration

- Statement of conformity by Supplier .
- Supplier shall specify incoming quality control mechanism of the device. This information should be made available in TCF.
- Supplier to declare make, part No., Supplier/manufacturer of component.
- Perform functional test (Demonstration by supplier) (through tool provided by NIC)

6. Component

Printer

Minimum Requirements

Must be able to print out transaction status and a mini-statement of at least the last 10 transactions . Receipts and other printed items must be legible for at least two months from the date of printing.¹

Means of compliance demonstration

- Statement of conformity by Supplier
- Supplier shall specify incoming quality control mechanism of the device. This information should be made available in TCF.
- Supplier to declare make, part No., Supplier/manufacturer of component.
- Check availability of printer & legibility
- Perform functional test (Demonstration by supplier) (through tool provided by NIC)

7. Component

Battery



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Minimum Requirements

Rechargeable battery, with minimum 4 hours battery life.

Means of compliance demonstration

- Statement of conformity by Supplier
- Supplier to declare make, part No., Supplier/manufacturer of component.
- Supplier shall specify incoming quality control mechanism of the device. This information should be made available in TCF.
- Check availability of Battery & verify specifications
- Perform functional test (Demonstration by supplier)
- Supplier to provide Battery life test report from independent test laboratory

8. Component

Power Adaptor

Minimum Requirements

AC/DC Adaptor with surge protection.

Means of compliance demonstration

- Statement of conformity by Supplier
- Supplier to declare make, part No., Supplier/manufacturer of component.
- Supplier shall specify incoming quality control mechanism of the device. This information should be made available in TCF.
- Perform functional test (Demonstration by supplier)
- Supplier to provide Power Adaptor test report.
- Surge protection test shall be covered under EMC tests.

9. Component

Environment

Minimum Requirements

Operating temp: 0°C to 50°C..

Storage not including battery: 0°C to 55°C.

Means of compliance demonstration

- Supplier to provide Environment test report for device working satisfactorily under specified environmental conditions(storage and operating) ,from Independent test laboratory.



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10. Component

Magstripe reader and PIN Pad

Minimum Requirements

Component	Specifications
Magstripe reader	ISO triple-track 1/2/3, bi-directional, high-coercivity
Security	3DES encryption TMK/TPK support with all keys remote download capability UKPT / DUKPT capability
PCI-PED for POS	PCI (Payment Card Industry) PED (Pin Entry Device) for POS

- The payment application on microATMs for processing card and PIN transactions should be certified with PA-DSS certification (2) (3). Until the application is PA-DSS certified, the microATMs may not be able to process card and PIN transactions, but may process BC transactions as defined in these standards, so long as all other security requirements are met.

Please refer to:

https://www.pcisecuritystandards.org/security_standards/documents.php?association=PA-DSS

Means of compliance demonstration

- Statement of conformity by Supplier
- Supplier shall specify incoming quality control mechanism of the device. This information should be made available in TCF.
- Perform functional test (Demonstration by supplier) with tool provided by NIC
- Supplier to provide test report and test certificate for PA-DSS certificate from independent test laboratory



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11. Component

Speaker

Minimum Requirements

A facility should be provided for voice confirmation of the transaction

Means of compliance demonstration

- Statement of conformity by Supplier
- Supplier to declare make, part No., Supplier/manufacturer of component.
- Supplier shall specify incoming quality control mechanism of the device. This information should be made available in TCF.
- Check availability of speaker
- Check speaker parameters (Sound quality, wattage &/or Demonstration by supplier)
- Perform functional test (Demonstration by supplier)

12. Component

Location

Minimum Requirements

The terminal should have the capability to communicate its location (Industry standard 16 channel NMEA Compliant GPS support or Cell Tower Location or any other dynamic method for approximate Lat-Long location)

Means of compliance demonstration

- Statement of conformity by Supplier
- Supplier to provide test report from independent test laboratory
Supplier shall specify incoming quality control mechanism of the device. This information should be made available in TCF.
- Perform functional test (Demonstration by supplier) with tool provided by NIC

13. Component

QR code reader (Optional)



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Minimum Requirements

Ability to read QR code from the Aadhaar letter, of size 21mm x 21mm, 600 DPI, and Error Correction Code Level M (Medium).

Means of compliance demonstration

- Statement of conformity by Supplier
- Supplier shall specify incoming quality control mechanism of the device. This information should be made available in TCF.
- Supplier to declare make, part No., Supplier/manufacturer of component.
- Perform functional test (Demonstration by supplier)
- Supplier to provide test report from independent test laboratory

14. Component

EMV capability (Optional)

Minimum Requirements

EMV capability is currently optional, but may become mandatory based on guidelines from RBI on securing card present transactions (2).

Please refer to:

<http://www.emvco.com/approvals.aspx>

Means of compliance demonstration

- Statement of conformity by Supplier
- Supplier shall specify incoming quality control mechanism of the device. This information should be made available in TCF.
- Supplier to provide test certificate from independent test laboratory approved by EMVCO.
- Perform functional test (Demonstration by supplier)

15. Component

NFC capability (Optional)

Minimum Requirements

Contactless smart card readers compliant to ISO 14443 A and B cards (for all four types of NFC)



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Means of compliance demonstration

- Statement of conformity by Supplier
- Supplier to declare make, part No., Supplier/manufacturer of component.
- Supplier shall specify incoming quality control mechanism of the device.
This information should be made available in TCF.
- Perform functional test (Demonstration by supplier)
- Supplier to provide smart card test report (for ISO 14443 compliance)
from test laboratory