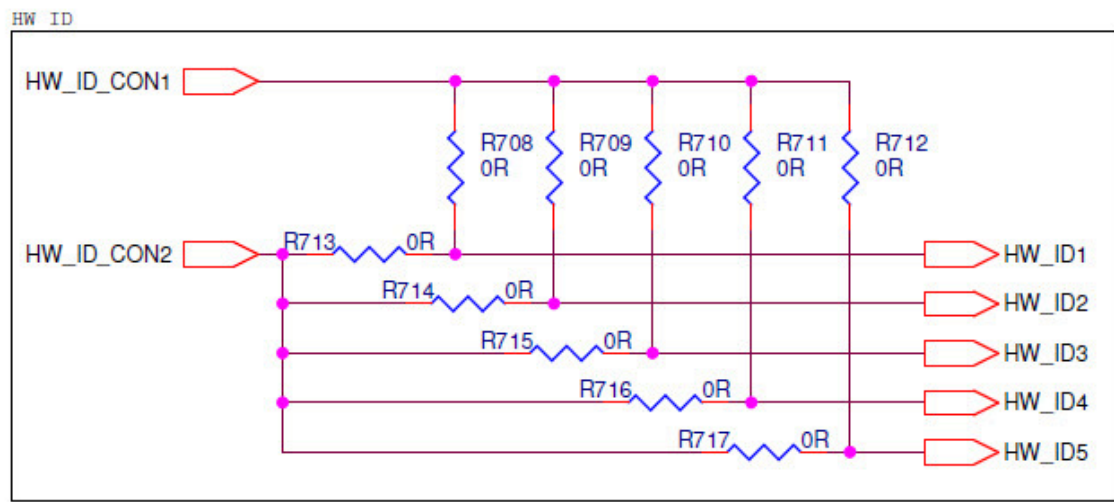# Family approval of ME501

M-Tec Trackunit A/S declare that the ME501-x where x = [1...13] manufactured variants out of 63 possible variants are all constructed identically in relation to the test performed on a selected worst case variant ME501-5 with respect to the FCC and IC rules.

The variant configuration determine the I/O configuration of the particular ME501-x variant based on 0 ohm resistor configuration that opens/close the various I/O configuration of the device. The software for the different variants is the same and the software will enable the features according to the resistor configuration input.

The resistor configuration determines the HW version and the HW revision for the specific identification of a variant.

For cost saving reasons the disabled I/O interfaces in each variant are not mounted on the baseband PCB. The GSM/WCDMA module is unaffected by the applied I/O configuration changes in each variant.

The interface cable is the same in all variants and it contains 8 wires configured for a particular application at the end customer.

None of the variant configurations will have any influence on the Radio spectrum, EMC and safety performance of the device with respect to CFR47 rules part 15, part 22 and part 24 as well as IC rules RSP100e Issue 9, section 5.2

On the following pages the discrete components and/or bus driver components mounting differences are described in details with reference to the I/O configuration.

Tested reference variant

ME501-5

The tested ME501-5 variant configuration according to the parts list (**ME501-5 Parts list.pdf** and **ME501 variant configuration parts list.pdf**) enables the following options and I/O configurations:

- Option GPS installed
- CAN bus interface
- 1-wire interface
- RS232 interface
- 4 inputs and 1 output
- Large flash memory (1 MB)

The variant parts list structure is shown graphically in the **ME501 family variant system.pdf.**

The SIM card interface in the ME501 tracking devices is not variant specific. The SIM card interface can be configured in three different solutions dependent on the customer requirements i.e. selection of either a 1 SIM interface, a 2 SIM interface or an E-SIM interface.

The ME501 family is prepared for future customer requirements by having an I/O board extension and a special low power configuration mode. These options are currently not utilized in the defined variants and are listed as not mounted in **ME501 family variant system.pdf.**

The variant difference for ME501-1 through ME501-13.

ME501-1

To configure the device for variant ME501-1 that consists of the following options and I/O configurations

- Option GPS installed
- 1-wire interface
- 2 inputs and 1 output
- Small flash memory (0.5 MB)

The following parts list (**ME501 variant configuration parts list.pdf**) are changed from ME501-5 to ME501-1 (NM = Not Mounted):

- CAN bus interface parts 7500.1004NM
- RS232 interface parts 7500.1005NM
- I/O port parts list 7500 .1006B (Mounted)

ME501-2

To configure the device for variant ME501-2 that consists of the following options and I/O configurations

- Option GPS installed
- 1-wire interface
- 4 inputs and 1 output
- Large flash memory (1.0 MB)

The following parts list (**ME501 variant configuration parts list.pdf**) are changed from ME501-5 to ME501-2 1 (NM = Not Mounted):

- CAN bus interface parts 7500.1004NM
- RS232 interface parts 7500.1005NM

ME501-3

To configure the device for variant ME501-3 that consists of the following options and I/O configurations

- Option GPS installed
- 4 inputs and 1 output
- CAN bus interface
- Large flash memory (1.0 MB)

The following parts list (**ME501 variant configuration parts list.pdf**) are changed from ME501-5 to ME501-3 (NM = Not Mounted):

- 1-wire bus interface parts 7500.1003NM
- RS232 interface parts 7500.1005NM

ME501-4

To configure the device for variant ME501-4 that consists of the following options and I/O configurations

- Option GPS installed
- 4 inputs and 1 output
- CAN bus interface
- 1-wire interface
- Large flash memory (1.0 MB)

The following parts list (**ME501 variant configuration parts list.pdf**) are changed from ME501-5 to ME501-4 (NM = Not Mounted):

- RS232 interface parts 7500.1005NM

ME501-6

To configure the device for variant ME501-6 that consists of the following options and I/O configurations

- Option GPS installed
- 4 inputs and 1 output
- 1-wire interface
- RS232 interface
- Large flash memory (1.0 MB)

The following parts list (**ME501 variant configuration parts list.pdf**) are changed from ME501-5 to ME501-6 (NM = Not Mounted):

- CAN bus interface parts 7500.1004NM

ME501-7

To configure the device for variant ME501-7 that consists of the following options and I/O configurations

- Option GPS installed
- 2 inputs and 1 output
- CAN bus interface
- 1- wire interface
- Large flash memory (1.0 MB)

The following parts list (**ME501 variant configuration parts list.pdf**) are changed from ME501-5 to ME501-7 (NM = Not Mounted):

- RS232 interface parts 7500.1005NM
- I/O port parts list 7500 .1006B (Mounted)

ME501-8

To configure the device for variant ME501-8 that consists of the following options and I/O configurations

- Option GPS not installed
- 2 inputs and 1 output
- 1-Wire interface
- RS232 bus interface
- Large flash memory (1.0 MB)

The following parts list (**ME501 variant configuration parts list.pdf**) are changed from ME501-5 to ME501-8 7 (NM = Not Mounted):

- CAN bus interface parts 7500.1004NM
- I/O port parts list 7500 .1006B (Mounted)

ME501-9

To configure the device for variant ME501-9 that consists of the following options and I/O configurations

- Option GPS installed
- 4 inputs and 1 output
- Small flash memory (0.5 MB)

The following parts list (**ME501 variant configuration parts list.pdf**) are changed from ME501-5 to ME501-9 (NM = Not Mounted):

- CAN bus interface parts 7500.1004NM
- RS232 interface parts 7500.1005NM
- 1-wire bus interface parts 7500.1003NM

ME501-10

To configure the device for variant ME501-10 that consists of the following options and I/O configurations

- Option GPS installed
- 2 inputs and 1 output
- Large flash memory (1.0 MB)

The following parts list (**ME501 variant configuration parts list.pdf**) are changed from ME501-5 to ME501-10 (NM = Not Mounted):

- CAN bus interface parts 7500.1004NM
- RS232 interface parts 7500.1005NM
- 1-wire bus interface parts 7500.1003NM
- I/O port parts list 7500 .1006B (Mounted)

ME501-11

To configure the device for variant ME501-11 that consists of the following options and I/O configurations

- Option GPS installed
- 2 inputs and 1 output
- CAN bus interface
- Large flash memory (1.0 MB)

The following parts list (**ME501 variant configuration parts list.pdf**) are changed from ME501-5 to ME501-11 (NM = Not Mounted):

- RS232 interface parts 7500.1005NM
- 1-wire bus interface parts 7500.1003NM
- I/O port parts list 7500 .1006B (Mounted)

ME501-12

To configure the device for variant ME501-12 that consists of the following options and I/O configurations

- Option GPS installed
- 2 inputs and 1 output
- Small flash memory (0.5 MB)

The following parts list (**ME501 variant configuration parts list.pdf**) are changed from ME501-5 to ME501-12 (NM = Not Mounted):

- CAN bus interface 7500.1004NM
- RS232 interface parts 7500.1005NM
- 1-wire bus interface parts 7500.1003NM
- I/O port parts list 7500 .1006B (Mounted)

ME501-13

To configure the device for variant ME501-13 that consists of the following options and I/O configurations

- 4 inputs and 1 output
- Large flash memory (1.0 MB)

The following parts list (**ME501 variant configuration parts list.pdf**) are changed from ME501-5 to ME501-13 (NM = Not Mounted):

- Option GPS parts 7500.1002NM
- CAN bus interface 7500.1004NM
- RS232 interface parts 7500.1005NM
- 1-wire bus interface parts 7500.1003NM