

Application Note

DXPC Diagnostic LEDs

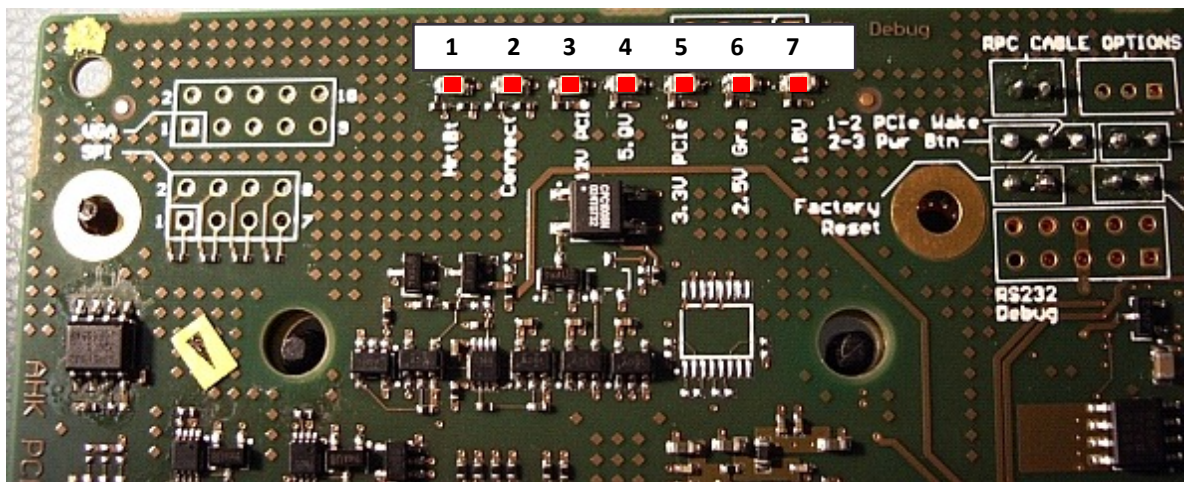

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Background

The DXPC PCIe card has a row of small, red diagnostic LEDs along the top edge of the rear of the board. These are primarily intended as aids for in-house diagnostics, although the “Hrt Beat” (also know as “HrtBt”) and “Connect” LEDs may be of use to the end user. With the exception of “Hrt Beat”, no diagnostic LEDs flash under normal operation*.

When compared to earlier versions, revision 5 of the DXPC has some differences in these LEDs; The 12V PCIe LED is omitted and a “WOL Rdy” LED has been included. This document will explain the function of the LEDs, contrasting Rev4 (and below) with Rev 5.

DXPC Rev 4 (and below)



The Heartbeat LED flashes continuously once the Teradici has been released from reset and is running properly. If the LED is illuminated solidly, the Teradici is usually booting or is being held in reset by the PCIe bus. An extended period of solid illumination would suggest an issue with the card or host machine. If the Heartbeat LED is continuously extinguished and host powered up and other LEDs illuminated, the Teradici is not running correctly.

2 – Connect (“CNCT” on Revisions 1 or 2)

The Connect LED illuminates solidly when the DXPC is in an active PCoIP session. Otherwise, it is extinguished.

3 – 12V PCIe

The 12V PCIe LED illuminates to indicate that the 12V rail, taken directly from the PCIe connector, is present. The 5V rail is derived from this supply so the 5.0V LED being illuminated implies 12V is present.

4 - 5.0V

This LED indicates that the 5V rail, generated on the DXPC but derived from 12V PCIe, is present. (Illumination therefore implies 12V PCIe is available).

5 – 3.3V PCIe

This LED illuminates to indicate that the main 3.3V rail, taken directly from the PCIe connector, is present.

6 – 2.5V GRA

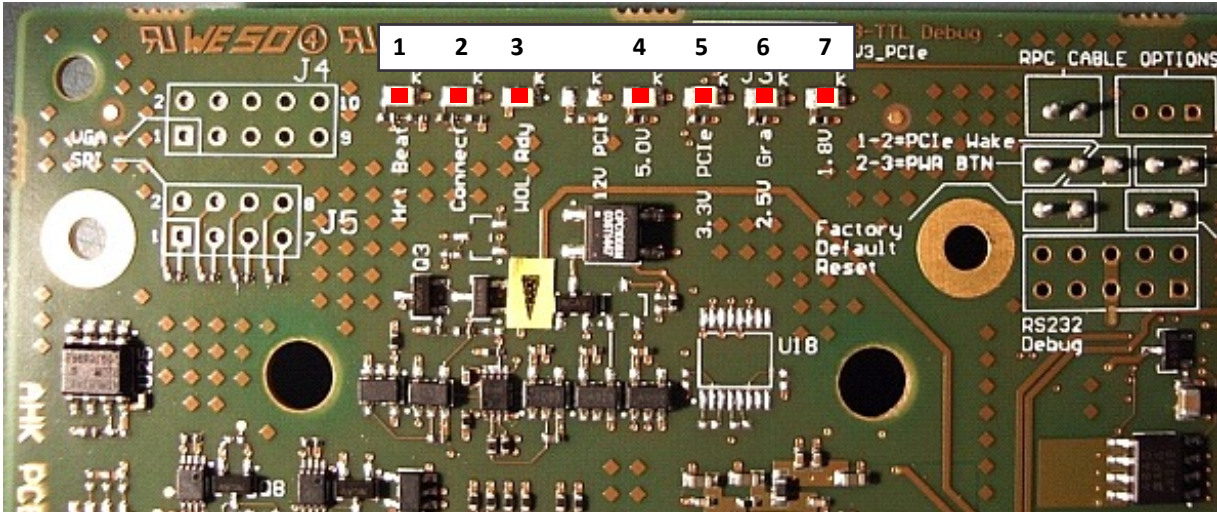
This LED indicates that the 2.5V MXM power rail, generated on the DXPC is present.

* Different rules apply when the card is first programmed in an AHK production environment.

7 – 1.8V

The 1.8V rail supplies both the XDR DRAM (via a further circuit to drop this to 1.5V) and MXM. Illumination of this LED suggests 1.8V is present.

PC Rev 5.



1 – Hrt Beat

See Rev 4 “HrtBt” LED.

2 – Connect

See Rev 4 Notes.

3 – WOL Rdy

This LED, like others, only illuminates when the host machine is fully powered up and is intended for in-house and in-field diagnostics only. The function of WOL Rdy is to flag that the Realtek network chip has properly read the MAC address of the card from a memory device which it shares with the Teradici. Thus, if this LED is illuminated and the host is correctly configured to wake from a PCIe Wake On LAN event (which may need BIOS setup changes and is not supported for every host machine), a Magic Packet sent to the DXPC’s MAC from a Zero Client (or suitable software etc), should wake the host machine (having AC line power) into full power operation.

4 - 5.0V

See Rev 4 Notes.

5 – 3.3V PCIe

See Rev 4 Notes.

6 – 2.5V GRA

See Rev 4 Notes.

7 – 1.8V

See Rev 4 Notes.

A note on the omission of the 12V PCIe LED from the initial release of Rev 5.

The omission of the 12V PCIe LED from the Rev 5 DXPC occurred for three reasons. Firstly, to reduce the operating power consumption of the DXPC. Secondly, to reduce the total Bill of Materials and placement costs and thirdly due to the 5.0V LED illuminating implying that 12V is present on the card.