digital
Diagnostic Center

HRV

1/2/3/12 Channel

Bluetooth

TWA

Holter-ECG

GDT

Event recorder

Template

CARDIOSPY PC Holter ECG

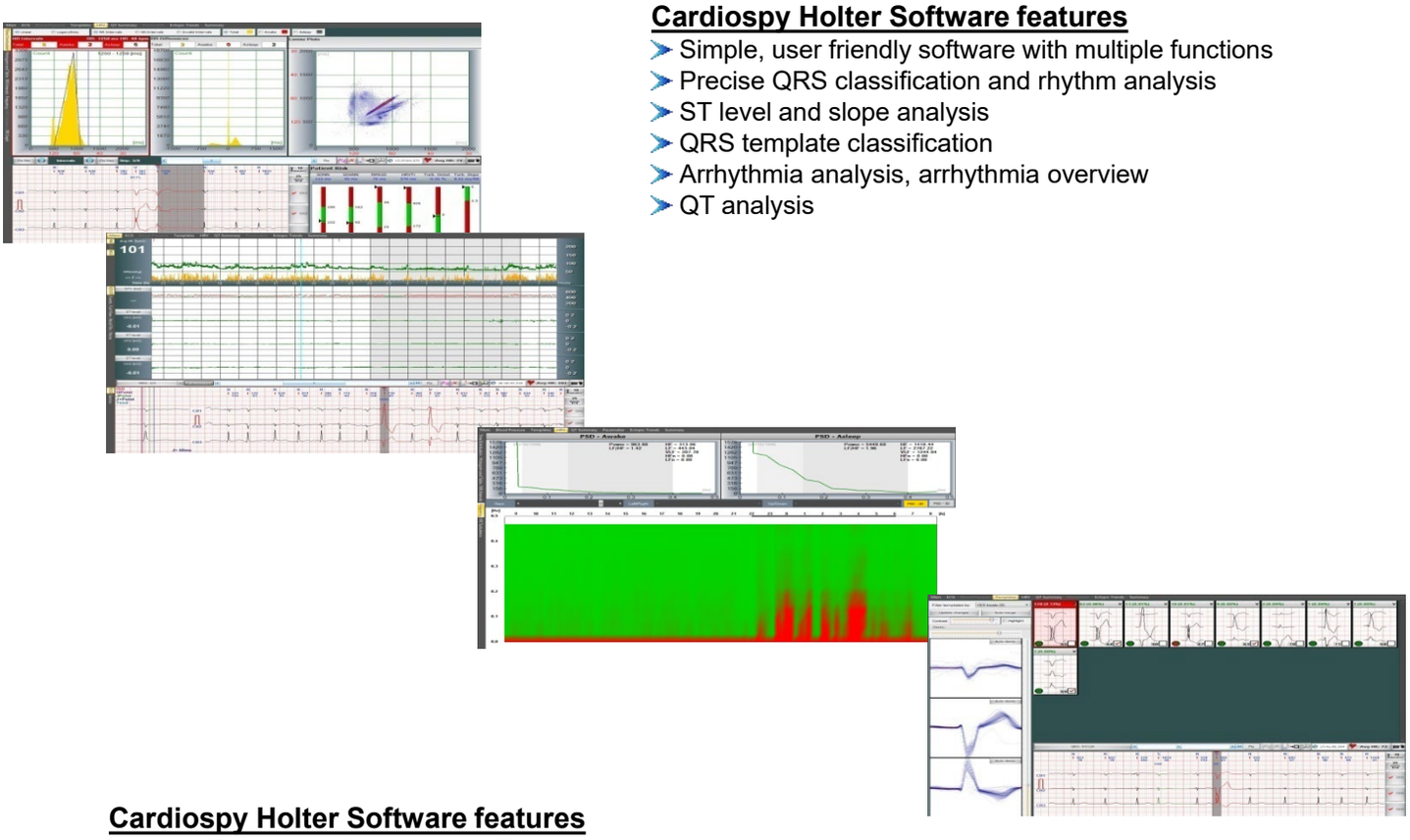
MESA

The EC-CARDIOSPY EC-1H, EC-2H, EC-3H, EC-12H devices records 1, 2, 3 independent or 12 ECG channels with high precision.
The analysis program performs automatic QRS detection, classification, and rhythm analysis that can be interactively modified by the user.
The analyzing program performs time and frequency based HRV, pacemaker, QT, AF and ST analysis of the 24 hours recordings.

Holter recorder features

- 1, 2, 3 independent channels or 12-CH ECG
- Compact size, light weight, convenient to wear
- Wireless (Bluetooth) communication with PC
- Integrated 3D accelerometer for motion detection
- Pacemaker detection
- Patient event button
- Low power consumption
- Operates with 1 pc of 1.2 V AAA NiMH accumulator or 1 pc 1.5 V AAA alkaline battery





Cardiospy Holter Software features

- Simple, user friendly software with multiple functions
- Precise QRS classification and rhythm analysis
- ST level and slope analysis
- QRS template classification
- Arrhythmia analysis, arrhythmia overview
- QT analysis

Cardiospy Holter Software features

- Heart Rate Variability analysis (Time and frequency domain)
- Heart Rate Turbulence analysis
- Pacemaker analysis
- Atrial Fibrillation analysis
- Time adjustment
- Various Holter reports
- Sleep Apnoea Screening
- GDT Interface

The transparency and the interpretation of the results are visualized by the color coded graphs and tables. The decision criteria are changeable, the classified beats and event segments can be redefined.

The quick and precise evaluation of the ECG recordings is done by a evaluated analysis algorithms. The language setup enables to select different language versions. The ability of generating simple summarized reports and all the other features guarantee simple use of the Software.

	EC-1H	EC-2H	EC-3H	EC-12H
System for operation in telemedicine				
▪ Start new record with view on display	Yes	Yes	Yes	Yes
▪ ECG file visualization after data transfer	Yes	Yes	Yes	Yes
▪ Send ECG and receive evaluated record	Yes	Yes	Yes	Yes
▪ Visualization of evaluated record on PC	Yes	Yes	Yes	Yes
▪ Archival / Printing	Yes	Yes	Yes	Yes
System for Holter ECG evaluation with analysis (In addition to the features of the system for operation in telemedicine)				
▪ Make new record and read record to PC	Yes	Yes	Yes	Yes
▪ ECG Filtering	Yes	Yes	Yes	Yes
▪ QRS Detection	Yes	Yes	Yes	Yes
▪ HR and ST Graphs	Yes	Yes	Yes	Yes
▪ Arrhythmia Analysis (N,S,V)	Yes	Yes	Yes	Yes
▪ Full ECG Visualization	Yes	Yes	Yes	Yes
▪ Event Viewer	Yes	Yes	Yes	Yes
▪ Colour-coded event marking	Yes	Yes	Yes	Yes
▪ Detailed ECG Visualization	Yes	Yes	Yes	Yes
▪ Adjustable parameters for analysis	Yes	Yes	Yes	Yes
▪ Report Edition	Yes	Yes	Yes	Yes
▪ Interfaces – GDT, DICOM, HL-7	Yes	Yes	Yes	Yes
▪ Several editing Option	Yes	Yes	Yes	Yes
Additional functions of the various Holter ECG systems (integrated in the analysis software)				
▪ Motion Detection	Yes	Yes	Yes	Yes
▪ Atrial Flutter Analyis	Yes	Yes	Yes	Yes
▪ P-wave detection	Yes	Yes	Yes	Yes
▪ AV block I-II-III Analysis	Yes	Yes	Yes	Yes
▪ QRS Template Classification	*	Yes	Yes	Yes
▪ QT Analysis	*	Yes	Yes	Yes
▪ HRV Time Domain	*	Yes	Yes	Yes
▪ HRV Frequency Domain	*	*	*Yes	Yes
▪ Pacemaker Analysis	*	*	*Yes	Yes
▪ Atrial Fibrillation Analysis	*	*	Yes	Yes
▪ T Alternans	*	*	*	Yes
▪ HR Turbulence Analysis	*	*	*	Yes
▪ Vector cardiography VCG	*	*	*	Yes
▪ Sleep Apnoea Screening	No	No	Yes	Yes

* to analyze manually

SPECIFICATION TABLE OF HOLTER RECORDERS :

	EC-1H	EC-2H	EC-3H	EC-12H
▪ Bipolar ECG Channels	1	1, 2	1, 2, 3	1, 2, 3
▪ Other ECG Channels	-	-	PM, NEHB	PM, 12 CH, Frank, NEHB
▪ Number of snap type Leads	3	3, 5	3, 4, 5, 7	3, 4, 5, 7, 10
▪ Respiratory signal detection	optional	optional	optional	Activation by use of 10-lead ECG cable, ECG channel V4 will be interpolated from V3 and V5
▪ Recording Period (hours)	24, 48, 72 h, 1 week	24, 48, 72 h, 1 week	24, 48, 72 h, 1 week	24, 48, 72 h
▪ The accumulator can be changed during recording	Yes	Yes	Yes	Yes
▪ Dynamic Bandwidth (min)	±20 mV	±20 mV	±20 mV	±20 mV
▪ DC Offset Range (min)	±800 mV	±800 mV	±800 mV	±800 mV
▪ Frequency Response (max)	0.05 Hz … 150 Hz	0.05 Hz … 150 Hz	0.05 Hz … 150 Hz	0.05 Hz … 150 Hz
▪ Sampling Rate	125 Hz … 1000 Hz	125 Hz … 1000 Hz	125 Hz … 1000 Hz	125 Hz … 1000 Hz
▪ Recording Rate	125 Hz … 1000 Hz	125 Hz … 1000 Hz	125 Hz … 1000 Hz	125 Hz … 1000 Hz
▪ Common Mode Rejection Ratio (min)	120 dB	120 dB	120 dB	120 dB
▪ A/D Resolution	24 bit	24 bit	24 bit	24 bit
▪ Input impedance (min)	100 MΩ	100 MΩ	100 MΩ	100 MΩ
▪ Power Source	1x1.2 V AAA NiMH accumulator (or 1x1.5 V AAA alkaline battery)	1x1.2 V AAA NiMH accumulator (or 1x1.5 V AAA alkaline battery)	1x1.2 V AAA NiMH accumulator (or 1x1.5 V AAA alkaline battery)	1x1.2 V AAA NiMH accumulator (or 1x1.5 V AAA alkaline battery)
▪ Battery Life (min)	24 hours	24 hours	24 hours	24 hours
▪ Storage Card Capacity	2 GB (µSD)	2 GB (µSD)	2 GB (µSD)	2 GB (µSD)
▪ Internal Voltage (max)	3,3V	3,3V	3,3V	3,3V
▪ LCD resolution	160x100 pixels (Grey Scale)	160x100 pixels (Grey Scale)	160x100 pixels (Grey Scale)	160x100 pixels (Grey Scale)
▪ Movement detection-3D	Yes	Yes	Yes	Yes
▪ Monitoring ECG	on LCD and on PC via Bluetooth (both)	on LCD and on PC via Bluetooth (both)	on LCD and on PC via Bluetooth (both)	on LCD and on PC via Bluetooth (both)
▪ Reading Record	via USB 2.0	via USB 2.0	via USB 2.0	via USB 2.0
▪ International Protection Rating Against Water	IPX4	IPX4	IPX4	IPX4
▪ Width x Height (without cable) x Length	53 x 67,5 x 18,5 mm	53 x 67,5 x 18,5 mm	53 x 67,5 x 18,5 mm	53 x 67,5 x 18,5 mm
▪ Weight	~ 50 g	~ 50 g	~ 50 g	~ 50 g

PC requirements:

Operating system	WINDOWS™ 11		
CPU	Intel Core I / Ultra	HDD	min. 500 GB, recom. 1TB
RAM	4 GB RAM, recom. 8 GB RAM	Interfaces	USB-Port

Our products are up from development to manufacturing subject to a certified Quality Management System in accordance to the EN ISO 13485:2016 directives. All products are CE marked.

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