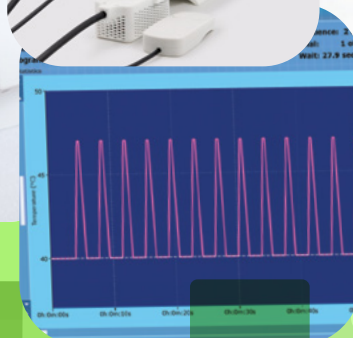
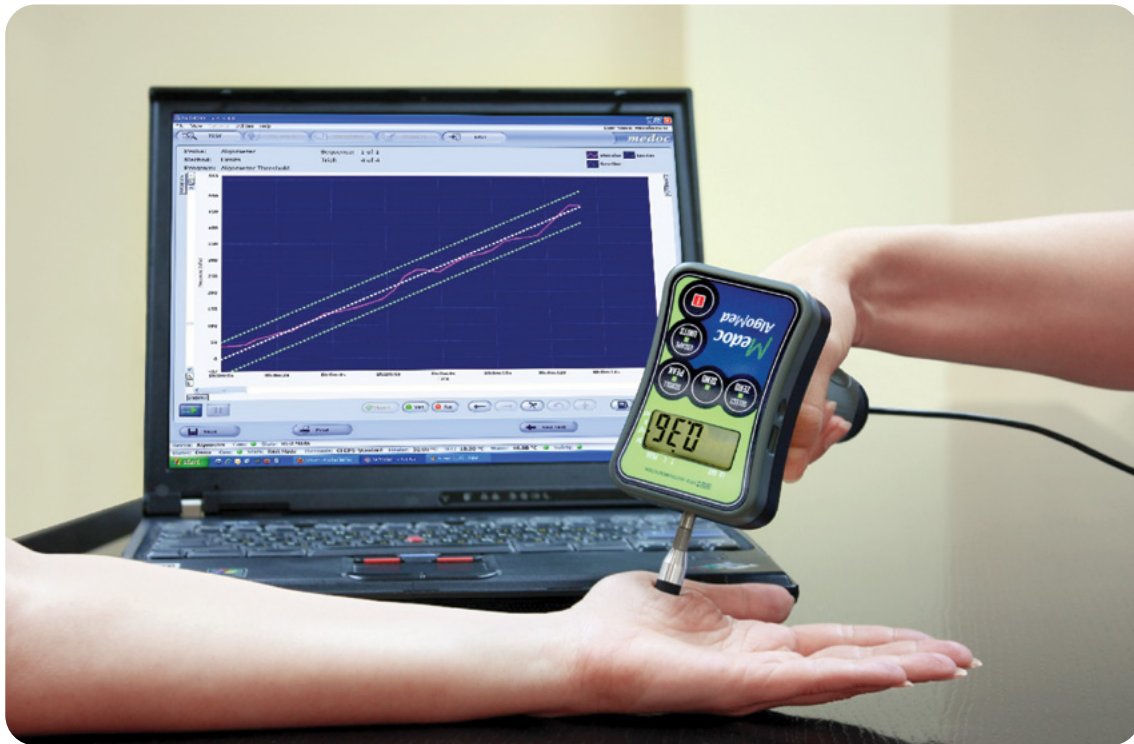




Solutions For Neurophysiology
**Quantitative Sensory
Testing (QST) Devices**
Thermal | Pressure | Vibratory





Computerized pressure AlgoMeter for assessing deep tissue pain perception

The AlgoMed – Computerized Pressure AlgoMeter is the first software-based computerized AlgoMeter to offer real-time visual & auditory feedback to control & monitor applied pressure rates to measure pressure pain threshold.

Algometers are designed to quantify and document levels of tenderness via pressure pain threshold measurement and pain sensitivity via pressure pain tolerance measurement. Pressure algometry is a reliable measure of pain in muscles, fascia, joints, tendons, ligaments and the periosteum.

- Real-time visual & auditory feedback
- Available as Stand-alone product or add-on to PATHWAY System
- Comprehensive test statistics
- Body site selection
- USB Patient Response Unit
- Customizable outcome-based color graphic reports
- Calibration verification weight
- Ramp & Hold Protocol

AlgoMed / Computerized Pressure AlgoMeter

Hardware Advantages

- Ergonomic handle for easy grip
- Rechargeable 50 hour battery
- Support for various tip sizes



Patient Response Unit

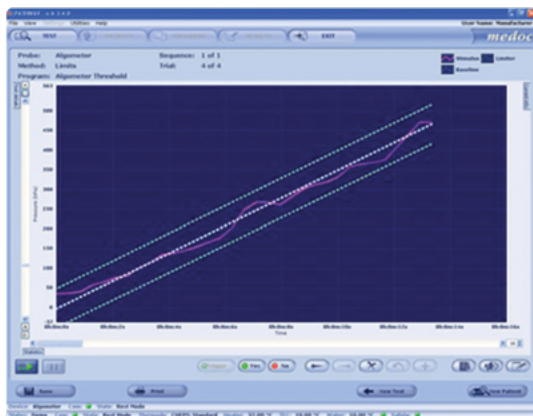


Software Capabilities

- Allows managing patients, test paradigms and results
- Pressure units support includes KPa, Kg/cm² and lbs/in²
- Patient response to pressure threshold and tolerance tests can be recorded
- Body site selection
- Test results can be mapped according to a predefined body site
- Test results can be saved, exported to Excel and printed as a customizable report

Test Management

- Graphic display of test including applied pressure change rate
- Display test statistics according to selected test methods



Medoc
advanced medical systems



TSA₂ / *Advanced Thermosensory Stimulator*



The Latest Advance in Thermal Pain Stimulation

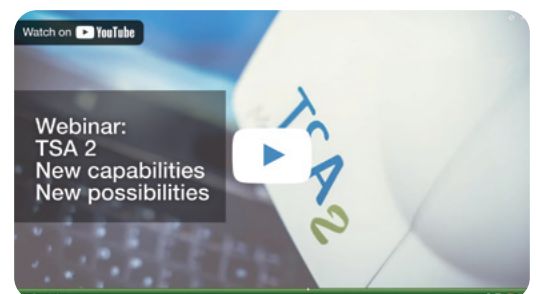


- Precise stimulation temperature control
- External Control programming capability
- Rapid thermal stimulation rates- up to 13°C/sec
- Single and Dual Thermode configurations
- Upgradeable for the fMRI imaging environment



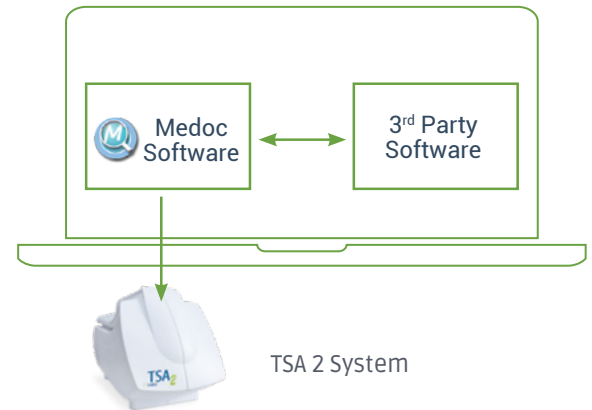
Range of thermodes is available for multiple research and clinical environments and an ever-increasing range of applications.

Learn more:



Control, Precision, and Dependability for your Research Needs

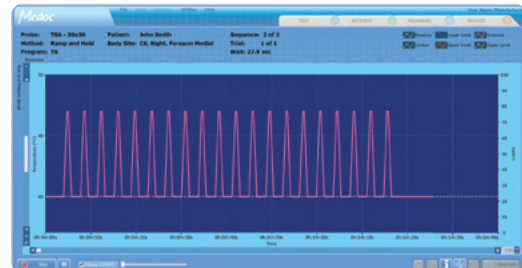
- Develop dynamic protocols using MATLAB® and similar platforms EEPROM embedded thermode for calibration monitoring
- Dual thermode model to facilitate
- CPM and other advanced protocols
- Thermode configurations for 30x30mm, 16x16mm, intra-oral, intra-vaginal and fMRI
- Fifteen years of advancements in meeting fMRI Imaging needs



Dynamic protocols delivered through external control



CPM protocol based on dual thermode configuration



Evaluation of temporal summation

Introducing CHEPS for TSA2 A cost effective solution for QST

- Enables heat and cold evoked potentials testing
- Suitable for phasic temporal summation
- Wide temperature range – from 0 to 55 °C
- Rapid stimulation rates for both heat and cold stimulation
- Precise temperature control in fast and slow rates
- Large and continuous stimulation surface
- Available in fMRI configuration
- External control and TTL capabilities



CHEPS thermode is capable of rapid heating and cooling, which enables recording of both heat and cold evoked potentials via EEG. TTL IN and OUT allow full synchronization with our range of Brain Products for EEG.



CHEPS for TSA2 is available in fMRI configuration with accelerated rates to apply precise and immediate thermal stimulation, to be used in the fMRI environment and with other neuro-imaging techniques.



CHEPS for TSA 2 allows the delivery of repeated fast painful stimuli, at the frequency required for phasic temporal summation, an important protocol in pain research.



Small-Fiber Test



Easy to use | Portable | Quantitative | Validated | Affordable

Simple, validated, thermal testing
for small peripheral nerve fibers

Q-Sense provides easy-to-use and scientifically validated measurements of warm, cool and heat pain thermal sensory thresholds - all clinically useful determinants in the evaluation of diabetic, chemotherapy-induced, idiopathic and other small-fiber neuropathies

"Sensory modalities are more frequently affected than motor modalities and impairment of small nerve fibers could be the earliest detectable sign".

Papanas, Vinik, Ziegler; Nat Rev Endocrinol, 2011



Q-Sense is a portable, easy-to-use and affordable quantitative sensory testing (QST) device for clinical, research and pharmacologic trial use.

Extended temperature range of 16°C to 50°C

- **Thermal stimulation** for basic clinical trials

- **Early Detection**

Subclinical detection reduce severe neurological complications by making an earlier and more effective treatment course possible

- **Monitor Response to Therapy**

Responsive to treatment and pharmacologic intervention

- **Validated Measure**

Acceptable by the scientific community, regulatory authorities and subjects

Q-Sense Features

- Comparison to Normative Reference Data
- Easy-to-Interpret Clinical Test Report
- Versatile Patient Database & Export Utility
- Pre-programmed Test Algorithms
- Sensitive and Reproducible



"Damage to small, unmyelinated C-fibers has the greatest impact on survival and quality of life"

Vinik et al, Exp Clin Endocrinol Diabetes, 2001

"Thermal hyperalgesia is a relevant clinical marker of early oxaliplatin neurotoxicity and may predict neuropathy"

Attal et al, PAIN, 2009

The frequency of small fiber neuropathy found with the thermal threshold test was higher than large fiber neuropathy found with Nerve Conduction ($p < 0.001$) and was found at an earlier stage"

Jimenez-Cohl et al, J. Diabetes Sci Technol, 2012

TSA_{AIR} 2 Portable Full Range QST



TSA2 Air is the latest portable air-cooled quantitative sensory testing (QST) device with the full range of thermal stimuli, from cool/warm sensation to cold/heat pain.

- All thermal modalities (Cold sensation, Cold pain, Warm sensation, Heat pain)
- Gold-standard 30x30 mm thermode
- Air cooled for easy maintenance
- Portable device
- TTL In and Out for synchronization with external devices
- External control through Matlab, Python, and other platforms

Applications

TSA
AIR 2

Standard QST protocols including Limits, Levels and TSL



Signaling abilities for intricate protocols: TTL and external control



Noxious and non-noxious heat and cold



Can be used with CoVAS USB



Fits dynamic QST:
• Conditioned pain modulation
• Temporal summation
• Offset analgesia



Learn more: Watch the video



Intuitive software interface

Comparison Chart

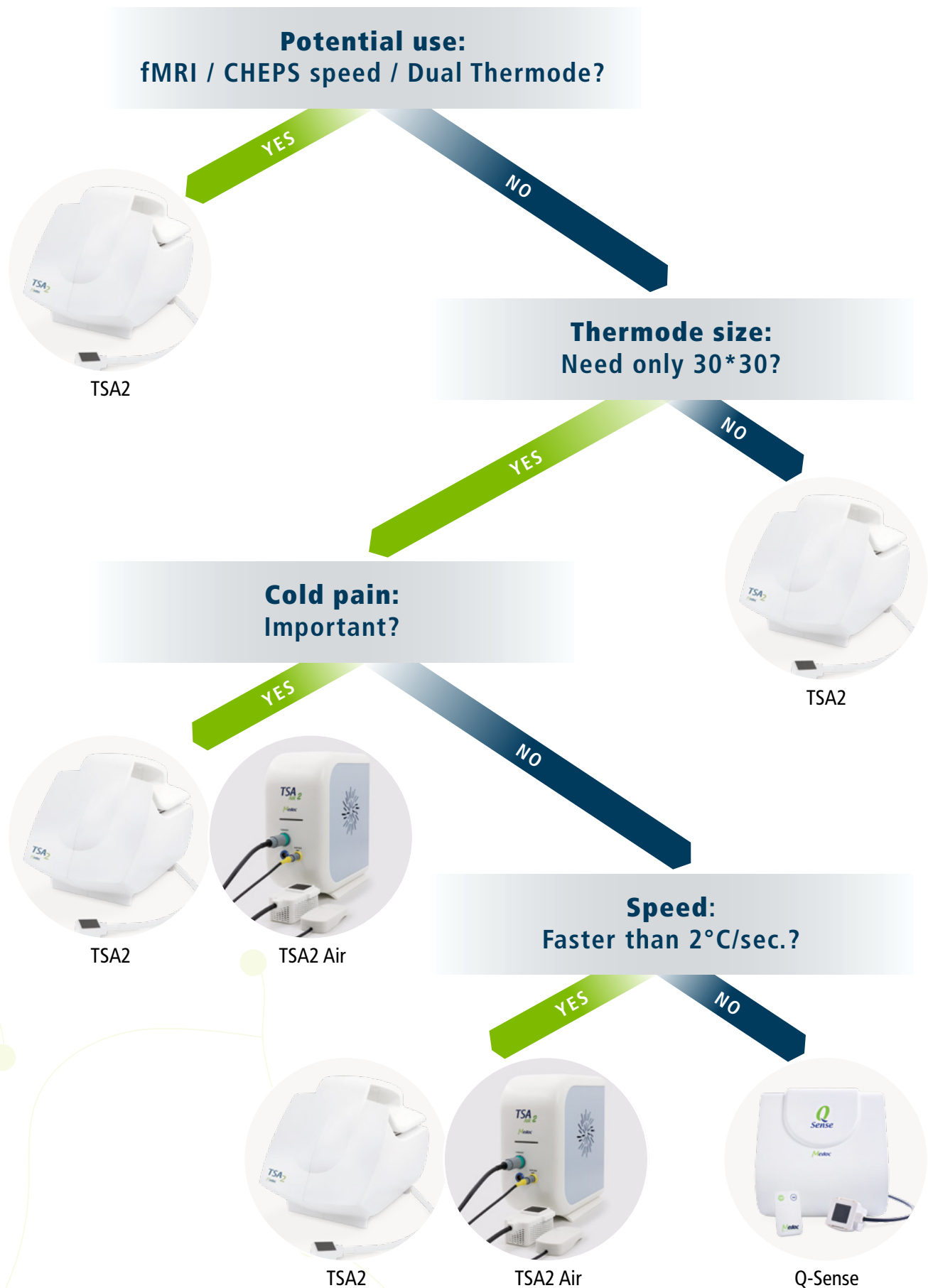
TSA₂

Q
Sense

TSA₂
AIR₂

Parameter	TSA 2	Q-Sense	TSA Air2
			
Temperature range	0 to 53 °C	16 to 50 °C	0 to 53 °C
Maximum rate (°C/Sec.)	13	2	10
Available thermodes	30*30 - 16*16 - 30*30 fMRI - 16*16 fMRI - Intraoral - CHEPS - CHEPS fMRI	30*30	30*30
CHEPS available	✓	✗	✗
Cooling			
fMRI compatible	✓	✗	✗
External control	✓	✗	✓
TTL In/Out	✓	✗	✓
Modalities	CS, WS, CP, HP, tonic heat and cold, CHEPS	CS, WS, HP, tonic heat	CS, WS, CP, HP, tonic heat and cold
Dual thermodes	✓	✗	✗

Decision Support



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