Tesla Inc.
3500 Deer Creek Road, Palo Alto, CA. 94304
Model: BTVMS01
Tire Pressure Monitoring Sensor
PMN: TPMS Sensor
Operating Temperature: -40°C to +120°C

EU:
Tesla Motors Netherlands B.V.
Asteriastraat 1-7
5047 RM Tilburg
The Netherlands

User Manual

The TPMS Transmitter is installed to the valve stem in each tyre of a vehicle. The unit measures tyre pressure periodically and transmits this information by RF communication to a receiver inside the vehicle. In addition, the TPMS Transmitter performs the following functions:

- Determines a temperature compensated pressure value.
- Determines any abnormal pressure variations in the wheel.
- Monitors the state of the Transmitters' internal battery and informs the receiver of a low battery condition.

Modes

Rotating Mode
While the sensor/transmitter in the Rotating Mode, it shall satisfy the following requirements. The sensor/transmitter shall transmit an instantaneous measured data, if a pressure change of 2.0 psi from the last transmission or greater has occurred with respect to the following conditions. If the pressure change was a decrease of pressure, the sensor/transmitter shall transmit immediately every time it detects the 2.0-psi or greater pressure changes from the last transmission.
If the pressure changes of 2.0 psi or greater was an increase of pressure, the sensor shall not react to it.

Stationary Mode

While the sensor/transmitter in the Stationary Mode, it shall satisfy the following requirements. The sensor/transmitter shall transmit an instantaneous measured data, if a pressure changes of 2.0 psi from the last transmission or greater has occurred with respect to the following conditions. If the pressure change was a decrease of pressure, the sensor/transmitter shall transmit immediately every time it detects the 2.0-psi or greater pressure changes from the last transmission.

If the pressure changes of 2.0 psi or greater was an increase of pressure, the silent period between the RPC transmission and the
last transmission shall be 30.0 seconds, and the silent period between the RPC transmission and the next transmission (Normal scheduled transmission or another RPC transmission) shall also be 30.0 seconds, to be in compliance of FCC Part 15.231.

Factory Mode
The factory mode is the mode that the sensor shall transmit more often in the factory to assure the programmability of the sensor ID during the manufacturing process.

Off Mode
This Off Mode is only for production parts sensors that are used for the builds during the production process and not in the service environment.

LF Initiation
The sensor/transmitter must provide data upon the presence of an LF signal. The sensor must react (Transmit and provide data) no later than 150.0 ms after the LF data code has been detected at the sensor. The sensor/transmitter must be sensitive (As sensitivity is defined in Table 1) and able to detect the LF field.

RF Frequency Information

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 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 cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, 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 to help.

Compliance with 2014/53/EU Radio Equipment Directive (RED)
In accordance with Article 10.8(a) and 10.8(b) of the RED, the following table provides information on the frequency bands used and the maximum RF transmit power of the product for sale in the EU:

Frequency range (MHz)	Max. Transmit Power
2400-2483.5 MHz	-0.82 dBm

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

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Note: FCC Radiation exposure: All equipment complies with FCC and IC RSS-102 radiation exposure limits for an uncontrolled environment and the radio device and antennas operating at more than 20cm distance from user.

FCC ID: 2AEIM-BTVMS01 IC: 20098-BTVMS01

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.

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This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique 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;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

WARNING: Changes or modifications not expressively approved by the party responsible for compliance could void the user's authority to operate the equipment. The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

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NCC 警語
取得審驗證明之低功率射頻器材，非經核准，公司、商號或使 用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射 頻器材之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應 立即停用，並改善至無干擾時方得繼續使用。前述合法通信，指依電信管理 法規定作業之無線電通信。低功率射頻器材須忍受合法通信或工業、科學及 醫療用電波輻射性電機設備之干擾。

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Mexico
Uso del Espectro Radioeléctrico
La operación de este equipo está sujeta a las siguientes dos condiciones:
Es posible que este equipo o dispositivo no cause interferencia perjudicial.
Este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.