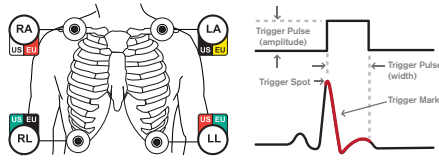


ECG Trigger Output*

Trigger Delay	< 8ms (typ.)*
R-to-R Accuracy	150µs dither (typ.)*
Pulse Width	10 ms (standard)
Pulse Amplitude	RS-422: +3.3V Diff (RS-232: +5V TTL)



*Input signal test conditions: QRS @ 60ms width, 1mV amplitude, 60bpm
*Delay dependant on QRS width

ECG

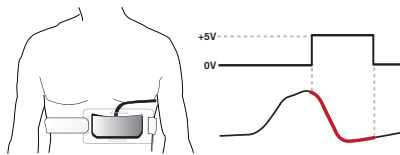
Configuration	4-Lead
Trigger Lead Selection	I, II, III or Auto
Patient Isolation	>4 kV rms, 5.5 kV peak (Class I)
Patient Leakage Current	<10 µA normally
Patient Protection	2 MOPPs
Frequency Response	0.5 – 40Hz Filtered
Notch Filter	50 Hz & 60 Hz
CMRR	≥ 90dB @ 60Hz
Tall T-wave Rejection	≤ 1.2 * R-wave
Pacer Rejection	0.1 to 2ms pulse width @ ±2 to ±700 mV
Defibrillator Protection	360 J discharge; < 5 sec recovery time (Type CF)
PVC Rejection	Type 1, 2, 3, and 4

Cardiotach

Adult	15-260 bpm
Accuracy	±1% ±1 bpm
Resolution	1 bpm
Sensitivity	300 µV p – 5mVp
HR Averaging	Selectable 0-8sec

Respiratory Trigger Output CTM-502 Model

Trigger Phase	Inspiration or expiration
Trigger Point	20-80% peak-to-valley (67% default)
Pulse Width	10 ms (standard)
Pulse Amplitude	RS-422: +3.3V Diff (RS-232: +5V TTL)



Module Interface

Power/Data Port	DB-15 male connector; outputs (ECG & RESP), bi-directional serial data communication.
DC power input, trigger	
Functional GND	M4 screw post

Remote ECG/RESP Interface

ECG Interface Cable	Shielded cable, 20"L, captive, Teflon jacket
Remote ECG Input	Panel mount AAMI 6-pin connector; Accepts Ivy ECG trunk cable & leads
RESP Interface Hose	PVC hose, ¼" dia x 20"L
Remote RESP input	Panel mount Colder fitting; Accepts Ivy pneumatic pillow

Status Indicator LEDs


Power LED	Illuminated ON
Communication LED	Comm port enabled
ECG Trigger LED	Synchronized to ECG trigger output pulse

Data/Communication

Comm Interface	Asynchronous RS-422 (RS-232 special order)
Data Rate	115,200bps
Command/Control	Electrode Impedance ECG Lead Select Leads-off Detection Heart Rate Averaging Pacer Detection ECG Gain Adjust RESP Gain Adjust RESP Trigger Phase RESP Trigger Point Sample/Test Waveform
ECG Waveform	14 bit @ 1KHz output
RESP Waveform	14 bit @ 250Hz output

Mechanical

Size (LxWxH) approx.	6.9 x 5.25 x 1.5 inches (17.5 x 13.3 x 3.8 cm)
Weight	13.5 oz (383 gm)
Case Material	Polycarbonate
Mounting	(2) points via M4 screw

 For additional specifications, refer to Operator Manual



Electrical

Input Voltage	12-24 Vdc (source power must be medical grade isolated PSU)
Current	90mA @ 24VDC (typ)
Power Consumption	2.5W (max.)

Environmental

Water Resistance	IPX1 (protection against vertically dripping water)
------------------	---

Operating

Temperature Range	15°C to 50°C
Relative Humidity	20% to 90% non-condensing
Altitude	-150m to +2400m

Transportation & Storage

Temperature Range	-20°C to +60°C
Relative Humidity	10% to 95% non-condensing
Altitude	-150m to +52000m

Globalization

Instructions for Use English

Compliance & Certifications

- IEC 60601-1-2:2014
- ANSI/AAMI ES60601-1: A1:2012, C1:2009/(R)2012 and A2:2010/(R)2012
- CSA CAN/CSA-C22.2 NO. 60601-1:2014
- IEC 60601-1 Edition 3.1 (2012) / EN 60601-1:2006 + A1:2013 + A12:2014
- MDD 93/42/EEC
- CE
- ISO 13485:2016
- FDA/CGMP
- MDSAP

Accessories (Sold separately)

Electrodes	Low impedance; 10% KCl wet gel sponge type
ECG Leads	Metallic or carbon (radiotranslucent) with pinch clips; AHA or IEC color code; 24", 30", or 36"
ECG Trunk Cable	40", 5' or 10' cable with 6-pin AAMI mating connector; Universal AHA/IEC color code

(Specifications subject to change without notice)

Manufactured by:



Ivy Biomedical Systems, Inc.
11 Business Park Drive
Branford, Connecticut 06405 USA
Toll Free 800 247 4614
Main 203 481 4183
Fax 203 481 8734
www.ivybiomedical.com

Distributed by: