

## 2012 AIA Machine Vision Camera Study

### Table of Contents

Chapter	Section	Sub-section	Description	Page No.
<b>1</b>			<b>Executive Summary</b>	<b>1</b>
	<b>1.0</b>		Overview	<b>1</b>
	<b>1.1</b>		Summary of Findings	<b>1</b>
		<b>1.1.1</b>	Market Profile	<b>1</b>
		<b>1.1.2</b>	Retail Pricing Analysis	<b>2</b>
		<b>1.1.3</b>	Sales Analysis	<b>4</b>
		<b>1.1.4</b>	Trend Analysis	<b>5</b>
	<b>1.2</b>		Conclusions	<b>6</b>
<b>2</b>			<b>Study Objectives and Methodology</b>	<b>8</b>
	<b>2.0</b>		Overview	<b>8</b>
	<b>2.1</b>		Study Objectives	<b>8</b>
	<b>2.2</b>		Scope of this Study	<b>9</b>
	<b>2.3</b>		Relationship of this Study to Past AIA Annual MV Studies and the <i>AIA Quarterly Sales Tracking Report</i>	<b>9</b>
	<b>2.4</b>		Methodology	<b>10</b>
<b>3</b>			<b>General Market Description</b>	<b>12</b>
	<b>3.0</b>		Overview	<b>12</b>
	<b>3.1</b>		Market Size	<b>12</b>
	<b>3.2</b>		Market Growth	<b>12</b>
	<b>3.3</b>		Regional Distribution	<b>13</b>
	<b>3.4</b>		Market Growth by Region	<b>14</b>
	<b>3.5</b>		Average Revenue per Unit	<b>14</b>
	<b>3.6</b>		Market Structure	<b>15</b>
		<b>3.6.1</b>	Product Types	<b>15</b>
		<b>3.6.1.1</b>	Digital Interfaces	<b>15</b>
		<b>3.6.2</b>	Market Participants	<b>16</b>
	<b>3.7</b>		Type of Customer	<b>18</b>
	<b>3.8</b>		Chapter Summary	<b>19</b>
<b>4</b>			<b>Retail Pricing Analysis</b>	<b>24</b>
	<b>4.0</b>		Overview	<b>24</b>
	<b>4.1</b>		Methodology	<b>24</b>
	<b>4.2</b>		Price and Interface Technology	<b>24</b>
	<b>4.3</b>		Chapter Summary and Conclusion	<b>34</b>
<b>5</b>			<b>Camera Sales by Product Feature (Sales Analysis)</b>	<b>39</b>
	<b>5.0</b>		Overview	<b>39</b>
	<b>5.1</b>		Sales by Interface	<b>39</b>
	<b>5.2</b>		Sales by Resolution	<b>41</b>
	<b>5.3</b>		Area Scan Sales by Resolution by Interface	<b>42</b>
	<b>5.4</b>		Sales by Sensor Type	<b>45</b>
	<b>5.5</b>		Sales by Sensor Technology: Area Scan vs. Line Scan	<b>42</b>
	<b>5.6</b>		Line Scan Sales – Single-Tap versus Multi-tap	<b>46</b>
	<b>5.7</b>		Sales by Color versus Monochrome	<b>46</b>

## 2012 AIA Machine Vision Camera Study

### Table of Contents (Continued)

Chapter	Section	Sub-section	Description	Page No.
<b>5</b>			<b>Camera Sales by Product Feature (Sales Analysis) (Continued)</b>	-
	<b>5.8</b>		Sales by Type of Light	47
	<b>5.9</b>		Chapter Summary and Conclusion	48
<b>6</b>			<b>Market Trends (Trend Analysis)</b>	52
	<b>6.0</b>		Overview	52
	<b>6.1</b>		Increased Bandwidth	52
	<b>6.2</b>		Interface-Related Trends	52
		<b>6.2.1</b>	Digitalization – Are Analog Cameras Dead?	52
		<b>6.2.2</b>	The Rise of GigE Vision	53
		<b>6.2.3</b>	Relative Growth in Camera Link?	54
		<b>6.2.4</b>	Development of Higher Rate Interfaces	54
		<b>6.2.5</b>	Power over Cable	54
	<b>6.3</b>		Increasing Speed	55
	<b>6.4</b>		A Trend toward Increased Use of Color?	55
	<b>6.5</b>		Increasing Resolution	55
	<b>6.6</b>		Sensor-related Trends	55
	<b>6.7</b>		Scanning Technology Trends	56
	<b>6.8</b>		New Trends	57
		<b>6.8.1</b>	Consumer-driven Technology Trends	57
		<b>6.8.2</b>	A Trend Away from Factory-centric Applications	57
		<b>6.8.3</b>	Application Trends	57
		<b>6.8.4</b>	Emergent Sensor Technologies	58
		<b>6.8.5</b>	Geographic Market-Related Trends	58
	<b>6.9</b>		Chapter Summary and Conclusions	58
<b>7</b>			<b>Summary and Conclusions</b>	60
	<b>7.0</b>		Overview	60
	<b>7.1</b>		Summary of Findings	60
		<b>7.1.1</b>	Market Profile	60
		<b>7.1.2</b>	Retail Pricing Analysis	61
		<b>7.1.3</b>	Sales Analysis	62
		<b>7.1.4</b>	Trend Analysis	64
	<b>7.2</b>		Conclusions	65
			End of Study	66