

Multiple Ethernet Channels on the QUICC

General Notes:

- * If the 68EN360 is purchased, Ethernet is available on all 4 SCCs, but for performance reasons, not all 4 SCCs may be used. **There will only be one part number (68EN360) for the Ethernet version and customers will not have to pay more for multi-channel Ethernet capability.**
- * At 25 MHz, the 68EN360 supports 2 Ethernet channels, or one full duplex Ethernet channel. The 2 Ethernet channels should be SCC1 and SCC2.
- * Use of other SCCs/SMCs at slow rates is possible with 2 Ethernet channels. For instance another SCC running at 1 Mbps full duplex HDLC seems to be possible. Users may be able to exceed this value (perhaps to 2 Mbps) but should test the performance in their system.

If Ethernet on SCC2 is used:

The SPI can only be used when the SCC2 is not enabled, since they share parameter RAM. If the SPI is used to connect to a serial EEPROM to store the Ethernet addresses, then the SPI can be used prior to enabling SCC2. Note that when switching from one function to another, the parameter RAM must be reconfigured.

The RSTRT2 pin, if needed is on pin PB1. To enable this function just enable PB1 Test 2S on p. 7-356.

The RRJCT2 pin, if needed is on pin PB2. To enable this function just enable PB2 Test 2S on p. 7-356.

The SDACK* pins do operate, and can be differentiated from the other Ethernet channels via the function code (FC3-0) pins.

The SCC2 modem I/F is used for the Ethernet signals.

If Ethernet on SCC3 is used:

The SMC1 can only be used when the SCC3 is not enabled, since they share parameter RAM. Note that when switching from one function to another, the parameter RAM must be reconfigured.

The IDMA1 channel cannot be used in the autobuffer, or buffer chaining modes, at the same time that SCC3 is operating. Note that when switching from one function to another, the parameter RAM must be reconfigured.

No RSTRT or RRJCT pins are available for external CAM support.

The SDACK* pins do operate, and can be differentiated from the other Ethernet channels via the function code (FC3-0) pins.

The SCC3 modem I/F is used for the Ethernet signals.

If Ethernet on SCC4 is used:

The SMC2 can only be used when the SCC4 is not enabled, since they share parameter RAM. Note that when switching from one function to another, the parameter RAM must be reconfigured.

The IDMA2 channel cannot be used in the autobuffer, or buffer chaining modes, at the same time that SCC3 is operating. Note that when switching from one function to another, the parameter RAM must be reconfigured.

No RSTRT or RRJCT pins are available for external CAM support.

The SDACK* pins do operate, and can be differentiated from the other Ethernet channels via the function code (FC3-0) pins.

The SCC4 modem I/F is used for the Ethernet signals.

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