

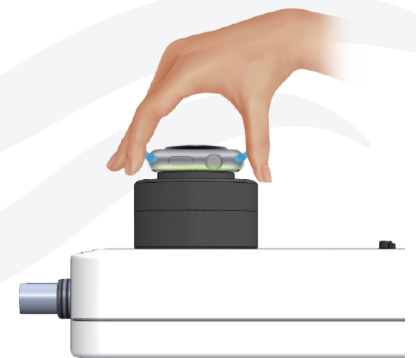


HRS200

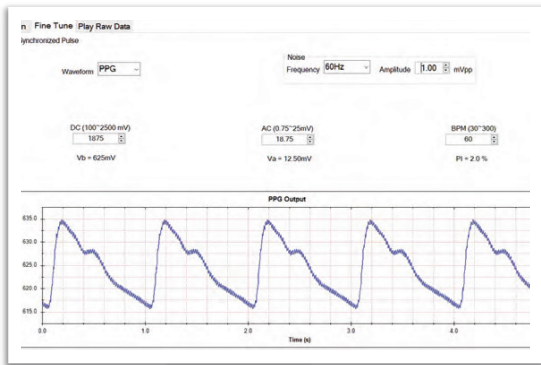
Advanced PPG Heart Rate Tester

Verify and Validate Heart Rate Measurement Function of Your Wearable Device Effectively

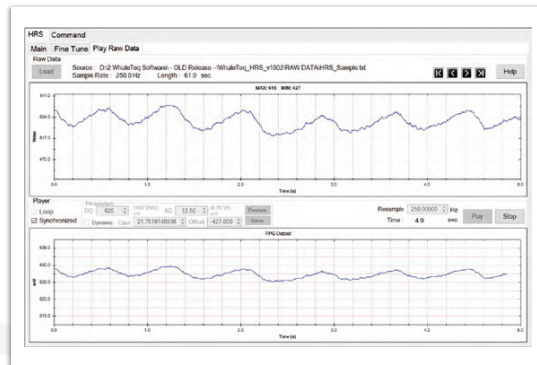
- Built-in LED outputs adjustable PPG waveform signals as the reflected optical signal of different human skin tones
- Built-in photodiode can detect and display DUT LED behavior and brightness
- Adjustable parameters includes heart rate (BPM), reflected skin brightness (DC), arterial blood volume change (AC) and Perfusion Index ($(AC/DC) \times 100\%$)
- Raw data playback function assists in validating heart rate monitoring system and improving algorithm effectively
- Command mode function allows to conduct test quickly and repeatedly
- Noise simulation with adjustable amplitude parameter
- Playback capability of 40 clinical-recorded PPG databases. 25 PPG records are with arrhythmia symptoms as AF, APC, VPC and 1st AV block
- Software Development Kit (SDK) assists users in developing customized or automated test software with less efforts



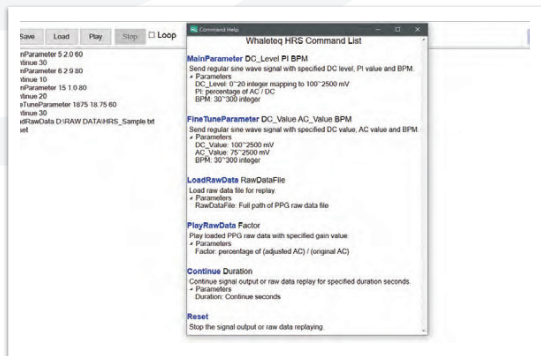
The Effective Tool for Validation and Verification



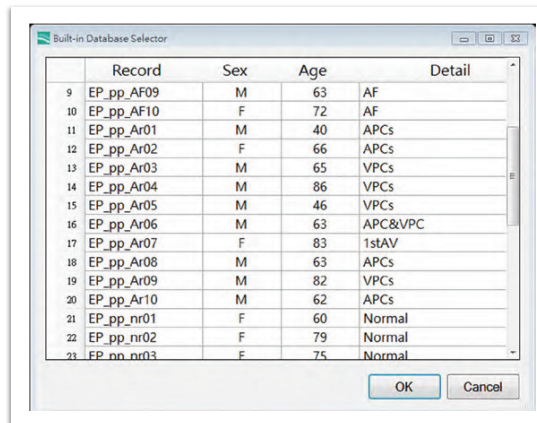
Various types of waveforms with noise simulation



Raw data playback function allows to play recorded or programmed waveform repeatedly



Easy to use commands to create customized test sequences



Built-in 40 clinical database records (optional)

Specifications

Parameters	Supported range / types	Accuracy
BPM ⁽¹⁾	30 ~ 300BPM (PC software); 30 ~ 240BPM (Standalone usage)	±1BPM
DC in PC software HRS mode	1 ~ 20 Level	N/A
DC in PC software Fine Tune mode	100mV ~ 2500mV	±5mV
PI in PC software HRS mode	0.1% ~ 20% (AC / DC, differs with DC level)	N/A
AC in PC software Fine Tune mode	0.75mV ~ 25mV (BNC measurement is magnified 100 times)	N/A
Lumen ⁽²⁾	50 ~ 800Lux (5mm from diffusion film)	±3%
Light Wavelength	525nm	±10nm
PD Sampling Rate ⁽³⁾	<8 ksp/s (Normal Mode of software); 30 ksp/s (High Resolution Mode of software)	±5μS
S/N Ratio	>51dB (with USB isolator)	N/A
Power - USB	USB Type-B Plug connector, DC 5V IN	N/A
Power - Battery	Type AA battery x 3	N/A
Size (L x W x H)	6.12cm x 13.5cm x 7.6cm	N/A
Temperature	10°C ~ 40°C	N/A

Note:

(1) Heart rate test range is different in standalone mode and PC mode. In PC software mode, heart rate range is from 30 to 300BPM; in standalone mode, heart rate value can be set to 30, 60, 70, 80, 90, 120, 150, 180, 210, 240BPM, plus users can manually select other 3 values from 30 to 300BPM as preset parameters.

(2) Lumen accuracy would be ±10Lux when the light source is lower than 400Lux.

(3) We suggest users to observe PD's analog signals via connecting HRS200's BNC port to an oscilloscope. Under High Resolution Mode, users need to check "LED Off" option to switch off HRS200's LED and no optical signals will be sent then.

