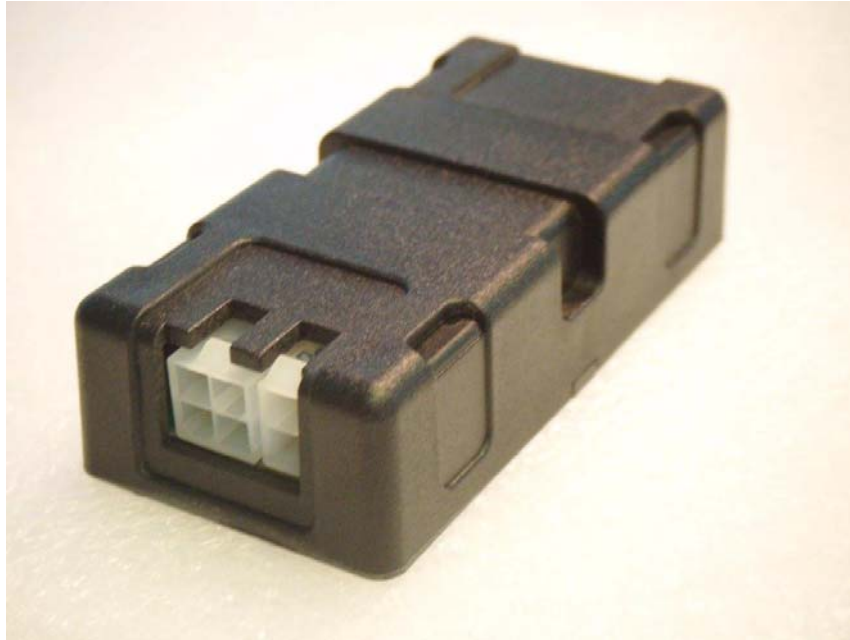


PRODUCT FACT SHEET

Magix Pico Base Station (PBS)



Overview

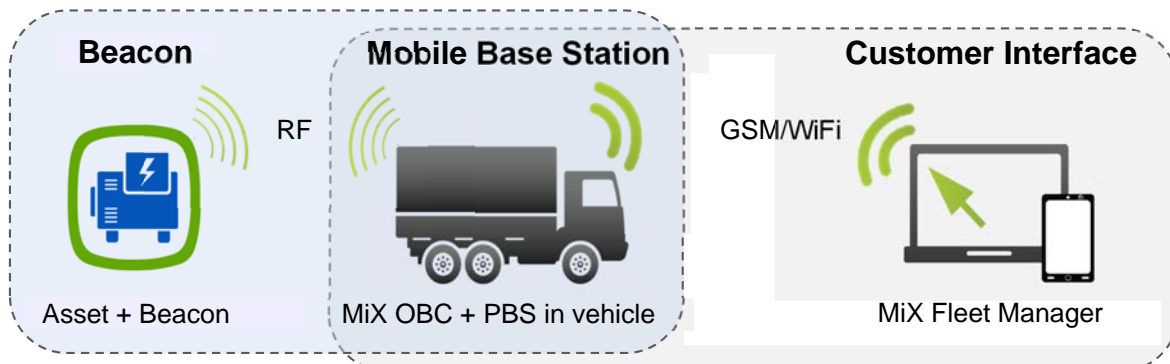
This document is applicable to the MiX-Tabs Asset Positioning System (MAPS).

MAPS enables all existing MiX Telematics installed vehicles to create a customer specific wireless network, where each vehicle becomes a mobile beacon reader, would not require any additional effort on the customers part. As the vehicles move around the sites and depots they would encounter beacon equipped assets and relay information about the position of those beacons.

A single software platform, MiX Fleet Manager, enables the management of vehicles as well as beacon equipped assets. In MiX Fleet Manager, asset managers are able to keep track of where there assets have been deployed and are currently in use. Vehicles in the vicinity of these assets will also be shown on the same tracking screen, should the fleet manager need to efficiently coordinate the redeployment of an asset to a different location.

MAPS consist of the following hardware:

- An RF network transceiver or Pico Base Station (PBS) that is added into the wiring harness of any existing FM



Communicator OBC to convert the vehicle to a Mobile Base Station (MBS)

- The Beame (also called the Magix Beacon): The Beame communicates with a Mobile Base Station (MBS) or stationary as a Fixed Base Station unit (FSB) via a radio link. The MBS and FSB communicate with a remote server via a GSM link. The Beacon is a wireless battery operated product. It is therefore easy to install. The variant of Beame that is fitted with a GPS is called a "MAPS Beame".

The PBS consists of the following part numbers.

Part Number	Product Name	Description
440FT0947	Pico Base Station Interface Harness	Interface between the 6-pin micro fit connector on PBS and the Code Plug Socket Harness
440FT0964	Magix Pico Base Station Type 9	PBS Electronic Unit
440FT0965	Magix Pico Base Station Type 9 Kit	Kit consisting of PBS Electronic unit plus PBS Interface harness (440FT0947) and the PBS Power Harness (440FT0966)
440FT0966	Pico Base Station Power Harness	Connects the PBS Electronic unit to vehicle battery power
440FTZ035-1 (new: 440FT0945)	Code Plug Socket Harness	Connects to the PBS Interface harness (440FT0947) or alternatively to the FM300 Code Plug Harness
440FT0034	FM300 Code Plug Harness	Connects between the PBS (4 pin) to the FM 3xxx Code Plug connector (4 pin micro fit)

Technical description

PBS	
Voltage Range	9 V DC – 48 V DC
Current	During transmission: 35 mA @ 14V During receiving: 12.7mA @14V
Input Protection	Over Voltage (56 V DC for 60 s) and Reverse Polarity (-30 V for 60 s)
Serial Port	Intended to be used for factory use and during the development phase (19200 b/s)
I²C	375000 baud
RF Transceiver	Centre frequency: 915 MHz RF Bandwidth available: 26 MHz Frequency deviation: 10 KHz RF Bandwidth: 15 KHz RF Radiated Output Power: 100 mW max
Dimensions	80 x 38 x 20 mm
Weight	34 g
ENVIRONMENT	
Temperature Operating	-30°C to +80°C
Temperature Storage	-30°C to +80°C
IP Rating	IP30
Shock	In accordance with Mil-Std-810F method 516.5 at a level 30g and with pulse duration of 11ms. The test consists of three shocks to be executed in each major axis and for both positive and negative directions resulting in a total of 18 shocks (in all 3 perpendicular axes).
Vibration	In accordance with ISO 16750-3:2007(E) for 9h in each of the perpendicular axes. The vibration profile is as per table 14 of ISO16750-3:2007(E)
Humidity	The product complies to Humidity test requirements in accordance with of MIL-STD-810F figure 507.4-1 (Test Duration: 5 x 48 h cycles; Relative Humidity: 95%; Temperature cycle between 20 and 60 °C)
Mechanics: Free fall	To automotive guidelines 3 drops from 1 m height (outside packaging)
Statutory and Regulatory Compliance	

Region	Type of Approval	Directive / Legislation	PBS
USA	FCC	It also complies with FCC 47 CFR Part 15C (2014) on Conducted and Radiated Emissions. Industry Canada RSS-247 (Issue 1, 2015) Industry Canada RSS-GEN (Issue 4, 2014) on Receiver Emissions RF Exposure Assessment CFR 47 Pt1.1310 Health Canada Safety Code 6 FCC 47 CFR Part 15B (2014) and ICES-003 (2014) on Radiated Emissions	FCC ID: 2AFMS-PBS9 IC: 20545-PBS9