



medical **ECONET**
GERMANY

SMART 1 SMART 3

Compact, Cost-Effective and Versatile Fetal Monitor



High quality continuous fetal monitoring

SMART fetal monitors of medical ECONET are a fetus monitoring device used to measure Fetal Heart Rates (FHR), degree of maternal uterine contraction (UA: Uterine Activity), and fetal movements (FM).

It projects ultrasounds into the abdomen of the patient. From the signals returned after being reflected by the heart of the fetus, it extracts Doppler frequencies that vary with the movements of the heart of the fetus to output changes in the heartbeats of the fetus as sounds for the analysis of the signals; thus detecting the heart rates and fetal movements of the fetus. In addition, SMART 3 indicates the fetal heart rates, maternal uterine activity, and fetal movements on its LCD screen as figures and saves the information to its memory.

This device is for use only by trained medical personnel located in hospitals, clinics, doctor's offices, and in the patient's home.

Features and Benefits

- 7" Color TFT wide touch screen (SMART 3)
- Cardiotocography (CTG) Analysis
- Short Term Variability (STV) Analysis
- 72 hours patient data saving (SMART 3)
- USB memory storage for exporting JPG file to EMR
- Acoustic stimulator (optional)
- Central monitoring software
Up to 16 fetal monitors connections available (optional)
- Input note from note list
- Rechargeable Li-ion battery (optional)
- USB wifi converter (optional)
- 9 - crystal US-probes with 1 MHz frequency
- Available measuring FHR and FM of twins (optional)
- PC interface through RS-232C
- Thermal array recorder
- A4 size wide chart paper
- Available with mobile cart (optional)
- User-friendly carrying handle
- 10 smart keys for 16 functions
- Graphic & text display mode
- 15 kinds of local languages support
- Including probes, event marker, CTG-belts, ultrasound gel and paper

SMART 1 SMART 3

Compact, Cost-Effective and Versatile Fetal Monitor

The Main Function of SMART Fetal Monitor

Usually, during pregnancy women regularly counts their baby's movements to make sure it's alright and spend a lot of time and energy worrying about its well-being. Fetal heart rate can be recorded and saved periodically by using a fetal monitor. Apart from the heart rate, the contractions are tracked and recorded. Both combinations indicate the well-being of the fetus.



Compact and User-centric Design

- SMART 3 is equipped 7" Color TFT LCD (800X480) and touch screen operation display.
- The carrying handle provides mobility enabling you to take fetal monitoring where you need it.
- Yellow/green LED alarm lamps make it easy to recognize device and patient status.

Precise and Reliable Analysis

- CTG Analysis calculates important data such as baseline, acceleration, deceleration, fetal movement.
- Short term variability (STV) is used to measure the cardiac.
- Recorded paper reports CTG analysis, FHR signal trend, UC trend, and Fetal movement.



High-performance Measurements

- Doppler probe has 9-crystal. 1MHz ultrasound sensitivity helps obstetricians to interpret the fetal condition exactly.
- SMART 3 can measure the FHR of twins.
- The graph is automatically calibrated when the signal is lowered or lost, making it easier to see the graph.

Extendible and Advanced Functions

- SMART 3 can save trend data for 72 hours.
- Central monitoring software allows a real-time remote viewing of CTGs with automatic archiving of up to 16 patients at the same time.
- The note is annotated on the fetal trace and maximum 100 notes could be documented by users.

SMART 1 SMART 3

Compact, Cost-Effective and Versatile Fetal Monitor

Specifications

Dimension

SMART 1 Size:	296 (W) x 305.5 (D) x 92.5 (H) mm
SMART 3 Size:	296 (W) x 305.5 (D) x 97.5 (H) mm
Weight:	Approx. 2.9 kg
SMART 3 display:	7" Wide (800 x 480)

Fetal Heart Rate

Input signal:	Ultrasound pulsed doppler
Detection method:	Autocorrelation
Range:	50 bpm to 210 bpm
Accuracy:	120 bpm to 160 bpm \pm 1 bpm
Except:	120 bpm to 160 bpm \pm 2 bpm

Ultrasound Transducer

Frequency:	1.0 MHz
Spatial-peak temporal average intensity:	< 10 mW/cm ²

Uterine Contraction

Input source:	External transducer
Reference control:	One touch switch Auto zeroing
Measurement range:	0 to 99

CTG Analysis

Result:	Average Baseline FHR Number of TOCO Number of Acceleration Number of Deceleration: Late, Early, Variable High/Low Episode Short term Variability Signal Loss * Result is printed out every 10 minutes
---------	--

Signal Interface

External link:	LAN, WIFI USB, SD
----------------	----------------------

Power

Requirements:	100 - 240 VAC, 50 / 60 Hz, 1.5 A, Single phase
Output:	DC +18V 2.8A
Battery (optional):	Li-ion, 2 hours operating, 4 hours charging

Recorder

Method:	Thermal array print
Type:	Roll type
Record speed:	10, 20, 30 mm / min (Real time) 250 mm / min (Trend)
Function:	Paper feeding function

Accessory

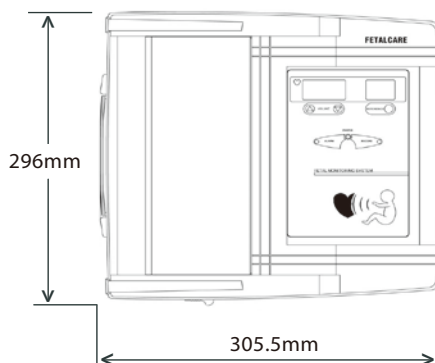
▪ Standard	US probe	1 ea
	UC probe	1 ea
	Roll printer paper	2 ea
	CTG belt	2 ea
	Power adapter	1 ea
	Power cord	1 ea
	Ultrasound gel	1 ea
	User manual	1 ea
▪ Optional	Mobile cart	1 ea
	CTG belt	1 ea
	Rechargeable battery	1 ea

SMART 1 Dimension

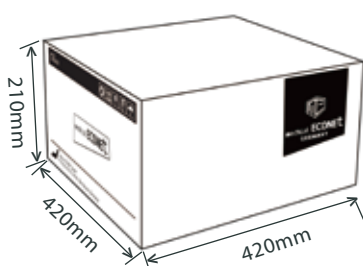
Left side



Top



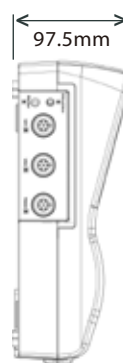
Packaging



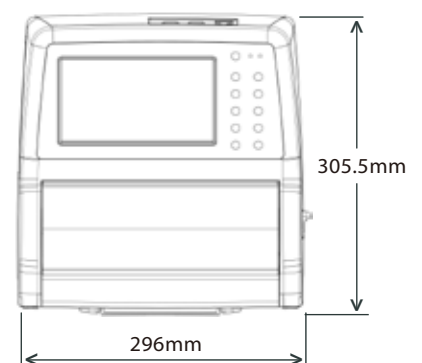
Approx. 6.9kg

SMART 3 Dimension

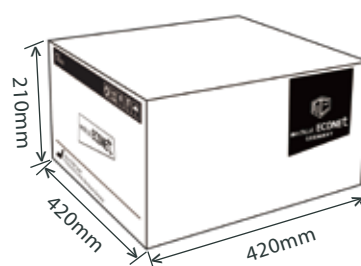
Left side



Top



Packaging



Approx. 7.4kg

Accessory Information



Ultrasound Probe
for SMART 3
Standard accessory



TOCO Probe
for SMART 3
Standard accessory



Ultrasound Probe
for SMART 1
Standard accessory



TOCO Probe
for SMART 1
Standard accessory



Event Marker
for SMART 1 / SMART 3
Standard accessory



CTG straps
3pcs / pack, for SMART 1 / SMART 3
Standard accessory



Roll Paper
15 cm x 30 m, for SMART 3
Standard accessory



Roll Paper
15 cm x 30 m, for SMART 1
Standard accessory



Ultrasound Gel
250 ml, for SMART 1 / SMART 3
Standard accessory



Nylon Carring Bag
SMART 1 / SMART 3
Optional accessory



WIFI
USB-dongle, for SMART 1 / SMART 3
Optional accessory



Mobile Stand
for SMART 1 / SMART 3
Optional accessory



Li-ion Battery
for SMART 3
Optional accessory

