

Electronic Business' 2007 Top Electronics R&D Spenders										
(Ranked by FY 2006 R&D spending as a percentage of revenue)										
Published July 24, 2007 (www.edn.com/article/CA6462018)										
	FISCAL YEAR 2006			FISCAL YEAR 2005			FISCAL YEAR 2004			
	R&D	R&D	Total	R&D	R&D	Total	R&D	R&D	Total	
Company	spending	spending	Revenues	spending	spending	Revenue	spending	spending	Revenue	
	(% of revenues)	(\$ millions)	(\$ millions)	(% of revenues)	(\$ millions)	(\$ millions)	(% of revenues)	(\$ millions)	(\$ millions)	
1	Cadence Design Systems	31.0%	460.1	1,483.9	27.8%	370.1	1,329.2	29.3%	351.3	1,197.5
2	Broadcom	30.5%	1,117.0	3,667.8	22.8%	610.1	2,670.8	20.6%	495.1	2,400.6
3	Agere Systems *	28.3%	445.0	1,570.0	27.6%	462.0	1,676.0	25.9%	496.0	1,912.0
4	Dassault Systemes	25.9%	395.9	1,528.6	26.8%	296.1	1,106.9	27.9%	302.8	1,086.9
5	Maxim Integrated Products	25.9%	481.0	1,858.9	19.6%	328.2	1,671.7	21.3%	306.3	1,439.3
6	Electronic Arts	25.7%	758.0	2,951.0	20.2%	633.0	3,129.0	17.3%	510.9	2,957.1
7	Advanced Micro Devices	21.3%	1,205.0	5,649.0	19.6%	1,144.0	5,847.6	18.7%	934.6	5,001.4
8	Adobe Systems	21.0%	539.7	2,575.3	18.6%	365.3	1,966.3	18.7%	311.3	1,666.6
9	Analog Devices	20.9%	536.7	2,573.2	20.8%	497.1	2,388.8	19.4%	511.7	2,633.8
10	LSI Logic *	20.9%	413.4	1,982.1	20.7%	397.3	1,919.3	24.8%	421.5	1,700.2
11	Juniper Networks	20.8%	480.2	2,303.6	17.2%	355.4	2,064.0	19.8%	264.4	1,336.0
12	Qualcomm	20.4%	1,538.0	7,526.0	17.8%	1,011.0	5,673.0	14.8%	720.0	4,880.0
13	Autodesk	19.8%	301.6	1,523.2	19.4%	239.4	1,233.8	22.0%	209.3	951.6
14	KLA-Tencor	19.0%	393.8	2,070.6	16.3%	340.3	2,085.2	18.8%	281.0	1,496.7
15	Xilinx	18.9%	326.1	1,726.3	19.5%	307.4	1,573.2	17.7%	247.6	1,397.8
16	Marvell Technology	18.6%	311.5	1,670.3	21.5%	263.3	1,224.6	21.5%	263.3	1,224.6
17	CA	18.4%	697.0	3,796.0	19.8%	704.0	3,560.0	20.2%	662.0	3,276.0
18	Tellabs	17.5%	356.9	2,041.2	18.3%	344.0	1,883.4	20.3%	250.3	1,231.8
19	Atmel	17.3%	289.1	1,667.7	16.5%	276.6	1,675.7	15.0%	247.4	1,649.7
20	Intuit	17.0%	399.0	2,342.3	15.0%	305.2	2,037.7	15.1%	281.1	1,867.7
21	Nortel Networks	17.0%	1,939.0	11,418.0	17.6%	1,856.0	10,523.0	19.9%	1,959.0	9,828.0
22	STMicroelectronics	16.9%	1,667.0	9,854.0	18.4%	1,630.0	8,882.0	17.5%	1,532.0	8,760.0
23	Intel	16.6%	5,873.0	35,382.0	13.3%	5,145.0	38,826.0	14.0%	4,778.0	34,209.0
24	Symantec	16.0%	664.6	4,143.4	12.9%	332.3	2,582.8	13.5%	252.3	1,870.1
25	Infineon Technologies	15.8%	1,584.7	10,060.0	19.1%	1,557.8	8,143.2	17.7%	1,342.8	7,586.0
26	Ericsson	15.7%	4,079.5	25,975.6	16.1%	3,072.7	19,077.0	15.5%	3,091.0	19,954.0
27	Sun Microsystems	15.7%	2,046.0	13,068.0	16.1%	1,785.0	11,070.0	17.2%	1,926.0	11,185.0
28	Texas Instruments	15.4%	2,195.0	14,255.0	15.0%	2,015.0	13,392.0	15.7%	1,978.0	12,580.0
29	National Semiconductor	15.1%	326.6	2,158.1	17.4%	333.0	1,913.1	17.8%	352.8	1,983.1
30	NVIDIA	15.0%	357.1	2,375.7	16.7%	335.1	2,010.0	14.8%	270.0	1,822.9
31	Microsoft	14.9%	6,584.0	44,282.0	15.5%	6,184.0	39,788.0	21.1%	7,779.0	36,835.0
32	Novellus Systems	14.7%	244.2	1,658.5	18.4%	247.3	1,340.5	18.6%	252.1	1,357.3
33	Finmeccanica	14.3%	2,354.0	16,466.4	15.9%	2,063.3	12,972.1	19.6%	2,015.2	10,269.8
34	Cisco Systems	14.3%	4,067.0	28,484.0	13.4%	3,322.0	24,801.0	14.5%	3,192.0	22,045.0
35	SAP	14.2%	1,763.9	12,413.2	12.8%	1,289.4	10,082.5	13.6%	1,391.7	10,252.8
36	BMC Software	14.2%	212.6	1,498.4	15.2%	222.5	1,463.0	41.3%	586.1	1,418.7
37	Lam Research	13.9%	228.9	1,642.2	12.9%	194.1	1,502.5	18.2%	170.5	935.9
38	Spanion	13.5%	347.7	2,579.3	14.8%	295.8	2,002.8	12.4%	280.9	2,262.2
39	Lucent Technologies	13.4%	1,177.0	8,796.0	12.5%	1,177.0	9,441.0	14.0%	1,270.0	9,045.0
40	Agilent Technologies	13.2%	655.0	4,973.0	14.4%	738.0	5,139.0	13.0%	933.0	7,181.0

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41 Oracle	13.0%	1,872.0	14,380.0	12.6%	1,491.0	11,799.0	12.6%	1,278.0	10,156.0
42 Applied Materials	12.6%	1,152.3	9,167.0	13.5%	940.5	6,991.8	12.4%	991.9	8,013.1
43 Micron Technology	12.4%	656.0	5,272.0	12.4%	603.7	4,880.2	17.1%	754.9	4,404.2
44 ZTE	12.3%	363.3	2,953.7	9.1%	242.9	2,674.6	9.9%	272.4	2,742.3
45 Alcatel	11.9%	1,935.0	16,209.0	11.0%	1,709.2	15,557.8	12.9%	2,165.3	16,734.4
46 Network Appliance	11.8%	243.0	2,066.5	10.7%	171.0	1,598.1	11.3%	131.9	1,170.3
47 ASML	11.5%	546.2	4,749.1	13.8%	412.1	2,995.4	8.2%	275.1	3,363.8
48 Qimonda	11.4%	549.4	4,840.2	13.8%	469.9	3,403.6	11.5%	427.9	3,709.2
49 EMC	11.2%	1,254.2	11,155.1	10.4%	1,004.8	9,664.0	10.3%	847.9	8,229.5
50 Chartered Semiconductor Manufacturing	10.8%	152.8	1,414.5	11.8%	122.1	1,032.7	12.7%	118.3	932.1
51 Advantest	10.6%	229.0	2,159.9	11.0%	244.7	2,229.6	12.4%	204.9	1,649.7
52 Carl Zeiss	10.4%	322.3	3,086.8	N/A	N/A	2,677.4	9.8%	257.7	2,632.2
53 Sage Group	10.2%	179.2	1,752.0	10.5%	143.9	1,369.0	10.8%	133.9	1,236.8
54 BAE Systems	10.1%	2,445.0	24,162.0	13.1%	2,493.4	18,961.4	18.9%	3,313.8	17,522.4
55 Elpida Memory	10.1%	207.5	2,054.7	9.5%	183.3	1,925.5	20.8%	197.8	951.1
56 Corning	10.0%	517.0	5,174.0	9.7%	443.0	4,579.0	9.2%	355.0	3,854.0
57 Motorola	9.6%	4,106.0	42,879.0	10.0%	3,680.0	36,843.0	9.8%	3,060.0	31,323.0
58 Nokia	9.5%	5,145.1	54,290.8	11.2%	4,530.5	40,497.5	12.8%	5,093.3	39,931.9
59 Samsung Electronics	9.5%	6,082.6	64,327.8	9.4%	5,434.7	57,722.0	8.2%	4,600.0	56,197.3
60 SanDisk	9.4%	306.9	3,257.5	8.4%	194.8	2,306.1	7.0%	125.0	1,777.1
61 Misys	9.4%	167.9	1,784.7	10.2%	165.4	1,619.9	9.8%	162.2	1,650.8
62 Harman International Industries	9.3%	302.0	3,247.9	7.3%	222.6	3,030.9	8.0%	216.9	2,711.4
63 Activision	9.0%	131.8	1,468.0	6.2%	86.5	1,405.9	10.3%	97.9	947.7
64 Huawei Technologies	8.9%	752.6	8,448.9	10.1%	588.6	5,822.1	12.6%	480.3	3,808.3
65 United Microelectronics	8.9%	283.5	3,195.2	9.6%	293.2	3,053.3	5.7%	230.3	4,041.1
66 Omron	8.8%	470.5	5,331.5	8.1%	459.8	5,660.2	8.0%	440.3	5,538.3
67 Seagate Technology	8.7%	805.0	9,206.0	8.5%	645.0	7,553.0	10.7%	666.0	6,224.0
68 Rohm	8.7%	287.5	3,298.6	8.8%	300.8	3,432.1	8.8%	297.1	3,366.4
69 Palm	8.6%	136.0	1,578.5	7.1%	89.8	1,270.4	7.3%	69.4	949.7
70 Nanya Technology	8.5%	194.4	2,296.2	10.5%	159.5	1,514.9	10.6%	134.8	1,267.7
71 Avaya	8.3%	428.0	5,148.0	8.0%	394.0	4,902.0	8.6%	348.0	4,069.0
72 Pioneer	8.3%	539.6	6,502.2	7.6%	519.9	6,823.4	7.3%	487.2	6,636.7
73 Hitachi Kokusai Electric	8.1%	109.0	1,353.0	7.3%	108.5	1,481.2	8.6%	117.1	1,354.0
74 Denso	8.0%	2,180.4	27,120.2	8.5%	2,215.8	26,041.2	8.4%	2,035.0	24,263.5
75 Delphi	8.0%	2,100.0	26,392.0	8.2%	2,200.0	26,947.0	7.3%	2,100.0	28,867.0
76 Yokogawa Electric	8.0%	263.0	3,307.8	7.5%	269.7	3,599.8	0.8%	27.0	3,519.0
77 Research in Motion	7.6%	157.6	2,065.8	7.5%	101.2	1,350.4	10.5%	62.6	594.6
78 Amdocs	7.5%	186.8	2,480.1	7.1%	144.5	2,038.6	7.1%	126.4	1,773.7
79 Canon	7.4%	2,590.5	34,926.7	7.3%	2,336.2	31,858.3	8.0%	2,671.5	33,344.7
80 Japan Radio	7.3%	111.5	1,521.3	8.2%	174.5	2,131.6	2.8%	73.5	2,637.8
81 Tokyo Electron	7.3%	418.3	5,730.4	6.9%	408.2	5,912.5	8.3%	418.1	5,015.3
82 Lexmark	7.3%	370.5	5,108.1	6.4%	336.4	5,221.5	5.9%	312.7	5,313.8
83 Océ	7.2%	296.5	4,098.5	7.3%	229.3	3,138.4	7.8%	274.8	3,520.3
84 Rockwell Collins	7.2%	279.0	3,863.0	17.2%	591.0	3,445.0	7.4%	218.0	2,930.0

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85	Sony	7.1%	4,523.5	63,586.8	7.0%	4,669.0	66,588.7	6.9%	4,947.0	72,081.0
86	BenQ	7.1%	432.9	6,094.0	4.3%	213.3	4,940.7	2.6%	142.5	5,505.4
87	Murata	7.1%	295.1	4,174.7	7.7%	305.5	3,947.8	8.2%	323.5	3,921.3
88	DST Systems	7.0%	157.6	2,235.8	7.5%	189.2	2,515.1	10.4%	251.6	2,428.6
89	NEC	6.9%	2,838.2	41,041.3	5.7%	2,560.9	45,155.6	5.2%	2,468.0	47,022.0
90	SAFRAN	6.9%	984.9	14,313.0	5.4%	556.7	10,295.2	9.0%	438.0	4,866.8
91	Western Digital	6.8%	297.2	4,341.3	6.6%	238.5	3,638.8	6.6%	201.0	3,046.7
92	Fuji Photo Film	6.8%	1,549.4	22,690.0	6.6%	1,562.7	23,506.1	6.8%	1,641.2	24,244.3
93	IBM	6.7%	6,107.0	91,424.0	6.4%	5,842.0	91,134.0	5.9%	5,673.0	96,293.0
94	3M	6.6%	1,522.0	22,923.0	6.0%	1,274.0	21,167.0	6.2%	1,246.0	20,011.0
95	Alcatel Shanghai Bell	6.6%	127.6	1,926.0	7.6%	113.0	1,488.9	7.3%	99.7	1,364.7
96	ON Semiconductor	6.6%	101.2	1,531.8	7.4%	93.7	1,260.6	7.5%	94.4	1,266.9
97	SEGA Sammy	6.6%	309.1	4,705.9	8.1%	386.8	4,796.0	N/A	N/A	1,810.4
98	Fairchild Semiconductor	6.5%	107.5	1,651.1	5.4%	77.6	1,425.1	5.1%	82.0	1,603.1
99	Sanken Electric	6.5%	95.7	1,476.0	6.9%	99.8	1,452.9	6.6%	92.4	1,392.5
100	PerkinElmer	6.4%	99.7	1,546.4	5.9%	87.3	1,473.8	5.2%	87.1	1,687.2
101	Gemalto	6.4%	112.3	1,742.0	6.8%	63.6	938.8	7.2%	85.4	1,180.3
102	SMIC	6.4%	93.9	1,465.2	6.7%	78.9	1,171.3	7.6%	74.1	974.7
103	Garmin	6.4%	113.3	1,774.0	7.3%	74.9	1,027.8	8.1%	61.6	762.5
104	Matsushita Electric Industrial	6.3%	4,804.1	75,656.0	7.1%	5,724.7	81,042.0	7.5%	5,482.6	73,428.4
105	Konica Minolta	6.3%	571.4	9,087.8	6.2%	613.8	9,927.9	5.7%	464.9	8,144.7
106	EADS	6.2%	3,245.2	52,063.5	6.1%	2,457.7	40,515.0	6.7%	2,891.2	43,334.7
107	Haier Group	6.2%	862.9	13,852.6	4.4%	565.9	12,884.0	4.3%	527.4	12,278.5
108	Clarion	6.2%	96.4	1,566.6	6.0%	99.1	1,658.5	0.2%	3.2	1,599.8
109	Goodrich	6.1%	360.0	5,878.3	7.0%	379.0	5,396.5	7.4%	346.2	4,700.4
110	Hynix Semiconductor	6.1%	503.5	8,256.5	5.6%	332.8	5,985.3	5.9%	385.0	6,536.8
111	Philips Electronics	6.0%	2,202.2	36,615.6	8.4%	3,023.9	36,001.4	8.4%	3,457.4	41,367.2
112	Nintendo	6.0%	260.3	4,328.1	4.0%	190.8	4,789.7	3.1%	149.8	4,870.9
113	SunGard Data Systems	5.9%	255.0	4,323.0	6.2%	250.0	4,002.0	6.6%	236.4	3,555.9
114	Toshiba	5.9%	3,168.1	53,958.5	6.0%	3,236.7	54,279.6	6.0%	3,188.3	52,815.6
115	Xerox	5.8%	922.0	15,895.0	6.0%	943.0	15,701.0	4.8%	760.0	15,722.0
116	Ricoh	5.8%	938.9	16,289.9	6.1%	1,027.5	16,872.3	0.3%	57.0	17,117.7
117	Siemens	5.8%	6,374.2	110,794.0	6.8%	6,210.7	90,896.1	6.1%	5,733.9	93,455.0
118	TDK	5.7%	387.0	6,763.9	5.5%	338.1	6,118.4	5.0%	312.0	6,209.7
119	Agfa-Gevaert	5.7%	254.8	4,490.2	5.8%	226.2	3,918.2	5.1%	260.5	5,132.9
120	Sharp	5.5%	1,313.0	23,792.5	5.8%	1,377.7	23,622.2	6.1%	1,313.8	21,367.3
121	Tsinghua Tongfang	5.5%	85.6	1,567.3	5.3%	64.0	1,218.2	5.9%	58.9	1,005.6
122	Nidec	5.4%	248.7	4,566.6	5.3%	241.1	4,518.8	3.2%	82.9	2,627.6
123	EPCOS	5.4%	90.3	1,661.4	5.7%	84.7	1,491.0	5.4%	92.0	1,693.6
124	Harris	5.4%	187.8	3,474.8	29.0%	870.0	3,000.6	33.4%	841.0	2,518.6
125	Dainippon Screen	5.4%	112.9	2,097.0	4.7%	117.4	2,505.0	5.8%	105.4	1,817.5
126	Eastman Kodak	5.3%	710.0	13,274.0	6.3%	892.0	14,268.0	6.3%	854.0	13,517.0
127	Boeing	5.3%	3,257.0	61,530.0	4.0%	2,205.0	54,845.0	3.6%	1,879.0	52,457.0
128	Andrew	5.3%	113.0	2,146.1	5.5%	107.9	1,961.2	6.0%	110.2	1,838.7

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129	Visteon	5.2%	594.0	11,418.0	4.7%	804.0	16,976.0	4.8%	896.0	18,657.0
130	Mettler-Toledo	5.2%	82.8	1,594.9	5.5%	81.9	1,482.5	5.9%	83.2	1,404.5
131	Nikon	5.1%	315.9	6,217.5	5.3%	312.1	5,938.1	6.0%	285.6	4,794.9
132	Taiwan Semiconductor Manufacturing	5.1%	493.4	9,742.4	5.2%	426.6	8,156.9	4.9%	391.5	8,007.4
133	Langchao Group (Inspur)	5.1%	98.6	1,949.8	5.3%	83.3	1,560.3	4.9%	62.5	1,279.2
134	Fujitsu	5.0%	2,054.8	40,756.3	5.0%	2,234.2	44,296.5	5.3%	2,375.8	45,123.4
135	Sanyo Electric	5.0%	1,078.3	21,700.3	5.0%	1,226.1	24,361.5	4.8%	1,185.6	24,527.7
136	Oerlikon (formerly Unaxis)	4.9%	92.7	1,879.8	9.2%	112.5	1,220.1	9.7%	159.1	1,635.1
137	Molex	4.9%	140.9	2,861.3	5.2%	133.6	2,548.7	5.3%	119.0	2,246.7
138	Logitech	4.9%	88.0	1,796.7	5.0%	73.9	1,482.6	4.8%	61.3	1,268.5
139	Konka Group	4.9%	79.4	1,623.6	5.1%	73.0	1,439.5	5.2%	83.4	1,614.4
140	Kyocera	4.9%	488.6	10,049.9	4.6%	505.9	10,980.8	4.1%	441.5	10,802.4
141	Victor of Japan (JVC)	4.8%	329.4	6,863.6	4.7%	365.8	7,818.0	4.4%	382.8	8,697.9
142	Thomson	4.8%	368.4	7,728.9	4.1%	277.2	6,740.7	3.5%	377.9	10,907.0
143	Changhong	4.7%	129.7	2,758.8	4.8%	107.0	2,246.1	N/A	N/A	1,393.6
144	Olympus	4.7%	390.7	8,320.0	5.9%	443.8	7,566.4	7.3%	366.1	5,015.3
145	Danaher	4.6%	446.0	9,596.4	4.7%	379.0	7,984.7	4.3%	294.0	6,889.3
146	Continental	4.5%	893.8	19,654.9	4.3%	698.1	16,389.5	4.2%	1,019.3	24,270.2
147	Schneider Electric	4.5%	823.8	18,126.9	2.3%	324.2	13,833.0	5.2%	730.2	14,142.0
148	Yamaha	4.5%	204.6	4,543.0	4.3%	213.5	4,967.3	4.2%	213.1	5,107.0
149	Honeywell	4.5%	1,411.0	31,367.0	3.9%	1,072.0	27,653.0	3.6%	917.0	25,601.0
150	DuPont	4.5%	1,302.0	28,982.0	5.0%	1,336.0	26,639.0	4.9%	1,333.0	27,340.0
151	Thermo Fisher Scientific	4.5%	170.2	3,791.6	5.8%	152.8	2,633.0	6.1%	134.7	2,206.0
152	Wincor Nixdorf	4.5%	110.9	2,471.0	4.5%	94.0	2,100.8	4.6%	89.9	1,943.3
153	Hitachi Chemical	4.5%	229.1	5,126.7	4.5%	233.1	5,167.1	4.8%	235.9	4,936.7
154	Yamatake	4.4%	71.1	1,601.9	4.5%	76.0	1,681.2	4.8%	76.7	1,609.3
155	Delta Electronics	4.4%	143.0	3,229.5	4.8%	117.0	2,460.1	5.7%	100.8	1,766.5
156	Hisense	4.4%	244.1	5,583.0	N/A	177.5	4,137.5	4.5%	150.0	3,297.5
157	Brother	4.4%	214.8	4,926.6	5.0%	204.5	4,078.7	5.0%	202.6	4,023.6
158	Hitachi	4.3%	3,445.6	80,508.5	4.3%	3,614.5	83,956.9	4.3%	3,520.7	81,438.0
159	Fanuc	4.2%	136.7	3,241.5	4.6%	140.8	3,072.4	5.4%	135.3	2,506.9
160	Desay Holdings	4.2%	72.9	1,735.9	4.3%	62.8	1,453.9	4.7%	58.3	1,239.0
161	TCL	4.1%	243.7	6,009.0	3.7%	241.7	6,464.5	3.4%	170.6	5,084.9
162	Unisys	4.0%	231.7	5,757.2	4.6%	263.9	5,758.7	5.1%	294.3	5,820.7
163	Bull	4.0%	60.6	1,513.7	4.4%	60.5	1,389.5	4.7%	73.7	1,553.6
164	Hewlett-Packard	3.9%	3,591.0	91,658.0	4.0%	3,490.0	86,696.0	4.4%	3,506.0	79,905.0
165	Funai Electric	3.9%	120.0	3,069.7	3.2%	112.4	3,562.4	3.4%	110.5	3,238.6
166	NCR	3.8%	236.0	6,142.0	4.1%	245.0	6,028.0	4.0%	242.0	5,984.0
167	Taiyo Yuden	3.8%	60.4	1,586.7	4.4%	70.5	1,602.8	N/A	N/A	1,546.6
168	Matsushita Electric Works	3.8%	516.9	13,666.0	3.8%	178.4 **	4,675.9	4.2%	544.3	12,987.4
169	Founder Group	3.8%	149.5	3,960.7	4.9%	157.4	3,208.2	5.2%	138.5	2,687.7
170	Invensys	3.7%	160.0	4,274.6	4.2%	233.0	5,492.3	4.2%	317.9	7,496.4
171	Apple	3.7%	712.0	19,315.0	3.8%	534.0	13,931.0	5.9%	489.0	8,279.0
172	LG Electronics	3.6%	1,821.2	50,547.5	4.0%	1,781.6	44,649.6	5.0%	1,204.1	24,045.3

	Company	FISCAL YEAR 2006			FISCAL YEAR 2005			FISCAL YEAR 2004		
		R&D	R&D	Total	R&D	R&D	Total	R&D	R&D	Total
		spending (% of revenues)	spending (\$ millions)	Revenues (\$ millions)	spending (% of revenues)	spending (\$ millions)	Revenue (\$ millions)	spending (% of revenues)	spending (\$ millions)	Revenue (\$ millions)
173	Skyworth	3.5%	66.9	1,896.7	3.8%	61.0	1,619.0	3.4%	50.8	1,494.1
174	Thales	3.5%	476.4	13,551.6	3.6%	433.5	12,156.2	3.5%	498.0	14,037.5
175	Xoceco	3.4%	51.9	1,508.7	3.8%	41.1	1,091.4	2.7%	23.9	888.1
176	Midea Group	3.4%	227.8	6,646.1	3.1%	165.6	5,268.1	3.0%	108.0	3,630.2
177	SVA Group	3.3%	114.7	3,424.2	3.4%	124.7	3,632.3	3.5%	142.8	4,110.6
178	Mitsubishi Electric	3.3%	1,029.6	31,048.7	3.5%	1,098.5	31,721.4	4.1%	1,292.7	31,339.1
179	Shimadzu	3.3%	68.3	2,063.9	3.4%	73.6	2,172.2	3.3%	67.9	2,063.7
180	Citizen Watch	3.3%	94.2	2,857.5	2.9%	95.0	3,323.0	2.5%	89.6	3,556.5
181	Nitto Denko	3.3%	174.3	5,327.5	3.3%	155.7	4,788.6	3.5%	149.8	4,286.9
182	Fuji Electric	3.2%	246.9	7,632.3	3.2%	253.2	7,851.6	1.2%	97.5	7,993.7
183	General Dynamics	3.2%	775.0	24,063.0	2.6%	550.0	21,244.0	2.7%	523.0	19,178.0
184	Imation	3.2%	50.0	1,584.7	4.1%	51.3	1,258.1	4.7%	56.9	1,219.3
185	Casio Computer	3.1%	154.9	4,936.2	3.0%	154.5	5,199.1	2.7%	134.3	4,957.3
186	Chunghwa Picture Tubes	3.1%	121.2	3,889.3	3.4%	107.6	3,145.0	2.7%	99.6	3,663.0
187	Smiths Group	3.1%	205.4	6,674.6	4.8%	252.5	5,304.4	5.0%	249.2	4,974.8
188	HannStar	2.9%	59	2,003.6	2.6%	48.6	1,898.2	2.9%	35.5	1,212.5
189	BYD	2.9%	50.2	1,707.8	6.0%	49.2	818.6	3.0%	23.2	774.2
190	Tatung	2.9%	170.8	5,835.5	2.6%	164.7	6,237.8	1.6%	46.2	2,968.2
191	Pitney Bowes	2.9%	165.4	5,730.0	3.0%	164.8	5,492.2	3.2%	159.8	4,957.4
192	Rockwell Automation	2.9%	160.4	5,561.4	2.8%	138.6	5,003.2	2.8%	121.7	4,411.1
193	Oki Electric Industry	2.9%	166.8	5,788.6	3.2%	204.5	6,403.9	2.5%	152.6	6,194.6
194	Seiko Epson	2.9%	379.1	13,180.8	2.9%	399.0	13,762.6	6.4%	856.8	13,382.0
195	Lockheed Martin	2.9%	1,139.0	39,620.0	2.8%	1,042.0	37,213.0	2.7%	962.0	35,526.0
196	Nippon Telegraph and Telephone (NTT)	2.9%	2,623.7	91,365.2	2.9%	2,958.3	100,501.0	3.2%	3,380.0	105,672.0
197	Chi Mei Optoelectronics	2.9%	167.4	5,856.8	2.7%	130.9	4,876.6	2.4%	87.6	3,688.6
198	Minebea	2.8%	77.0	2,708.7	3.4%	93.1	2,738.3	3.6%	91.3	2,541.2
199	Shin-Etsu Chemical	2.8%	272.2	9,594.2	2.9%	259.7	8,998.2	3.2%	249.3	7,885.8
200	High Tech Computer	2.8%	91.3	3,233.8	3.3%	73.0	2,226.3	5.6%	62.4	1,113.6
201	Giga-Byte Technology	2.8%	39.9	1,433.4	2.3%	33.1	1,410.4	2.3%	27.9	1,205.1
202	Powerchip Semiconductor	2.8%	78.2	2,830.6	3.4%	54.0	1,571.2	1.8%	32.8	1,796.8
203	Advanced Semiconductor Engineering	2.6%	80.8	3,082.4	3.2%	87.8	2,712.6	2.8%	37.5	1,351.5
204	Universal Scientific Industrial	2.6%	42.4	1,633.3	2.1%	33.1	1,590.4	0.2%	31.0	16,650.8
205	Yaskawa Electric	2.5%	68.7	2,746.8	2.5%	72.0	2,879.6	2.9%	70.9	2,464.2
206	Mitac	2.5%	70.1	2,814.5	2.0%	44.8	2,261.6	2.3%	36.6	1,578.3
207	Diebold	2.4%	71.0	2,906.2	2.3%	60.4	2,594.0	2.5%	60.0	2,380.9
208	Wanbao Group	2.4%	35.4	1,473.7	2.4%	32.0	1,331.1	1.2%	14.5	1,251.1
209	Dover	2.4%	155.0	6,511.6	3.2%	192.2	6,078.4	3.4%	188.3	5,488.1
210	Ametek	2.3%	42.0	1,819.3	2.4%	34.8	1,434.5	5.4%	66.0	1,232.3
211	Johnson Controls	2.3%	743.0	32,235.0	3.0%	817.0	27,479.4	3.2%	844.0	26,553.4
212	Raytheon	2.3%	464.0	20,291.0	2.3%	503.0	21,894.0	2.4%	491.0	20,245.0
213	General Electric	2.2%	3,659.0	163,391.0	2.3%	3,425.0	149,702.0	2.0%	3,091.0	152,866.0
214	Tyco	2.2%	914.0	40,960.0	2.1%	836.0	39,727.0	1.9%	778.0	40,153.0
215	Kinpo Electronics	2.2%	30.5	1,395.3	2.3%	45.1	1,965.5	2.2%	41.2	1,833.2
216	Shenzhen Huaqiang Holdings	2.2%	39.1	1,791.0	1.9%	37.6	1,940.8	3.5%	62.3	1,779.3

Company	FISCAL YEAR 2006			FISCAL YEAR 2005			FISCAL YEAR 2004			
	R&D	R&D	Total	R&D	R&D	Total	R&D	R&D	Total	
	spending (% of revenues)	spending (\$ millions)	Revenues (\$ millions)	spending (% of revenues)	spending (\$ millions)	Revenue (\$ millions)	spending (% of revenues)	spending (\$ millions)	Revenue (\$ millions)	
217	Micro-Star	2.2%	54.0	2,478.4	2.1%	48.0	2,260.6	2.5%	50.5	2,056.7
218	Amphenol	2.2%	53.7	2,471.4	2.2%	40.1	1,808.1	2.1%	32.4	1,530.4
219	Ibiden	2.1%	57.8	2,713.6	2.4%	55.6	2,302.8	2.4%	56.6	2,344.5
220	Siliconware Precision Industries	2.1%	36.7	1,729.7	2.0%	26.1	1,323.6	2.1%	23.5	1,102.8
221	Furukawa Electric	2.1%	153.1	7,421.9	2.2%	160.0	7,216.3	2.6%	180.9	7,005.8
222	ITT Industries	2.1%	160.9	7,807.9	2.4%	177.6	7,427.3	9.4%	634.0	6,764.1
223	SUMCO	2.1%	38.7	1,878.0	2.2%	41.2	1,866.6	N/A	N/A	N/A
224	Coretronic	2.0%	46.5	2,280.0	2.3%	42.2	1,847.2	2.1%	30.9	1,506.3
225	Vishay Intertechnology	2.0%	52.1	2,581.5	0.4%	9.7	2,296.5	0.1%	1.5	2,413.6
226	CGI Group	2.0%	58.9	2,984.1	0.3%	8.0	3,148.5	0.8%	21.0	2,574.5
227	Northrop Grumman	1.9%	574.0	30,148.0	1.8%	538.0	30,721.0	1.7%	504.0	29,853.0
228	STATS ChipPac	1.9%	30.4	1,616.9	2.3%	26.1	1,157.3	2.3%	17.6	769.1
229	Emerson	1.8%	356.0	20,133.0	1.8%	303.0	17,305.0	3.1%	486.0	15,615.0
230	Lite-On Technology	1.7%	115.4	6,820.1	1.6%	112.1	6,924.5	1.3%	63.5	4,873.9
231	AU Optronics	1.6%	146.2	8,996.5	2.2%	149.0	6,628.0	3.0%	156.8	5,258.5
232	Compal Electronics	1.6%	149.7	9,302.4	1.4%	110.1	8,079.8	1.3%	92.2	7,181.9
233	CSK	1.5%	31.7	2,051.3	0.1%	2.0	2,976.1	0.1%	2.5	3,581.0
234	Galanx Group	1.5%	28.2	1,880.4	1.5%	25.1	1,676.8	1.5%	18.7	1,248.0
235	BOE Technology Group	1.4%	116.6	8,095.1	1.7%	114.8	6,794.8	1.7%	93.2	5,449.6
236	Legend Holdings (Lenovo)	1.4%	192	13,344.0	1.7%	48.6	2,892.0	2.8%	142.2	5,064.9
237	Venture	1.4%	29.0	2,037.6	1.1%	21.1	1,944.4	0.1%	2.2	1,949.9
238	Amkor Technology	1.4%	38.7	2,728.6	1.8%	37.3	2,099.9	1.9%	36.7	1,901.3
239	Asustek Computer	1.4%	236.9	17,195.7	1.7%	185.3	10,891.5	4.0%	96.7	2,441.5
240	Wistron	1.4%	91.8	6,785.0	1.6%	81.3	5,013.9	1.9%	70.7	3,658.0
241	Inventec	1.3%	105.6	7,890.3	1.4%	81.9	6,048.7	1.0%	44.1	4,298.6
242	Great Wall Tech	1.2%	31.3	2,567.5	2.4%	44.4	1,870.7	1.3%	20.2	1,535.1
243	LogicaCMG	1.1%	56.6	5,221.5	1.4%	43.9	3,156.1	2.5%	79.2	3,217.0
244	Elitegroup Computer Systems	1.0%	21.9	2,230.8	0.9%	10.7	1,211.8	1.5%	18.2	1,244.6
245	Quanta Computer	0.9%	153.3	16,503.4	1.1%	161.6	14,585.9	0.9%	91.9	10,368.3
246	Dell	0.8%	463.0	55,908.0	0.9%	463.0	49,205.0	1.1%	464.0	41,444.0
247	AVX	0.8%	10.9	1,333.2	2.9%	37.0	1,283.2	3.4%	39.0	1,136.6
248	Hon Hai Precision	0.8%	327.1	40,527.2	1.0%	265.8	27,751.4	1.0%	127.9	13,189.8
249	TPV Technology	0.7%	51.4	7,176.3	0.6%	29.2	5,054.0	0.6%	21.2	3,738.2
250	L-3 Communications	0.7%	86.3	12,476.9	0.7%	65.7	9,444.7	1.0%	71.2	6,897.0
SOURCE: REED BUSINESS INFORMATION										
* Agere Systems and LSI Logic merged 04/02/07 to form LSI Corp.										
** For the four months ended 03/31/05.										