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Toshiba POS Printers Excel

Comparing Toshiba TCx™ Single Station Printers against Epson



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Executive Summary

Retail is a fast-paced environment where speed, clarity and reliability are key contributors to customer service which differentiates one retailer from another. Therefore, a printer that consistently delivers receipts that are crisp within a minimal timeframe can make a significant difference in customer satisfaction.

Edison Group conducted research and a series of tests comparing Single Station Point-of-Sale (POS) printers, namely, Toshiba TCx™ Printer 1 Station (6145-1TN) vs. Epson (TM-T88VI) focusing on four categories, namely performance, economy, architecture and serviceability as they are the main considerations when purchasing a POS printer for retail.

Retail is a fast-paced environment where speed, clarity and reliability are key contributors to customer service which differentiates one retailer from another.

Test cases were designed to simulate real-life situations:

- Customers purchasing different numbers of items resulting in short, medium and long receipts,
- Retail outlets customizing their receipts by adding graphics.

Strict testing procedures were conducted, where each test was designed to be repeatable, input used for each test was identical for each manufacturer, and the tests were recorded visually by video or photograph.

For the categories where live tests were not possible, research was conducted gathering and comparing manufacturer published printer specifications and third-party (Energy Star for example) documentation.

Within each of the categories, several criterion were identified and assigned a point value based on importance and complexity.

After all of the points were assigned, Toshiba was clearly the better choice.

What is Important When Considering a Purchase

Performance, Economy, Serviceability and Architecture and are the main considerations when considering a POS printer purchase and are used to form the following evaluation matrix:

Performance	Economy
Serviceability	Architecture



Performance

This category focuses on printing speed, clarity, font and barcode alternatives and media handling, where applicable.

Printing Speed

Amount of time it takes from the start to finish of the operation.

Clarity

Clarity is based on the crispness and legibility of the printed image. Comparisons are based on published and printed results for receipts – printing of text, barcodes, graphics and grayscale.

Font Alternatives

Types, variations and sizes of the fonts.

Media Handling

Width, thickness and type of media supported.

Barcode

Types, and variations of barcodes.



Economy

This category focuses on options to conserve paper and power.

Paper Reduction

All of the printers have the ability to save paper. Variations occur due to the different paper-saving strategies and reduction thresholds. Comparisons are based on paper length and clarity of end-result.

Power Usage

Comparison is based on power consumption in the various printer states, i.e., idle and active. Energy Star Certifications are a consideration as well.

It is included here for completeness, but is not a major factor.



Serviceability

Frequently overlooked, but a critical category is serviceability. The easier it is to maintain or fix a printer the more time the POS printer will be available for use. Special tool requirements and hard to get to access points, limit a retailer's ability to self-diagnose and fix as well as increasing the mean-time-to-repair.

Component Life

The life of critical components, like print heads and receipt cutter blades, determines how often the printer has to be serviced.

Paper Loading

The ability to quickly load paper is a key feature of a printer as the need to replace a paper roll is part of the daily operation and impacts the speed at which the operator can support customers.

Sensors

Sensors provide immediate indication of operational issues as they occur. Some sensors indicate low paper and ink levels and others indicate paper jams, ink and paper outages or mechanical/electrical issues.

Cable Management

Formalized cable management is directly responsible for extending POS printer life. Cable strain and breakage can be eliminated by neatly and reliably routing cables out of the way. Avoiding service to replace damaged cables/devices will ease installation and improve uptime. Cable management also contributes to neatness or overall look of the POS printer in the store



Architecture

The materials, design and construction of the POS printer directly affects all the other categories, usability, flexibility and serviceability. There are other considerations like impact on environment at end-of-life, and cost.

Basic Construction

A review of POS printer physical dimensions and basic construction provides insights into the architectural design and printer life. For example, steel-reinforced printer-body extends the life of the printer.

Components

Printer component placement and life are compared. This includes print heads, receipt cutters and buttons.

POS Printers to be Reviewed

The selection of POS printers was based on several criteria including, but not limited to:

- Market Share – the company and/or system was considered a leader in the retail marketplace;
- Functions/Features – each system supported the functions required in the retail environment;

Following are the specifications of the tested systems:



Printer/Spec	Toshiba TCx™ Single Station POS Printer (6145-1TN)	Epson Single Station POS Printer (TM-T88VI)
Receipt Print Head	Thermal line printing	Thermal line printing
Dimensions (WxDxH)	5.67" x 7.67" x 6.02"	5.71 x 7.68 x 5.83"
Weight	3.84 lbs. (1.74 kg)	3.53 lbs. (1.6kg)
Case Color:	Raven Black; Brilliant White	Black (EBCK); White (ENN8.5)
		

Table 1 – POS Printer Overview

Comparison Methodology

For a comparison of the selected POS printers to be valid, these test elements need to be validated:

- Comparable Test Systems – the POS printers selected need to provide the functionality to support retail requirements including receipt item printing, receipt graphics, receipt logos
- Comparison Criterion – relevant and meaningful to retail
- Test Lab – the test lab conditions should allow a complete and consistent test environment
- Qualified Technicians – the lab technicians need to be highly qualified to perform the tests and to understand the business impact of their findings
- Repeatable Test Procedures/Results – the tests and/or breakdown need to be repeatable and produce consistent results.

Detailed Single Station POS Printer Review

The following is an exception-based review of the criterion chosen to evaluate Single Station POS printers.

Tests and/or information provided by independent 3rd parties and the manufacturer were used to evaluate each of the criterion listed below.



Performance

Receipt Printing Speed

There were three speed tests conducted, simulating different receipt lengths. Objective was to compare the times needed to print receipts on the two different printers.

Toshiba's TCx™ Single Station POS Printer published receipt speeds (406mm/sec) are 13.8% faster than Epson Single Station POS Printer (350mm/sec). Test results reflected the speed difference as Toshiba receipt printing was greater than 10% faster than Epson.


Evaluation Criteria	Test Results	Toshiba TCx™ Single Station POS Printer	Epson Single Station POS Printer
Short Length Receipt Comparison (9.5" Length): <ul style="list-style-type: none"> Observed Speed – observations, supported by video; 	<ul style="list-style-type: none"> Overall test duration - 1.45 sec overall; Toshiba prints 7.31 inches/second vs. Epson 6.55 inches/sec Toshiba is 11.5% faster Toshiba finished first as Epson has an additional paper forward movement at end. 		
Medium Length Receipt Comparison (14.5" Length): <ul style="list-style-type: none"> Observed Speed – observations, supported by video; 	<ul style="list-style-type: none"> Overall test duration – 2.00 sec overall; Toshiba prints 8.06 inches/second vs. Epson 7.25 inches/sec Toshiba is 11.1% faster Toshiba finished first as Epson has an additional paper forward movement at end. 		
Long Length Receipt Comparison (23.0" Length): <ul style="list-style-type: none"> Observed Speed – observations, supported by video; 	<ul style="list-style-type: none"> Overall test duration – 2.55 sec overall; Toshiba prints 10.0 inches/second vs. Epson 9.02 inches/sec Toshiba is 10.9% faster Toshiba finished first as Epson has an additional paper forward movement at end. 		

Table 2 – Receipt Printing Speed Results

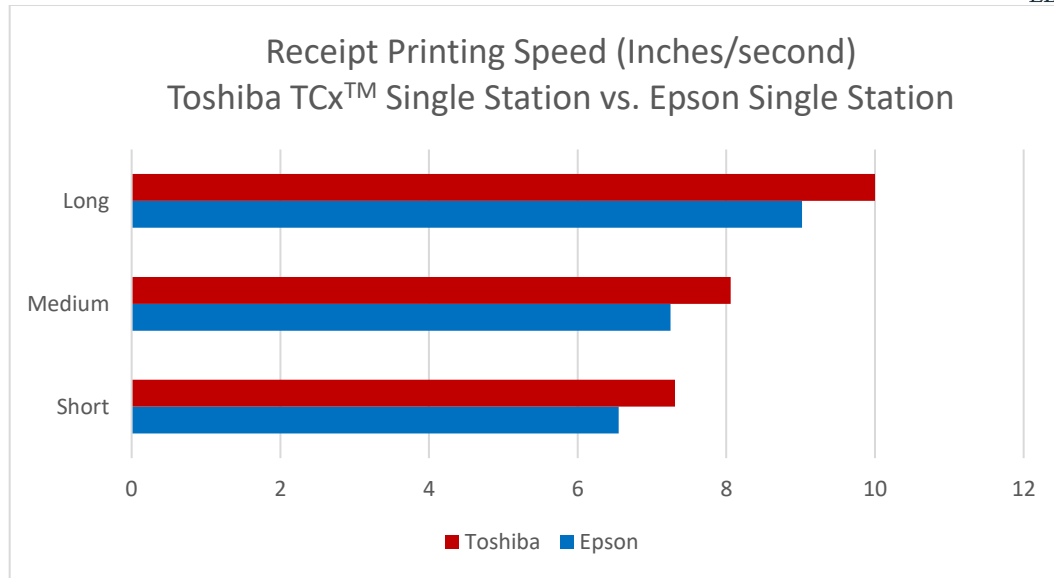


Chart 1 – Receipt Printing Speed

Image Clarity

Image clarity was evaluated based on text image, barcode image, BW images and grayscale images using the same thermal paper.

Toshiba’s TCx™ Single Station POS Printer has a published 203 DPI (Dots/Inch) capability while Epson Single Station has a published 180 DPI capability.

Evaluation Criteria	Test Results
Text Image – relative clarity from one receipt vs the other;	<p>Image Clarity – At a distance, no discernable difference. Up close, Toshiba has a clearer, crisper image than Epson;</p> <p>Test Observations – Fonts are slightly different, but Epson is more granular looking than Toshiba.</p>
Barcode Image – relative clarity from one receipt vs the other;	<p>Image Clarity - Virtually identical;</p> <p>Test Observations - Barcode images are similar, sizes differ between the two, while QR codes appear different, they link to same location.</p>
BW Image - relative clarity from one receipt vs the other;	<p>Image Clarity – Toshiba’s BW Images are clearer.</p> <p>Test Observations - Some discernable differences in BW image clarity, Toshiba is slightly better as edges are more well-defined and image is filled in more completely.</p>
Grayscale – relative clarity from one receipt vs the other;	<p>Image Clarity - Toshiba grayscale images are clearer.</p> <p>Test Observations - Even though they both have 16 grayscale levels, Toshiba produces a better image than Epson.</p>

Table 3 – Single Station Image Clarity Test Summaries

Looking at the images below, it is evident that TCx™ Single Station POS Printer produces a clearer image than Epson Single Station POS Printer.

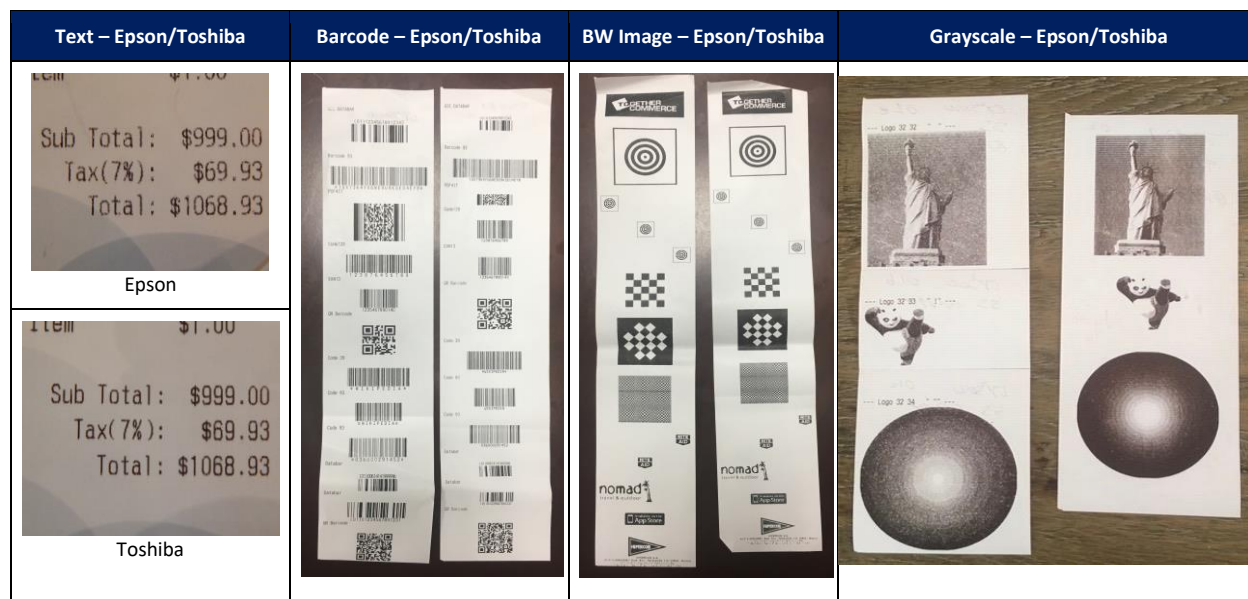


Table 4 – Single Station Image Clarity Test Samples

Font Alternatives

Toshiba offers more standard font choices than Epson.

Toshiba TCx™ Single Station POS Printer	Epson Single Station POS Printer
8 x 20 (Font C)	
	9 x 17 (Font B)
10 x 20 (Font A)	
10 x 24 (Tall A)	
12 x 24 (Font B)	12 x 24 (Font A)

Table 5 – Font Choices

Media Handling

Toshiba and Epson support standard thermal paper widths and thicknesses.

Standard thermal paper width and thermal paper roll diameter for both Toshiba and Epson printers is 80mm (3.15 inches) and 83mm (3.26). Both have a 58mm (2.28 inches) width option as well.

Toshiba’s TCx™ Single Station POS Printer can support thermal paper thickness from 40 – 99 µm, while Epson Single Station POS Printer can support thermal paper thickness from 55 – 80 µm.

While both printers can handle the same thermal paper width, Toshiba has a wider range for thickness.

Media Handling	Toshiba TCx™ Single Station POS Printer	Epson Single Station POS Printer
Receipt:		
Paper Width	80mm	80mm
Roll Diameter	83mm	83mm
Paper Thickness	40 – 99 µm	53 - 80 µm

Table 6 – Media Handling

Barcodes

While both support most of the more popular barcodes, there are some exceptions.

Barcode	Toshiba TCx™ Single Station POS Printer	Epson Single Station POS Printer
2D Symbology	Yes	Yes
Aztec Code		Yes
CODABAR	Yes	Yes
CODE 128	Yes	Yes
CODE 39	Yes	Yes
CODE 93	Yes	Yes
Composite Symbology		Yes
Data Matrix		Yes
GS1 DataBar, Omni-Directional Stacked	Yes	
GS1 DataBar, Omni-Directional	Yes	Yes
GS1 DataBar Expanded	Yes	Yes
GS1-128		Yes
ITF	Yes	
JAN13 (EAN)	Yes	Yes
JAN8 (EAN)	Yes	
MaxiCode		Yes
PDF417	Yes	Yes
QR Code	Yes	Yes
UPC-A	Yes	Yes
UPC-E	Yes	Yes

Table 7 – Barcodes Supported



Economy
Paper Reduction

Font clarity, maximum paper reduction and paper reduction options were evaluated. The following tests were performed:

- 75% reduction off of default and font reduction
- 75% reduction off of default
- 50% reduction off of default
- Maximum font reduction for short, medium and long receipts.

Overall, font clarity was maintained for all tests of Toshiba and Epson printers.

Toshiba had a shorter receipt length in all instances, except for Max Reduction options where the receipt length was the same.

Reduced receipt length methodologies differed when evaluating how various parts of the receipt were affected by reduction, i.e., top border, logo, address block, receipt body and barcode. This is presented to show the parts of the printed receipt that are affected by reduction and to show how the two manufacturers execute paper reduction. Ultimately, the clarity of either manufacturer is not affected by the approach chosen.

Single Station Paper Reduction	Test Results	Treatment Differences
75% Off of Default + Font: <ul style="list-style-type: none"> • Image Clarity – relative clarity from one receipt vs the other; • Receipt Length – relative length from one receipt to another; • Reduction Treatment; 	<p>Image Clarity - except for spacing, nearly identical.</p> <p>Reduction – Toshiba reduces receipt length by 36.8% vs. Epson which reduces length by 28.9%.</p>	<p>Treatment:</p> <p>Smaller for Toshiba:</p> <ul style="list-style-type: none"> • Top Border • Logo • Address Block • Body <p>Similar for both:</p> <ul style="list-style-type: none"> • Barcode
50% Off of Default: <ul style="list-style-type: none"> • Image Clarity – relative clarity from one receipt vs the other; • Receipt Length – relative length from one receipt to another; 	<p>Image Clarity - except for spacing, nearly identical.</p> <p>Reduction – Toshiba reduces receipt length by 31.6% vs. Epson which reduces length by 21.1%.</p>	<p>Treatment:</p> <p>Smaller for Toshiba:</p> <ul style="list-style-type: none"> • Logo • Address Block • Body <p>Similar for both:</p> <ul style="list-style-type: none"> • Top Border • Barcode
75% Off of Default: <ul style="list-style-type: none"> • Image Clarity – relative clarity from one receipt vs the other; • Receipt Length – relative length from one receipt to another; 	<p>Image Clarity - except for spacing, nearly identical.</p> <p>Reduction – Toshiba reduces receipt length by 36.8% vs. Epson which reduces length by 34.2%.</p>	<p>Treatment:</p> <p>Smaller for Toshiba:</p> <ul style="list-style-type: none"> • Logo • Address Block • Body <p>Similar for both:</p> <ul style="list-style-type: none"> • Top Border • Barcode

Single Station Paper Reduction	Test Results	Treatment Differences
<p>Max Change, Font, Short Receipt:</p> <ul style="list-style-type: none"> Image Clarity – relative clarity from one receipt vs the other; Receipt Length – relative length from one receipt to another; 	<p>Image Clarity - except for spacing, nearly identical.</p> <p>Reduction - Similar for both, 47.4% shorter</p>	<p>Treatment:</p> <p>Smaller for Toshiba:</p> <ul style="list-style-type: none"> Logo/Address Block <p>Greater for Toshiba:</p> <ul style="list-style-type: none"> Top Border Body <p>Similar for both:</p> <ul style="list-style-type: none"> Barcode
<p>Max Change, Font, Medium Receipt:</p> <ul style="list-style-type: none"> Image Clarity – relative clarity from one receipt vs the other; Receipt Length – relative length from one receipt to another; 	<p>Image Clarity - except for spacing, nearly identical.</p> <p>Reduction - Similar for both, 48.3% shorter</p>	<p>Treatment:</p> <p>Smaller for Toshiba:</p> <ul style="list-style-type: none"> Logo/Body <p>Greater for Toshiba:</p> <ul style="list-style-type: none"> Top Border <p>Similar for both:</p> <ul style="list-style-type: none"> Barcode Address Block
<p>Max Change, Font, Long Receipt:</p> <ul style="list-style-type: none"> Image Clarity – relative clarity from one receipt vs the other; Receipt Length – relative length from one receipt to another; 	<p>Image Clarity - except for spacing, nearly identical.</p> <p>Reduction - Similar for both, 46.7% shorter</p>	<p>Treatment:</p> <p>Smaller for Toshiba:</p> <ul style="list-style-type: none"> Logo/Body <p>Greater for Toshiba:</p> <ul style="list-style-type: none"> Top Border <p>Similar for both:</p> <ul style="list-style-type: none"> Barcode Address Block

Table 8 – Single Station Paper Reduction Test Summaries

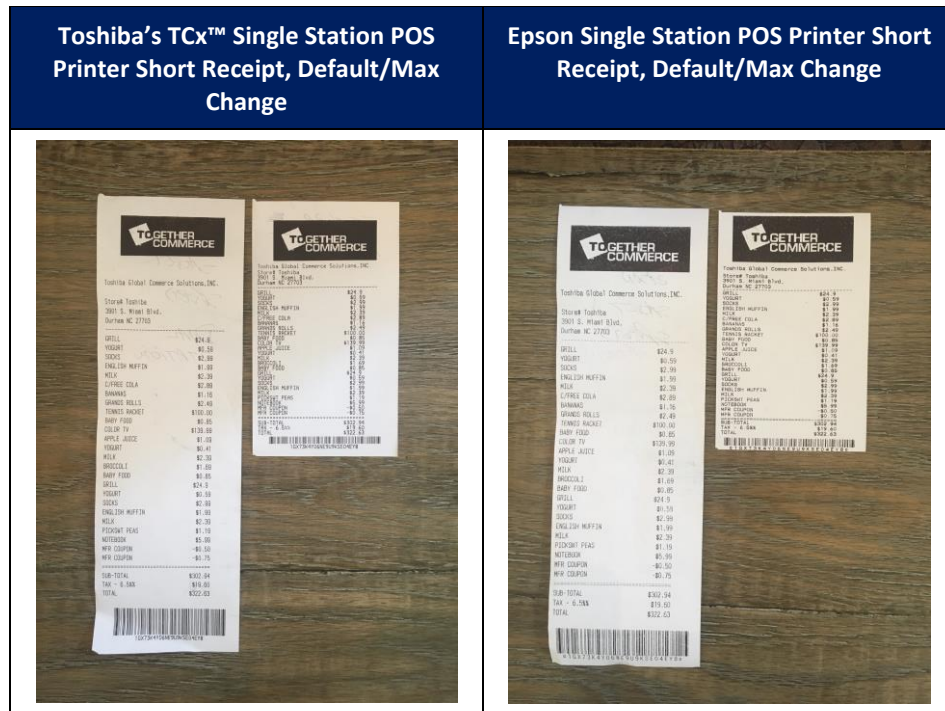


Table 10 – Single Station Short Receipt Default/Max Change Samples

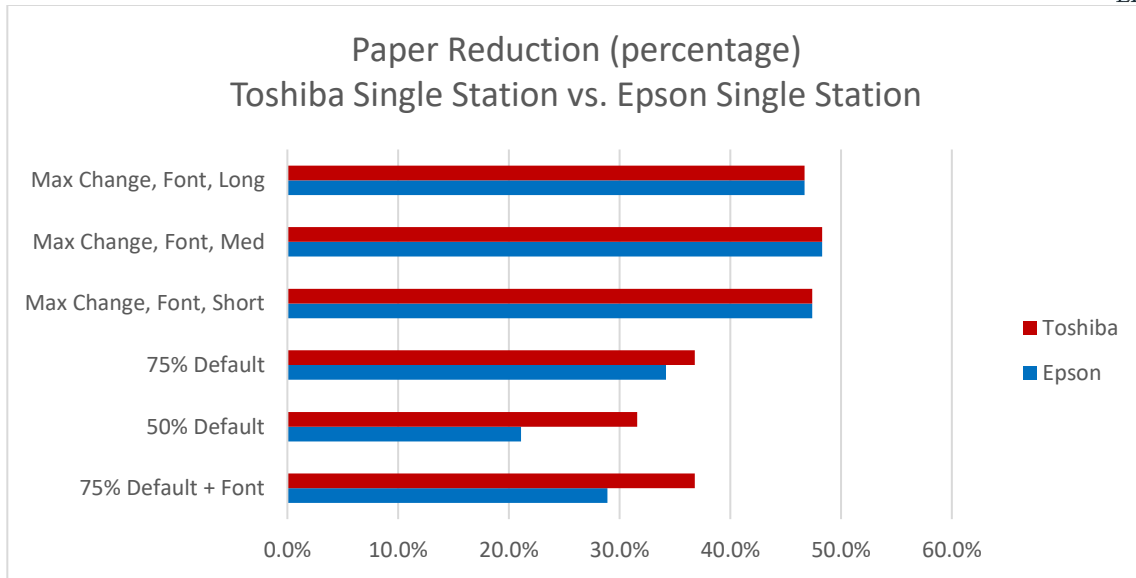


Chart 2 – Paper Reduction Results, Toshiba vs. Epson

Power

While both Toshiba and Epson use 24 VDC (volts direct current), As per Energy-Star certification documentation (7/19), there are differences in power usage based on power mode.

Power Modes	Toshiba TCx™ Single Station POS Printer	Epson Single Station POS Printer
Operating	Varies based on data	Approx. 1.8A (mean)
Sleep	0.53W	0.40W
Standby	0.07W	0.00W

Table 10 – Energy-Star Certifications

Toshiba TCx™ Dual Station POS Printer uses slightly more power in sleep mode and in standby mode. However, the differences are not material, i.e., a difference of .13W translates to less than \$.09/year in power savings¹.



Serviceability

With the help of an experienced technician each system was examined for a first-hand experience on what is required to service each unit. A summary of results is presented in the tables below.

¹ .00013KW difference between Toshiba vs Epson, 16 hours/day in standby, 7 days/week, 52 weeks/year, \$.12/KW hour national average: .13/1000 x 16 x 7 x 52 x .12 = \$.09/printer/year

Component Life

Both Toshiba and Epson have the same published component life for thermal print head and auto cutter.

Component	Toshiba TCx™ Single Station POS Printer	Epson Single Station POS Printer
Thermal head Life	200km	200km
Auto Cutter Life	3 million cuts	3 million cuts

Table 11 – Component Life

Paper Loading

Both Toshiba and Epson load paper from the top.

It is easier to load paper in the Toshiba TCx™ Single Station POS Printer as it has a one-step process to open the latch for paper loading (press button to open), while Epson Single Station POS Printer has a two-step process to open the top for paper loading (press button to release top and then raise to fully open position).

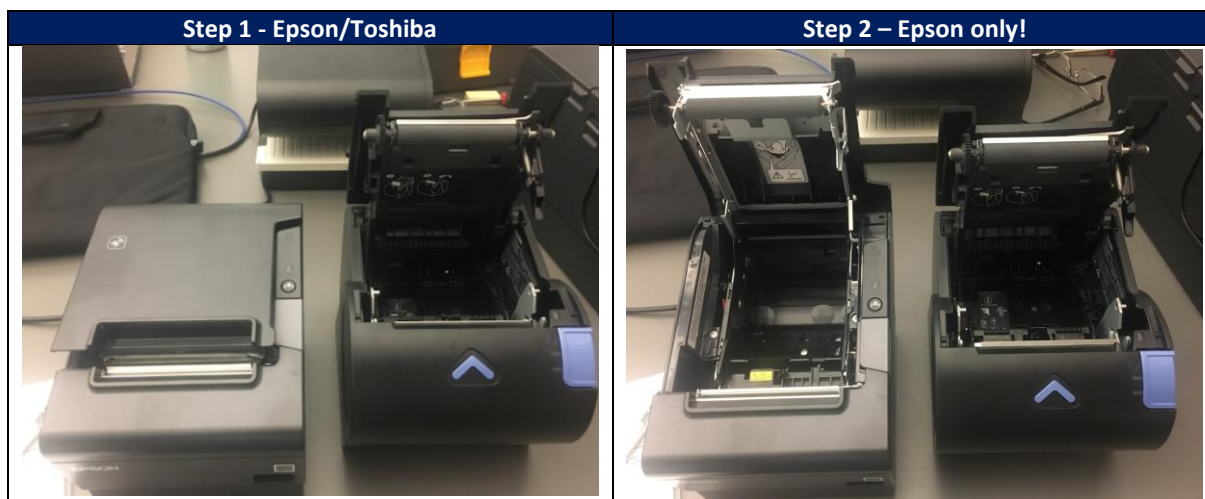


Table 12 – Paper Loading Steps

Sensors

Sensors provide immediate indication of operational issues as they occur. Some sensors indicate low paper and ink levels and others indicate paper jams, ink and paper outages or mechanical, electrical issues.

Indicator	Toshiba TCx™ Single Station POS Printer	Epson Single Station POS Printer
Paper Low	Yes	Yes
Paper Out	Yes	Yes
Paper Jam	No	Yes
Ink Low	No	No
Ink Out	No	No
Cut Failure	Yes	Yes
Remote	Yes	Yes

Table 13 – Paper Loading Steps



Table 14 – Side-by-Side

Cable Management

The access of I/O ports and preservation of cables is a critical part of the selection process. Both printers have one cable strain relief feature.



Architecture

Basic Construction

Design considerations affect printer life, operation and serviceability.

Architectural Aspect	Observations
Dimensions (WxDxH)	Both Toshiba (5.67" x 7.67" x 6.02") and Epson (5.71" x 7.68" x 5.83") have similar footprints.
Weight	Toshiba (3.84 lbs.), Epson (3.53 lbs.)
Printer Body	Both Toshiba and Epson use steel in their printer bodies to reinforce and extend the life of the single station printers.
Paper Access Cover	While both Toshiba and Epson have reinforced paper access covers, Epson requires two steps to open cover.
Latching	Both Toshiba and Epson have sturdy latching features.
Sensor Life/Accuracy	A visual comparison of the two printers showed that Toshiba's paper sensor design is immune to debris, making paper jams less likely to occur.
Front Face Design	Both printers allow the printer to be tilted forward so it lies flat on the face. This enables hands-free access to the cable access ports for installation and servicing.

Table 15 – Basic Construction

Toshiba's TCx™ Single Station POS Printer is rated better than Epson Single Station POS Printer due to the one-step access to thermal paper and the sensor design that makes it immune to paper debris.

Connectivity

Both printers support standard industry connectivity. Epson also supports Bluetooth, Beacon and NFC connectivity; Toshiba does not.

Connectivity Options	Toshiba TCx™ Single Station POS Printer	Epson Single Station POS Printer
USB 2.0	Yes	Yes
24V Powered USB	Yes	Yes
Ethernet (10/100BASE-T)	Yes	Yes
Wireless LAN (802.11a/b/g/n)	Yes	Yes
RS232	Yes	Yes
Parallel Port		Yes
Bluetooth		Yes
Beacon		Yes
NFC		Yes

Table 16 – Connectivity

OS Support

Both printers support standard OS such as Microsoft Windows 8.1 and 10. Toshiba additionally supports POSReady and its own OS TCx Sky. Epson additionally supports Mac OSX.

Operating Systems	Toshiba TCx™ Single Station POS Printer	Epson Single Station POS Printer
Operating Systems:	Microsoft Windows 7, 8.1, 10; Linux (SLE11-SP3); POSReady 2009, 7 (32 bit); 4690 OS V6R5; TCx™ Sky;	Microsoft Windows 8.1, 10; Linux (CUPS, JavaPOS); Mac OS X®;

Table 17 – OS

SW Drivers and Utilities

Both printers come with SW Drivers and Utilities. Epson supports Bluetooth, backup/restore and PHP, while Toshiba does not. Toshiba offers virtual serial port drivers while Epson does not.

SW Drivers and Utilities	Toshiba TCx™ Single Station POS Printer	Epson Single Station POS Printer
Mobile Support - iOS	Yes	Yes
Mobile Support – Android	Yes	Yes
Mobile Support – Bluetooth		Yes
Native Windows Driver	Version 4.0 or later	Yes
Virtual Serial Port Drivers	Version 1.5 or later	
POS Print Drivers	UPOS Version 1.14.3 or later	OPOS ADK, OPOS ADK for .NET, JavaPOS ADK, Windows
Printer Configuration Utility	Yes	Yes, Server Direct Print,
Remote Management	Yes, manage the inventory data, defined events, firmware and configuration updates across all devices at an enterprise level	Yes
Backup Restore		Yes
Other		PHP/Sqlite3

Table 18 – Drivers/Utilities

Options

Each printer offers several options. Epson offers power supply cover, affixing tape, and connect-It interfaces (easily swap in and out). While Toshiba offers a cable cover and watermark.

Options	Toshiba TCx™ Single Station POS Printer	Epson Single Station POS Printer
Wall Mount	Yes	Yes
Power Supply Cover		Yes
Affixing Tape		Yes
Connect-It Interfaces		Yes
Cable Cover	Yes	
Paper Guide	Yes	Yes
Stored Graphics	Yes, 255	Yes, 255
Water Mark	Yes	
Customized Font	Yes (Fixed Size and Proportional)	Yes, User Defined Available
Inline Logo	Yes	

Table 19 – Options

Evaluation

The evaluation of Toshiba TCx™ Single Station POS Printer and Epson Single Station POS Printer was quantified by assigning points to each printer based on the results within each comparison criterion. The point assignments and rationale are presented below.

Single Printer Station Evaluation	Max Points	Toshiba	Epson	Points Awarded How?
Performance				
Printing Speed	6	6	0	3 trials, fastest gets 2 points/trial
Clarity	8	8	2	4 trials, clearest gets 2 points/trial
Font Alternatives	5	4	2	1 point for each font alternative
Media Handling	2	2	1	1 point for width and 1 for thickness
Barcode	2	1.5	1.5	Each type covered = .1 point
Performance Total	23	21.5	6.5	
Economy				
Paper Reduction	6	6	3	6 Trials, 1 point awarded for each trial
Power Usage	3	1	3	1 point awarded for each aspect
Economy Total	9	7	6	
Serviceability				
Component Life	4	4	4	2 components, each awarded 2 points
Paper Loading	2	2	0	Ease of loading paper, awarded 2 points
Sensors	7	4	5	Sensors, 1 point for each aspect covered. Additional point for remote.
Cable Management	1	1	1	1 point for cable management
Serviceability Total	14	11	10	
Architecture				
Basic Construction	7	7	5	1 point awarded for each aspect
Connectivity	2	2	3	2 points for standard connectivity; 1 point for additional options
OS Supported	3	3	3	2 points for standard OS, 1 point for additional
SW Drivers/Utilities	2	1.4	1.8	Each SW Driver = .2 point
Options	2	1.4	1.4	Each option covered = .2 point
Architecture Total	16	14.8	14.2	
Grand Total	62	54.3	36.7	

Table 20 – Single Station Printer Evaluation

Summary

When choosing a POS printer for retail, performance, economy, serviceability and architecture are important considerations. Edison evaluated two single station printers, Toshiba and Epson.

Overall, Toshiba TCx™ Single Station POS Printer has been determined to be the better choice when compared to the Epson Single Station POS printer when looking at Performance, Economy, Serviceability and Architecture.

The results, graphically presented below, show that Toshiba TCx™ Single Station POS Printer scored 88% out of 100% overall while Epson Single Station POS Printer scored 59% out of 100%.

Also note, Toshiba scored greater than Epson in all four rating categories.

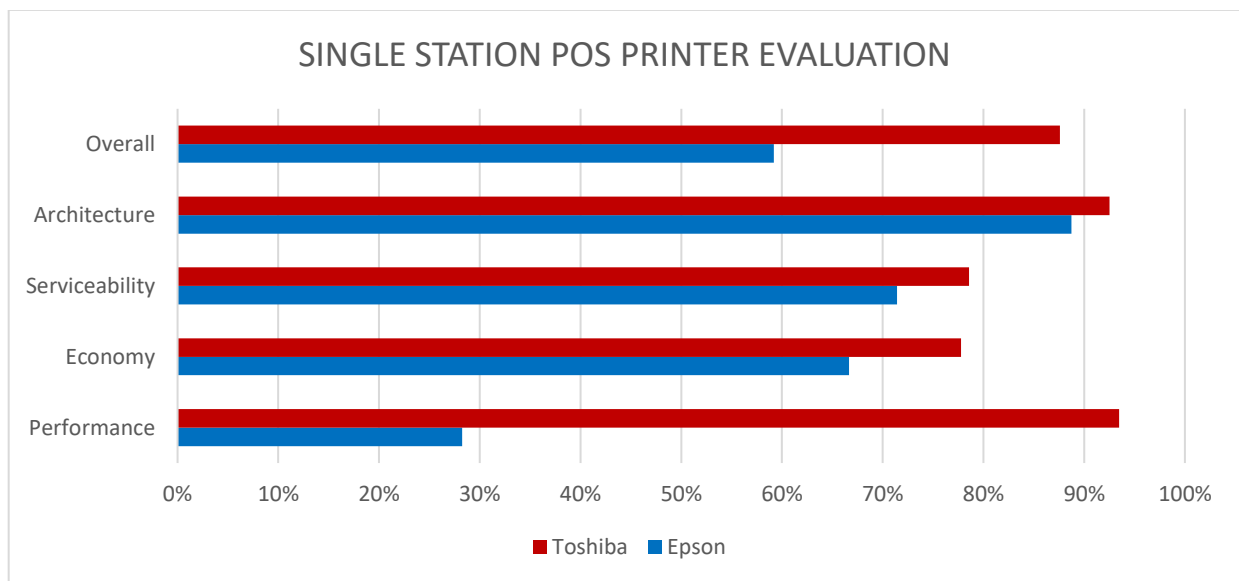


Chart 3 – Final Results

Performance

The greatest disparity between the two printers was in the area of performance as Toshiba TCx™ Single Station POS Printer was faster in every test based on real-life conditions where the time to print short, medium and long receipts were compared. The second critical aspect of performance was in clarity where 206 DPI provided by Toshiba produced a clearer image in almost every instance when compared to 180 DPI provided by Epson.

Economy

Toshiba also had the edge on paper reduction, where it saved more paper than Epson in three of the six trials and matched Epson in the other three. Epson saved more on power, but the differences were minimal and not material.

Serviceability

From a serviceability perspective, Toshiba and Epson were closely matched. The most significant exception was that paper loading was a one-step process for Toshiba, and a two-step process for Epson.

Architecture

Toshiba and Epson were closely matched in architecture with similar footprints, materials used, and front face design. Epson offered more connectivity options and a system to quickly replace connections as needed. Toshiba included its TCx Sky OS, which reflects many years of retail knowledge and operation.

Overall, Toshiba TCx™ Single Station POS Printer has been determined to be the better choice when compared to the Epson Single Station POS printer when looking at Performance, Economy, Serviceability and Architecture.