

DataPass & μ DataPass

P/N 817407400

Rev A2

1. SCOPE

This document provides a general and functional description of the DataPass and μ DataPass units.

2. DATAPASS & μ DATAPASS DESCRIPTION

DataPass and μ DataPass are miniature units that connect to the vehicle bus and capture data from the vehicle CPU/BUS. They then transmit this data to the nearest Wireless Gateway in the forecourt. Two unit types are available for the installer (see Figure 1 and Figure 2):



μ DataPass (CAN) for CAN Bus Protocol

μ DataPass (k-line) for K-line Protocol

Figure 1. μ DataPass



DataPass for Light Vehicles (OBD-II)

DataPass AVL for Heavy Vehicles

Figure 2. DataPass

μDataPass – a connector shaped unit that plugs into the vehicle On Board Diagnostics connector (OBD II) and intended for light and commercial vehicles which has OBD II connector. The following μDataPass types are available:

- **μDataPass CAN**, P/N 800907435
- **μDataPass K-Line**, P/N 800907436
- **μDataPass Plus CAN**, P/N 800907430
- **μDataPass Plus K-Line**, P/N 800907431

DataPass - connected directly to the vehicle bus harness, used in heavy and light vehicles and supports most common bus protocols.

The following DataPass types are available:

- **DataPass Heavy**, P/N 800907340
- **DataPass Light**, P/N 800907330
- **DataPass Plus Heavy**, P/N 800907310
- **DataPass Plus Light**, P/N 800907300
- **DataPass AVL Heavy**, P/N 800907540
- **DataPass AVL Light**, P/N 800907541



NOTE

Please check the manufacturer specifications for the proper protocol supported by the Vehicles in your fleet!

The DataPass is installed using the provided DataPass harness. The harness is installed inside the driver cabin, behind the dashboard and connects to the vehicle's diagnostics connector in light vehicles, or to the diagnostics plug rear wiring in heavy vehicles.

3. DATAPASS – TECHNICAL SPECIFICATION

Table 1 lists the specifications for the DataPass units.

Table 1. DataPass Specifications

	Parameter	Value
Physical	HxWxD	15x70x21 mm
	Weight	45g
	Connectors	562810 Molex
Electrical	Supply voltage	Normal operation: 12VDC (Nominal) Minimum: 10 VDC

	Parameter	Value
		Maximum: 32 VDC
	Current consumption (typical)	KLINE Mode: Sleep mode: 5mA Active mode: 35mA
		CAN Mode: Sleep mode: 5mA Active mode: 25mA
		J1708 Mode: Sleep mode: 5mA Active mode: 25mA
Environmental Conditions	Temperature Range	Operating: -40 to +70 °C
		Storage: -40 to +85 °C
	Humidity	95% non-condensing
Communication	Wireless Interfaces	Single IEEE802.15.4 wireless channel Operating Frequency: ISM 2.405 to 2.480 GHz (Global license free band) Implements proprietary mesh network
	IEEE802.15.4 Modem	DSSS/FA – Direct Sequence Spread Spectrum with Frequency Agility Supported network topologies: Propriety mesh network Channel capacity: 16 frequency channels / 5MHz channel spacing Transmit power output: 2mW (3dbm) Receive sensitivity: -101dbm
	Wireless Antenna	Built in PCB Antenna
	Wired Interfaces	OBDII – J2284/ISO15765 (CAN BUS) Data rate: 250Kbps / 500Kbps
OBDII – ISO14230/ISO9141 (KLINE) Data rate: 10400bps		
J1708/J1587 Data rate: 9600bps		

Table 2 lists the specifications for the μ DataPass units.

Table 2. μ DataPass Specifications

	Parameter	Value
Physical	HxWxD	22x70x17 mm
	Weight	10g
	Connectors	OBDII compatible (male)
Electrical	Supply voltage	Normal operation: 12VDC (Nominal) Minimum: 10 VDC Maximum: 32 VDC
	Current consumption (typical)	KLINE Interface: Sleep mode: 4mA Active mode: 35mA
		CAN Interface: Sleep mode: 4mA Active mode: 25mA
Environmental Conditions	Temperature Range	Operating: -40 to +70 °C
		Storage: -40 to +85 °C
Communication	Wireless Interfaces	Single IEEE802.15.4 wireless channel Operating Frequency: ISM 2.405 to 2.480 GHz (Global license free band) Implements proprietary Mesh network
	IEEE802.15.4 Modem	DSSS/FA – Direct Sequence Spread Spectrum with Frequency Agility Supported network topologies: Propriety Mesh network Channel capacity: 16 frequency channels / 5MHz channel spacing Transmit power output: 2mW (3dbm) Receive sensitivity: -101dbm
	Wireless Antenna	Built in PCB Antenna
	Wired Interfaces	OBDII – J2284/ISO15765 (CAN BUS) Data rate: 250Kbps / 500Kbps
OBDII – ISO14230/ISO9141 (KLINE) Data rate: 10400bps		

FCC COMPLIANCE STATEMENT IN USER'S MANUAL

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For a Class A or Class B digital device or peripheral, the instructions GIVEN to the user shall include the following, or a similar statement should be placed in a prominent location in the text of the manual (Section 15.105).

The User's Manual or Instruction Manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. (from FCC rules 15.21):

Sample user information for a Class A digital device:

THE FCC WANTS YOU TO KNOW:

This equipment has been tested and found to comply with the limits of a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Warning

Modifications not expressly approved by the manufacturer responsible could void the user's authority to operate the equipment under FCC rules.

Sample user information for a Class B digital device

THE FCC WANTS YOU TO KNOW:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential area.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does not cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and the receiver
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician

FCC Warning

Modifications not expressly approved by the manufacturer responsible could void the user's authority to operate the equipment under FCC rules.