



# Zotac CI325

## Ubuntu POS Evaluation



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Revision Date	12/04/2018
Document Name	Zotac CI325 Ubuntu POS Eval.docx



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## Objective

Determine if the Zotac CI325 is a compatible point of sale terminal for use with the Ubuntu Order Entry system.

## Testing Performed

Item Tested	Pass	Fail
SUS GUI Order Entry	✓	
Prep	✓	
Cash Out	✓	
Daily Cash Control	✓	
Till Functions	✓	
PXE Load	✓	
PHLanding	✓	

### Results:

- Touch responsive in GUI order entry and GUI applications.
- Terminal calibrates touch via phtscalib\_TSG.sh and retains calibration.
- Terminal prints to USB thermal printer and opens cash drawer.

## Testing Platform

BOH PC	Dell Optiplex XE – Ubuntu GM45 eRes
POS PC	Zotac CI325
Printer(s)	Epson TM-T88IV
Cash Drawer	Wincor/Nixdorf
Touch Screen	ELO

## Conclusion

The Zotac CI325 is compatible for use as a POS terminal.



# Alterations

1. Installed v86d package
  - apt-get install v86d
2. Added uvesafb to startup modules
  - sudo sh -c "echo uvesafb >> /etc/initramfs-tools/modules"
3. Activated module
  - sudo modprobe uvesafb
4. Gathered supported resolution data
  - cat /sys/bus/platform/drivers/uvesafb/uvesafb.0/vbe\_modes
5. Configured uvesafb to closest supported resolution (640x480)
  - sudo sh -c "echo options uvesafb mode\_option=640x480-32 scroll=ywrap > /etc/modprobe.d/uvesafb.conf"
6. Updated initramfs
  - mount /dev/sda1 /boot
  - sudo update-initramfs -k all -u
7. Removed depreciated vga=768 setting from grub, leave nomodeset in place
  - grep vga /proc/cmdline
  - grep -ir vga /etc/modprobe.d/
8. Updated grub
  - mount /dev/sda1 /boot
  - update-grub
9. Added new Udev rule 100-zotac.rules

```
SUBSYSTEM=="input", ATTRS{name}=="MCE IR Keyboard/Mouse (nuvoton-cir)",  
RUN+="/usr/fms/admin/v86dkiller", OPTIONS="last_rule"
```



#### 10. Added script v86dkiller to /usr/fms/admin

```
#!/bin/bash
MB=$(dmidecode -t 2 | grep -ai "Product Name" | sed -e 's/Product Name: //' | tr '[:lower:]'
'[:upper:]' | sed -e 's/^[ \t]*//')
MBMFG=$(dmidecode -t 2 | grep -ai Manufacturer | sed -e 's/Manufacturer: //' | tr '[:lower:]'
'[:upper:]' | sed -e 's/^[ \t]*//')

if [ "$MBMFG" == "ZOTAC" ]; then
    if [ "$MB" == "ZBOX-CI325NANO" ]; then
        PID=$(ps -ef | grep "/sbin/v86d" | awk {'print $2'} | head -1)
        phzap kill -9 $PID
        echo "killed" > /tmp/v86d.log
    fi
fi
```

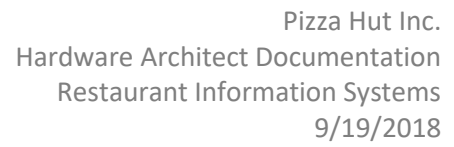
11. Chmod 777 /usr/fms/admin/v86dkiller

12. Deleted /etc/X11/xorg.conf

13. Reboot.

## Specifications

Motherboard	Proprietary
CPU	Intel(R) Celeron(R) CPU N3160 @ 1.60GHz
Memory	4GB DDR3-1600
HDD	32 GB SATA SSD
Network	RTL8111/8168/8411 PCI Express Gigabit Ethernet Controller
Sound	Intel HD Audio



The image displays three views of the LOXAC mini PC. The top view shows the rear panel with an Antenna, USB 3.0 port, USB 2.0 ports, Ethernet port, HDMI port, DP port, and DCIN. The front view shows a power button, S2 and XG ports, PWR, SATA, and WIFI indicators, audio jacks, and USB 3.0 ports. The side view shows the side panel with a power button, S2 and XG ports, PWR, SATA, and WIFI indicators, and a USB 3.0 port. The device is black with a honeycomb mesh pattern on the top and front panels.