



ERRATA SHEET DS21455/DS21458

Revision A2 Errata

The errata listed below describe situations where DS21455/DS21458 revision A2 components perform differently than expected or differently than described in the data sheet. Maxim Integrated Products, Inc., intends to correct these errata in subsequent die revisions.

This errata sheet only applies to DS21455/DS21458 revision A2 components. Revision A2 components are branded on the topside of the package with a six-digit code in the form yywwA2, where yy and ww are two-digit numbers representing the year and work week of manufacture, respectively. To obtain an errata sheet on another DS21455/DS21458 die revision, visit our website at www.maxim-ic.com/errata.

1) FAILURE TO DETECT J1 LFA (YELLOW ALARM) IN ESF MODE

Description:

The DS21455/DS21458 do not identify the J1 LFA (also called Yellow or RAI) alarms correctly. In J1 ESF mode, the DS21455/DS21458 do not report the LFA alarm when the Japanese JT-G704 LFA pattern of '11111111 11111111' is present in the facilities data link. The DS21455/DS21458 will only respond to the normal G.704 LFA pattern of '11111111 00000000.'

Workaround:

To transmit the Japanese ESF LFA alarm, which is 0xFFFF in the FDL, the following can be done. Set the TFDL register to 0xFF and set the TFDLS bit to 0. The TFDLS bit is located in the T1TCR1 register.

To receive the Japanese ESF LFA alarm, which is 0xFFFF, the software must monitor the RFDL register. The RFDL register is updated regularly and an update is indicated by the RFDLF status bit. The RFDLF status bit is located in the SR8 register. Since the Japanese ESF LFA alarm pattern is 2 bytes long, the RFDL register has to be read on two consecutive updates for a complete pattern. When 16 consecutive patterns of 0xFFFF appear in the FDL, the alarm will be set. If 14 or fewer patterns of 0xFFFF out of 16 possible appear in the FDL, the alarm will be cleared.