AiM Infotech

# BMW M235i Racing ECU

## Release 1.02


ECU

This tutorial explains how to connect BMW cars to AiM devices.

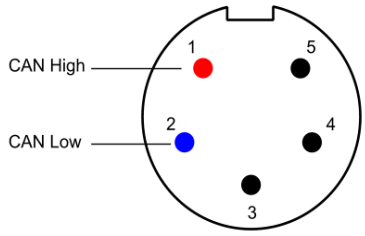
# 1 Supported models

Supported models are:

- BMW M235i Racing from 2014 onward

# 2 Connection to AiM devices

BMW M235i Racing ECU features a bus communication protocol based on CAN on the 5 pins Binder 712 male connector located in the vehicle passenger area; here below: on the left the connector, on the right the connector pinout – front view – and below connection table.




| Binder 712 male connector pin | Pin function | AiM cable |
|---|---|---|
| 1 | CAN High | CAN+ |
| 2 | CAN Low | CAN- |

**Warning**: do not plug this connector directly in AiM devices ECU inputs.

# 3
# AiM device configuration

Before connecting the ECU to AiM device set this up using AiM Race Studio software. The parameters to select in the device configuration are:

- ECU manufacturer “BMW”
- ECU Model "M235i"

# 4
# Available channels

Channels received by AiM devices connected to "BMW" "M235i" protocol are:

| ID | CHANNEL NAME | FUNCTION |
|---|---|---|
| ECU_1 | RPM | RPM |
| ECU_2 | ECU_THROTTLE | Throttle position sensor |
| ECU_3 | ECU_BRK_STATE | Brake status |
| ECU_4 | ECU_SPEED | Vehicle speed |
| ECU_5 | ECU_AIR_T | Intake air temperature |
| ECU_6 | ECU_WATER_T | Engine coolant temperature |
| ECU_7 | ECU_OIL_T | Oil temperature |
| ECU_8 | ECU_GEAR | Engaged gear |
| ECU_9 | ECU_AIR_P | Air pressure |
| ECU_10 | ECU_GEAR_T | Gearbox Temperature |
| ECU_11 | ECU_STER_ANG | Steering angle |
| ECU_12 | ECU_FUEL_RAW | Fuel value |
| ECU_13 | ECU_BATTERY | Battery supply |
| ECU_14 | ECU_INL_ACC | Inline acceleration |
| ECU_15 | ECU_LAT_ACC | Lateral acceleration |
| ECU_16 | ECU_GYRO | Gyroscope |
| ECU_17 | ECU_CUR_IBS | Battery current |
| ECU_18 | ECU_WS_RL | Rear left wheel speed |
| ECU_19 | ECU_WS_RR | Rear right wheel speed |
| ECU_20 | ECU_WS_FL | Front left wheel speed |
| ECU_21 | ECU_WS_FR | Front right wheel speed |

**Technical note**: not all data channels outlined in the ECU template are validated for each manufacturer model or variant; some of the outlined channels are model and year specific and therefore may not be applicable.