INVOICE_Logs

INITIAL CONTACT

 Contacted via 3rd Party, ______, for owner of Blue Mountain Caine, Frances Quempts; Requestor

ISSUE PER REQUESTOR

- Laptop screen is not working correctly
- Other tech store suggested the issue was the mobo
 - Quote price to repair was \$500+ from other repair store

DEEP DIVE - Initial Diagnostics

- Laptop Information
 - Laptop Model: HP ProBook 440 G9
 - o Product ID#: Here (687N1UT 440 G9 Notebook PC Wolf Pro Security Edition)
 - o Service Manual: Here
- Laptop has multiple impact point
 - Screen appears nominal w/ zer0 visible physical damage
 - 3rd party stated Requestor was aware of the impact damage
 - See Pictures <u>HERE</u> titled "IMPACT_DAMAGE"
- Powering on Laptop via Power Button shows the issue
 - Bottom of screen has intermittent flickering
 - See Video HERE titled "ISSUE FLICKER"
 - Issue is occurring in BIOS/UEFI
 - Issue is likely not software related
 - Issue is occurring in Windows; confirmed
- Connected HDMI to external Display from Laptop
 - Issue is not occurring on external Display
 - Issue is likely not GPU related
 - Issue is likely the Screen or the Screen/Display ribbon cable
- Removed laptop bottom plastic cover
 - Disconnected Battery
 - Display/Screen cable is firmly seated in port @ Mobo
 - Reseat Display cable @ Mobo
 - Issue was not resolved; issue is cable or screen
 - Display Cable Model#: DD0X8SLC400
 - o Screen Model#: N00082-001
- Removed screen from plastic enclosure/bezel
 - Screen/Display cable is firmly seated in port @ Screen
 - Reseat Display cable @ Screen

- Flicker issue <u>WAS</u> resolved as display output is now nominal
 - See video <u>HERE</u> titled "ISSUE_TEMP_FIX.mp4"
- Re-sat screen into enclosure
 - Original flicker issue has returned
- Removed screen from enclosure
 - Flicker issue has been resolved.
 - Having the screen out of the enclosure resolves flicker
 - Lightly pushing screen from the front on bottom middle causes flicker issue even outside of enclosure
 - Lightly pushing on display driver from the rear of the screen resolves issue even outside of closure

CONTACTED REQUESTOR

- 3rd Party suggested to Requestor that estimated cost to repair would be around \$200
 - o Requestor stated that would be okay; proceed...

DIAGNOSTIC CONCLUSION: Suggest replacement of screen and display cable as further deep dive of smaller components (ICs, Resistors, Diodes, Capacitors, Coil) w/ multimeter and then micro-solder repair would not be cost effective. New screen w/ new driver cost \$80 compared to further deep dive and accompanying repairs that would cost an additional \$69.99 with high "no-repair" rate.. Parts were ordered on

All Pictures and Videos of the Device can be found in the following google drive folder

INVOICE 0005 MEDIA

Parts being ordered per HP service manual and physical labels

- Display Cable:
 - MPN#: DD0X8SLC400
- Display/Screen:
 - o MPN#: N00082-001

DEEP DIVE - PC Repair

- Part arrived on
 - Replaced screen/display (N00082-001) and display cable (DD0X8SLC400)
 - RESOLVED: Screen issue of "Flickering" is no longer occurring after parts replaced
 - VIDEO UPLOADED: Please see issue resolved in video HERE
 - Ticket resolved

REPAIR CONCLUSION: ICs, Resistors, Diodes, Capacitors, Coil or similar components are going bad on the display driver. To eliminate the issue quickly and cost effectively the whole screen/display was replaced. Issue of screen flicker is no longer occurring.