

### FTMS Protocol

As mentioned in section 2.3, Fitness Machine Data (FTMS) is a service specification under the Generic ATtribute Profile (GATT) with a UUID of 0x1826. The FTMS service specification contains 15 different characteristics, of which 7 are related to cycling training platforms. These characteristics are listed in table 2.3, along with their UUIDs and required properties. (Bluetooth® Service Specification, section 4.9).

Table 2.3: FTMS Characteristics for Bicycle Training Platforms  
(Huawei)

Characteristic	Description	Properties	UUID
Indoor Bike Data	Reports live workout data	Notify	0x2AD2
Training Status	Reports training device status	Read / Notify	0x2AD3
Speed Range	Reports supported speed range	Read	0x2AD4
Power Range	Reports supported power range	Read	0x2AD8
FM* Control Point	Controls fitness machine status	Write / Indicate	0x2AD9
FM* Status	Reports changes in workout status	Notify	0x2ADA
FM* Feature	Describes device supported capabilities	Read	0x2ACC

### SIM mode

This mode is defined in the FTMS documentation, and needs Control Permission to be activated. Once the mode is activated, the trainer will receive parameter arrays with the data shown in Table 2.4 below to determine the required resistance level.

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\*Fitness Machine