GE Healthcare

MAC 5500

ECG Diagnosis system

The MAC 5500 system offers the sophistication required for advanced ECG applications, while its ease of use extends this level of performance to the broadest range of users possible. And, it's part of the complete GE suite of networked, non-invasive testing solutions designed to maximize efficiency and productivity in hospitals, clinics, office based practices and research institutes.

Instrument Type:	
Microprocessor augmented automatic electrocardiograph; 14-leadwire acquisition with programmable lead configuration	
Processing	
ECG Interpretation:	Marquette 12SL ECG Analysis Program for Adults and Pediatrics
Computerized Measurements:	15-lead analysis includes measurements of user-selectable additional 3 leads
Optional:	Hi-Res Late Potential Analysis and P-Wave Signal – Averaged ECG
Additional ECG Function:	Vectorcardiography
ECG Analysis Frequency:	500 samples/second (sps)
ECG Storage:	200 ECGs in internal memory
External Archiving:	Secure Digital card
Digital Sampling Rate:	4,000 samples/second/channel
Pre-Acquisition:	Provides 10 seconds of instantaneous ECG acquisition
Dynamic Range:	AC Differential ± 5mV, DC offset ±320 mV
Resolution:	4.88 µV/LSB @ 250 sps, 4.88 µV/LSB @ 500 sps
Frequency Response:	–3 dB @ 0.01 to 150 Hz
Common Mode Rejection:	>140 dB (123 dB with AC filter disabled)
Input Impedance:	>10MΩ @ 10 Hz, defibrillator protected
Patient Leakage:	<10 µA
Pace Detect:	Orthogonal LA, LL, and V6; 750 µV @ 50 µs
Special Acquisition Functions:	Disconnected lead detection, electrode impedance, excessive, AC noise, baseline wander and muscle tremor messages
Heart Rate Meter:	30 to 300 BPM ±10% or 5 BPM, whichever is greater. Heart rates outside this range will not be displayed.
Communications	
MUSE Cardiology Information System compatible	
Infra-Red	
Serial Cable	
Internal modem/fax	
Optional:	Remote Retrieval (Remote Query),
	Wireless (requires additional MUSE software and installation):
	- MobileLink (using WEP security protocols and, in some countries, Cisco LEAP authentication/security)

Communications cont.	
LAN (requires additional MUSE communications software and installation)	
	- Communication with MUSE over LAN thru internal RJ-45 jack
Display	
Display Type:	10.4 in (264 mm) diagonal graphics backlit AM LCD (color optional)
Display Resolution:	640 x 480 pixels with waveform enhancement
Display Data:	Heart rate, patient name, ID, clock, waveforms, lead labels, speed, gain and filter settings, warning messages, prompts, and help messages
Writer	
Writer Technology:	Thermal dot array
Writer Speeds:	5, 12.5, 25, & 50 mm/s (same as displayed)
Number of Traces:	3, 6, 12, or 15, user selectable (same as displayed)
Writer Sensitivity/Gain:	2.5, 5, 10, 20, 10/5 (split calibration) mm/mV (same as displayed)
Writer Speed Accuracy:	±2%
Writer Amplitude Accuracy:	±5%
Writer Resolution:	Horizontal 1000 dpi @ 25 mm/s, 200 dpi vertical
Paper Type:	Thermal, Z-fold, perforated, fan fold, 300 sheets/pack
Paper Size:	A Size: 214.63 mm x 280 mm A4 Size: 210 mm x 297.5 mm
Keyboard	
Type:	Sealed elastomer with soft function keys, alphanumeric keys, writer controls, and TrimPad cursor controls
Electrical	
Power Supply:	AC or battery operation
Voltage:	100 to 240 VAC +10, –15%
Current:	0.5A @ 115 VAC, 0.3A @ 240 VAC, typical
Frequency:	50 to 60 Hz ±10%
Battery Type:	User replaceable, 18V @ 3.5 AH ±10% recharge-able NiMH
Battery Capacity:	100 single page reports, (typical) or 6 hours continuous display (without printing)
Battery Charge Time:	Approximately 4.5 hours from total discharge (with display off)

Vectorcardiography	
Report Formats:	Vector loops of component vectors (P, QRS, ST-T)
Sensitivity:	20, 40, 80, or 160 mm/mV
Time Resolution:	2 ms
Hi-Res Late Potential Analysis and P-Wave Signal–Averaged ECG	
Frequency Response/Input:	–3 dB @ 0.01 and 250 Hz
Frequency Response/	Upper Limit: 250 Hz
Output:	Lower Limit: 0.01, 25, 40, or 80 Hz
Sensitivities:	
Raw Data Template:	20 mm/mV
Average Beat:	20 mm/mV and 50 mm/mV
Filtered Signals and Vector Magnitude:	1 mm/µV
Analysis Sampling Rate:	1,000 samples/second/channel
Digital Sampling Rate:	4,000 samples/second/channel
High/Low Pass Filters:	Special filter using Fast Fourier Transform (FFT)
ADC Resolution:	1.22 µV/LSB
Analysis Resolution:	0.1525 µV/LSB
Physical Specifications	
Height:	9.4 cm (3.7 in)* with display closed
Width:	38.1 cm (15 in)*
Depth:	35.1 cm (13.8 in)*
Weight:	Approximately 6.8 kg (15 lbs)* including battery without paper
Environmental Specifications	
Temperature:	
Operating:	10° to 40° C (50°to 104° F)
Transport/Storage:	–40° to 70° C (–40°to 158° F)
Humidity:	
Operating:	20% to 95% RH non-condensing
Transport/Storage:	15% to 95% RH non-condensing
Pressure:	
Operating:	700 to 1060 hPA
Transport/Storage:	500 to 1060 hPA
Trolley Specifications	
Dimensions:	
Height:	99 cm (39 in)
Width:	54 cm (21 in)
Depth:	28 in (72 cm)
Height with acquisition module holder	134 cm (52.5 in)
Weight:	25 kg (55 lbs.)
Magnetic Card Reader Specifications	
Character Set	ANSI/ISO ALPHA alphanumeric characters and ANSI/ISO BCD (subset of ASCII (ISO 646 IRV:1991))

Dimensions:	
Height:	28 mm (1.17 in)
Length:	100 mm (3.94 in)
Width:	34 mm (1.34 in)
Temperature Range Operating:	10° C to 40° C (50° F to 104° F)
Humidity:	10% to 90% humidity
Agency Conformance:	Complies with FCC Class A.
CE:	The system has been tested to and conforms with the provisions within 89/336/EEC, Electromagnetic Compatibility directive (EMC)
Barcode Scanner Specifications	
Symbologies	Code 39 (extended), PDF-417, Code 128
Dimensions:	
Height	15.2 cm (6.0 inches)
Length	13.5 cm (5.3 inches)
Width	7.9 cm (3.1 inches)
Light Source	630 nm visible red LED
Temperature Ranges:	
Operating	0° C to 50° C (32° F to +122° F)
Storage	-20° C to +60° C (-4° F to +140° F)
Humidity	0 to 95% non-condensing
Mechanical	Operational after 25 drops from 1.53m (5 feet) to concrete
Vibration	Withstands 5G peak from 20 to 300 Hz
ESD Sensitivity	15 kV to any external surface
Agency Compliance	FCC Class B, EMC Class B, CE Low Voltage Directive, EN60825-1, IEC60825-1, LED Safety: Class 1, UL, cUL, TÜV Certified to N60950, C-Tic

Certification

UL classification, CSA classification, CE marking, CB certificate

Warranty

Standard warranty is one year

Ordering Information

Available in: Simplified Chinese, Czech, Danish, Dutch, English, French, German, Hungarian, Italian, Japanese, Norwegian, Polish, Spanish and Swedish.

Visit gehealthcare.com or contact your local GE Healthcare representative.
Accessories available from www.gehealthcare.com

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GE imagination at work

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