TCxWave
TCxWave

• Flexibility

– Choose your Display size
– Choose your processor
– Choose your base or your stand
– Make it integrated all-in-one or distributed
– Toshiba award-winning Retail Hardened

• New in 2017

- Intel Skylake (6th generation) Celeron & i5
- vPro enabled
- 15 and 18 inches
- Powered USB on the Head
- Win 10 Preload
- Value Offering for Model 14C
SurePOS 500
# SurePOS 500 Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Processor</th>
<th>Memory</th>
<th>Storage Options</th>
<th>Operating System Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>4852-570/E70</td>
<td>Celeron Dual Core 2.5 G540 Processor</td>
<td>2GB DDR3 Memory Standard (16GB Max)</td>
<td>15” Infrared Touch, 500GB SATA2 HDD 1 or 2 SSD 64GB/128GB</td>
<td>Windows Preload: PosReady 2009, PosReady 7, Win 7 Pro</td>
</tr>
<tr>
<td>4852-870/E80</td>
<td>Core i5 3550S Processor</td>
<td>8GB DDR3 Memory Standard (16GB Max)</td>
<td>15” Infrared Touch, 500GB SATA2 HDD 1 or 2 SSD 128GB</td>
<td>Windows Preload: PosReady 7, Win 7 Pro</td>
</tr>
</tbody>
</table>

- Windows 10 limited support
  - Preload available with RPQ

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TCx300
Easy to Service
Connectivity

SurePorts selection
3x 12V USB or 3x Powered RS232
Optional port addition
1x powered RS232 option

Basic Ports
2 Display Port, 1 VGA, 2\textsuperscript{nd} VGA option
3PC USB 2.0 (2back, 1front), 1PC USB 3.0
1x 24V USB, 1x 12V USB
2x standard RS232
1G ethernet, Audio out/mic, Keyboard/Mouse
1 cash drawer port
TCx300: Model Highlights

TCx™300 Models 360, 370, 380

Choice of Processor
360 provides Intel Celeron 1820TE
370 provides Intel Core i3 4330TE
380 provides Intel Core i5 4570TE

Storage options
- 500 GB HDD
- 64 or 128 GB M2 SSD
- 2nd SSD drive available

2 GB base memory, expandable to 16GB

Basic Ports
2 Display Port, 1 VGA
3PC USB 2.0 (2back, 1front), 1PC USB 3.0
1x 24V USB, 1x 12V USB
2x standard RS232
1G ethernet, Audio out/mic, Keyboard/Mouse
1 cash drawer port

Optional SurePorts add on
3x 12V USB or 3x Powered RS232
1x powered RS232 option
TCx700
New Features available with Basic or Plus Riser

- Front USB / Audio ports
- System unit Keylock
- 2\textsuperscript{nd} VGA Port
- SSD drive size
- Modesty cover
Basic Riser

Top row choice - none or all USB
Bottom row choice - all USB or USB and 2x cash drawer
**Plus Riser**

- Bottom row - USB, 2x cash drawer, 1x 9 port
- Top row choice - none or USB installed
- Top row available not installed - RS485, 9 pin RS232 or 12 pin RS232

- Plus riser is required for 4690 support (provides NVRAM)
- Another feature available when Plus Riser is selected:
  - Extra serial ports - 2x standard RS232, installed in PCI slot
Virtually tool-free access to key components
TCx™700 Specification

TCx™700 Model 746
Intel Celeron G1820TE
Storage options

- 500 GB HDD
- 64 GB or 128 GB M2 SSD
- 1 or 2 drives available
- 2 GB base memory, expandable to 16GB

TCx™700 Model 786
Choice of Processor

- Intel Core i3 4330
- Intel Celeron G1820
- Intel Core i5 4590S

Storage options

- 500 GB HDD
- 64 GB or 128 GB M2 SSD
- 1 or 2 drives available
- RAID capability standard

4 GB base memory, expandable to 32GB
# Windows 10 & i5 Configurations

<table>
<thead>
<tr>
<th>Features:</th>
<th>Ordering</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legacy Wide Cover Set</td>
<td>RPQ</td>
<td>Few customers order Wide coverset. Majority of orders are RPQ now.</td>
</tr>
<tr>
<td>UPS</td>
<td>RPQ</td>
<td>Same as above.</td>
</tr>
<tr>
<td>2GB</td>
<td>RPQ</td>
<td>Cost difference between 2GB and 4GB is $8. Migrate customers to 4GB.</td>
</tr>
<tr>
<td>4GB</td>
<td>Std Offering(Optional)</td>
<td>Orderable within the configurator.</td>
</tr>
<tr>
<td>8GB</td>
<td>Std Offering(Optional)</td>
<td>Orderable within the configurator.</td>
</tr>
<tr>
<td>128GB</td>
<td>Std Offering(Optional)</td>
<td>Orderable within the configurator.</td>
</tr>
<tr>
<td>500 GB HDD</td>
<td>Std Offering(Optional)</td>
<td>Orderable within the configurator.</td>
</tr>
<tr>
<td>All Dual Storage installed</td>
<td>RPQ(BAU) or MES</td>
<td>RPQ to have 2nd SSD installed. Or order as MES.</td>
</tr>
<tr>
<td>64GB SSD</td>
<td>RPQ/MES</td>
<td>Cost difference between 64GB and 128GB continues to decline. Migrate customers to 128GB</td>
</tr>
<tr>
<td>Plus Riser</td>
<td>Std Offering with no top row SP(Optional)</td>
<td>Orderable within the configurator.</td>
</tr>
<tr>
<td>Basic Riser</td>
<td>Std Offering(Optional)</td>
<td>Orderable within the configurator.</td>
</tr>
<tr>
<td>USB/Front Audio</td>
<td>Std Offering(Optional)</td>
<td>Orderable within the configurator.</td>
</tr>
<tr>
<td>Keylock Housing</td>
<td>Installed on All Configs</td>
<td>All configs will come with this feature.</td>
</tr>
<tr>
<td>DVD</td>
<td>MES</td>
<td>Orderable as an MES.</td>
</tr>
<tr>
<td>2nd VGA</td>
<td>Installed on All Configs</td>
<td>All configs will come with this feature.</td>
</tr>
<tr>
<td>RS232</td>
<td>Pick and Pack/MES</td>
<td>Customer installed(BAU)</td>
</tr>
<tr>
<td>RS485</td>
<td>Pick and Pack/MES</td>
<td>Customer installed(BAU)</td>
</tr>
<tr>
<td>Keylock</td>
<td>Pick and Pack/MES</td>
<td>Customer installed(BAU)</td>
</tr>
</tbody>
</table>
Core i3 vs. Core i5

In POS workloads the Core i3 is equivalent to or faster than the Core i5.
Office and Browser workloads are POS like – human input driven.
Toshiba Controller Models

C46
- Intel Celeron G1820TE
- Core i3 4330
- 4GB Memory
- Internal DVD drive
- 64 GB SSD or 500 GB HDD
- HDD
  - upgrade to 128G SSD available
- 2nd SSD available
- No SurePorts installed

C86
- Intel Celeron G1820 or
- Core i3 4330
- 4GB Memory
- Internal DVD drive
- 64 GB SSD or 500 GB HDD
- HDD
  - upgrade to 128G SSD available
- 2nd SSD available
- No SurePorts installed
Microsoft Support

4810-E60, E6A, E70, E7A provide 64-bit preload

Image loaded on 64GB SSD, upgrade to 500GB HDD or 128GB SSD available

POSReady 2009
POSReady 7
Windows 7 Pro
Windows 10 IoT Enterprise LTSB 2015 entry (mod E60, E46) or Value
Windows 10 IoT Enterprise LTSB 2016 (Av. Q4 2017)

Linux Support

SUSE Linux SLE 11, SP3*

4690 OS V6.5 Enhanced
Displays
TCx Displays & 4820 SurePoint Displays

TCx™ Display

- 15.6” widescreen 16:9 and standard 4:3 display
  - 1366 x 768 resolution
- Multi-touch, projected capacitance (PCap) technology
- DisplayPort and VGA Interface
- I/O Devices and attachment provisions

4820 – SurePoint™ Displays

- 15.0” and 12” standard 4:3 display
- 15 Years experience in IR touch technology
- The largest iPOS touch displays installed base World Wide
# Market Trends – Current State of Touch Technology

<table>
<thead>
<tr>
<th></th>
<th>Resistive (4-wire, 5-wire)</th>
<th>Surface Capacitive</th>
<th>Surface Acoustic Wave</th>
<th>Acoustic Pulse Recognition</th>
<th>Optical</th>
<th>IR</th>
<th>Projected Capacitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ruggedized for public</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Drift free over time</td>
<td></td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Performance</td>
<td>+ +</td>
<td>+ +</td>
<td>+ +</td>
<td>+ +</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Stylus Independent</td>
<td>+ +</td>
<td></td>
<td>+ +</td>
<td></td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Display Clarity</td>
<td></td>
<td>+</td>
<td>+ +</td>
<td>+ +</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Multi-touch (3+)</td>
<td></td>
<td></td>
<td>+</td>
<td></td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Flat-Front / Bezel-less</td>
<td></td>
<td>+</td>
<td>+ +</td>
<td></td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Cost/Value</td>
<td>+ +</td>
<td>+</td>
<td>+ +</td>
<td></td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>
Printers
Ease of use

Sensor System
- Paper low, print head & cutter health, jam detection

Paper loading
- Single-handed operation

Cable Management
- Locking power connector, strain reliefs

Paper door opening
- Paper door opens automatically when button is pressed
Ease of Service

Sensor System
- Paper low, print head & cutter health, jam detection

Easy-to-remove Covers
- Makes cover color changes easy

Remote Management Agent
- Wear-leveling
- Remote reporting of error conditions
- Proactive replacement of parts

Easy access to major assemblies
- Thermal print head
- Main card & interface
- Auto-cutter

To see a video of the printer disassembly cut and paste this URL into your browser:
http://www-01.ibm.com/support/docview.wss?rs=219&uid=pos1R1004335
Line Displays
2 x 20 LCD Display

- **Products:**
  - 2x20 Single Sided - 2 Lines of 20 characters
  - 2x20 Dual Sided - 2 Lines of 20 characters, 2 Sides
  - APA 160 x 36 pixels or
    - 2x10, 2 Lines of 10 DBCS Characters or
    - 2x20, 2 Lines of 20 SBCS Characters

- **Image Color** - White on Black background
- **Connectivity** - USB only
- **Color(s)** - Iron Gray, Raven Black or Pearl White
- **Mounting** - Pole mount, flagpole style, left/right configuration support
  Or center pole
# Product Description – The Specs, 2x20

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Technology</td>
<td>LCD with LED Backlight</td>
</tr>
<tr>
<td>Display Format</td>
<td>2x20, 2 Lines of 20 characters,</td>
</tr>
<tr>
<td>Character Size, W x H, mm</td>
<td>5.5 x 10, Estimate, Slight variations expected</td>
</tr>
<tr>
<td>Image Color</td>
<td>White on Black Background</td>
</tr>
<tr>
<td>Size, W x H x D, mm</td>
<td>178 x 56 x 34, Display Head, not including pole, Estimate,</td>
</tr>
<tr>
<td></td>
<td>Will change based on detailed design. (209 x 58 x 36 on Existing 2x20)</td>
</tr>
<tr>
<td>Mounting</td>
<td>Pole mount, flagpole style</td>
</tr>
<tr>
<td>Interface</td>
<td>USB 2.0, Full Speed</td>
</tr>
<tr>
<td>Power</td>
<td>5V, 1.4W, Estimate, Slight variations expected</td>
</tr>
<tr>
<td>Life</td>
<td>50,000 Hrs</td>
</tr>
<tr>
<td>Color(s)</td>
<td>Iron Gray, Pearl White, Raven Black</td>
</tr>
</tbody>
</table>
## Product Description – The Specs, APA

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Technology</td>
<td>LCD with LED Backlight</td>
</tr>
<tr>
<td>Display Format</td>
<td>APA, 160 x 36 pixels, or 2x10, 2 Lines of 10 DBCS Characters, or 2x20, 2 Lines of 20 SBCS Characters</td>
</tr>
<tr>
<td>Character Size, W x H, mm</td>
<td>12mm x 12mm (DBCS), Estimate, Slight variations expected</td>
</tr>
<tr>
<td>Image Color</td>
<td>White on Black Background</td>
</tr>
<tr>
<td>Size, W x H x D, mm</td>
<td>178 x 56 x 34, Display Head, not including pole, Estimate, Will change based on detailed design. (201 x 112 x 36, Existing APA)</td>
</tr>
<tr>
<td>Mounting</td>
<td>Pole mount, flagpole style</td>
</tr>
<tr>
<td>Interface</td>
<td>USB 2.0, Full Speed</td>
</tr>
<tr>
<td>Power</td>
<td>5V, 2.5W, Max</td>
</tr>
<tr>
<td>Life</td>
<td>50,000 Hrs</td>
</tr>
<tr>
<td>Color(s)</td>
<td>Iron Gray, Pearl White, Raven Black</td>
</tr>
</tbody>
</table>
Legacy Character Displays
Withdrawn from Dec 2017

- VFD Technology
- 2 x 20 characters
- USB or RS232
- Pearl White and Iron Grey
Keyboards
Modular POS Keyboard Family

Modular ANPOS  Modular CANPOS  Modular 67 Key

MSRs  Touch Pad/Pointer  Fingerprint reader  Keylock
Modular Keyboard Portfolio

- Modular design
  - More choice, more flexibility
  - Improved serviceability
  - Simplified upgrades for new capabilities
- Programmable POS keys
- Wedge mode option for MSR data
- Touch pad/pointing stick
- Authentication – fingerprint reader
- Investment protection
- Retail-hardened

More function and less price!!
Narrow and Wide Cash Drawer

• Connectivity:
  – Standard cash drawer connection
  – SDL & RJ11 cables
  – USB connection

• Wide cash drawer

• Narrow cash drawer

• Euro Till

• Horizontal Till Insert

• Vertical Till Insert
Standard Models
What’s this?
April 2017 – Standard Models

Standard Models will:

– Provide greater responsiveness to customer demands
– Enable more competitive pricing for entry, mid & high level logic models, MES and pick-n-pack features
– Simplify operational processes both for Toshiba and its Partners
– Over time, improve cycle times for delivery
Software Offerings
Netop® Remote Control Software

Provides secure and scalable access to all of your in-store technology

• Maintaining POS, SCO and other in-store technology is mission critical.
  • Downtime is not affordable.
• Netop helps retailers and service providers maintain PCI compliance while maximizing service efficiency
  • Gives retailers a consolidated solution with high-speed connectivity to maintain and update devices and quickly resolve issues.
• Supports point-of-sale and self-checkout systems running Toshiba 4690 OS as well as mainstream operating systems (Windows & Linux)
**McAfee Application Control**

**Security Through Whitelisting**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic Whitelisting</td>
<td>Prevents all unauthorized code from running</td>
</tr>
<tr>
<td>Memory Protection</td>
<td>Prevents whitelisted apps from being exploited via buffer overflow attacks</td>
</tr>
<tr>
<td>File Reputation</td>
<td>Integrates with GTI to classify binaries as Good, Bad and Unknown</td>
</tr>
</tbody>
</table>
McAfee Endpoint Security Platform

A framework to simplify today, built with the future in mind

Security Management

- McAfee ePO Agent
- Client UI

Threat Prevention
Firewall
Web Control
Adaptive Threat Protection
Active Response

Future Possibilities

Common Components – Logger, Scheduler, GTI, etc.

Kernel Mode Drivers – Network, File, Access Control, etc.
ANY QUESTIONS?