


## Mbody MCell 3 – Technical Specification

<b>Name</b>	MCell 3 (part of Mbody 3 and ErgoAnalysis product families)
<b>Type</b>	MC3L-1.0
<b>Used with</b>	MShorts 3, ErgoShirt 3
<b>For applications</b>	Mbody Live 3 (iOS 9 or later, Android 6 or later) Muscle Monitor 3 ErgoAnalysis
<b>Memory type</b> <b>Memory capacity</b>	Flash Memory ~30 hours with averaged EMG, for other configurations see table attached
<b>Channels</b>	With Mbody 3 Kit: 6 differential EMG biosignal channels With Muscle Monitor: EMG + 3 accelerometric, 3 magnetometric & 3 gyrosopic channels With ErgoAnalysis: 8 differential EMG biosignal channels and 3 angles
<b>ADC, sampling and bandwidth</b>	24-bit ADC, sampling rate 1000 Hz, bandwidth 40...200 Hz (-3 dB)
<b>Data types and sampling rates</b>	Averaged EMG (online & memory modes) 25 Hz (rectified and averaged from 1000Hz Raw EMG) 1 Hz (online) Raw EMG (optional configuration) 1000 Hz (memory mode only) Inertial IMU data: (optional configuration) 25 Hz (memory modes)
<b>Battery</b> <b>Battery life (full charged)</b> <b>Charging time from USB</b> <b>Readiness time</b>	Rechargeable Li-ion Polymer Battery (3.7 V, 500 mAh) ~ 30 hours ~ 5 hours ~ 4 weeks
<b>Wireless connectivity</b>	Bluetooth Low Energy (BLE) Proprietary "Muscle Load Profile" (GATT based profile) Contains transmitter module FCC ID: TFB-1005, CMIIT ID: 2018DJ0015
<b>Wired connectivity</b>	USB
<b>Operating temperature</b>	0°C ... +40°C (32°F ... + 104°F)
<b>Humidity</b>	10 ... 90 % RH (non-condensing)
<b>Water resistance</b>	Protected against water splashes from top. Do not sink to any fluid.
<b>Dimensions</b>	~ 62 x 38 x 15 mm (2.4 x 1.5 x 0.6 inch)
<b>Weight</b>	~ 28 g (1 oz)
<b>Recycling</b>	 <p>This product contains rechargeable battery, electronic components and materials. Product must be disposed as electrical and electronic equipment.</p>
<b>Standards and approvals</b>	CE, FCC, CMIIT, RoHS, WEEE



**Memory capacity.**

<b>Mbody 3 configurations:</b>		
	Averaged EMG (25Hz)	~30 h
	Configured with IMU (25Hz)	12 h
	Configured with Raw EMG (1000Hz)	45 min
	Configured with IMU & Raw EMG	18 min
<b>ErgoAnalysis configuration:</b>		
	Configured with Averaged EMG (25Hz) & IMU	10 h 35 min
	Configured with IMU	16 h 20 min