Data Path: analog multiplexer and A/D conversion

Project TFS path: $/FW SVI FF Releases/Release1/ FIRMWARE

Project changeset version: 35043

Starting point: Device driver for analog multiplexer and A/D conversion

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Containing file | | FIRMWARE\framework\bios\ ad.c | Review Date | Reviewer |
| Function or data | | bios\_InitAd | 14-03-06 | JL |
|  | | | | |
| TFS wit |  | NO FINDINGS | | |
| Impact | |  | | |
| Resolution | |  | | |
|  | | | | |
| Function or data | | bios\_GetAdRawData | 14-03-06 | JL |
|  | | | | |
| TFS wit |  | NO FINDINGS | | |
| Impact | |  | | |
| Resolution | |  | | |
|  | | | | |
| Function or data | | channel\_convert | 14-03-06 | JL |
|  | | | | |
| TFS wit |  | NO FINDINGS | | |
| Impact | |  | | |
| Resolution | |  | | |
|  | | | | |
| Function or data | | special\_channel\_convert | 14-03-06 | JL |
|  | | | | |
| TFS wit |  | NO FINDINGS | | |
| Impact | |  | | |
| Resolution | |  | | |
|  | | | | |
| Function or data | | bios\_WriteMeasureSequence | 14-03-06 | JL |
|  | | | | |
| TFS wit |  | From line 205 to 213, if \*chk= END\_SEQ\_TWO, in next for loop, ad\_IsChannelPowered(\*chk) input would be over range. Because NUMBER\_OF\_AD\_CHANNELS = 13, but END\_SEQ\_TWO=0x20. | | |
| Impact | |  | | |
| Resolution | | Change END\_SEQ\_TWO to NUMBER\_OF\_AD\_CHANNELS in line 205 and 209 | | |
|  | | | | |
| Function or data | | bios\_MeasureAd | 14-03-06 | JL |
|  | | | | |
| TFS wit |  | Line 228, 229, 230, temp variable temp2/kt/sample could be defined just before usage. | | |
| Impact | |  | | |
| Resolution | | Put Line 228, 229, 230 to line 266, just before the do loop. | | |
|  | | | | |
| TFS wit |  | Line 240, why u8 lookaheadhannel = \*(seq + 1u);  typedef struct ADSeqState\_t  {  const u8 \*measureSeqBase; //!< pointer to base of seq table (first fast channel)  const u8 \*pSeq; //!< pointer to current channel  u16 CheckWord;  } ADSeqState\_t;  seq+1u=? | | |
| Impact | |  | | |
| Resolution | |  | | |
|  | | | | |
| TFS wit |  | Line 321, NUMBER\_OF\_AD\_CHANNELS=13, but the comparison is END\_SEQ\_TWO. And END\_SEQ\_TWO=0x20. | | |
| Impact | | Over range | | |
| Resolution | |  | | |
|  | | | | |
| Function or data | | ad\_GetTerminalDiagResult | 14-03-06 | JL |
|  | | | | |
| TFS wit |  | NO SIGNIFICANT FINDINGS | | |
| Impact | |  | | |
| Resolution | | diagResult is not checksum-protected, it should be. | | |
|  | | | | |
| Function or data | | waste | 14-03-06 | JL |
|  | | | | |
| TFS wit |  | NO FINDINGS | | |
| Impact | |  | | |
| Resolution | |  | | |
|  | | | | |
| Function or data | | ad\_PerformTerminalBoardDiag | 14-03-06 | JL |
|  | | | | |
| TFS wit |  | Line 394, magic number 500. | | |
| Impact | |  | | |
| Resolution | | Change to macro definition with meaning. | | |
|  | | | | |