Frequently Asked Question

Fingerprint attendance device Aiface MU-AI-5

By : ESSL

Sure! Here's a helpful FAQ-style overview for the **ESSL Aiface MU-AI-5** facial recognition access control device:

❖ General Overview

- **Device Type**: Biometric facial recognition access controller
- **Primary Use**: Secure, contactless access control for offices, hospitals, retail, and industrial facilities
- **Authentication Modes**: Face, password, RFID/Mifare card

❖ Key Features

- **Face Capacity**: 50,000 templates
- **Card Capacity**: 50,000
- **Password Capacity**: 50,000
- **Transaction Logs**: 50,000 entries
- **Recognition Speed**: Less than 0.2 seconds
- **Accuracy**: Greater than 99.8%
- **Recognition Distance**: 0.3m to 2m
- **Operating System**: Linux-based for stability and security
- **Display**: 5-inch touchscreen
- **Camera**: Dual 2MP cameras with IR fill light for low-light accuracy

❖ Connectivity & Integration

- **Network**: 100Mbps Ethernet + Wi-Fi (2.4GHz)
- **Interfaces**:
  - Wiegand 34/26 (1 in/1 out)
  - RS485
  - USB Type-C
  - Lock output, door contact, exit button, alarm input/output
- **Buttons**: Reset and tamper detection

❖ Environmental Specs

- **Working Temperature**: -10°C to 55°C
- **Installation**: Indoor use only
- **Dimensions**: 163.4mm × 75.9mm × 19.5mm

❖ Common Questions

Q: Can it be used in low-light environments?

- Yes! Thanks to its IR fill light and dual cameras, it performs well even in dim conditions.

Q: Is it suitable for large enterprises?

- Absolutely. With support for 50,000 users and multi-factor authentication, it's ideal for high-traffic areas.

Q: What kind of access methods does it support?

- It supports facial recognition, password entry, and RFID/Mifare card scanning.

Q: Can it be integrated with existing security systems?

- Yes, it offers multiple interfaces like RS485, Wiegand, and USB Type-C for seamless integration.

Q: How can I integrate this device with my existing security system?

To integrate the **ESSL Aiface MU-AI-5** with your existing security system, you'll want to take advantage of its versatile hardware interfaces and software compatibility. Here's a step-by-step guide to help you get started:

❖ Hardware Integration

The MU-AI-5 supports multiple physical interfaces that make it easy to connect with most access control setups:

- **Wiegand 34/26 (1 in/1 out)**: Ideal for linking with third-party controllers or card readers.
- **RS485 Port**: Useful for connecting to centralized control panels or other biometric devices.
- **USB Type-C**: For firmware updates or data transfer.
- **Lock Output, Door Contact, Exit Button, Alarm Input/Output**: These allow direct control of electric locks, door sensors, and emergency systems.

❖ Software Integration

- **eTimeTrackLite or eTimeTrackNext**: ESSL's proprietary software for attendance and access control. It supports real-time monitoring, user management, and report generation.
- **SDK/API Support**: If you're using third-party software (like HRMS or ERP systems), you can integrate the MU-AI-5 using ESSL's SDK or API documentation.
- **Cloud Connectivity**: Some setups allow cloud-based attendance tracking and remote access management.

❖ Setup Tips

1. **Mounting**: Install the device at face level in a well-lit indoor area.
2. **Wiring**: Connect power, network, and interface cables as per the wiring diagram in the datasheet.
3. **Software Configuration**:
    - Register users via facial scan, card, or password.
    - Assign access levels and time zones.
    - Sync with your central server or cloud dashboard.

❖ Testing & Maintenance

- Run test scans to ensure recognition accuracy.
- Check connectivity with your access control panel.
- Set up alerts for tampering or unauthorized access.

Q: What common issues occur during integration?

Integrating the **ESSL Aiface MU-AI-5** into an existing security system can be smooth—but a few hiccups do pop up from time to time. Here's a rundown of the most common issues and how to tackle them:

❖ Common Integration Challenges

- **Power Supply Fluctuations**
    - Inconsistent voltage or poor wiring can cause the device to reboot or malfunction. Always use a regulated power source and follow the wiring diagram precisely.
- **Network Connectivity Issues**
    - Wi-Fi dropouts or incorrect IP configurations can prevent the device from syncing with software. Ensure stable internet and proper firewall settings.
- **Software Compatibility**
    - Using outdated versions of eTimeTrackLite or third-party software may lead to sync failures. Always update to the latest firmware and software builds.
- **Recognition Errors**
    - Poor lighting, incorrect mounting height, or dirty camera lenses can reduce facial recognition accuracy. Clean the device regularly and install it at eye level in a well-lit area.

- **Interface Conflicts**
  - Misconfigured RS485 or Wiegand connections can disrupt communication with access panels. Double-check pin assignments and protocol settings.
- **Data Sync Delays**
  - If cloud or server sync is slow, check for bandwidth bottlenecks or server-side issues. Scheduled syncs and manual refreshes can help.
- **Access Control Misfires**
  - Door locks or alarms may not trigger correctly if relay outputs aren't wired properly. Test each output during setup and use shielded cables where needed.

❖ Quick Fix Tips

- Reboot the device after major configuration changes.
- Use diagnostic tools in the software to test connectivity and recognition.
- Keep firmware and software updated for bug fixes and new features.

Q: Can you elaborate on network connectivity issues?

Absolutely! Network connectivity issues with the **ESSL Aiface MU-AI-5** can be frustrating, but they're usually easy to diagnose once you know what to look for. Here's a deeper dive into the most common culprits and how to fix them:

❖ Common Network Problems & Fixes

- **Incorrect IP Configuration**
  - If the device and your server or PC aren't on the same subnet, communication fails.
    Fix: Go to the COMM settings and manually assign a static IP that matches your network segment.
- **Weak Wi-Fi Signal or Interference**
  - The MU-AI-5 supports 2.4GHz Wi-Fi, which can be crowded and prone to interference.
    Fix: Use a wired Ethernet connection for stability, or place the device closer to the router.
- **Firewall or Port Blocking**
  - Firewalls may block the ports used by the device to communicate with software like eTimeTrack.
    Fix: White list the device's IP and ensure required ports (usually TCP/IP) are open.

- **Time Sync Errors**

  - If the device's internal clock is out of sync, it may reject server connections.
    Fix: Enable NTP (Network Time Protocol) in the settings or sync manually.

- **Firmware Bugs or Outdated Software**

  - Older firmware may have bugs that affect network stability.
    Fix: Update to the latest firmware via USB or over-the-air if supported.

❖ Pro Tips

- Always test connectivity using both ping and software sync.
- Use diagnostic logs to trace failed connection attempts.
- Label and isolate network cables to avoid mix-ups during setup.
