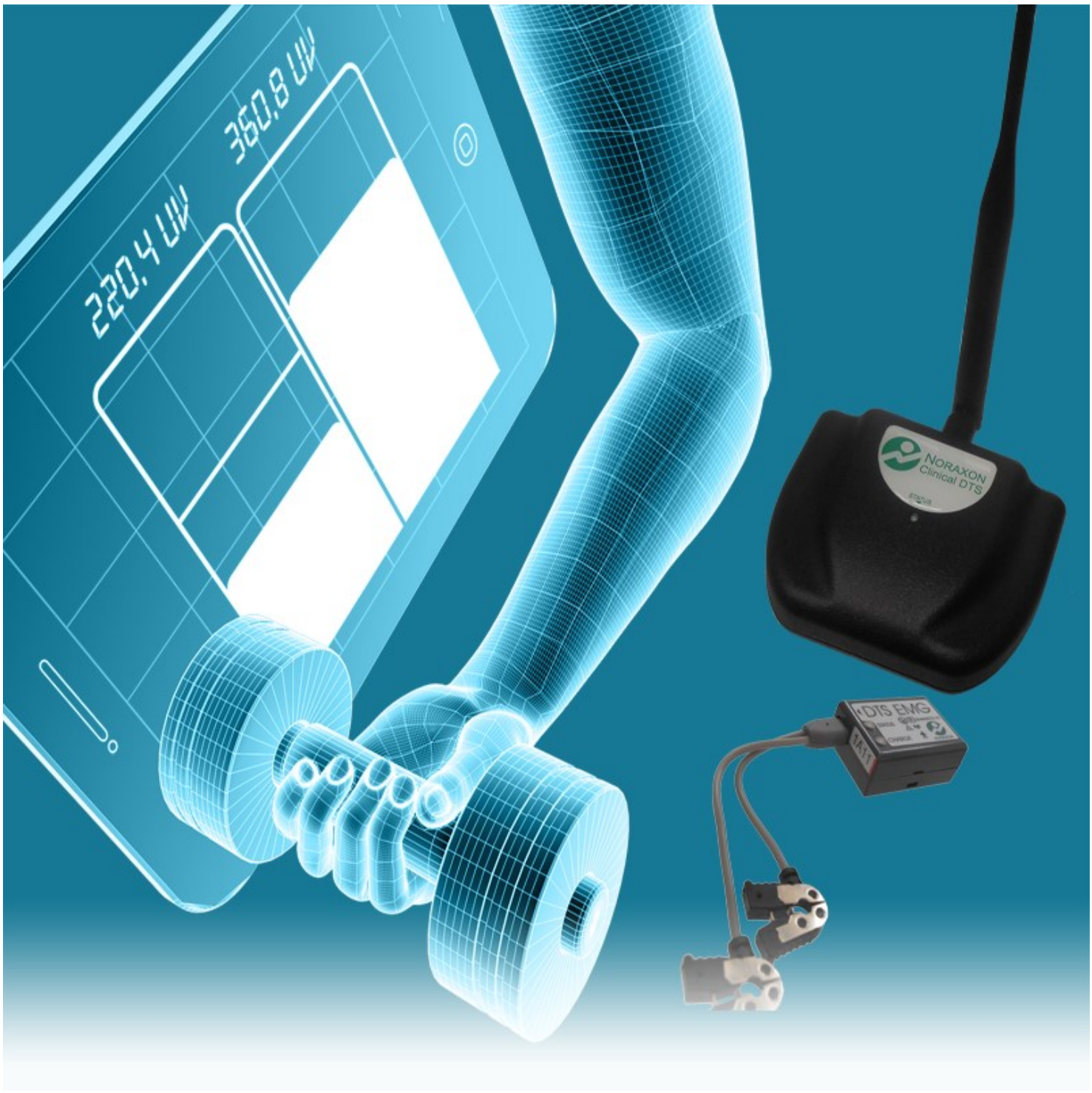


CLINICAL

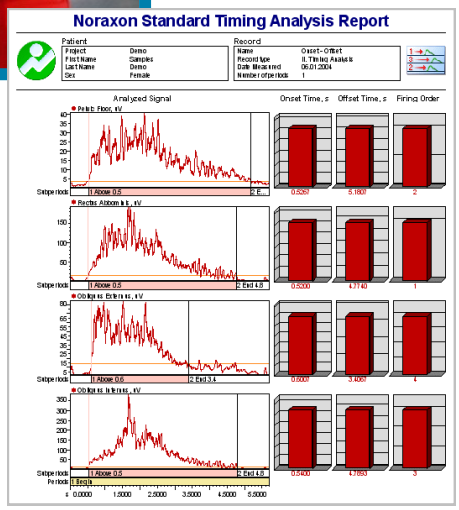
((DTS))
Direct Transmission System

Freedom of Movement, Precise Measurement

CLINICAL ((DTS)) Direct Transmission System

The Clinical Direct Transmission System (Clinical DTS) for EMG and other biomechanical sensors directly transmits data from the electrode or sensor site to a small USB 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 lightweight sensors are also beneficial for small subjects like children and small animals. The Clinical DTS EMG signal is pre-processed using a 100ms RMS filter to give clinicians clean, easy-to-read signals.

The DTS system can operate any configuration between 2 and 8 channels (EMG is limited to 4 channels.) The default system is equipped with EMG preamplifiers but can be upgraded with other biomechanical sensors like goniometers, accelerometers, inclinometers, and foot switches, etc. A synchronization system can be used to accurately synchronize the Clinical DTS System to other biomechanical and peripheral devices.



Key Features

- Transmits data directly from the electrode site
- Simplifies measurements by eliminating connection cables
- Portable USB receiver
- 2, 4 or 8 channel configuration
- 8 hours of operation time on battery charge
- Real time transmission up to 20 meters
- Compatible to existing Noraxon hardware and software
- EMG signal is preprocessed and ready to use
- Precise and flexible synchronization trigger system
- Easy installation: no drivers to install
- Android tablet compatible
- Operates EMG and other biomechanical sensors

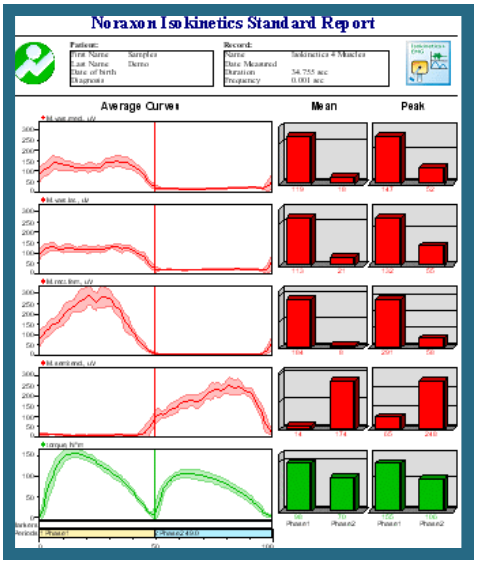
Applications

Symmetry and Coordination Tests
These various tests allow for the comparison of affected and unaffected sides. Display the EMG and histogram statistics for unilateral, bilateral, multi joint and symmetrical movements. Evaluate the neuromuscular coordination and compare innervation deficiencies between right and left sides.

Average Activation Patterns
Clinicians can assess repeated movement sequences and exercises while creating averaged and time normalized EMG patterns. Analyze the typical innervation structure of movements.

Feedback Training
Use the bar graph display of signals to provide precise training of dysfunctional muscle groups with both acoustic and optical automatic training assistance.

Incontinence Therapy
Use multi activity recording with base lines, quick flicks, max contractions, max endurance and rest line tests to improve incontinence. The shrinking cycle display of signals coupled with the acoustic and optical automatic training assistance provides maximum training.



EMG Standard Analysis
The Clinical DTS uses universal protocol for all kinds of EMG setups. View basic amplitude parameters in selected analysis periods. Use standard graphs and histograms designed for general analysis questions.

Template Training
Use background templates for biofeedback training. Create EMG/angle/force templates using the healthy side. Use biofeedback and motor learning concepts to confirm the accuracy of performance.

CLINICAL ((DTS)) Direct Transmission System

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Specifications

TECHNICAL DATA

Receiver Specifications:

- 5V USB connection to PC host
- Up to 8 sensor channels (only 4 can be used for EMG sensors)
- 2 TTL 5V sync inputs
- External antenna

Output and Transmission Frequency (country specific)

- Up to 2.5mW
- 20 meters Clinical DTS probe transmission range
- DSSS 2403-2472 MHz on (up to) 20 selectable radio channels

EMG Sensor Data Acquisition System

- 16 bit resolution
- 100ms RMS filter before wireless transmission
- Initial sample rate of 3000Hz
- Wireless update rate 100Hz

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 +/- 6.3mV
- Probe battery life of 8 hours
- Base gain 200
- Final gain 500
- Snap or pinch style terminal electrode connections

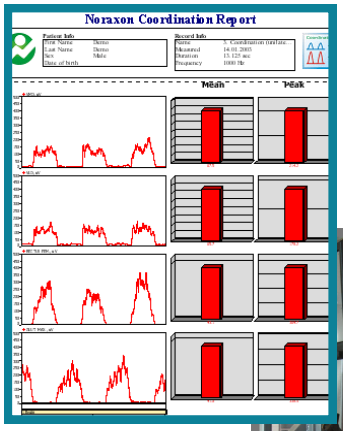
DIMENSIONS

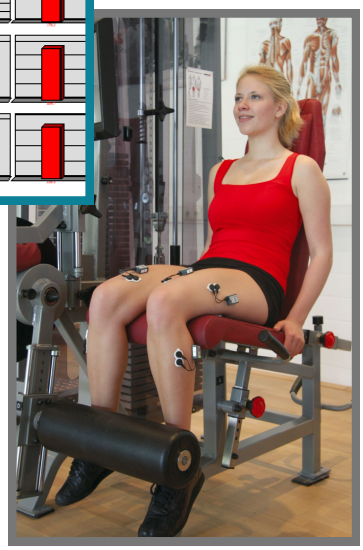
EMG Probes:

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

Clinical DTS Receiver:

- 3.0" L x 4.0" x 1.4" H
- 7.66cm L x 10.18cm W x 3.55cm H
- Weight: less than 120 grams
- Latency ~ 120 ms





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