

Statement for User Manual

Advanced Telecommunication Module (ATM) ATM-01 T2-US-4GW

Rev. 2.2

Release



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Name of model:	ATM-01 T2-US-4GW
Internal peiker product ID:	2609-078-166-51
Status:	Release
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Date:	30.05.2016

1 Change documentation

Date	Revision	Name	Changes / Comment
05.08.2015	Rev 1.0	M. Fleckenstein	Initial version
03.05.2016	Rev 2.0	M. Fleckenstein	Update to new model ATM-01 T2-US-4GW
25.05.2016	Rev 2.1	P. Seguret	Correction of the supported frequency bands & maximum antenna gain values
30.05.2016	Rev 2.2	M. Fleckenstein	Update WLAN frequency range, Editorial update of antenna installation

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2 Introduction

2.1. Scope

2.1.1. Purpose of the document

The Advanced Telecommunication Module (ATM) trunk version is manufactured by peiker acustic GmbH & Co. KG (grantee) and sold as an OEM product.

According to the US Code of Federal Regulations (47 CFR 2.909, 2.927, 2.931, 2.1033, 15.15(b) etc.), the grantee must ensure the end-user has the applicable and appropriate operating instructions for the device. In the case of this product the grantee must notify the OEM to notify the end-user.

Peiker acustic GmbH & Co. KG will supply this document to the reseller or distributor to inform him what must be included in the end user's manual for the commercial product and which installations guidelines for the antenna are applicable.

2.1.2. General information

The ATM is assembled in the car during production. There are no other distribution channels than assembly in the cars production line or spare part replacement within car service. Please be advised that this product will need special trained professionals in configuring and installing the product. The product will be distributed through controlled distribution channel which has special trained professionals to install this product and will not be sold directly to the general public through retail stores.

The ATM is mounted invisible to the driver in the car in the trunk compartment. The external car antenna is connected to the ATM. The only direct interface of the ATM to the driver or passenger is a dedicated push button and LED (i.e. Mayday_LED) to trigger an emergency call and signal the call status. Except this button and the LED, there are no direct interfaces of the ATM to the driver or passengers.

The ATM is connected to the internal bus and control systems of the car. The ATM uses the external antenna of the car and also contains an internal WLAN antenna. The ATM uses a factory mounted embedded SIM module (MFF2).

2.1.3. Contact information

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3 Antenna installation

To comply with the RF exposure requirements of the FCC following requirements have to be fulfilled:

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons. This device is to be used in mobile or fixed applications only.

Following technologies and frequency bands are supported by the device ATM-01 T2-US-4GW:

Radio Access Technology	Supported Frequency Bands
GSM/GPRS/EDGE	GDM850, GSM1900
WCDMA	FDD2, FDD5
LTE	eFDD2, eFDD4, eFDD5, eFDD17

For mobile and fixed operating configurations the antenna gain, including cable loss, must not exceed

-1.15 dBd at 700MHz & 850MHz

1 dBi at 1700MHz & 1900MHz

for satisfying RF exposure compliance.

It must be ensured by the OEM that the end user has no manual instructions to remove or install the RF unit of the device.

4 Wireless LAN

The device contains an internal antenna for WLAN operation.

Wireless LAN standards	IEEE 802.11 b,g,n
Frequency	2,4 GHz (2412MHz – 2472MHz)
Channels	1 – 11
Channel bandwidth	20 MHz
Modulation	Depending on data rate: BPSK, QPSK, 16-QAM, 64-QAM, DBPSK, DQPSK, CCK, PBCC, ERP-PBCC
Max transmitter power (output of chip)	1 mW (0dbm)
Path loss on PCB (chip to internal antenna)	-0,7 dbi
Maximum antenna gain (internal WLAN antenna)	+5 dbi

5 Warning Statements for the User Manual

The following certification markings and hints should be printed in the end user's manual:

5.1. US /Canada

This equipment has been tested and found to comply with the limits for 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.

This device complies with Part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s).

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.

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.*

Radiofrequency radiation exposure Information:

This equipment complies with FCC and IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Information sur l'exposition au rayonnement électromagnétique :

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by peiker acustic GmbH & Co. KG could void the user's authority to operate the equipment.

6 Battery replacement

Please be advised that this product will need special trained professionals in configuring and installing the product within the car.

To open the battery compartment, push down the battery lid at the front of the device and shift the lid sideward.

Disconnect the battery connector in order to push the locking lever and pull the connector at the same time. Release the battery and replace it with the replacement part. Push the battery connector and close the battery compartment by shifting the lid towards the housing.