

There are two truths important to note about these rankings. The first is that they represent satisfaction levels of VARs — the voting population is comprised of value added resellers, system integrators and solution providers, all of whom are informed, active buyers of these technologies. The second truth is that all companies appearing on these pages are winners. Voters were asked to evaluate a large pool of companies, but only the top ten (or in the case of touch screens and hand held/mobile devices, the top five) made their respective Leaderboard. Those that ranked demonstrate a superior ability to deliver on the litmus test of customer satisfaction, and are members of a very elite group of technology pioneers.

Interpreting the Data

Each vendor was evaluated on its ability to deliver on customer (VAR) satisfaction in these five key criteria: product features and functionality; product innovation; product reliability; the vendor's support and service offerings; and competitive pricing. A maximum of five points could be awarded by voters for each of the criteria, leading to a total possible cumulative score of 25 points in each product category. The POS Hardware Leaderboard Top 50 chart shown on this page is a listing of vendors based on those cumulative scores. (Note that because some vendors were included in more than one product category, the Top 50 represents 50 rankings, but 38 individual companies.) For all hardware categories, a criteria breakdown chart is included on the following pages. Each offers a look at how ranking vendors scored in the five evaluation criteria.

The survey was conducted through VSR's research partner, Litchfield Research. Readers were asked, via a secure Web site, to evaluate only those companies whose products they have sold or implemented within the last 24 months, helping to ensure that the results are based not only on current reseller impressions and experiences, but also that only those resellers who

TOP 50 POS HARDWARE WINNERS

{RECEIPT PRINTERS}

Rank	Company	Cumulative Score
1	Epson	22.0
2	Samsung	20.3
3	POS-X	20.2
4	Star Micronics	19.7
5	Zebra Technologies	19.1
6	IBM – TIE	19.0
6	Citizen – TIE	19.0
8	Ithaca/Transact Technologies	18.0
9	NCR	17.4
10	Seiko Instruments	17.3

{INTEGRATED POS}

Rank	Company	Cumulative Score
1	Touch Dynamic	22.5
2	Micros	19.7
3	Posiflex	19.6
4	IBM	19.4
5	Pioneer Electronics	18.5
6	NCR	18.2
7	Datasym	18.1
8	Fujitsu	16.3
9	POS-X	16.2
10	Sharp Electronics	16.1

{SCANNERS}

Rank	Company	Cumulative Score
1	Metrologic Instruments	22.5
2	Symbol Technologies	21.3
3	Hand Held Products - TIE	20.7
3	PSC - TIE	20.7
5	CipherLab	19.6
6	Intermec Technologies	17.9
7	Unitech - TIE	17.8
7	Wasp Technologies- TIE	17.8
9	Opticon	16.8
10	NCR	16.6

{KEYBOARDS/CASH DRAWERS}

Rank	Company	Cumulative Score
1	APG Cash Drawer	22.2
2	MMF Cash Drawer	21.2
3	POS-X	21.1
4	M-S Cash Drawer	20.5
5	IBM	19.7
6	NCR	19.1
7	Cherry - TIE	18.6
8	Posiflex - TIE	18.6
9	Logic Controls	17.9
10	Preh Electronics	16.2

{TOUCH SCREENS}

Rank	Company	Cumulative Score
1	Elo Touch Systems	21.8
2	Touch Dynamic	21.7
3	3M Touch Systems	19.4
4	NEC	17.3
5	Gvision	17.1

{HAND HELD/MOBILE DEVICES}

Rank	Company	Cumulative Score
1	Symbol Technologies	21.2
2	Hand Held Products	19.7
3	Micros	19.6
4	Intermec Technologies	19.5
5	Fujitsu	18.6

*Cumulative score out of 25 possible points



have knowledge of a company's products evaluated that vendor. In all, VSR received 974 valid votes from 284 separate respondents.

In the interests of full disclosure, it is important to note that Litchfield Research applied a mathematical weighting scale to the results across all vendors, product categories and criteria based upon the number of votes a vendor received, to take into account the size of a company's

A maximum of five points could be awarded by voters for each of the criteria, leading to a total possible cumulative score of 25 points in each product category.

footprint in the industry. Weighting based on number of cast votes is a standard practice in such evaluations and helps ensure that results are not skewed for companies with far fewer or far more votes than the average.

Finally, VSR accepted no vendor sponsorships for the POS Hardware Leaderboard — therefore no vendor is included or left out for sponsorship or lack thereof. This ranking is a true head-to-head comparison based upon the opinions of VSR readers; knowing what a savvy group of VARs they are, congratulations are due to all companies who made this year's cut."

BY THE NUMBERS

Here's a round-up of the numbers, cut up, down and sideways, that are the backbone of the POS Hardware Leaderboard.

Median average cumulative score:

19

{out of 25 possible points}

22.5

Highest cumulative score {Metrologic Instruments, Scanners and Touch Dynamic, Integrated POS Units}

Most evaluations cast for one company: {EPSON}

26 median average number of evaluations cast per company

177

Highest Ranking Companies by Criteria

{Features} 4.84, Epson, Receipt Printers

{Innovation} 4.56, Touch Dynamic, Integrated POS

{Reliability} 4.76, Epson, Receipt Printers

{Support/Service} 4.56, Touch Dynamic, Integrated POS

{Pricing} 4.47, Metrologic Instruments, POS Scanners
{out of 5 possible points}

163 median average number of evaluations cast per category

974
total evaluations cast

A total of **284** VARs evaluated vendors.

Most evaluations cast for one hardware category:

214
{RECEIPT PRINTERS}

Total number of companies earning a rank in the Leaderboard:

38

RECEIPT PRINTERS

Of all POS hardware technology, it may be that the receipt printer market is the most competitive. Manufacturers are constantly challenged to keep up with increasing demand for operational efficiency and functionality. In addition to the basic needs of faster billing and checking, retailers are demanding products that can enhance their customers' shopping experience.

Topping the POS Hardware Leaderboard in the receipt printer category is a company that continues to elevate its offerings, staying true to its reputation as a market leader. Epson America, Inc. achieved a total cumulative score of 22 out of 25 possible points, not only winning the category, but also scoring the highest among its competitors in five of the six evaluation criteria. Samsung took

top honors in competitive pricing, and came in second across the remaining five criteria. Rounding out the list of the top three is POS-X.

Given the growing end-user demand for one-stop, feature-rich

vate their products right from the designing stage. As the Leaderboard results show, VARs are taking notice of vendors' aggressive product advancements and scored vendors accordingly; the race was closest in

VARs are taking notice of vendors' aggressive product advancements and scored vendors accordingly; the race was closest in the features category, with seven of the top 10 vendors averaging a 4.1 or better.

solutions — including check reading, customized coupons, and multi-color printing, to name a few — improvements in technology are taking top priority and are compelling manufacturers to strategically inno-

the features category, with seven of the top 10 vendors averaging a 4.1 or better. Epson's score of 4.84 was the highest achieved by any vendor in any single criterion throughout the entire POS Hardware Leaderboard.

{RECEIPT PRINTERS CRITERIA BREAKDOWN}

Company	Features	Innovation	Reliability	Support & Service	Pricing	Cumulative Score*
Epson	4.84	4.41	4.76	4.17	3.84	22.0
Samsung	4.15	4.05	4.08	3.80	4.24	20.3
POS-X	4.37	3.70	4.14	3.92	4.03	20.2
Star Micronics	4.12	3.93	4.07	3.60	3.96	19.7
Zebra	4.23	3.78	4.23	3.45	3.36	19.1
IBM	4.17	3.93	4.11	3.79	3.00	19.0
Citizen	3.96	3.77	3.88	3.52	3.83	19.0
Ithaca	3.94	3.71	3.74	3.32	3.29	18.0
NCR	3.80	3.45	3.85	3.50	2.80	17.4
Seiko	4.10	3.50	3.50	3.30	2.90	17.3

*Cumulative score rounded to nearest tenth, out of 25 possible points. Red shading indicates criteria winners, out of 5 possible points.

Competition in the point-of-sale bar code scanner category is high, as evidenced by VARs' preferences in the Leaderboard voting results. Through the entire POS Hardware Leaderboard, there were only four ties among cumulative scores; the POS scanners rankings lay claim to two of them, in both third place (with a tie between Hand Held Products and PSC) and seventh place (with a tie between Unitech and Wasp Technologies). What's more, four of the top ten companies achieved an overall cumulative score of 20 points or higher.

Metrologic Instruments was the clear scanner category winner, achieving a cumulative score of 22.5. Along with Touch Dynamic in

the integrated POS category, this was the highest cumulative score achieved by any vendor across all product categories. Metrologic also took top honors in all but one of the individual criteria.

Metrologic Instruments by three hundredths of a point. Symbol Technologies also tied with Metrologic for first place in the product features criteria, with both companies earning a near perfect

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Symbol Technologies came in a close second overall, with a cumulative score of 21.3, and took the lead in product innovation with a criteria score of 4.48, edging out

score of 4.6 (the top possible score in any criteria was five points). The third place ranking saw a tie between Hand Held Products and PSC.

{SCANNERS CRITERIA BREAKDOWN}

Company	Features	Innovation	Reliability	Support & Service	Pricing	Cumulative Score*
Metrologic Instruments	4.60	4.45	4.52	4.44	4.47	22.5
Symbol Technologies	4.60	4.48	4.47	3.97	3.74	21.3
Hand Held Products	4.49	4.27	4.47	3.79	3.71	20.7
PSC	4.37	4.12	4.23	3.97	4.03	20.7
CipherLab	4.30	3.70	3.95	3.50	4.10	19.6
Intermec Technologies	3.90	3.84	3.90	3.40	2.90	17.9
Unitech	3.75	3.45	3.69	3.14	3.80	17.8
Wasp Technologies	3.80	3.47	3.80	3.38	3.30	17.8
Opticon	3.20	3.00	3.30	3.40	3.90	16.8
NCR	3.80	3.44	3.66	2.94	2.80	16.6

*Cumulative score rounded to nearest tenth, out of 25 possible points. Red shading indicates criteria winners, out of 5 possible points.

Touch screen provide the simplest, most direct user interface with a computer. First developed in the 1970s by Elo TouchSystems, touch screens allow users to just point at what they want to select. Properly programmed, a touch screen interface can be intuitive, requiring no learning curve for first-time users.

In evaluating manufacturers in the touch screens and monitors category, VSR readers were asked to score nearly one dozen companies across the five evaluation criteria, but only the top five made Leaderboard status, solidifying the fact that all companies appearing in these rankings are winners in their own right. The rankings, based on cumulative scores, are: Elo TouchSystems, Touch Dynamic, 3M Touch Systems, NEC and Gvision.

A Tight Race

Competition in this category was remarkably high, with only one tenth of a point separating the top two companies, Elo TouchSystems (21.8) and Touch Dynamic (21.7).

This scoring difference is well within the study's margin for error, and therefore for all intents and purposes, should be noted as a virtual tie.

Elo TouchSystems continues to maintain its placement as a market leader, edging out Touch Dynamic in three of the five criteria: product features, product innovation, and

(4.16) lead was more than one quarter of a point over Elo's score (3.90).

The Battle Continues

All the companies in this category continue to battle it out with new releases — VSR learns of product advancements from many of these companies on a near-monthly basis. Competition, therefore, will

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product reliability. Touch Dynamic took first place in both support and service, and in the all-important competitive pricing criteria. It was in this same criteria where the biggest gap appeared between the two companies. Touch Dynamic's

no doubt continue to rise, creating a wider array of offerings for end users at even more competitive pricing; in the end, a win for VARs whose revenue models are based, even in part, on selling and implementing these technologies.

{TOUCH SCREENS CRITERIA BREAKDOWN}

Company	Features	Innovation	Reliability	Support & Service	Pricing	Cumulative Score*
Elo Touch Screens	4.58	4.50	4.47	4.33	3.90	21.8
Touch Dynamic	4.39	4.36	4.41	4.41	4.16	21.7
3M Touch Systems	4.07	3.96	4.02	3.69	3.61	19.4
NEC	3.85	3.69	3.85	3.01	2.91	17.3
Gvision	3.58	3.42	3.29	3.22	3.56	17.1

*Cumulative score rounded to nearest tenth, out of 25 possible points. Red shading indicates criteria winners, out of 5 possible points.

INTEGRATED POS

Here, in the head-to-head competition of integrated point-of-sale systems, a clear winner emerges. Touch Dynamic receives a cumulative score of 22.5, a full 2.8 points ahead of second place winner Micros. That's the largest gap between any winner and runner up across all product categories of the POS Hardware Leaderboard.

In addition, Touch Dynamic swept the individual satisfaction criteria, beating out all other vendors. The vendor's best score is in product features, at 4.68 points.

Once the rankings move beyond the clear first place winner, however, results show three vendors in a dead heat for second place: Micros, Posiflex and IBM. Micros came in second place overall, with a cumulative score of 19.7, and

took second place in two of the satisfaction criterion: product features and product reliability.

Just one tenth of a percentage point separates Micros from the third place winner, Posiflex.

with a score of 3.97 to Micros' 3.96.

Fourth place winner IBM was a top contender as well, its cumulative score of 19.6 just three tenths of a point behind second place

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Posiflex did beat out Micros in the pricing criteria with a score of 3.77 to Micros' 3.62, coming in a solid second place to Touch Dynamic. Posiflex also took second in inno-

winner Micros. IBM took second place honors in both product innovation and in vendor support and service, earning a score of 3.98 in both criterions.

{INTEGRATED POS CRITERIA BREAKDOWN}

Company	Features	Innovation	Reliability	Support & Service	Pricing	Cumulative Score*
Touch Dynamic	4.68	4.56	4.42	4.56	4.29	22.5
Micros	4.20	3.96	4.05	3.91	3.62	19.7
Posiflex	4.09	3.97	3.91	3.81	3.77	19.6
IBM	4.14	3.98	4.01	3.98	3.29	19.4
Pioneer Electronics	3.87	3.73	3.67	3.67	3.53	18.5
NCR	3.67	3.80	3.93	3.53	3.27	18.2
Datasym	3.67	3.44	3.90	3.75	3.36	18.1
Fujitsu	3.45	3.20	3.70	2.70	3.20	16.3
POS-X	3.14	3.37	3.14	3.26	3.26	16.2
Sharp Electronics	3.48	3.04	3.63	2.83	3.10	16.1

*Cumulative score rounded to nearest tenth, out of 25 possible points. Red shading indicates criteria winners, out of 5 possible points.

KEYBOARDS/CASH DRAWERS

In the world of point-of-sale peripherals, keyboards and cash drawers may be amongst the least sung heroes. These pieces of hardware must hold up to the rigors of daily use by busy cashiers. Drawers are slammed, keyboards are dropped, and liquids are spilled.

While not the most complex pieces of IT hardware, the superiority of these devices is often gauged by ruggedness and reliability. Not surprisingly then, the companies evaluated in this category scored very well in product reliability, with six of the top 10 receiving a score of 4 (out of a possible 5) or higher in reliability. Keyboard and cash drawer makers scored very well in the features criteria as well, with seven of the top 10 scoring a 4 or higher in that criteria.

APG Cash Drawer came in as the overall category winner, with a

cumulative score of 22.2, and swept the individual criteria evaluations. In the area of reliability, APG scored a 4.73 — the second highest reliability score achieved by any vendor across the entire Leaderboard, edged out only by Epson with a 4.76 in

comes in a very close third place with an overall cumulative score of 21.1. Rounding out the top five are M-S Cash Drawer, IBM and NCR.

It's interesting to note that dedicated cash drawer manufacturers took the top slots in this POS

The superiority of these devices is often gauged by ruggedness and reliability. Not surprisingly then, the companies evaluated in this category scored very well in product reliability, with six of the top 10 receiving a score of 4 or higher.

receipt printer reliability.

Second place ranking goes to MMF Cash Drawer, with a cumulative score of 21.2, while POS-X

peripherals product category, in many cases beating out makers that offer keyboards exclusively, or several types of peripheral products.

{KEYBOARD/ CASH DRAWERS CRITERIA BREAKDOWN}

Company	Features	Innovation	Reliability	Support & Service	Pricing	Cumulative Score*
APG Cash Drawer	4.67	4.24	4.73	4.38	4.22	22.2
MMF Cash Drawer	4.41	4.15	4.44	4.16	4.03	21.2
POS-X	4.30	3.87	4.37	4.37	4.20	21.1
M-S Cash Drawer	4.27	3.86	4.34	3.97	4.08	20.5
IBM	4.24	3.93	4.41	3.76	3.31	19.7
NCR	4.05	3.68	3.93	3.43	3.99	19.1
Cherry	4.07	3.86	4.07	3.46	3.18	18.6
Posiflex	3.64	3.50	3.93	3.64	3.86	18.6
Logic Controls	3.81	3.38	3.80	3.47	3.47	17.9
Preh Electronics	3.43	3.18	3.61	3.18	2.80	16.2

*Cumulative score rounded to nearest tenth, out of 25 possible points. Red shading indicates criteria winners, out of 5 possible points.

Of all the product categories evaluated in the POS Hardware Leaderboard, mobile and hand held point-of-sale devices are by far the most innovative. The technologies employed — hand held or tablet PCs with POS applications — aren't new, per se, but have traditionally been a harder sell for VARs courting end users, especially in the hospitality and dining space. End users questions are many: Is the device durable? Is there a clear return on investment? How difficult are the handhelds for servers to use?

VARs are challenged to address these concerns through real world examples, dedicated time working with the end user, and savvy sales, all backed, of course, by products that can deliver.

When asked who can deliver, respondents to the survey overwhelming identify Symbol Technologies as the market leader in hand held and mobile point-of-sale devices. The vendor achieved an overall cumulative score of 21.2 and took first place in all but one of the

individual satisfaction criteria.

Vendors in competition for second place found themselves locked in a dead heat. The honor went to Hand Held Products, with an overall cumulative score of 19.7, followed very closely by Micros and Intermec

in the pricing category; the technology's perceived higher costs continue to be a deterrent to end users and VARs hoping to resell mobile and hand held POS equipment.

Symbol and other vendors' good marks in features, innovation, reliability and support and service are good indicators, however, that quality hand held technology has finally arrived. The newer generations of hand held devices available through many of these manufacturers are smaller, more durable, and in fact, far less expensive than previous models. **V**

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Technologies in third and fourth places, with overall cumulative scores of 19.6 and 19.5, respectively.

Hand Held Products did beat out Symbol Technologies in the pricing criteria, but only by a hair, with a score of 3.64 to Symbols' 3.63. It's important to note, however, that no companies scored particularly high

in the pricing category; the technology's perceived higher costs continue to be a deterrent to end users and VARs hoping to resell mobile and hand held POS equipment.

{HAND HELD/MOBILE DEVICES CRITERIA BREAKDOWN}

Company	Features	Innovation	Reliability	Support & Service	Pricing	Cumulative Score*
Symbol Technologies	4.47	4.49	4.42	4.14	3.63	21.2
Hand Held Products	4.13	4.13	4.10	3.67	3.64	19.7
Micros	4.32	4.23	4.15	3.82	3.07	19.6
Intermec Technologies	4.15	4.23	4.00	3.62	3.46	19.5
Fujitsu	3.89	3.89	3.92	3.59	3.26	18.6

*Cumulative score rounded to nearest tenth, out of 25 possible points. Red shading indicates criteria winners, out of 5 possible points.

