

## Radio Certification

# Technical Description of Device

Device Name:  
FreeEMG 300

Model Name:  
BTSWEMG

Regulatory Body: **FCC**  
ID: YQH-BTSWEMG  
Category: N/D

Regulatory Body: **Industry Canada**  
ID: 9188A-BTSWEMG  
Category: Class I radio device

Description:

The FreeEMG 300 wireless EMG sensor ("Sensor") is a battery powered, wireless sensor designed to measure the body surface electric activity generated by the muscles activation. The Sensor is one of the components that make up a device used for "surface electromyography".

The Sensor is intended to be used exclusively with a FreeEMG 300 Acquisition Unit ("AU") manufactured by BTS.

The Sensor establishes a wireless data link with an AU, receives commands from it sends back data and status information.

The radio link uses the IEEE 802.15.4 standard and operates in the 2.4GHz band. The Sensor's EIRP is less than 10mW.

The Sensor is physically connected to a set of disposable electrodes which are then placed on the body skin.

The myoelectric signal that is generated by the muscles is measured by the Sensor, sampled by its A/D converter and sent to the AU via the wireless link.

The internal Li-Ion battery is charged by its Charging Station via the same plugs used to connect the electrodes, therefore the device cannot operate while recharging.