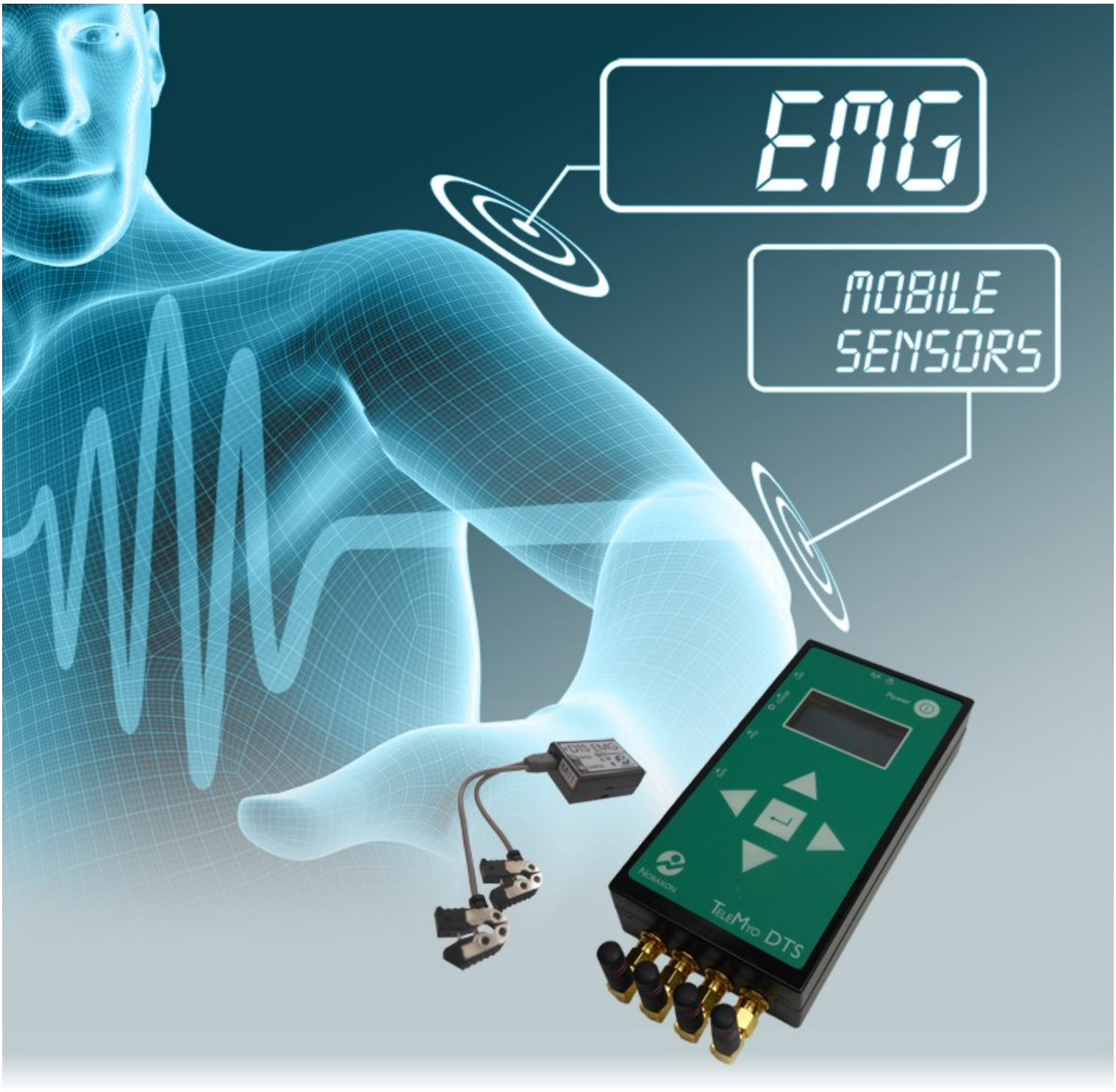


TeleMyo

((DTS))
Direct Transmission System

100 Meters of Measurement Freedom

NORAXON

TeleMyo (DTS)

Direct Transmission System

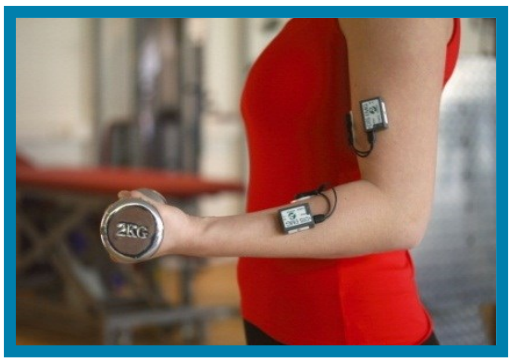
The TeleMyo™ Direct Transmission System (DTS) for EMG and other biomechanical sensors directly transmits data from the electrode or sensor site to a belt worn receiver. This direct transmission concept greatly simplifies the arrangement of EMG measurements by eliminating the need to arrange cable connections between the EMG electrodes and EMG amplifier. The small light weight probes are also beneficial for small subjects like children and small animals. The Belt Receiver can operate in 3 modes:

- *Direct connection to any PC via USB connection (transmission range 10m)*
- *Wireless retransmission of signals in real time to any Noraxon USB receiver (transmission range up to 100m)*
- *Data logging via Flash Memory card*

This unique concept gives you flexibility to operate the DTS system without limitations. The compatibility to Noraxon's USB receiver systems, operated via WiFi based retransmission of data, allows you to integrate up to 8 additional stationary analog input signals (isokinetics, force plates, etc.) and optional analog output of all signals (to e.g. connect signals to 3D kinematic systems).

The default system is equipped with EMG preamplifiers but can be upgraded with other biomechanical sensors like goniometers, Inclinometers, foot switches, and accelerometers. A wireless synchronization system can be used to accurately synchronize the TeleMyo DTS System to other biomechanical devices.

Key Features



- Transmits data directly from the electrode site
- Simplifies measurements by eliminating connection cables
- Free electrode type solution, fine wire included
- 4 to 32 channel configuration (2 belt receivers)
- Portable belt receiver with retransmission option
- Retransmission range of up to 100 meters
- Compatiblity to existing Noraxon hardware and software
- Data logger option via Flash Memory card
- Full compatible to ISEK and SENIAM standards for surface and fine wire EMG
- Easy installation: no need to struggle with the Windows network setting
- Optional fine wire amplifiers with selectable band width
- Operates EMG and other biomechanical sensors
- Unique receiver concept with analog input channels and up to 32 analog output channels
- Li-ion battery with 8 hours operation time
- Precise and flexible wireless synchronization trigger system

Applications

Manual Muscle Function Test
Detect amplitude differences during different activities and sequencing of muscles under specific test conditions.

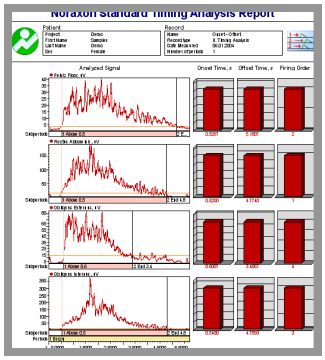
Symmetry and Coordination Test
Measure bi-lateral muscle activity patterns and amplitudes within symmetrical movements. Compare the injured side to the uninvolved side which are automatically displayed on top of each other.

Gait Analysis
Use average EMG patterns that show the typical activity characteristics and coordination of muscle groups during walking/running while analyzing left/right, pre/post test comparisons. Symmetry, timing and curve characteristics are summarized.

Temporomandibular Dysfunction
Patients with psychological stress, dysfunctional oral habits such as jaw clenching or bruxism, pain or many other oral issues may have chronic hyperactivity of facial muscles and not even know it, thus EMG is essential. The feedback cues can be used to assist patients with awareness and resolution of muscle hyperactivity, nighttime teeth clenching, myofacial pain, or even neck and shoulder strain, especially in combination with stress management therapy and orthotic appliances.

Muscular Feedback Training
Use a display of activation to threshold range to teach control of muscle activity. Allows for effective and targeted training of selected muscles.

Incontinence Therapy
EMG use in incontinence treatment uses ratios that when presented serve as a training goal for each individual therapy session. The testing and training procedure is guided by automatic protocol and provides a comprehensive analysis at the end of the session. Differences between sessions and individual recordings can also be analyzed.



Receiver Options:

PC INTERFACE
RECEIVER
Standard receiver with USB connection to PC

G2 MINI
RECEIVER
With 8 additional input channels and wireless sync to system

G2 ANALOG OUTPUT
RECEIVER
With 8 additional input channels and analog output for 16 channels

TeleMyo DTS Direct Transmission System

TeleMyo (DTS) Direct Transmission System

Specifications

DTS PROBE & BELT DATA

Power Requirements:

- Replaceable Li-ion rechargeable battery with an operation time of more than 8 hours when fully charged

Output and Transmission Frequency (country specific)

- Up to 100mW (depends on antenna)
- DTS probe transmission range: 10m
- Belt receiver re-transmission range: up to 100m in line-of-sight recordings
- DSSS 2412-2464 MHz on (up to) 8 selectable radio channels

EMG Sensor Data Acquisition System

- 16 bit resolution
- Sample rate 1,500 for 16 channels
- Sample rate 3,000 for 8 channels
- Selectable low pass filter 500, 1000, 1500Hz

EMG Preamplifier Leads

- No notch (50/60Hz) filters
- 1st order high-pass filters set to 10Hz +/- 10% cutoff
- Baseline noise: <1uV RMS
- Input impedance > 100 Mohm
- CMR > 100dB
- Input Range +/- 7mV
- Probe battery life of 8 hours
- Base gain 200
- Snap or pinch style terminal electrode connections

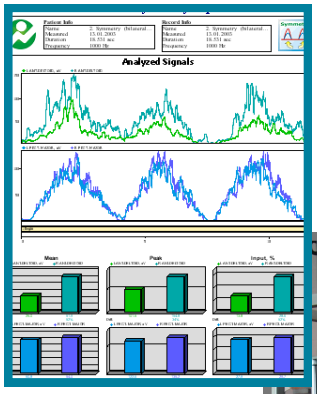
DIMENSIONS

EMG Probes:

- 1.34"L x 0.95"W x .55"H
- 3.4cm x 2.4cm x 1.4cm
- Weight: less than 14 grams

DTS Belt Receiver:

- 6" L x 2.63" W x 1" H
- 12.6cm L x 6.75 cm W x 2.38cm H
- Weight: less than 185 grams
- Selectable latency 36-312ms @ 1500Hz*
  24-156ms @ 3000Hz*
  **(in 12ms increments)*



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