

WINTERGREEN RESEARCH, INC.

**EEG Processor Monitor Market Opportunities,
Strategies, and Forecasts, 2003 to 2008**

EEG Processor Monitor



Picture by Susie Eustis

MOUNTAINS OF OPPORTUNITY

**WinterGreen Research, Inc.
Lexington, Massachusetts**

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142 PAGES

61 TABLES AND FIGURES

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CHECK OUT THESE KEY TOPICS

EEG PROCESSOR SURGERY/ANESTHESIA MARKET SHARES
EEG PROCESSOR SURGICAL AND INTENSIVE CARE MARKET FORECASTS
EEG DESCRIPTION

Brain Response During Anesthesia

Anesthesia Reimbursements
EEG Processor International Markets

CLINICAL DEVELOPMENTS

HUMAN BRAIN

FDA AND FOREIGN REGULATORY APPROVAL
RESEARCH AND DEVELOPMENT EFFORTS FOCUS

ICU MONITORING

EEG PROCEDURE

BI-SPECTRAL INDEX (BIS INDEX)

FUNCTIONAL CAPACITY EVALUATIONS (FCE)

ADMINISTRATION OF SEDATION

APPLICATIONS FOR EEG MONITORING IN THE OPERATING THEATER

OPPORTUNITY ABOUND

WinterGreen Research, Inc.

Lexington, Massachusetts

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EEG Processor Monitor Market Opportunities, Strategies, and Forecasts, 2003 to 2008

There are 40 million surgical interventions performed annually in the U.S. under general anesthesia. The number of surgical and anesthesia-based interventions both therapeutic and diagnostic is expected to increase as the population ages. There is more than double that number worldwide.

EEG processors are poised to be useful in every one of those interventions. Units are positioned to save lives by providing one more way to monitor patient condition.

EEG monitoring is of value to the anesthesiologist because it provides direct measurement of brain activity and provides input that cannot be achieved from heart or oxygen saturation level monitoring.

A simple automated EEG implemented as a processor monitor permits use and brain wave interpretation in the operating room. Resolution of presentation of information is an essential aspect of systems. Monitoring a patient brain activity during surgery improves patient safety and lowers costs per surgical procedure. Controlling the amount of anesthesia administered during surgeries is a measurable benefit. It reduces the amount of postoperative recovery time required.

The electrophysiology of the brain is a center of research. Changes in brain electrophysiologic activity occur during general anesthesia. The EEG seems to provide a direct indication of the patient depth of consciousness as invoked by anesthetic agents. The EEG is the most reliable indicator of excessive administration of anesthesia.

The EEG processor medical device industry competition is limited to two major companies. Aspect Medical Systems and Physiometrix are the two companies with working technology for anesthesia. Devices are based on signal processing of the EEG brain waves. Additional competition may come from patient monitoring companies; currently marketing conventional EEG monitors utilizing standard signal-processing techniques such as spectral edge frequency analyses and median frequency analyses.

Total worldwide markets for EEG processor and sensors for both surgical and intensive care markets at \$51.4 million in 2002 are expected to reach \$734.9 by 2008.

Companies Profiled

Market Leaders

Aspect Medical Anesthesia
Physiometrix

Other Market Participants

Cephalon
PhysioMetrics

Taugagreining/Nervus

EEG Processor Monitor Market Strategies and Forecasts, 2003-2008

REPORT METHODOLOGY

THIS IS THE *EIGHTY-SIXTH* REPORT IN A SERIES OF MARKET RESEARCH REPORTS THAT PROVIDE FORECASTS IN COMMUNICATIONS, TELECOMMUNICATIONS, THE INTERNET, COMPUTER, SOFTWARE, AND TELEPHONE EQUIPMENT. THE PROJECT LEADERS TAKE DIRECT RESPONSIBILITY FOR WRITING AND PREPARING EACH REPORT. THEY HAVE SIGNIFICANT EXPERIENCE PREPARING INDUSTRY STUDIES. FORECASTS ARE BASED ON PRIMARY RESEARCH AND PROPRIETARY DATA BASES. FORECASTS REFLECT ANALYSIS OF THE MARKET TRENDS IN THE SEGMENT AND RELATED SEGMENTS. UNIT AND DOLLAR SHIPMENTS ARE ANALYZED THROUGH CONSIDERATION OF DOLLAR VOLUME OF EACH MARKET PARTICIPATION IN THE SEGMENT. INSTALLED BASE ANALYSIS AND UNIT ANALYSIS IS BASED ON INTERVIEWS AND AN INFORMATION SEARCH. MARKET SHARE ANALYSIS INCLUDES CONVERSATIONS WITH KEY CUSTOMERS OF PRODUCTS, INDUSTRY SEGMENT LEADERS, MARKETING DIRECTORS, DISTRIBUTORS, LEADING MARKET PARTICIPANTS, OPINION LEADERS, AND COMPANIES SEEKING TO DEVELOP MEASURABLE MARKET SHARE. OVER 200 IN DEPTH INTERVIEWS ARE CONDUCTED FOR EACH REPORT WITH A BROAD RANGE OF KEY PARTICIPANTS AND INDUSTRY LEADERS IN THE MARKET SEGMENT.

YOU MUST HAVE THIS STUDY

EEG Processor Monitor Market Opportunities, Strategies, and Forecasts, 2003 to 2008

Table of Contents

EEG PROCESSOR MONITOR EXECUTIVE SUMMARY

EEG PROCESSOR MONITOR EXECUTIVE SUMMARY	ES-1
Surgical Interventions	ES-1
Competitive Factors In The EEG Monitor Market	ES-2
EEG Processor Surgery / Anesthesia Market Shares	ES-3
EEG Processor Surgical and Intensive Care Market Forecasts	ES-5

EEG PROCESSOR MONITOR DYNAMICS AND MARKET DESCRIPTION

1. EEG PROCESSOR MARKET DYNAMICS AND MARKET DESCRIPTION	1-1
1.1 EEG Description	1-1
1.1.1 EEGs As A Broad Based Diagnostic Tool	1-1
1.1.2 Detection Of Abnormalities	1-2
1.2 EEG Procedure	1-2
1.3 Anesthesiologist Objectives	1-5
1.4 Bispectral Index (BIS Index)	1-8
1.5 Administration Of Sedation	1-10
1.6 Surgical Awareness During Monitoring	1-10
1.7 Functional Capacity Evaluations (FCE)	1-10
1.8 Applications For EEG Monitoring In The Operating Theatre	1-11
1.9 Applications For EEG Monitoring In The Intensive Care Unit	1-11
1.10 Brain Responses During Anesthesia	1-12
1.10.1 Monitoring requirements of the American Society of Anesthesiology	1-15
1.10.2 Depth Of Consciousness Monitoring	1-17
1.10.3 Brain	1-19
1.10.4 Processed EEG Monitors	1-19
1.11 Anesthesia Reimbursement	1-21
1.11.1 Third-Party Payors	1-21

EEG PROCESSOR MONITOR MARKET SHARES AND MARKET FORECASTS

2. EEG PROCESSOR MARKET SHARES AND MARKET FORECASTS	2-1
2.1 Surgical and Diagnostic Interventions Performed Under General Anesthesia	2-1
2.1.1 EEG Processor Market Competitive Factors	2-6
2.2 EEG Processor Surgery / Anesthesia Market Shares	2-11
2.2.1 Aspect Medical Systems Group Purchasing Agreements	2-16
2.3 EEG Processor Intensive Care Market Shares	2-18
2.4 EEG Processor Surgery Market Forecasts	2-20
2.4.1 EEG Processor Surgery Market Penetration Forecasts	2-24
2.4.2 EEG Processor Surgery Sensor Market Forecasts	2-25
2.5 EEG Processor Intensive Care Market Forecasts	2-30
2.6 EEG Processor Surgical and Intensive Care Market Forecasts	2-32
2.7 EEG Processor Market Positioning	2-32

2.7.1	Aspect Medical Systems Distribution Agreements	2-33
2.7.2	Aspect Medical Systems Distribution Agreements With Original Equipment Manufacturers	2-33
2.8	EEG Processor International Markets	2-36
2.8.1	Aspect Medical Systems	2-39
2.8.2	Taugagreining / Nervus Monitor	2-40

EEG PROCESSOR MONITOR PRODUCT DESCRIPTIONS

3. EEG PROCESSOR PRODUCT DESCRIPTION	3-1
3.1 EEG Anesthesiology Monitoring Processors	3-1
3.2 Aspect Medical Systems	3-2
3.2.1 Aspect Bi-spectral Index	3-3
3.2.2 A-2000™ BIS Monitor	3-4
3.2.3 A-1050 EEG monitor with Bi-spectral Index Technology	3-4
3.2.4 Aspect Medical Systems BIS XP System	3-7
3.2.5 Aspect Medical Systems A-2000 BIS Monitor	3-7
3.2.6 Aspect Medical Systems BIS Module Kit	3-8
3.2.7 Aspect Medical Systems BIS Module Kit — 4 Channel Support	3-8
3.2.8 Aspect Medical Systems BIS Sensors	3-8
3.2.9 Aspect Medical Systems BIS Pediatric Sensor	3-9
3.2.10 Aspect Medical Systems BIS Quatro Sensor	3-9
3.3 Aspect Medical Systems BIS Sensor Plus	3-10
3.3.1 Aspect Medical Systems BIS Standard Sensor	3-10
3.3.2 Aspect Medical Systems BIS Integrated Systems	3-15
3.3.3 Aspect Medical Systems BIS	3-15
3.4 Physiometrix	3-16
3.4.1 Physiometrix Patient State Analyzer	3-17
3.4.2 Physiometrix PSA 4000	3-17
3.4.3 Physiometrix PSArray2	3-20
3.4.4 Physiometrix Products	3-20
3.4.5 Physiometrix EEG Monitoring Solution	3-22
3.4.6 Physiometrix Proven Electrode Technology	3-25
3.5 ICU Monitoring	3-26
3.5.1 Taugagreining / Nervus Monitor	3-27
3.5.2 Nervus Monitor Unlimited Recording	3-27
3.5.3 Nervus Monitor Brain Hypoxia / Ischemia	3-28
3.5.4 Narcotrend	3-31

EEG PROCESSOR MONITOR TECHNOLOGY

4. EEG PROCESSOR TECHNOLOGY	4-1
4.1 Aspect Medical Systems Technology Positioning	4-1
4.1.1 Aspect Medical Systems BIS Index Technology	4-1
4.2 Clinical Development	4-5
4.2.1 Aspect Medical Systems BIS Index Values During Surgical Procedures	4-8
4.3 Research And Development Efforts Focus	4-9
4.3.1 Aspect Medical Systems Other Product Areas	4-11
4.4 Human Brain	4-15
4.4.1 Aspect Medical Systems Current Initiatives	4-15
4.4.2 Physiometrix Research	4-15
4.4.3 Physiometrix Algorithm Development:	4-16
4.4.4 Physiometrix Algorithm Processing	4-18

4.5	FDA And Foreign Regulatory Approval	4-20
-----	-------------------------------------	------

EEG PROCESSOR MONITOR COMPANY PROFILES

5. EEG PROCESSOR COMPANY PROFILES		5-1
5.1	Aspect Medical System	5-1
5.1.1	Aspect Medical System Anesthesia Monitoring System BIS® System	5-1
5.1.2	Aspect Medical System Revenue	5-2
5.1.3	Aspect Medical Systems Revenue	5-4
5.1.4	Aspect Medical Systems Third Quarter Ended September 27, 2003	5-9
5.1.5	Aspect Medical Systems Strategic Alliance with Boston Scientific Corporation	5-11
5.2	Cephalon	5-12
5.3	PhysioMetrics	5-12
5.4	Physiometrix	5-12
5.4.1	Physiometrix Business Strategy	5-13
5.4.2	Physiometrix Strategic Relationship With Baxter	5-14
5.4.3	Physiometrix Outsource Manufacturing	5-14
5.4.4	Physiometrix Revenues	5-14
5.4.5	Physiometrix Positioning	5-16
5.5	Taugagreining / Nervus	5-18
5.5.1	Nervus EEG Continuous Impedance Test	5-19
5.5.2	Nervus EEG Remote Analysis	5-19
5.5.3	Nervus EEG Trends	5-20
5.5.4	Nervus Recorder Key Features	5-21

List of Tables and Figures**EEG PROCESSOR MONITOR EXECUTIVE SUMMARY**

Table ES-1	ES-2
Competitive Factors In The EEG Monitor Market	
Figure ES-2	ES-4
Worldwide EEG Processor Monitor Anesthesia Market Shares, First Three Quarters, 2003	
Table ES-3	ES-6
Worldwide EEG Processor Market Forecasts, Anesthesia and ICU System Shipments, Dollars, 2003-2008	

EEG PROCESSOR MONITOR MARKET DYNAMICS AND MARKET DESCRIPTION

Table 1-1	1-4
Traditional EEG Procedure Deficiencies	
Table 1-2	1-5
Traditional EEG Procedure Aspects	
Table 1-3	1-6
Anesthesiologist Objectives	
Table 1-4	1-6
Key Elements Of Anesthesia Care	
Table 1-5	1-7
Anesthesiologist Issues	
Table 1-6	1-8
Benefits Offered Anesthesiologist By Brain Monitoring	
Table 1-7	1-13
How EEG Monitoring Works	
Table 1-8	1-14
EEG monitoring Factors Improving Care And Contributing To Cost Savings In The OR	
Table 1-9	1-15
Monitoring Requirements Of The American Society of Anesthesiology	
Table 1-10	1-17
Depth Of Consciousness Monitoring Parameters	
Table 1-11	1-18
Depth Of Consciousness Monitors	

EEG PROCESSOR MONITOR MARKET SHARES AND MARKET FORECASTS

Figure 2-1	2-2
U.S. Medical Intervention Market Forecasts, Number, 2003-2008	
Table 2-2	2-3
U.S. Surgical Procedure Forecasts, Number, 2003-2008	
Table 2-3	2-4
U.S. Inpatient Surgery Types And Operations Performed	
Table 2-4	2-8
Competitive Factors In The EEG Monitor Market	
Table 2-5	2-9
Aspect Medical Systems Technology Areas	
Table 2-6	2-10
BIS Monitoring Is Most Widely Used In The OR	

Figure 2-7	2-11
Worldwide EEG Processor Monitor Anesthesia Market Shares, First Three Quarters 2003	
Table 2-8	2-12
EEG Processor Monitoring For Surgery Market Shares, Worldwide, First Three Quarters 2003	
Table 2-9	2-16
Aspect Medical Systems Group Purchasing Agreements	
Figure 2-10	2-19
Worldwide EEG Processor Intensive Care Unit Market Shares, Dollars, First Three Quarters, 2003	
Table 2-11	2-20
EEG Processor Monitoring For Intensive Care Unit (ICU/NICU) Market Shares, Worldwide, First Three Quarters 2003	
Figure 2-12	2-21
Worldwide EEG Processing Monitor Market Forecasts, Dollars, 2003-2008	
Table 2-13	2-22
Worldwide EEG Processor Monitor Market Forecasts, System Penetration of Surgical Suites and Recovery Rooms, Units, 2003-2008	
Figure 2-14	2-23
Worldwide EEG Processing Monitor Market Forecasts, Processors, 2003-2008	
Table 2-15	2-24
U.S. EEG Processor Market Forecasts, Systems Penetrations of Surgical Suites and Recovery Rooms, Units, 2003-2008	
Figure 2-16	2-25
Worldwide EEG Processor Sensor Market Forecasts, Dollars, 2003-2008	
Figure 2-17	2-26
Worldwide EEG Processor Sensor Market Forecasts, Units, 2003-2008	
Table 2-18	2-27
U.S. EEG Processor Market Forecasts, Units and Dollars, 2003-2008	
Table 2-19	2-28
Worldwide EEG Processor Sensor Anesthesia Market Forecasts, Units and Dollars, 2003-2008	
Table 2-20	2-29
U.S. EEG Processor and Sensor Market Forecast Analysis, Units, 2003-2008	
Table 2-21	2-31
Worldwide EEG Processor and Sensor Intensive Care Unit (ICU) Market Forecast, Dollars, 2003-2008	
Table 2-22	2-32
Worldwide EEG Processor Market Forecasts, Anesthesia and ICU System Shipments, Dollars, 2003-2008	
Table 2-23	2-34
Aspect Medical Systems Original Equipment Manufacturer Distribution Agreement Relationships	
Table 2-24	2-37
Challenges Relating To EEG Processor International Business Activities	
Table 2-25	2-38
EEG Processor Regional Market Analysis Worldwide, Percent, First Three Quarters 2003	
Table 2-26	2-38
Traditional and Packet Based PBX Regional Market Analysis, Worldwide, Dollars, 2002	

EEG PROCESSOR MONITOR PRODUCT DESCRIPTIONS

Table 3-1	3-2
EEG Monitoring Processor Advantages	
Table 3-2	3-4
Aspect Medical Systems Principal Product Offerings	

Table 3-3	3-11
Aspect Medical Systems EEG Advanced Architecture	
Table 3-4	3-13
Aspect Medical Systems Artifact Conditions Detected	
Table 3-5	3-14
Aspect Medical Systems EEG Module Licensees	
Table 3-6	3-19
Physiometrix PSA 4000 Embedded Software	
Table 3-7	3-20
Physiometrix Product Description	
Table 3-8	3-23
Physiometrix EEG Monitoring Menu and Dedicated User Controls	
Table 3-9	3-24
Physiometrix EEG Monitoring Benefits	
Table 3-10	3-29
Nervus EEG Monitor Uses	
Table 3-11	3-30
Features of Nervus EEG NICU Monitor	

EEG PROCESSOR MONITOR TECHNOLOGY

Table 4-1	4-3
Aspect Medical Systems BIS System Functions	
Table 4-2	4-4
Aspect Medical Systems BIS System Features	
Table 4-3	4-6
Clinical Research And Regulatory Responsibilities	
Table 4-4	4-7
Measures Of Anesthetic Effect On The Brain	
Table 4-5	4-10
Aspect Medical Systems Research And Development Areas Of Responsibility	
Table 4-6	4-12
Aspect Medical Systems Product Areas	
Table 4-7	4-13
Aspect Medical Systems Technology Areas	
Table 4-8	4-14
Aspect Medical Systems BIS index correlations	
Table 4-9	4-19
Set Of Features That Account For Statistical Variance	

EEG PROCESSOR MONITOR COMPANY PROFILES

Table 5-1	5-19
Nervus EEG Remote Analysis	

ABOUT THE COMPANY

WINTERGREEN RESEARCH, FOUNDED IN 1985, PROVIDES STRATEGIC MARKET ASSESSMENTS IN TELECOMMUNICATIONS, COMMUNICATIONS EQUIPMENT, HEALTH CARE, AND ADVANCED COMPUTER TECHNOLOGY. INDUSTRY REPORTS FOCUS ON OPPORTUNITIES THAT WILL EXPAND EXISTING MARKETS OR DEVELOP MAJOR NEW MARKETS. THE REPORTS ASSESS NEW PRODUCT AND SERVICE POSITIONING STRATEGIES, NEW AND EVOLVING TECHNOLOGIES, AND TECHNOLOGICAL IMPACT ON PRODUCTS, SERVICES, AND MARKETS. MARKET SHARES ARE PROVIDED. LEADING MARKET PARTICIPANTS ARE PROFILED, AND THEIR MARKETING STRATEGIES, ACQUISITIONS, AND STRATEGIC ALLIANCES ARE DISCUSSED. THE PRINCIPALS OF WINTERGREEN RESEARCH HAVE BEEN INVOLVED IN ANALYSIS AND FORECASTING OF INTERNATIONAL BUSINESS OPPORTUNITIES IN TELECOMMUNICATIONS AND ADVANCED COMPUTER TECHNOLOGY MARKETS FOR OVER 30 YEARS.

ABOUT THE PRINCIPAL AUTHORS

ELLEN T. CURTISS, TECHNICAL DIRECTOR, CO-FOUNDER OF WINTERGREEN RESEARCH, CONDUCTS STRATEGIC AND MARKET ASSESSMENTS IN TECHNOLOGY-BASED INDUSTRIES. PREVIOUSLY SHE WAS A MEMBER OF THE STAFF OF ARTHUR D. LITTLE, INC., FOR 23 YEARS, MOST RECENTLY AS VICE PRESIDENT OF ARTHUR D. LITTLE DECISION RESOURCES, SPECIALIZING IN STRATEGIC PLANNING AND MARKET DEVELOPMENT SERVICES. SHE IS A GRADUATE OF BOSTON UNIVERSITY AND THE PROGRAM FOR MANAGEMENT DEVELOPMENT AT HARVARD GRADUATE SCHOOL OF BUSINESS ADMINISTRATION. SHE IS THE AUTHOR OF RECENT STUDIES ON WORLDWIDE TELECOMMUNICATIONS MARKETS, THE TOP TEN INTERNET EQUIPMENT COMPANIES, THE TOP TEN CONTRACT MANUFACTURING COMPANIES, AND THE TOP TEN TELECOMMUNICATIONS MARKET ANALYSIS AND FORECASTS.

SUSAN EUSTIS, PRESIDENT, CO-FOUNDER OF WINTERGREEN RESEARCH, HAS DONE RESEARCH IN COMMUNICATIONS AND COMPUTER MARKETS AND APPLICATIONS. SHE HOLDS SEVERAL PATENTS IN MICROCOMPUTING AND PARALLEL PROCESSING. SHE HAS THE ORIGINAL PATENTS IN ELECTRONIC VOTING MACHINES. SHE HAS NEW PATENT APPLICATIONS IN FORMAT VARYING, MULTIPROCESSING, AND ELECTRONIC VOTING. SHE IS THE AUTHOR OF RECENT STUDIES OF THE REGIONAL BELL OPERATING COMPANIES' MARKETING STRATEGIES, INTERNET EQUIPMENT, BIOMETRICS, A STUDY OF INTERNET EQUIPMENT, WORLDWIDE TELECOMMUNICATIONS EQUIPMENT, TOP TEN TELECOMMUNICATIONS, DIGITAL LOOP CARRIER, WEB HOSTING, WEB SERVICES, AND APPLICATION INTEGRATION MARKETS. MS. EUSTIS IS A GRADUATE OF BARNARD COLLEGE.

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