SMARC T335X Hardware Design

CARRIER_PWR_ON:
Does the Module fully boot up before asserting CARRER_PWR_ON?

The IO power of carrier board will be turn on at the stage of power on sequence. If the IO power of carrier board been turn on earlier than the SMARC module, the power on carrier board might feedback to SMARC module through IO lines and disturbs the SMARC module power on sequence. More seriously, it might cause to the CPU won’t boot up. It is always recommended that the power on module has to be earlier than that on carrier board.

The boot up of module depends on when you release the reset signal of your carrier board. The module will boot up when the reset signal on your carrier board is released. Before that, the module will not boot up. That why you need to put the RESET_IN# in the last stage of power to serve as the "power good" signal of the carrier board.

The module will not boot up when the module power is ready because the carrier board hasn't released the reset signal yet.

The sequence is as follows:

Module Power Ready --> CARRIER_POWER_ON -->RESET_IN# -->Boot Up

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