ISOOC Workgroup Proposal for Port 80 Debug

V0.1

General Information

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Proposal Title	Open standard for connector and data interface for Port 80 debug information
Proposal Version	V0.1
Additional Notes	

Identified Problem

The trend of more integrated personal computers (PC) is causing access to power-on-self-test (POST) debug codes to be less available. Traditionally this has been available over the Low Pin Count (LPC) bus previously exposed through Peripheral Component Interconnect (PCI) slots and trusted platform module (TPM) headers on motherboards. With the move to PCI Express and Embedded Serial Peripheral Interface (eSPI) this is not an option anymore. Existing methods for accessing this data are on-board seven segment displays only available on high-end motherboards or vendor provided serial output using proprietary connectors and data formats. Not having access to POST information is problematic for users building or servicing their computers and may result in unnecessary product returns and support requests.

Proposed Solution (description)

It's proposed to develop an open standard for accessing POST information for debug purposes with representatives from the relevant actors in the industry. The standard should include specifications of a debug header including mechanical, electrical characteristics, and data format to adhere to. The header should be usable in a range of form factors and attempt to minimize the amount of space taken up on the product it's implemented on.

Proposed Solution (technical)

Most existing proprietary solutions output port 80 data over universal asynchronous receiver-transmitter (UART) through a specific header on their product. The data is often sent by the "Super I/O"-chip or the embedded controller. It's proposed to use the seemingly most common UART format of 9600 baud, eight data bits, zero parity bits, one stop bit, and no hardware flow control. Many existing solutions also currently use standard 2.54mm rectangular pin headers with different pinouts. It's suggested to use a smaller sized header to allow for easier placement on motherboards with restricted space and to use a widely available connector type available from multiple sources. Additionally, it would be beneficial if the header is polarized to prevent wrongful insertion by the user.

Proposed Solution (drawings)

Use this section to add drawings or visual materials to the proposed solution.

Timeline, Milestones, and Next Steps

If available, author can elaborate on a possible timeline, milestones, and next steps to be taken to move forward with the proposed solution.