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Product Notice

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Serial Ports COM3 and COM4 modification on ZEUS

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Notice:

This note is to outline the modification of COM3 and COM4 serial ports on the PXA270 based ZEUS single board computer.

An analog switch has been used on ZEUS (V1I3) to select between RS485 and RS422 interfaces. It has been noted that the parametric performance of the analog switch does not comply with the RS422/485 standard. A modification has been implemented to deal with this issue and is described in detail below.

Serial port COM3 has been modified so that it is no longer possible to select between RS422 (full-duplex) and RS485 (half-duplex) interfaces. COM3 port is now software selectable between RS232 and full-duplex RS422 only. Termination resistors of 120Ω are implemented on-board. The on-board general-purpose control signals U3_RS485EN and U3_TERM# are no longer operational. Control signal U3_RS232EN can still be used for selection between RS232 and RS422 (full-duplex) interfaces.

Serial port COM4 has been modified so that it is no longer possible to select between RS422 (full-duplex) and RS485 (half-duplex) interfaces. COM4 port is now available as half-duplex RS485 interface only. Termination resistors are NOT implemented and must be added external to the ZEUS, at each end of RS485 network (typically 120Ω at each end). The on-board general-purpose control signals U4_RS485EN and U4_TERM# are no longer operational.

Summary of changes:

Serial Port	COM3	COM4
Interface	RS232/RS422 software selectable	RS485 only
Termination	RS422: On-board 120Ω on Tx and Rx signal pairs	Not implemented on-board
Control	U3_RS485EN, U3_TERM# non operational	U4_RS485EN, U4_TERM# no longer operational
	U3_RS232EN=1, RS232 U3_RS232EN=0, RS422	N/A

This issue will be corrected on a revised V1I4 ZEUS PCB. Contact Arcom for availability.

If you have any questions about this or about any of our products please contact Arcom Technical Support.

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