# [MPC5xxx] The external bus interface (EBI) fails when the debugger is connected

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The cause of this problem is that there are two signals which are multiplexed between debugger and EBI usage: EVTI and EVTO.

For the MPC5510 series, the function of these signals is controlled by the EVT_EN bit in the NPC_PCR register, which again is controlled by the debugger. The debugger will per default set the pin function to EVTI/EVTO. In order to use the signals for EBI (R/!W and !TA), use the EVTEN setting in the TrOnchip window:

```
TrOnchip.EVTEN ON ; signals have EVTI/EVTO function. EBI functions disabled (default)
TrOnchip.EVTEN OFF ; signals free for use by EBI or GPIO
```

**IMPORTANT NOTES:**

- If the NEXUS adapter LA-7610 is used, EVTI must be physically disconnected from the debug/trace connector, because the LA-7610 will permanently drive EVTI.
- If the NEXUS adapter LA-7630 is used, the EVTI pin will be tristated if TrOnchip.EVTEN is set to OFF. It is recommended to disconnect EVTI/EVTO from the debug connector anyway (see below).
- If the signals are used for EBI, it is strongly recommended disconnecting EVTI/EVTO from the debug connector. Unterminated signals can cause EBI problems, especially if the debugger is not connected.

Tags
MPC55XX