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1.00	2025-04-14	Initial version

Scope and Summary

PowerFLARM Fusion and Flex support real-time traffic streaming to Electronic Flight Bag (EFB) apps via Wi-Fi and Bluetooth. This guide outlines the supported connection types, explains how to set up each mode, and provides configuration details for popular apps like ForeFlight, SkyDemon, and XCSoar. Use this guide to ensure your device is correctly configured for seamless data integration with your EFB.

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1 Introduction

PowerFLARM Fusion and PowerFLARM Flex can both stream traffic and position data to Electronic Flight Bag (EFB) applications on tablets and smartphones. This guide provides an overview of supported connection types, setup instructions, and specific configuration settings for popular EFB apps.

2 Supported Data Interfaces

The connection can be made over either Wi-Fi or Bluetooth. The following modes are available:

Mode	PowerFLARM Fusion	PowerFLARM Flex
FLARM ICD on Bluetooth Classic (SSP)	✓ (Android only)	✗
FLARM ICD on Bluetooth LE (BLE)	✗	planned, but pending
FLARM ICD on Wi-Fi (TCP: socket 2000)	✓	✓
FLARM ICD on Wi-Fi (WebSocket)	✓	✓
GDL 90 on Wi-Fi (UDP)	✓	✓

Note: PowerFLARM Fusion uses a single radio module for Bluetooth and Wi-Fi. If Bluetooth is active, Wi-Fi is disabled until the Bluetooth stream ends.

3 Wi-Fi Connection Setup

To use Wi-Fi-based data streaming, connect your mobile device to the PowerFLARM device's Wi-Fi network.

On PowerFLARM Fusion, the Wi-Fi credentials (SSID, password) are available on the back of the device, also as a QR code. If the settings have been changed by the user, the modified credentials are on the Hub website (use FLARM Hub app).

On PowerFLARM Flex, it is available over the menu (**Hub & Wi-Fi**).

The default host IP address is 10.10.10.10.

Note: Some EFBs offer connection options for third-party modules (e.g., AIR Connect). These often use different IP addresses or ports and may not be compatible with PowerFLARM.

4 Data Interface Details

FLARM ICD on Wi-Fi (TCP)

- IP: 10.10.10.10
- Port: 2000
- Streaming begins when the client connects.

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- Bidirectional: NMEA commands can be sent.
- Only one TCP client can connect at a time.

FLARM ICD on Wi-Fi (WebSocket)

- URL: <http://10.10.10.10/api/flarm/dataport>
- Only one WebSocket connection is allowed at a time.

FLARM ICD on Bluetooth

Fusion only: Uses Bluetooth Classic (Android only)

- Pair via FLARM Hub > Wi-Fi & Bluetooth > Start pairing
- Pair mobile device in Android system settings within 1 minute
- PIN code: 1234
- Once paired, apps can connect via virtual serial port

Flex: BLE support is planned but not yet available.

GDL 90 on Wi-Fi (UDP)

- Protocol: UDP, port 4000
- Auto-discovery is supported (e.g. by ForeFlight)
- Transmits traffic and position data
- FLARM-specific messages are not included

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5 Apps

The settings for some common apps are listed below. For other apps, use the generic connection settings as specified above.

Air Navigation Pro

Wi-Fi:

- Traffic Source: "FLARM [...]"
- IP: 10.10.10.10
- Port: 2000
- No PIN code required

Airmate

Wi-Fi:

- Traffic Source: "ADS-B Device"
- Protocol: GDL 90

Enroute

Wi-Fi:

- Traffic Source: "UDP connection to port 4000"
- Protocol: GDL 90

EasyVFR

Wi-Fi:

- Traffic Source: "GDL90 Stratux [...]"

ForeFlight

Wi-Fi:

- Protocol: GDL 90 (auto-discovery)
- No configuration needed

Helios Horizon

Wi-Fi:

- Traffic Source: "Stratux or Compatible GDL90 Device"

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Bluetooth (Fusion only)

- PIN code: 1234

Sky-Map

Wi-Fi:

- IP: 10.10.10.10
- Port: 2000
- No password required

SkyDemon

Wi-Fi:

- Traffic Source: "GDL90 Compatible Device"
- Connect under Third-Party Devices as Wi-Fi GPS/Traffic

XCSoar

Wi-Fi:

- Mode: TCP client
- IP: 10.10.10.10
- Port: 2000
- Driver: FLARM

Bluetooth (Fusion only):

- Port: Hub device name (e.g. Hub-c04d84)
- Driver: FLARM
- K6Bt: Off

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6 Notes

- Only one TCP or WebSocket client can be connected at a time.
- GDL 90 allows multiple clients (UDP).
- BLE support on PowerFLARM Flex is under development.
- Ensure the mobile device is on the same network as the PowerFLARM device when using Wi-Fi modes.

For additional details, visit our website at <https://www.flarm.com> and consult the product manual. In case of further questions, contact our support at info@flarm.com.