

POLYGRAPH

PHYSIOLOGY, PHARMACOLOGY, BIO-MEDICAL ENGINEERING & AYURVEDA

- ECG, EMG, EEG & EOG
- Respiration
- Blood Pressure
- Heart sound (Phonocardiograph)
- GSR (Electrodermal activity)
- Plethysmograph
- Temperature
- Force
- Volume
- HRV Analysis

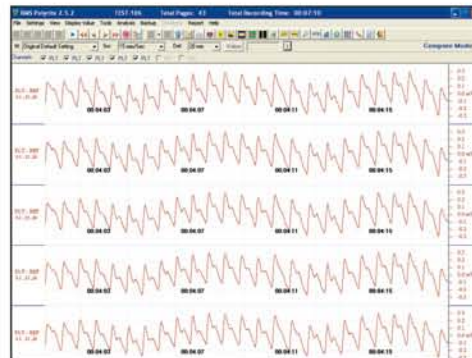
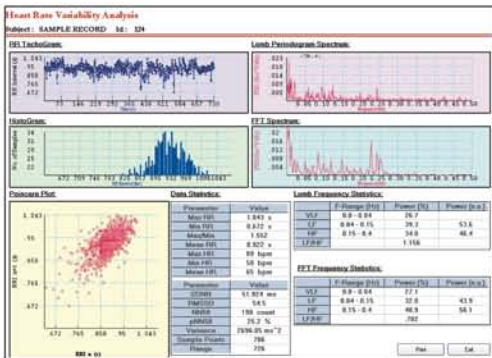
Polyrite

Advanced Features

- ◆ File compatibility with other applications like MS excel
- ◆ Heart Rate variability analysis
- ◆ Pulse analysis
- ◆ ECG analysis, Respiration analysis
- ◆ User definable experiment protocols
- ◆ Online measurement of Heart Rate, Systolic, Diastolic, Mean Blood pressure
- ◆ Data archiving on CD
- ◆ Data comparison
- ◆ User definable event marker

Applications

- ◆ ECG
- ◆ Heart Rate Variability
- ◆ PPG: Photoplethysmography
- ◆ Heart Sound
- ◆ GSR: Galvanic skin response
- ◆ Stethography
- ◆ Blood Pressure
- ◆ Temperature
- ◆ Isometric force
- ◆ Isotonic movement



Polyrite D Acquisition Box

Amplifiers

- ◆ **DC Amplifier:**
Capable to measure Force, Volume, Pressure (Invasive).
- ◆ **GSR Amplifier:**
Capable to measure the skin conductance.
- ◆ **Respiration Amplifier:**
Capable to measure chest respiration, Nasal Air Flow, Abdomen Respiration.
- ◆ **Temperature Amplifier:**
Capable to measure surface & rectal (Internal) temperature.
- ◆ **Air Flow Amplifier:**
Capable to measure Non-Invasive Blood Pressure.
- ◆ **Isotonic Amplifier:**
Capable to measure muscle movement.
- ◆ **Photoplethysmograph Amplifier:**
Capable to measure changes in infrared transmittance resulting from amount of blood flow.
- ◆ **Phonocardiogram Amplifier:**
Capable to measure heart sound, which is useful in study of cardiac valve functioning & relationship between electrical & mechanical events of cardiac cycle.
- ◆ **AC Amplifier:**
Capable to measure electrical activities of all AC parameters like ECG, EEG and EOG from humans & animals.



SOFTWARE

DESCRIPTION

Polyrite D

- Displaying & recording up to 8 channels of data (**Chart Mode**) simultaneously.
- Pulse Analysis.
- ECG Analysis.
- Heart Rate Variability Analysis.
- Respiration Analysis.
- Real-time monitoring of signals & subsequent marking of user defined actions.

CHOICE OF TRANSDUCERS



VOLUME



RESPIRATION (NASAL TYPE)



TEMPERATURE PROBE (INTERNAL)



GSR



FORCE



RESPIRATION (BELT TYPE)



TEMPERATURE (EXTERNAL)



BLOOD PRESSURE CUFF



ISOTONIC



FINGER PULSE



PHONOCARDIOGRAM



PRESSURE

Optional features

PolyEdu

- Add-on module to chart mode, providing extensive experiments on animals & humans with Stimulation Module (Single Stimuli, Two Stimuli, Fatigue etc).
- ECG Analysis.
- Respiration Analysis.
- Real-time monitoring of signals & subsequent marking of user defined actions.

Stimulator Module

This module is useful to give different levels of voltage. Module can be controlled manually and through PolyEdu software. Module provides adjustable pulse amplitude & pulse width. This module is designed, to be used as student stimulator.

POLYRITE - Technical Specifications

SPECIFICATIONS

NUMBER OF CHANNELS	4, 8
AMPLIFIER	AC/DC
A/D CONVERSION	14-bit A/D
SAMPLING RATE	256 Hz/ channel
SENSITIVITY	1 to 1500 μ V/mm
LOW PASS FILTER	0.1, 0.3, 0.5, 1, 3, 5, 7 Hz
HIGH PASS FILTER	0.1, 0.3, 0.5, 2, 10, 15, 35, 70, 99Hz.
SWEEP SPEED	0.058 - 100mm/sec.
NOTCH FILTER	50 HZ
INPUT IMPEDENCE	> 10 Mohm
CMRR	> 80-85 db

MINIMUM COMPUTER CONFIGURATION

OS: Windows XP Pro/ Windows 7 Professional 32bit, Processor: Core2Duo or higher, RAM: 2GB or higher, 40 GB harddisk or higher, CD/DVD Optical Drive, Screen Resolution 1024x768 or higher

HARDWARE & ACCESSORIES

EKG disposable electrodes	1pkt. (50 nos.)
ECG Lead (3 lead Patient cable)	1 nos.
EEG electrode	6 nos.
3 Pin Junction Box	1 nos.
ECG jelly	1 bottle
EEG Kondukt Paste	1 jar.
Fuse	2 nos.
Earthing cord	1 nos.
USB Cable	1 nos.
Power Cord	1 nos.
Spike protector	1 nos.
Micropore Tape	1 nos.
Software CD	1 nos.
Instruction manual	1 nos.

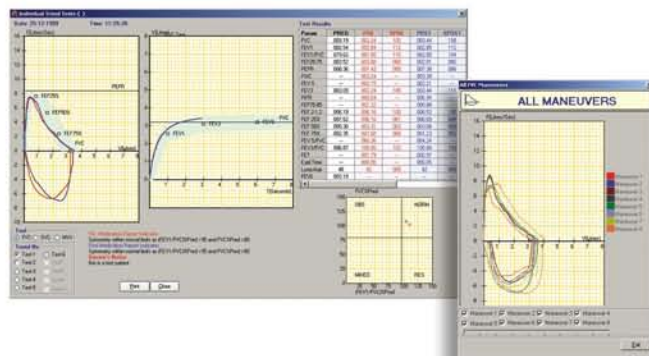
POLYRITE AD: OPTIONAL UPGRADE

Upgrade Polyrite D to Polyrite AD by adding:

● PULMONARY FUNCTION MODULE

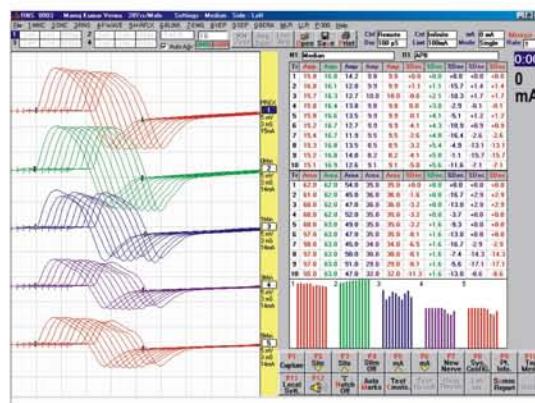


The force expiratory flow is a measure of the average flow over specified portions of the spirometry curve. The spirometry maneuver requires the subject to inhale to total lung capacity and then exhale forcefully to residual volume.



● NCV/ EVOKED POTENTIAL MODULE

- Nerve conduction studies
- Auditory evoked response
- Visual evoked response
- Somatosensory evoked response
- P300



Since R&D is a continuous process, features & specifications are subject to change without notice.

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