

OEM Non-Invasive
Blood Pressure Technologies


SunTech® *Advantage*™
OEM NIBP TECHNOLOGIES

Reliable Blood Pressure, When & Where You Need It



Advantage 2.0



Advantage Mini



Advantage A+



+ Multiple NIBP Technologies Designed
For Specific Clinical Applications

+ Accurate Blood Pressure Monitoring
In Any Environment

ADVANTAGE™ SERIES OF OEM NIBP TECHNOLOGIES

SunTech Medical®, the global leader for OEM non-invasive blood pressure (NIBP) technology, presents the *Advantage* Series of OEM NIBP Technologies. Designed to meet specific needs for nearly all clinical applications and patient populations, the *Advantage* Series offers the simplicity of oscillometry with the most reliable, flexible and clinically accurate modules in the industry.

+ Features

Application Specific:

Flexibility & Customization:

Low Power Consumption:

Guaranteed Reliability:

OEM Support Team:

+ Benefits

Each *Advantage* technology is designed to provide quick, accurate and reliable blood pressures in the most challenging environments and patient populations.

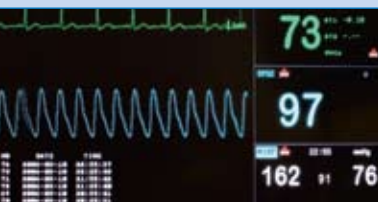
Multiple module platforms, communication protocols, pump options and hardware configurations are available to seamlessly integrate with your clinical system.

Advantage modules require significantly less current than the competition, providing longer battery life and less down time for your customers.

Every *Advantage* module is fully tested in our facility and backed by a two year warranty.

SunTech Medical provides OEM partners with technical and clinical support for meeting international standards and regulatory requirements to ensure a successful integration.

Which Advantage Technology Fits Your Application?



+ AdvantageSMT//Standard Motion Tolerance

SunTech Medical's standard NIBP technology is designed for most clinical monitoring applications. Currently used in many multi-parameter and ambulatory monitors, *AdvantageSMT* delivers proven clinical accuracy and patient motion tolerance customers have come to expect from *SunTech Medical*.



+ AdvantageHDM//Hemodialysis Monitoring

Researching characteristics and complications unique to hemodialysis monitoring has allowed *SunTech Medical* to provide reliable NIBP for renal disease patients even in the presence of changing blood volumes and compromised physiologies.



+ AdvantageTMT//Transport Motion Tolerance

SunTech Medical has collaborated with ambulance and helicopter EMS services to develop a technology specifically for ground and air transport conditions. Motion and noise artifact in these environments is effectively rejected to allow quick and accurate blood pressure readings during the most critical of times.



+ AdvantageRMT//R-Wave Motion Tolerance

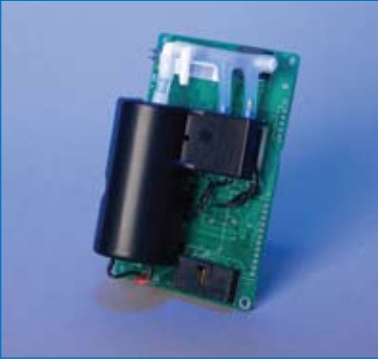
Using the same principle of R-wave gating (ECG gating) utilized on *SunTech Medical's* Tango+™ treadmill stress monitor, virtually all motion and noise artifact is quickly rejected to isolate arterial pulses and provide reliable NIBP monitoring in the most challenging patient motion environments. Currently only available on the A+ platform.



+ AdvantageVET//Veterinary Monitoring

While other NIBP providers apply their human technologies to the veterinary market, *SunTech Medical* developed this automated NIBP technology in cooperation with a leading veterinary medical school specifically for the veterinary healthcare industry.

ADVANTAGE OEM NIBP MODULE PLATFORMS



Which Advantage Platform is Right For You?

Advantage 2.0

- Most popular OEM module platform
- Appropriate for most clinical applications and environments
- Adult, Pediatric and Neonatal modes
- RS232 & TTL communication
- Best value solution



Advantage Mini

- Functionally equivalent to the 2.0 with the same features, control and performance
- Off-board mounting of pump and valves supports customized configurations
- Small module footprint allows various integration options
- Best choice for space limited applications



Advantage A+

- Performance for the most challenging clinical applications
- Automatic long and short-term measurement modes
- High and low voltage power options
- Internal service command mode
- RS232, TTL and I²C communication protocols
- Advantage RMT (R-wave Motion Tolerance) capable
- Smallest complete NIBP module available

BLOOD PRESSURE CUFFS AND ACCESSORIES



How Can SunTech Medical Complete Your NIBP Solution?

Cuffs: SunTech[®] offers a full line of general and specialty use blood pressure cuffs to meet most every application, including All-Purpose[™], Eclipse[™] D-ring and Orbit[™] ambulatory monitoring cuffs.

Connectors & Hoses: In order to meet a variety of unique customer needs, SunTech has evaluated and approved a wide range of pneumatic hoses and hose connectors to work with the Advantage Series.

Custom Labeling: All-Purpose and Eclipse D-ring cuffs can be branded with your corporate logo to create product unity and build brand awareness. Minimum order quantities apply.

ADVANTAGE™ OEM NIBP MODULE TECHNICAL SPECIFICATIONS

	Advantage 2.0	Advantage Mini	Advantage A+
Physical Dimensions			
Width	2.73 in [69.3 mm]	1.6 in [40.6 mm]	2.0 in [50.8 mm]
Length	4.15 in [105.4 mm]	1.6 in [40.6 mm]	3.5 in [88.9mm]
Height	1.49 in [37.8 mm]	0.71 in [18.0 mm]	1.0 in [25.4 mm]
Weight	0.3 lbs [133 g]	0.2 lbs [88 g]	0.25 lbs [113.4 g]
Measurement			
Technique	Oscillometric	Oscillometric	Oscillometric
NIBP Accuracy	Meets ANSI/AAMI SP10-2002, EN 1060-4	Meets ANSI/AAMI SP10-2002, EN 1060-4	Meets ANSI/AAMI SP10-2002, EN 1060-4
Patient Applications	Adult, Pediatric & Neonatal	Adult, Pediatric & Neonatal	Adult, Pediatric & Neonatal
Systolic Range			
Adult	40 – 260 mmHg	40 – 260 mmHg	40 – 260 mmHg
Pediatric	40 – 160 mmHg	40 – 160 mmHg	40 – 160 mmHg
Neonatal	40 – 130 mmHg	40 – 130 mmHg	40 – 130 mmHg
Diastolic Range			
Adult	20 – 200 mmHg	20 – 200 mmHg	20 – 200 mmHg
Pediatric	20 – 120 mmHg	20 – 120 mmHg	20 – 120 mmHg
Neonatal	20 – 100 mmHg	20 – 100 mmHg	20 – 100 mmHg
Pulse Rate Range	30 – 220 BPM (Beats per min)	30 – 220 BPM (Beats per min)	30 – 220 BPM (Beats per min)
Pulse Rate Accuracy	± 2% or ± 3 BPM, whichever is greater	± 2% or ± 3 BPM, whichever is greater	± 2% or ± 3 BPM, whichever is greater
Transducer Accuracy	± 3 mmHg over full range in operating conditions	± 3 mmHg over full range in operating conditions	± 3 mmHg over full range in operating conditions
Operating Modes	Manual	Manual	Manual, Long-term automatic, Short-term automatic (STAT), Service
Operating Conditions	0°C to 50 °C, 15% to 95%, non-condensing humidity	0°C to 50 °C, 15% to 95%, non-condensing humidity	0°C to 50 °C, 15% to 95%, non-condensing humidity
Storage Conditions	-20°C to 65 °C, 15% to 95%, non-condensing humidity	-20°C to 65 °C, 15% to 95%, non-condensing humidity	-20°C to 65 °C, 15% to 95%, non-condensing humidity
Electrical			
Operating Voltage	5.3 – 14.5 VDC	5.3 – 14.5 VDC	5.5 – 14.5 VDC (High), 1.8 – 9.0 VDC (Low)
Power Consumption	Using 6 VDC Nominal	Using 6 VDC Nominal	Using 6 VDC Nominal (High) or 3.3 VDC Nominal (Low)
Sleep	1.4 mW	1.4 mW	2.0 mW (High), 3.0 mW (Low)
Idle	204 mW	204 mW	372 mW (High), 430 mW (Low)
Measurement	1.1 W	1.1 W	1.3 W (High), 1.4 W (Low)
Inflation	3.8 W	3.8 W	3.7 W (High), 3.4 W (Low)
Communication Protocols	Serial RS232 or TTL (5V)	Serial RS232 or TTL (5V)	Serial RS232, TTL (1.8, 3.3 or 5V) or I ² C ready
Safety & Regulatory Standards			
	IEC60601-1:1997 IEC/EN60601-2-30:1999/2000 AAMI SP10:2002, EN1060-1:1996, EN1060-3:1997, EN1060-4:2004	IEC60601-1:1997 IEC/EN60601-2-30:1999/2000 AAMI SP10:2002, EN1060-1:1996 EN1060-3:1997, EN1060-4:2004	IEC60601-1:1997 IEC/EN60601-2-30:1999/2000 AAMI SP10:2002, EN1060-1:1996 EN1060-3:1997, EN1060-4:2004
Advantage Technologies			
SMT (Standard Motion Tolerance)	●	●	●
TMT (Transport Motion Tolerance)	●	●	●
HDM (Hemodialysis Monitoring)	●	●	●
RMT (R-wave Motion Tolerance)	●	●	●
VET (Veterinary Monitoring)	●	●	●



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