F2, F3

Fetal Monitor

Version 1.0

Data Sheet

Physical Specifications	Dimensions(D×W×H)	350mm×300mm×104mm
	Weight	3.5kg approx.
	Display	5.6 inch 112.9mm (W) x 84.7mm (H) 640×480 Pixel Normally White, Transmissive
	Signal Interface	RS232 Interface (DB9) RJ45 Interface
	Ultrasound Transducer	8-Crystal Transducer Cable Length 2.5m Weight 190g Dimension 88mm × 35mm Color Pink
	TOCO Transducer	Cable Length 2.5m Weight 180g Dimension 88mm × 35mm
	Remote Event Marker	Cable Length 2.5m Weight 56g
Power Supply	Mains Supply	Operating Voltage 100V ~ 240V~ Operating Frequency 50Hz/60Hz Input Power 1.0 ~ 0.5A
	Rechargeable Li-ion Battery	Nominal Voltage 14.8V Nominal Capacity 5000mAh Continuous Working Time >7 hours Necessary Charge Time <6 hours Cycle Life >300 times
Recording	Recorder	Thermal Dot-matrix Recorder
	Paper	Z-fold, Thermosensitive (Compatible with GE and Philips recorder papers)
	Paper Width	152mm/150mm
	Effective Printing Width	110mm (American Standard) 120mm (International Standard)
	FHR Printout Width	70mm (American Standard) 80mm (International Standard)
	FHR Scaling	30bpm/cm (American Standard) 20bpm/cm (International Standard)
	TOCO Printout Width	40mm
	TOCO Scaling	25%/cm
	Printing Speed	Standard Speed(Real-Time Traces) 1/2/3 cm/min Fast Print Speed(Stored Traces) Up to 15mm/sec
	Accuracy of Data	± 5% (X-Axis) ± 1% (Y-Axis)
	Resolution	8 dots/mm
	Record Information	FHR1 trace/mark, FHR2 trace/mark, TOCO trace, AFM trace/black mark, fetal movement mark, event mark, fetal stimulation mark,

		AUTO-zero symbol, date, time, printing speed, ID, name, FHR2 Offset etc.
FHR	Operating Mode	PW with Autocorrelation
	Working Frequency	(1.0±10%)MHz
	Pulse Repetition Rate	2KHz
	Pulse Duration	92μs
	FHR Measurement Range	50bpm ~ 240bpm
	Resolution	1bpm
	Accuracy	±2bpm
	Alarm	FHR Alarm
	Ultrasound Output	$I_{sppa.3}$<190W/cm^2 $I_{spta.3}$<94mW/cm^2 I_{sata}<20mW/cm^2 TI<1.0 MI<1.0
	Temperature Rise	When applied to the patient, the ultrasound transducer may warm slightly (less than 2°C (3.6°F) above ambient temperature). When NOT applied, at the ambient temperature of 40°C (104°F), the ultrasound transducer may reach the highest temperature of 43°C (109.4°F).
	Effective Radiating Area	(628 ± 15%) mm^2
	Dielectric Strength	>4000Vrms
	ISATA@ the Transducer Face	1.865mW/cm^2
	Entrance Beam	6.08cm^2
	Measurement Uncertainties for ISATA	+26.6%
	Measurement Uncertainties for Ultrasonic Power	+26.6%
	Other Info.	p- <1MPa I_{ob} <10mW/cm^2 I_{spta} <100mW/cm^2 Max Output Power <15mW
TOCO	TOCO Range	0 ~ 100
	Non-linear Error	±10%
	Resolution	1
	Baseline Drift due to Temperature Changes	1 unit/min/°C (free air) 5 units/min/°C (underwater)
	Zero Mode	Automatic (TOCO value becomes zero or below lasting for 30 seconds)/Manual
	Dielectric Strength	>4000Vrms
DECG	DFHR Measurement Range	30bpm ~ 240bpm
	Resolution	1bpm

	Accuracy	±1bpm
	Alarm	DFHR Alarm
	Technique	Peak-peak detection technique
	Input Impedance	>10MΩ (Differential, DC50/60Hz)
	Input Impedance	>20MΩ (Common Mode)
	CMRR	>110dB
	Noise	<4μVp
	Skin Voltage Tolerance	±500mV
	Fetal Input Voltage Current	20μVp ~ 3mVp
IUP	Pressure Range	0mmHg ~ 100mmHg (0.0kP ~ 13.3 kPa)
	Non-linear Error	±3mmHg (±0.4kPa)
	Resolution	1mmHg (0.1kPa)
	Sensitivity	5μV/V/mmHg
	Zero Mode	Manual
MFM & AFM	Display Range	0 ~ 999
	FM Mode	Automatic/Manual
	AFM Mode	Trace (default)/Black Mark
	AMF Technique	Pulsed Doppler Ultrasound
Data Transmission	Data Export	Ethernet/USB
	Report Format	TRC
	Data Management System	MFM-CNS/MFM-CNS Lite
	HIS connection	HL7/GDT
Safety Specifications	Standards Compliance	IEC 60601-1:2005/A1:2012, EN 60601-1:2006/A1:2013, IEC 60601-1-2:2014, EN 60601-1-2:2015, IEC/EN 60601-2-37
	Anti-electric Shock Type	Class I equipment with internal power supply
	Anti-electric Shock Degree	FHR1, FHR2, TOCO, FM, IUP BF DECG CF
	Degree of Protection against Harmful Ingress of Water	Main Unit Not Waterproof US/TOCO Transducers IPX8, protected against the effects of continuous emersion in water
	Degree of Safety in Presence of Flammable Gases	Equipment not suitable for use in presence of flammable gases
	EMC	CISPR11 Group 1 Class A
	Working System	Continuous Operation1
Environmental Specifications	Temperature	Working +5°C ~ +40°C (+41°F ~ +104°F) Transport and Storage -20°C ~ +55°C (-4°F ~ +131°F)
	Relative Humidity	Working 15% ~ 93% (non-condensing) Transport and Storage 15% ~ 93% (non-condensing)
	Atmospheric Pressure	Working 86kPa ~ 106kPa Transport and Storage 70kPa ~ 106kPa

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