

NEW



ultium[®]

MOTION

Portable 3D Motion Capture System



State of the art sensor design

Advanced sensor fusion algorithms

Rotational velocities up to 7000 deg/s

Accelerations up to 200 g

400 Hz output rate

"Lossless" on-board data recovery

Universal Ultium receiver

EMG

3D MOTION

SOFTWARE

PRESSURE/FORCE

VIDEO ANALYSIS

ultium[®] MOTION

Wireless IMU sensors allow for lab-quality
3D motion capture in natural environments

Ultium Motion delivers accurate & reliable kinematic data for all types of movement – including high velocity and high impact conditions – while maintaining the advantages of the universal Ultium receiver and multi-device myoRESEARCH software platform.



In myoRESEARCH, you'll have access to:

- Anatomical joint angles
- Orientation angles
- Linear acceleration
- Joint trajectories
- Contact detection
- User-defined angles
- Quaternions
- Raw component data
- Enhanced magnetic rejection
- Customizable reports

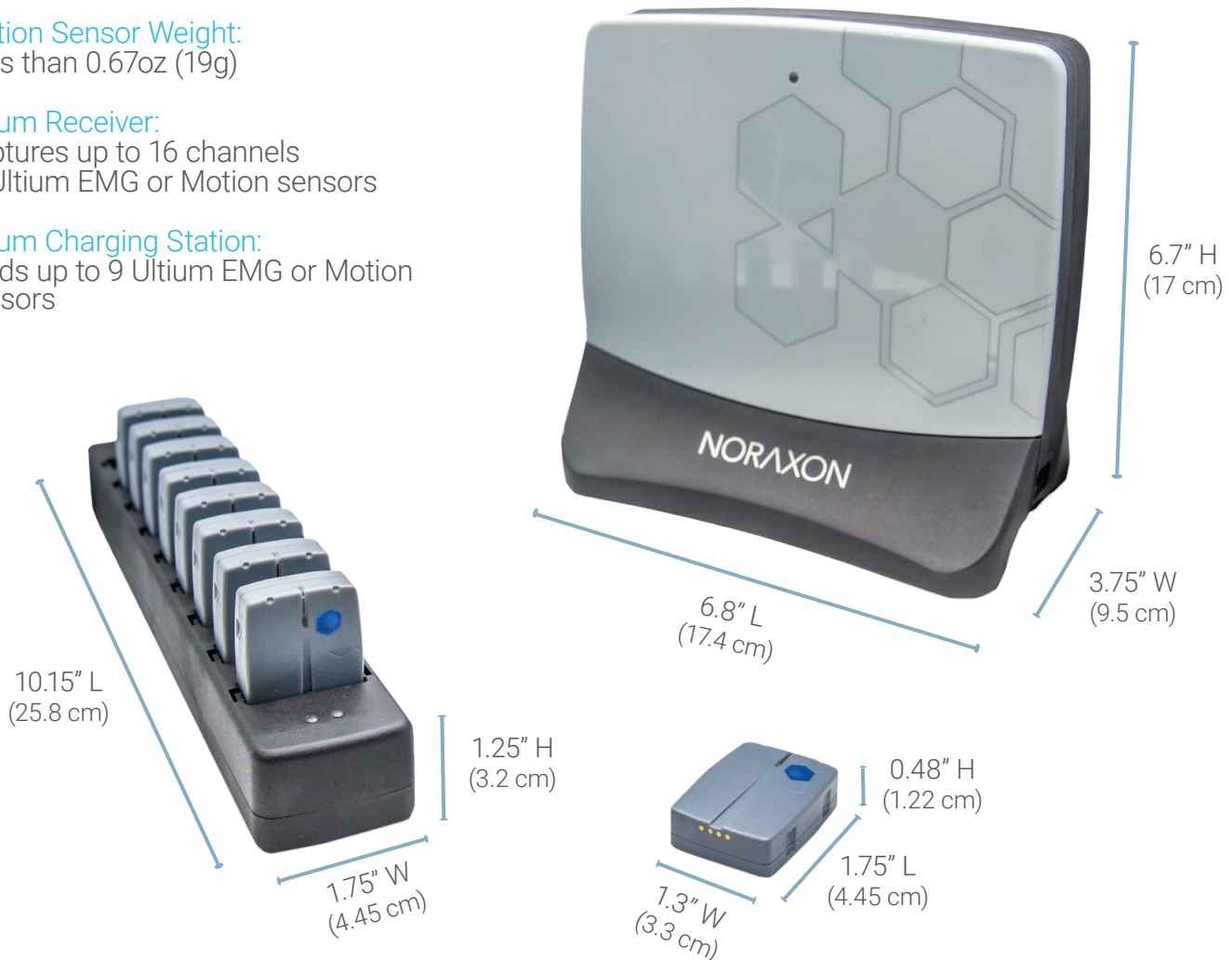
Technical Specifications



Motion Sensor Weight:
Less than 0.67oz (19g)

Ultium Receiver:
Captures up to 16 channels
of Ultium EMG or Motion sensors

Ultium Charging Station:
Holds up to 9 Ultium EMG or Motion
sensors



Measurement ranges:

- Acceleration: +/- 200 g
- Angular velocity: +/- 7,000 deg/s
- Magnetic field: +/- 16 Gauss

Static angular accuracy (RMS):

- 0.25 deg (pitch/roll)
- 1.25 deg (course)

Battery:

- Operational runtime: > 10 hours
- Recharge time: < 4 hours

Maximum measurement output:

- Ultium system sampling at 4,000 Hz
 - Acceleration: 400 Hz
 - Angular velocity: 400 Hz
 - Magnetic field: 100 Hz
 - Quaternion: 100 Hz
 - Orientation & joint angles: 400 Hz

Wireless transmission:

- Range: 40m (typical)
- Proprietary 2.4 GHz hopping protocol

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