Template:FMA1 Scenarios settings

Five scenarios are available on FM36YX device. Green driving, Over speeding, Jamming detection, Immobilizer and iButton detect scenarios can be used to manage digital output 1 and digital output 2. A single digital output can be controlled by a few scenarios. However, it is not recommended to configure Immobilizer and other scenarios on the same digital output.



Digital Output (open drain grade) usage in scenarios:

- Green Driving
- Over Speeding
- Jamming detection
- Immobilizer
- iButton detect

□

Contents

- 1 Green Driving
- 2 Over Speeding
- 3 Jamming detection
- 4 Immobilizer
- 5 iButton detect

Green Driving

Helps to inspect driver and prevent about harsh driving. Green driving source can be GPS or accelerometer. Scenario continuously monitors: accelerating force, braking force and cornering angles depending on build in accelerometer or depending on GPS. The device inspects driver if needed. Monitoring sensitivity is configurable. The scenario can control DOUT to alert the driver, with, for example, a buzzer or an LED.
To save GPRS traffic Green Driving event will be generated (included into sent records) only when FM36YX measured values are higher than those set in configuration, without additional I/O settings. To prevent generating false events, harsh acceleration and harsh braking is monitored only when following conditions are fulfilled:

- Ignition is ON (DIN1 = 1)

- Vehicle speed is equal or higher than 10km/h

Harsh cornering is monitored only when following conditions are fulfilled:

- Ignition is ON (DIN1 = 1)
- Vehicle speed is equal or higher than 30km/h

Note: Green Driving Scenario is a factor on various cars and various drivers testing phase and can be subject to changes. Teltonika is constantly working on improvement of the functionality of the devices, and strongly recommends using the latest version of the firmware.

Digital output control:
DOUTX (selected digital output) is ON for:

- 3sec. if detected value is over (0; 30] % from preconfigured allowed value;
- 5sec. if detected value is over (30; 50] % from preconfigured allowed value;
- 7sec. if detected value is over (50; -] % from preconfigured allowed value.

After period of time DOUTX is turned OFF.

Over Speeding

Helps to prevent from exceeding fixed speed and inspects driver if needed. DOUT1 or DOUT2 is controlled by scenario for user needs, to manage buzzer, LED, etc.

Digital output control:
DOUTX (selected digital output) is ON, while vehicle speed exceeds parameter value. DOUTX is activated until current speed decreases below parameter value.

Jamming detection

Radio jamming is the (usually deliberate) transmission of radio signals that disrupt communications by decreasing the signal to noise ratio. When jamming detection is enabled, FM36YX informs (with buzzer or LED, connected to digital output) driver about jamming event.

Digital output control:
DOUTX (selected digital output) is ON, while modem is fixing radio frequency jamming. After jamming is over, DOUTX is deactivated.

When pulse duration and timeout are set to 0:
Pulse duration 0 - device will hold DOUT on all the time while jamming is detected.
Timeout 0 - device will generate event instantly when jamming is detected.
Bandwidth: -100 dBm to -500 dBm

Immobilizer

Vehicle can be used only if iButton is connected. In this scenario iButton list is not used, connect any iButton to pass Immobilizer security. DOUT2 or DOUT1 is controlled by scenario for user needs, to manage buzzer, LED, etc.

Digital output control:
DOUTX (selected digital output) is continuously OFF. DOUTX turns ON if Ignition turns ON (configured Ignition Source = 1). After iButton ID is read (any iButton is attached), DOUTX turns OFF. After iButton identification, ignition can be turned OFF (configured Ignition Source = 0) for no longer than 30 seconds, otherwise immobilizer must be repeated.

iButton detect

If iButton is read, scenario activates configured DOUT for 500 ms. Second activation will be available only when iButton I/O element value goes back to 0, or another iButtob is read.