

FLEET AND ASSET MANAGEMENT FOR AVIATION



FLEET and ASSET MANAGEMENT for AIRPORTS



BENEFITS

Optimize Fleet

Manage Costs

Increase Security

Reduce Accidents

Improve Maintenance

System Overview

Airport Ground Support Fleet managers are increasingly challenged to reduce costs, improve security, and safety. This becomes more difficult as fleets increase in number and locations.

ADVEEZ Fleet and Asset Management System (FAMA) provides state-of-the-art hardware and software to monitor fleet parameters in real time. Fleet managers now have a tool to instantly understand all key metrics of their entire fleet regardless of equipment location globally.

ADVEEZ FAMA effectively provides a dashboard for fleet managers with current information on each asset and operator so they can re-deploy resources instantly to support fast-paced ground service situations. In addition, under-utilized resources can be identified and optimized to directly reduce costs.

ADVEEZ FAMA also removes the complexities of installation and use through a simple hardware design and user-friendly software interface. Lower Total Cost of Ownership and faster ROI can be realized with our SaaS (Software as a Service) approach, fast installation, and performant low-cost hardware.

SYSTEM DESCRIPTION



Asset Hardware

Each asset is equipped with hardware module that collects and reports operational data:

- **Access control:** Only authorized personnel can operate assets. ADVEEZ FAMA provides Hands-free tag or Prox ID identification via a dash installed reader.
- **Motion & Location** monitoring by GPS
- **Impact monitoring:** Accelerometer sensors provides shock monitoring.
- **Engine hours monitoring:** Pedal monitoring will provide precise vehicle on/off information for usage and maintenance forecasting.
- **Long range radio transmission:** Data is transmitted using ADVEEZ radio system (avoiding any GSM subscription fee).



Radio Gateway

Radio gateway is installed on building rooftops for best coverage of the apron. The Gateway collects data from ground equipment within 3000 meters range.

All collected data are then transferred to a cloud server through an internet connection via GSM or Ethernet.



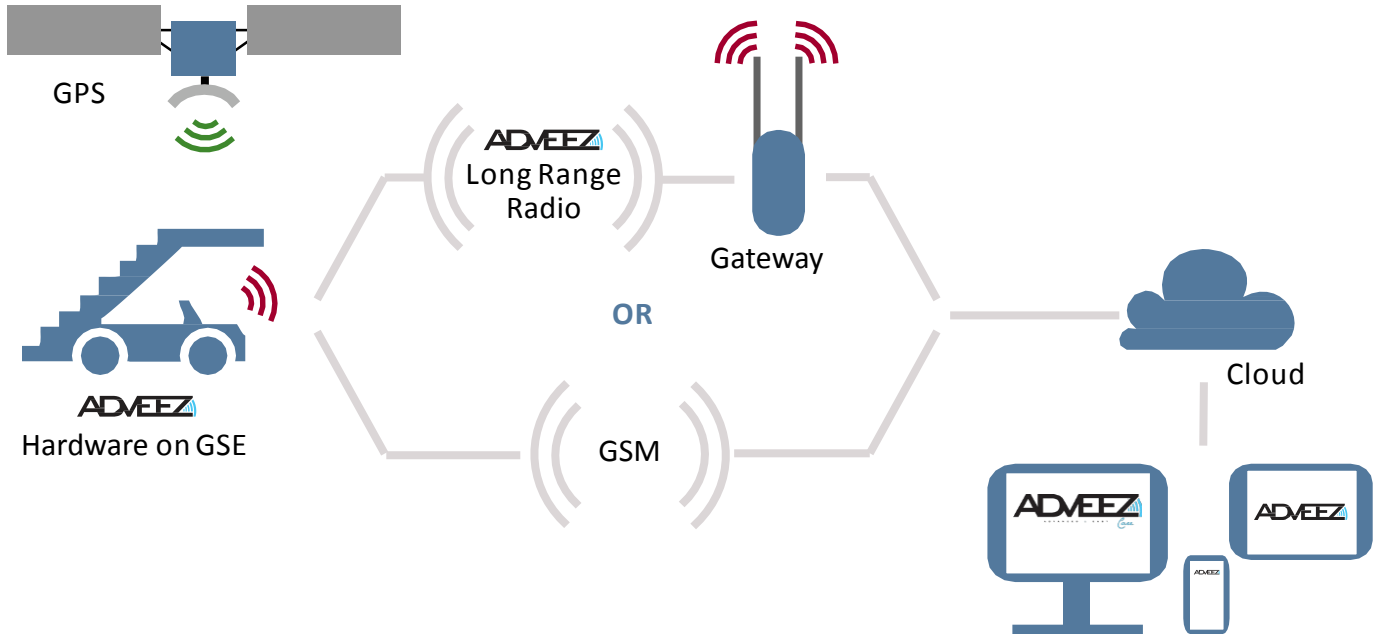
Fleet Management Software

ADVEEZ's software provides an easy-to-use interface to view and manage all assets and operators:

- Operator access authorization
- Location on map, usage, impact/shock
- Asset status & availability
- Maintenance forecasting
- Reports by activity and time frame
- Custom reports upon request



SYSTEM DIAGRAM



FLEET MANAGEMENT SOFTWARE

OPERATION



MANAGE GSE USER



LOCATE GSE

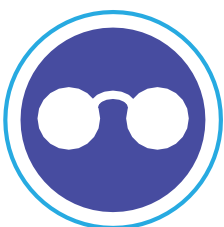


MANAGE FLEET

REPORTS



GSE REPORT



TRACK GSE USE



FLEET ANALYSIS

BENEFITS



CAPEX & BUDGET PLANNING

Complete and detailed statistics to optimize fleet size.

Save up to 15% on CAPEX.



REDUCE ACCIDENTS

Built-in shock detection reports time and location of excessive shocks. Operators are now accountable.

Up to 70% reduction in accidents.



BETTER SECURITY

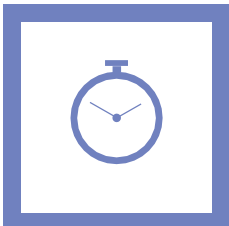
Only authorized (trained) personnel can operate equipment.

Supervisors can change authorizations at any time.



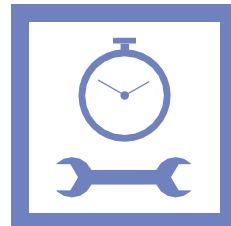
REDUCE MAINTENANCE COSTS

Track maintenance intervention automatically. Engine hours and vehicle system alerts are all reported in real-time.



MANAGE GSE USAGE

Locate, track, and analyze your GSE fleet in real-time to instantly re-deploy resources as needs change.



EASY INSTALLATION

Hardware and software installation is less than 2 hours per vehicle.

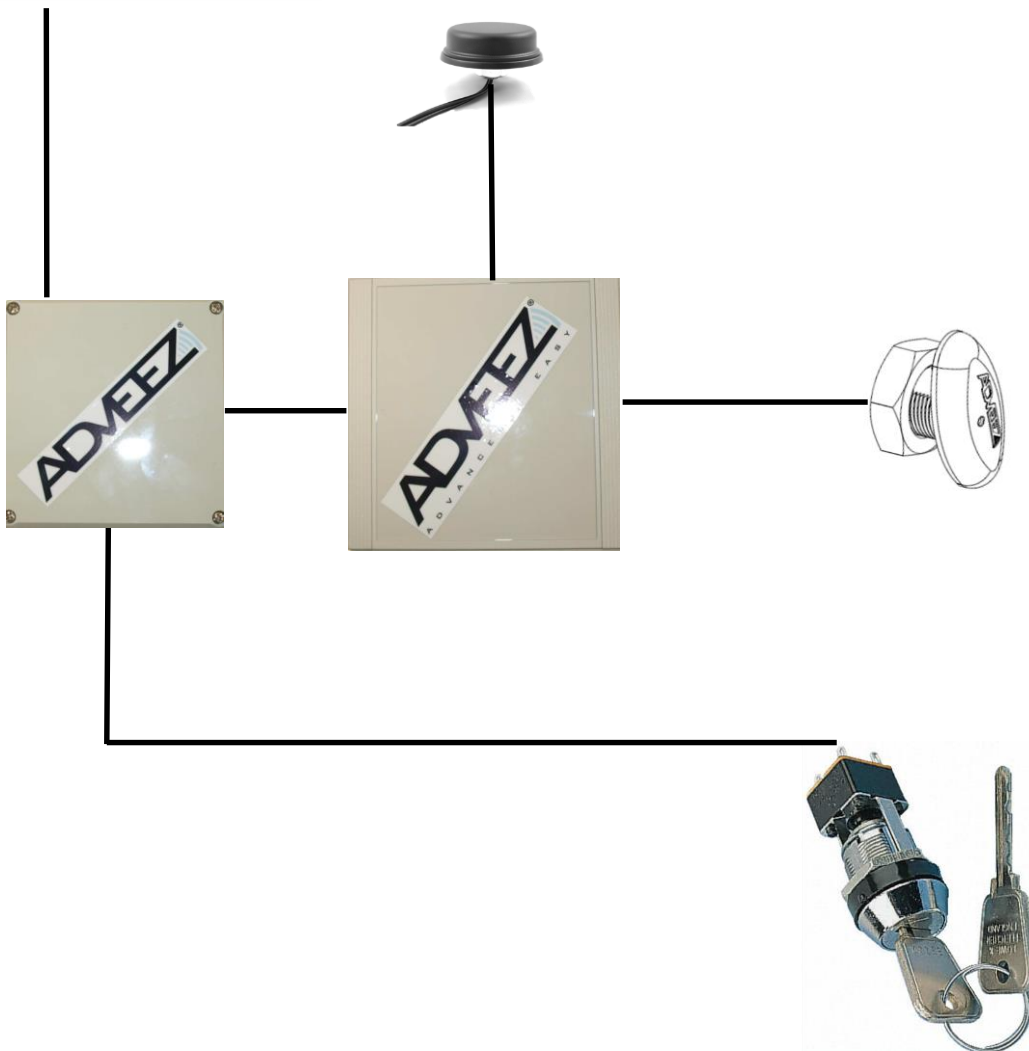
FCC regulations

This device (FCC ID: R8T-FAMAv3) complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and*
- This device must accept any interference received, including interference that may cause undesired operation.*

NOTE: The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

Installation block



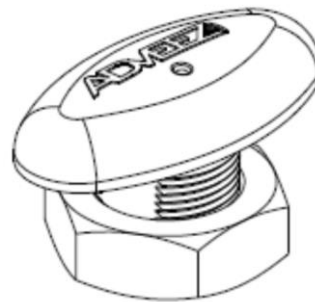
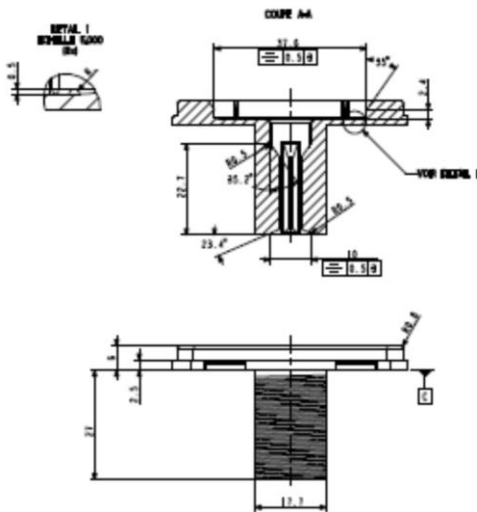
Reader général description

Hand 's free reader
Proximity reader

Pin out	Wiring	Function
Pin1	Green	Green LED
Pin2	White	Rx
Pin3	Grey	Tx1
Pin4	Brown	Gnd
Pin5	Yellow	Tx2
Pin6	Pink	Red LED

READER MOUNTING DIMENSIONS (mm)

Back cover details— M24 hole



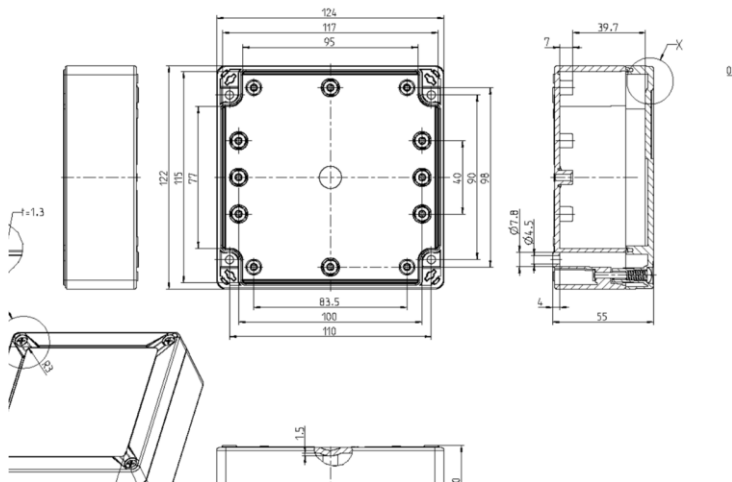
FAMA général description

- GPS integrated
- Shock détection
- Communication bus
- Long range radio transmission
- GSM transmission
- Easy-connect détection
- Local accès memory

Pin out	Wiring	Function
Pin1	Red	+12V/24V
Pin2	Black	0V
Pin3	Violet	CAN H
Pin4	Blue	CAN L
Pin5	Green	Green LED
Pin6	White	Rx
Pin7	Grey	Tx1
Pin8	Brown	Gnd
Pin9	Yellow	Tx2
Pin10	Pink	Red LED

FAMAMOUNTING DIMENSIONS (mm)

Back cover details—



Power supply général description

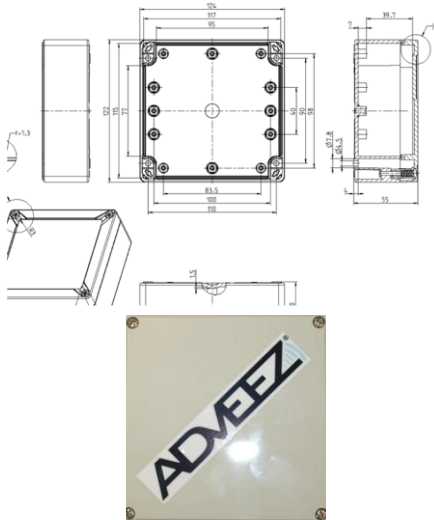
Power supply conversion

Fuse protection

Communication bus

FAMA MOUNTING
DIMENSIONS (mm)

Back cover details



Pin out	Wiring	Function
+BAT		Input Power supply
-BAT		Input Power supply
CAN_H		CAN H vehicle
CAN_L		CAN L vehicle
12V	Red	Output FAMA power
GND	Black	Output FAMA power
CAN_H	Violet	CAN H fama box
CAN_L	Blue	CAN L fama box
TM2		Input Timeter 2
TM1		Input Timeter 1
T		Relay NO
C		Relay C
P1-		Pedal 1 -
P1+		Pedal 1 + (A†er start)
P2-		Pedal 2 -
P2+		Pédal 2 +
SH-	Yellow	Key switch
SH+	Brown	Key switch
T	Green	Key switch
C	White	Key switch

GSM / GPS / Radio antenna

GSM antenna

GPS antenna

Long range antenna

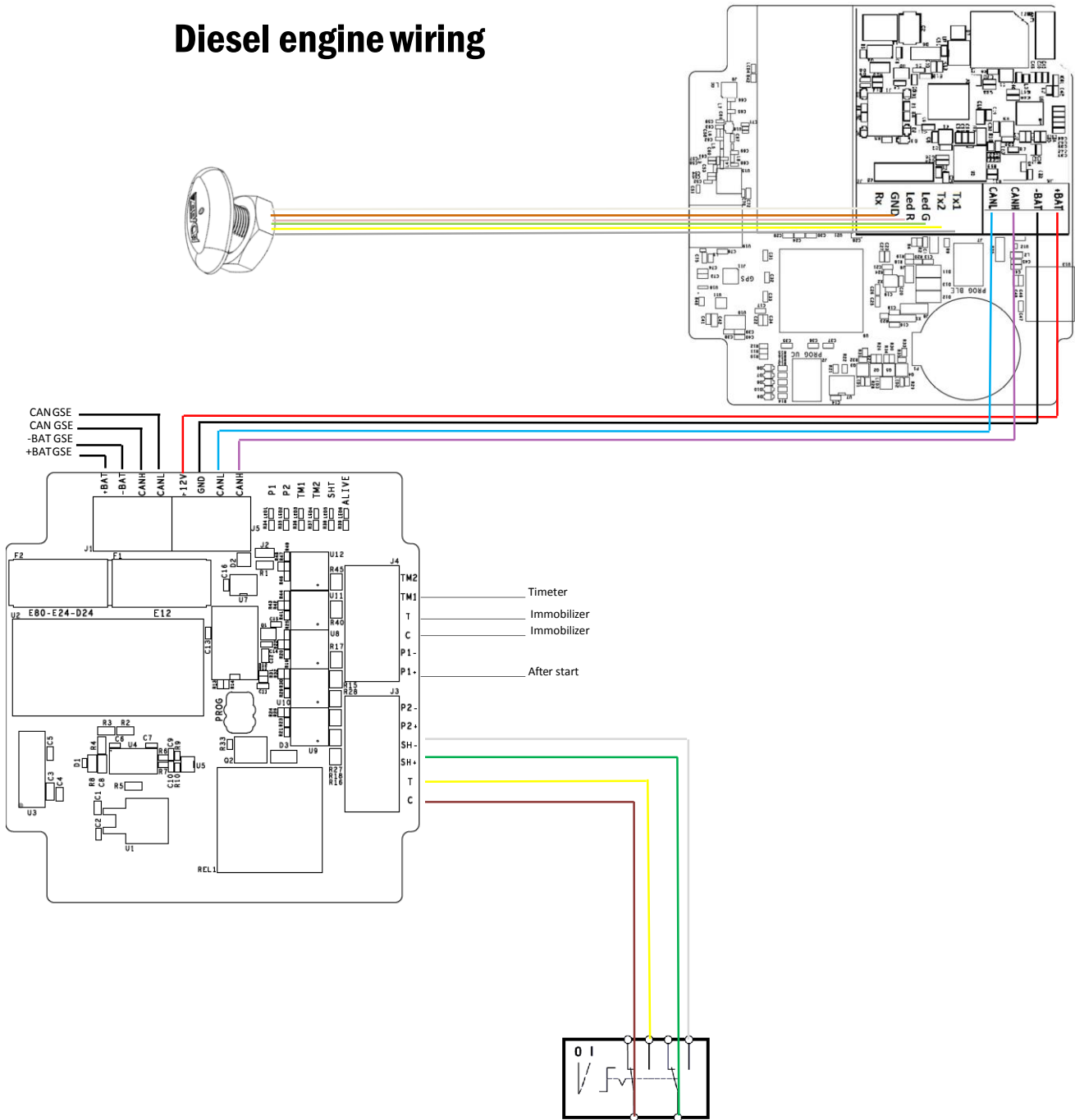
Pin out	Wiring	Function
SMA GSM	Blue	GSM
SMA GPS	White	GPS
SMA LR	Red	Radio

READER MOUNTING DIMENSIONS (mm)

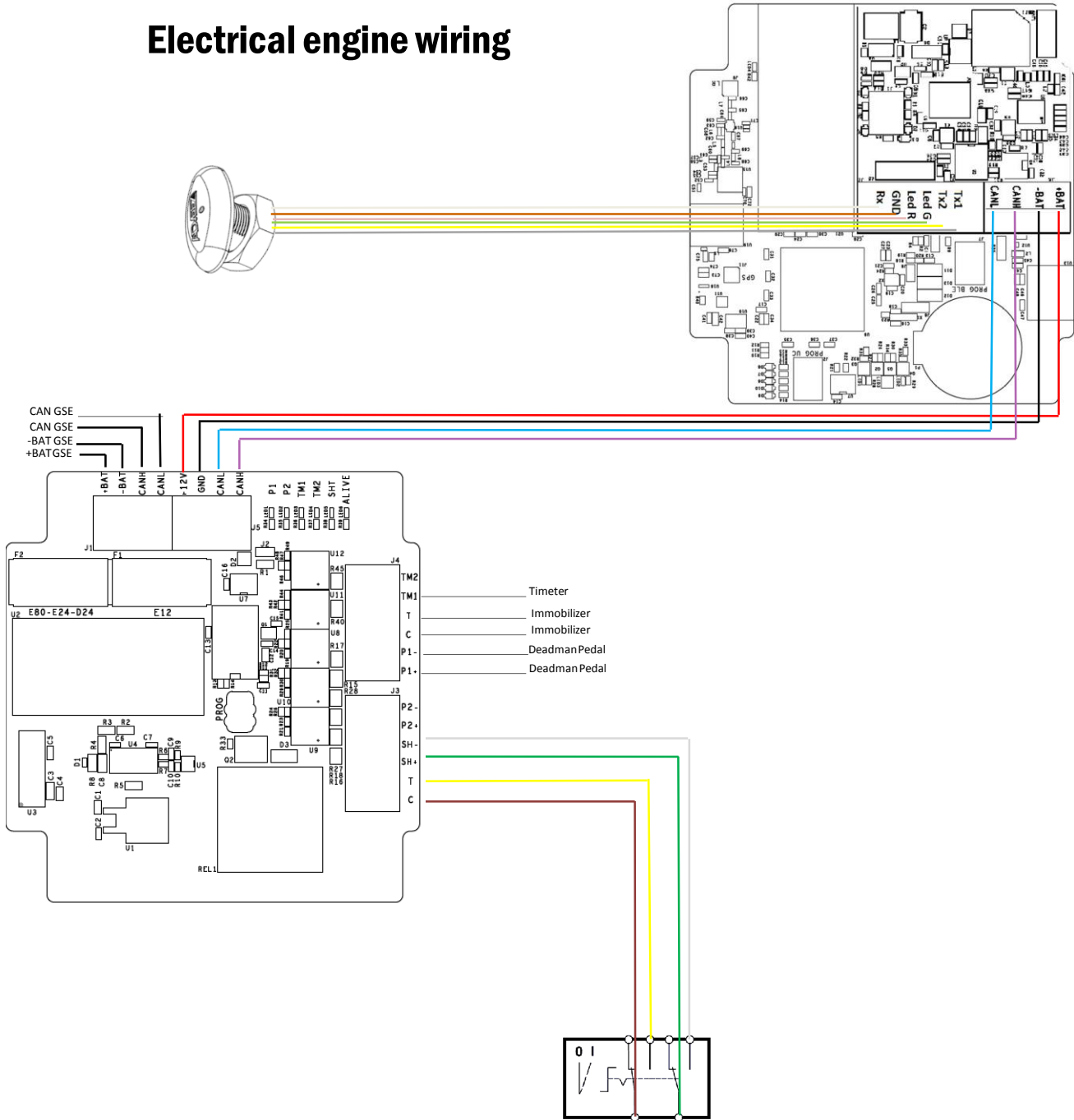
Back cover details— M16 hole



Diesel engine wiring



Electrical engine wiring





CONFORMITY ASSESSMENT ISSUES

OEM statements about LTE Module

Modification statement

Telit has not approved any changes or modifications to this by the user. Any changes or modifications could void the user's authority to operate the equipment.

Telit n'approuve aucune modification apportée à l'appareil par l'utilisateur, quelle qu'en soit la nature. Tout changement ou modification peuvent annuler le droit d'utilisation de l'appareil par l'utilisateur.

Interference statement

This device complies with part 15 of the FCC Rules and Industry Licence-exempt RSS standard(s). Operation is subject to the following conditions: (1) This device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

RF Exposure

This device complies with FCC and IC radiation exposure limits set forth for general population. This equipment should be installed and operated with a minimum distance of 20cm between radiator and your body.

Cet appareil est conforme aux réglementations de la FCC et d'ISED concernant les limites d'exposition aux rayonnements électromagnétiques pour le grand public. Cet équipement doit être installé et utilisé à une distance minimale de 20 cm du corps humain.



Antenna gain must be below:

Le gain de l'antenne doit être ci-dessous:

700MHz band: 6.63 dBi

850MHz band: 6.63 dBi

1700MHz band: 6.00 dBi

1900MHz band: 8.51 dBi

The transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

L'émetteur ne doit pas être colocalisé ni fonctionner conjointement avec une autre antenne ou un autre émetteur.

FCC Class B digital device notice

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 installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, 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 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 receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Labelling Requirements for the Host device

The host device shall be properly labelled to identify the modules within the host device. The certification label of the module shall be clearly visible at all times when installed in the device, otherwise the host device must be labelled to display the FCC ID and IC of the module, preceded by the following:

"Contains FCC ID: R17LE910NAV2"

"Contains IC: 5131A-LE910NAV2"

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