

Normal P axis, PR, rate & rhythm
p V1 -1.0 mV or more negative
Q/S in V1 & V2
ST-T negative ANT/LAT/INF
T > -30 mV, ST > -0.05 mV

GlobalData»
MediPoint

**DIAGNOSTIC ULTRASOUND IMAGING -
US ANALYSIS AND MARKET FORECASTS**

Executive Summary

Diagnostic Ultrasound Imaging Key Metrics: Key Events and Pipeline Assessment	
2012 Market Sales (\$m)	
US	\$1,417
Key Events (2010–2019)	Level of Impact
Analogic acquires PocketSonics (2013)	↑
Analogic acquires Ultrasonix (2013)	↑↑
Mindray acquires Zonare Medical Systems (2013)	↑↑↑
GE Healthcare acquires U-Systems (2012)	↑↑
Samsung Electronics acquires Medison (2011)	↑↑↑
Pipeline and Competitive Landscape Assessment	
Total pipeline products profiled	6
Total companies profiled	12
2019 Market Sales (\$m)	
US	\$1,867
Source: GlobalData.	

Diagnostic Ultrasound Market Overview

GlobalData estimates the US ultrasound market to be worth \$1.4 billion in 2012 and estimates that it will be worth \$1.9 billion in 2019, increasing at a compound annual growth rate (CAGR) of 4% during this period.

The key drivers for the US diagnostic ultrasound market are:

- Rising prevalence of diseases
- Increased demand for cost-effective and quality healthcare
- Novel technologies to drive growth
- Increased consciousness regarding radiation dose
- Compact systems to drive future growth
- Expanding use of the ultrasound imaging technique by non-radiologists
- Steady reimbursement
- Population-based screening applications using diagnostic ultrasound

Executive Summary

The key barriers of the US diagnostic ultrasound market are:

- Shortage of dedicated ultrasound technologists
- Less monetary incentive to use ultrasound over other expensive modalities
- Increasing prevalence of lifestyle-related diseases
- Reduced hospital budgets
- Availability of venture capital
- Impact of the medical device excise tax

The ultrasound imaging market is a moderately growing market with a CAGR of 4% in the US. It is a mature sector of the diagnostic imaging market; continued growth is expected along with continual technological developments.

Future Outlook

The economic downturn has been a continued concern within the diagnostic imaging market; even though the ultrasound imaging market is also susceptible to this economic downturn, the downturn has affected the ultrasound imaging market only partially, as these systems are less capital-intensive than other diagnostic imaging modalities. However, since the ultrasound imaging market is a mature one, growth in developed markets such as the US is limited due to a saturation in the presence of ultrasound systems, which in turn limits the amount of growth that can be experienced in these regions.

The market growth for ultrasound imaging in the US is heavily dependent on the replacement of already existing systems because, as is the case in most of the developed countries, the capacity for new installations is limited. As the US economy recovers, it can be expected that the equipment will be replaced timely.

However, at this point in time, the key opinion leaders (KOLs) that GlobalData interviewed for this report indicated that not all equipment is replaced at the end of the average product lifecycle, negatively affecting the sales in the US market.

In addition, there is a further trickling down of ultrasound imaging features and systems to contend with that will negatively affect sales in the US. For example, previously used high-end systems may be replaced with low-end or mid-range systems. On the other hand, the obsolescence of black and white-only systems is expected in some countries over the forecast period, which translates to increased sales with of color systems.]

The rising prevalence of disease, and an aging population, will act as major drivers of the increased use of ultrasound imaging. In addition, cost-containment measures implemented by healthcare authorities will favor ultrasound imaging over the other, more expensive techniques, such as magnetic resonance imaging (MRI) and computed tomography (CT), when appropriate clinical questions arise.

Executive Summary

What do Physicians Think?

The KOLs interviewed for this report agreed that in terms of technological development, current ultrasound imaging seems to have reached a plateau, and major breakthrough technologies have not been introduced within this market in a long time. The KOLs further added that three-dimensional (3D) ultrasound imaging offers limited clinical utility.

"Okay, 3D is an example of something that has very limited usefulness...and even a good 3D has just a few things you can use it for."

Key Opinion Leader

"Anything that 3D can do can be done 2D. It looks beautiful, sometimes makes the work easier, but not always. It's not a must."

Key Opinion Leader

The KOLs believe that due to their comparatively inexpensive nature, ultrasound-imaging systems are continuing to increase in number, and in all levels of hospitals and clinics.

"Ultrasound is [a] basic imaging method in all the levels of hospitals. Some smaller ones [hospitals] do not have CT, don't have MRI, [but] they have ultrasound [equipment]. Ultrasound [imaging] is very common... it's just getting bigger and bigger. The market is huge."

Key Opinion Leader

The KOLs indicated that the absence of ionizing radiation with ultrasound imaging works in favor of an increased use of this technique.

"Compared to CT and X-rays it has the advantage that it shares with MRI, that is not using ionizing radiation, so that is a strong reason for preferring to use it."

Key Opinion Leader

"The fact that it's safe allows it to be utilized as an extension of the physical examination."

Key Opinion Leader

KOLs also displayed enthusiasm towards the growth of this ultrasound-imaging technique in emerging economies.

"It [the use of diagnostic ultrasound] will increase, because it is terribly underutilized in the developing countries, so it will become more and more used there because it's less expensive and certainly more easier to convince patients to use, more portable, and user-friendly, so it will increase."

Key Opinion Leader

Executive Summary

The KOLs interviewed for this report highlighted that contrast ultrasound will foster growth in this market when more robust clinical evidence becomes available.

"I think contrast is a big area to develop in the future. In the past couple of decades, it has been a very hot topic, I would say it's a big step ... but clinically, it's still relatively new and not very standardized."

Key Opinion Leader

KOLs have expressed that portable ultrasound systems present a huge area of growth within the

diagnostic ultrasound market. This is because an increasing number of non-radiologist healthcare personnel are adopting this technique for clinical assessment in settings such as emergency room departments.

"I think it will, and if you look not too far in the future, there will come a time when it will essentially replace the stethoscopes. Every ward doctor will have one in their pocket."

Key Opinion Leader

Table of Contents

1 Table of Contents

1	Table of Contents	6
1.1	List of Tables	13
1.2	List of Figures	16
2	Introduction	17
2.1	Catalyst.....	17
2.2	Related Reports	17
3	Industry Overview	18
3.1	Principle of Diagnostic Ultrasound Imaging	18
3.2	System Overview	21
3.3	Modes of Operation.....	22
3.3.1	A-Mode	22
3.3.2	B-Mode	23
3.3.3	M-Mode.....	25
3.3.4	Doppler Mode.....	25
3.3.5	3D Ultrasound/4D Ultrasound.....	26
3.4	Applications of Ultrasound Imaging	29
3.4.1	Overview.....	29
3.4.2	Obstetrics and Gynecology	29
3.4.3	Abdominal Examinations	30
3.4.4	Cardiovascular Examinations	31
3.4.5	Neurology.....	31
3.4.6	Musculoskeletal.....	32
3.4.7	Small Body Parts.....	33
3.5	Advantages and Disadvantages of Diagnostic Ultrasound	34
3.5.1	Overview.....	34
3.5.2	SWOT Analysis	36

Table of Contents

3.6	Market Access	37
3.6.1	Product Life Cycle	37
3.6.2	Purchasing Decisions.....	38
3.7	Brand Loyalty	40
3.8	Adoption of New Technologies.....	42
3.8.1	Influence of Clinical Trials Results.....	42
3.8.2	Reimbursement.....	43
3.9	Regulatory Process.....	44
3.9.1	US.....	44
3.10	Current Reimbursement Trends.....	44
3.11	Procedure Trends	46
3.11.1	Overview.....	46
3.11.2	US.....	47
3.12	Evolution in Technology	50
3.12.1	Plane-Wave Imaging	50
3.12.2	Transducer Technology.....	51
3.13	Overuse of Ultrasound Imaging.....	53
3.14	M&A, Key Partnerships	54
3.15	Regulatory Issues/Product Recalls.....	56
4	Unmet Needs Analysis.....	57
4.1	Overview.....	57
4.2	Instrumentation Improvement.....	57
4.3	Inter-Instrument Variability	58
4.4	Ultrasound Remains Significantly Operator-Dependent	59
5	Market Opportunity Analysis	62
5.1	Contrast Ultrasound Imaging to Foster Growth	62
5.2	Ultrasound Imaging Set to Get Smaller and Smarter	66

Table of Contents

5.3	Invest in Emerging Technologies	68
5.4	Newer Applications for Diagnostic Ultrasound on the Horizon.....	70
5.5	Fusion Imaging	71
6	Market Drivers and Barriers	72
6.1	Overview.....	72
6.2	Driver: Rising Prevalence of Diseases	72
6.3	Driver: Increased Demand for Cost-Effective Quality Healthcare	73
6.4	Driver: Newer Technologies to Drive the Growth of the Market	74
6.5	Driver: Increased Consciousness Regarding Radiation Dose	75
6.6	Driver: Compact Systems to Drive Growth.....	76
6.7	Driver: Expanding Use of Ultrasound by Non-Radiologists.....	77
6.8	Driver: Steady Reimbursement	78
6.9	Driver: Population-Based Screening Applications Using Diagnostic Ultrasound	79
6.10	Barrier: Shortage of Dedicated Ultrasound Technologists	79
6.11	Barrier: Less Monetary Incentive to use Ultrasound in Comparison with Other Techniques 81	
6.12	Barrier: Lifestyle-Related Diseases May Tip the Scales	82
6.13	Barrier: Reduced Hospital Budgets	84
6.14	Barrier: Medical Device Excise Tax.....	85
6.15	Barrier: Availability of Venture Capital	85
7	Competitive Assessment	87
7.1	Overview.....	87
7.2	Classification Based on Features.....	87
7.2.1	Black and White Ultrasound Imaging Systems	87
7.2.2	Color Ultrasound Imaging Systems	89
7.3	Classification Based on Price.....	91
7.3.1	Premium Ultrasound Systems	91
7.3.2	High-End Systems.....	92

Table of Contents

7.3.3	Mid-Range Systems	93
7.3.4	Low-End Systems	94
7.3.5	Point-of-Care Systems	95
8	Pipeline Assessment.....	97
8.1	Overview.....	97
8.2	Flash Ultrasound (InnerVision Medical Technologies).....	97
8.2.1	Overview	97
8.2.2	SWOT Analysis	98
8.3	Sonic Window (Analogic)	99
8.3.1	Overview	99
8.3.2	SWOT Analysis	99
8.4	Breast Histoscanning (Advanced Medical Diagnostics).....	100
8.4.1	Overview	100
8.4.2	SWOT Analysis	100
8.5	ImagistxProstate (Imagistx).....	101
8.5.1	Overview	101
8.5.2	SWOT Analysis	102
8.6	Breast Imaging Ultrasound System (Sonarium Medical)	102
8.6.1	Overview	102
8.6.2	SWOT Analysis	103
8.7	SoftVue (Delphinus Medical Technologies).....	103
8.7.1	Overview	103
8.7.2	SWOT Analysis	104
9	Current and Future Players.....	105
9.1	Overview.....	105
9.2	Trends in Corporate Strategy	105
9.3	Who Is On Top?	107

Table of Contents

9.4	GE Healthcare	108
9.4.1	Overview	108
9.4.2	Portfolio Assessment.....	108
9.4.3	SWOT Analysis	111
9.5	Siemens.....	111
9.5.1	Overview	111
9.5.2	Portfolio Assessment.....	112
9.5.3	SWOT Analysis	114
9.6	Philips	114
9.6.1	Overview	114
9.6.2	Portfolio Assessment.....	115
9.6.3	SWOT Analysis	118
9.7	Esaote	118
9.7.1	Overview	118
9.7.2	Portfolio Assessment.....	119
9.7.3	SWOT Analysis	121
9.8	Analogic.....	121
9.8.1	Overview	121
9.8.2	Portfolio Assessment.....	122
9.8.3	SWOT Analysis	125
9.9	Toshiba Medical Systems	125
9.9.1	Overview	125
9.9.2	Portfolio Assessment.....	126
9.9.3	SWOT Analysis	128
9.10	Mindray Medical International	128
9.10.1	Overview	128
9.10.2	Portfolio Assessment.....	129

Table of Contents

9.10.3	SWOT Analysis	131
9.11	Hitachi Aloka Medical.....	131
9.11.1	Overview	131
9.11.2	Portfolio Assessment.....	131
9.11.3	SWOT Analysis	133
9.12	Fujifilm Holdings.....	133
9.12.1	Overview	133
9.12.2	Portfolio Assessment.....	134
9.12.3	SWOT Analysis	136
9.13	Samsung Medison	136
9.13.1	Overview	136
9.13.2	Portfolio Assessment.....	137
9.13.3	SWOT Analysis	138
9.14	Terason.....	138
9.14.1	Overview	138
9.14.2	Portfolio Assessment.....	138
9.14.3	SWOT Analysis	140
9.15	SuperSonic Imagine.....	140
9.15.1	Overview	140
9.15.2	Portfolio Assessment.....	141
9.15.3	SWOT Analysis	142
9.16	Other Companies.....	143
10	Market Outlook	144
10.1	Company Market Share	151
10.2	By Market Segment.....	153
10.2.1	Overview	153
10.2.2	Portable Black and White Systems.....	154

Table of Contents

10.2.3	Stand-Alone Black and White Systems	155
10.2.4	Portable Color Systems.....	156
10.2.5	Stand-Alone Color Systems	157
11	Appendix.....	158
11.1	Bibliography	158
11.2	Definitions.....	171
11.3	Abbreviations	172
11.4	Research Methodology	174
11.4.1	Overview.....	174
11.4.2	Coverage	174
11.4.3	Secondary Research.....	175
11.5	Physicians and Specialists Included in this Study	176
11.6	Primary Research	178
11.6.1	Primary Research – Key Opinion Leader Interviews.....	178
11.6.2	Expert Panel Validation	178
11.6.3	Stakeholder Survey.....	179
11.7	Forecasting Methodology.....	181
11.8	About the Authors	182
11.8.1	Analysts	182
11.8.2	Global Head of Healthcare	183
11.9	About GlobalData.....	184
11.10	Disclaimer.....	184

Table of Contents

1.1 List of Tables

Table 1:	Advantages and Disadvantages of Ultrasound Imaging, 2013.....	36
Table 2:	Ultrasound Imaging SWOT Analysis, 2013	36
Table 3:	Diagnostic Ultrasound Procedures in the US (m), 2010–2019.....	48
Table 4:	Other Key Events in the Diagnostic Ultrasound Market	54
Table 5:	Diagnostic Ultrasound Market – Drivers and Barriers, 2013	72
Table 6:	Portable Black and White Systems	87
Table 7:	Stand-Alone Black and White Systems.....	88
Table 8:	Black and White Ultrasound Systems SWOT Analysis, 2013	88
Table 9:	Portable Color Ultrasound Systems	89
Table 10:	Stand-Alone Color Ultrasound Systems.....	90
Table 11:	Color Ultrasound Systems SWOT Analysis, 2013.....	90
Table 12:	Premium Ultrasound Systems	91
Table 13:	Premium Ultrasound Systems SWOT Analysis, 2013	91
Table 14:	High-End Ultrasound Systems.....	92
Table 15:	High-End Ultrasound Systems SWOT Analysis, 2013.....	93
Table 16:	Mid-Range Ultrasound Systems	93
Table 17:	Mid-Range Ultrasound Systems SWOT Analysis, 2013	94
Table 18:	Low-End Ultrasound Systems.....	95
Table 19:	Low-End Ultrasound Systems SWOT Analysis, 2013.....	95
Table 20:	Point-of-Care Ultrasound Systems.....	96
Table 21:	POC Ultrasound Systems SWOT Analysis, 2013.....	96
Table 22:	Flash Ultrasound SWOT Analysis, 2013	98
Table 23:	Sonic Window SWOT Analysis, 2013	99

Table of Contents

Table 24: Breast Histoscanning SWOT Analysis, 2013.....	100
Table 25: ImagistxProstate SWOT Analysis, 2013.....	102
Table 26: Breast Imaging Ultrasound System SWOT Analysis, 2013.....	103
Table 27: SoftVue SWOT Analysis, 2013.....	104
Table 28: GE Healthcare Portfolio Assessment, 2013	110
Table 29: GE Healthcare SWOT Analysis, 2013.....	111
Table 30: Siemens Healthcare Portfolio Assessment, 2013.....	113
Table 31: Siemens Healthcare SWOT Analysis, 2013	114
Table 32: Philips Healthcare, Ultrasound Systems, Marketed Products	117
Table 33: Philips Healthcare SWOT Analysis, 2013	118
Table 34: Esaote Portfolio Assessment, 2013	120
Table 35: Esaote SWOT Analysis, 2013.....	121
Table 36: Analogic Portfolio Assessment, 2013.....	124
Table 37: Analogic SWOT Analysis, 2013	125
Table 38: Toshiba Medical Systems, Portfolio Assessment, 2013.....	127
Table 39: Toshiba Medical Systems SWOT Analysis, 2013.....	128
Table 40: Mindray Medical International, Portfolio Assessment, 2013.....	130
Table 41: Mindray Medical International SWOT Analysis, 2013.....	131
Table 42: Hitachi Aloka Medical Portfolio Assessment, 2013.....	132
Table 43: Hitachi Aloka Medical SWOT Analysis, 2013	133
Table 44: Fujifilm Holdings Portfolio Assessment, 2013.....	135
Table 45: Fujifilm Holdings SWOT Analysis, 2013	136
Table 46: Samsung Medison Portfolio Assessment, 2013	137
Table 47: Samsung Medison SWOT Analysis, 2013.....	138

Table of Contents

Table 48: Terason Portfolio Assessment, 2013	139
Table 49: Terason SWOT Analysis, 2013.....	140
Table 50: SuperSonic Imagine Portfolio Assessment, 2013.....	141
Table 51: SuperSonic Imagine SWOT Analysis, 2013	142
Table 52: Other Companies in the Diagnostic Ultrasound Imaging Market, 2013	143
Table 53: US Diagnostic Ultrasound Sales Forecast by Segment, 2010–2019.....	144
Table 54: Total Installed Base and Unit Sales of Ultrasound Systems in the US, 2010–2019.....	146
Table 55: Installed Base and Unit Sales of Black and White Ultrasound Systems in the US, 2010–2019...	147
Table 56: Installed Base and Unit Sales of Color Ultrasound Systems in the US, 2010–2019	148
Table 57: Change in Average Selling Price in the US, 2010–2019.....	150
Table 58: Company Market Share, US, 2012	151
Table 59: US Diagnostic Ultrasound Sales Forecast, Portable Black and White Systems, 2010–2019	154
Table 60: US Diagnostic Ultrasound Sales Forecast, Stand-Alone Black and White Systems, 2010–2019.	155
Table 61: US Diagnostic Ultrasound Sales Forecast, Portable Color Systems, 2010–2019.....	156
Table 62: US Diagnostic Ultrasound Sales Forecast, Stand-Alone Color Systems, 2010–2019.....	157
Table 63: Primary Research Summary.....	179
Table 64: Primary Research Participants Affiliation	180

Table of Contents

1.2 List of Figures

Figure 1: Ultrasound Imaging	18
Figure 2: Ultrasound Depth vs. Resolution.....	19
Figure 3: A-Mode Ultrasound Image.....	22
Figure 4: B-Mode Ultrasound Image.....	24
Figure 5: M-Mode Ultrasound Image	25
Figure 6: Color Doppler Mode Ultrasound Image.....	26
Figure 7: 3D Ultrasound Image	28
Figure 8: Procedure Trends for Diagnostic Ultrasound in the US – 2013, 2019	49
Figure 9: US Overall Sales (\$m) Forecast for Diagnostic Ultrasound, 2010–2019	145
Figure 10: Total Installed Base and Unit Sales of Ultrasound Systems in the US, 2010–2019.....	146
Figure 11: US Sales (\$m) Forecast for Diagnostic Ultrasound by Segment, 2012, 2019	149
Figure 12: Decline in Average Selling Price of Ultrasound Systems in the US, 2010–2019	150
Figure 13: Company Market Share in the US, 2012.....	152
Figure 14: US Sales (\$m) Forecast for Portable Black and White Systems, 2010–2019.....	154
Figure 15: US Sales (\$m) Forecast for Stand-Alone Black and White Systems, 2010–2019.....	155
Figure 16: US Overall Sales (\$m) Forecast for Portable Color Systems, 2010–2019.....	156
Figure 17: US Overall Sales (\$m) Forecast for Stand-Alone Color Systems, 2010–2019	157
Figure 18: Primary Research Summary.....	179
Figure 19: Primary Research Participants Affiliation	180

Introduction

2 Introduction

An early diagnosis of disease is the foundation for increasing survival rates. Diagnostic ultrasound imaging is the most widely used technique to achieve early detection and clinical assessment of adult and pediatric patients alike, making it a cornerstone of disease control. This report provides an analysis of the diagnostic ultrasound imaging market in the US, and identifies the unmet needs in this ultrasound systems market. This report also discusses physician attitudes towards current diagnostic ultrasound techniques, and the future of diagnostic ultrasound imaging in the face of rapid technological advancements.

2.1 Catalyst

In the past, slow economic growth has hindered the growth of the diagnostic ultrasound market. However, with the advent of miniature and inexpensive ultrasound systems, there has been a revival in the market in terms of sales volumes. This report focuses on the current and future industry trends within the diagnostic ultrasound market, as well as discussing the promising pipeline products, and assessing the competitive landscape.

In addition, this report highlights the current and future applications of ultrasound imaging, and evaluates which ultrasound systems and techniques may have clinical application. This report also identifies the unmet needs within the diagnostic ultrasound market and discusses them in detail.

2.2 Related Reports

- GlobalData (2013). MediFocus: Future of Molecular Imaging, August, 2013, GDME002MFR
- GlobalData (2013). MediPoint: Breast Cancer Imaging – Global Analysis and Market Forecasts, May, 2013, GDME0166MAR

Appendix

11.9 About GlobalData

GlobalData is a leading global provider of business intelligence in the Healthcare industry. GlobalData provides its clients with up-to-date information and analysis on the latest developments in drug research, disease analysis, and clinical research and development. Our integrated business intelligence solutions include a range of interactive online databases, analytical tools, reports and forecasts. Our analysis is supported by a 24/7 client support and analyst team. GlobalData has offices in New York, Boston, London, India and Singapore.

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