fairlight ENGINEERING CHANGE NOTE: mfx3

ECN #: 339

ASSEMBLY: BMW4011 **DESCRIPTION:** MW4-PXY CPU CARD

New Assembly: BMW40114-E **DATE:** 13/03/00

Current Assy Rev: **Current Schematic Rev:**

New Assy Rev: E (4.1) **New Schematic Rev:**

○ **CMS BOMs Updated** ◉ **Excel BOMs Updated** ◉ **Subcontractor Records Updated** **Compatibility Maintained:** Yes

IMPLEMENTATION INFORMATION:

○ **Safety Issue**	○ **UL Compliance Issue**	○ **New Feature**	○ **Cost Reduction**
◉ **Bug Fix**	○ **EMC Compliance Issue**	◉ **Quality Issue**	
○ **Reliability Reasons**	○ **Software Change**	○ **Cosmetic Change**	

REASON FOR CHANGE:

Formalise modifications for production boards. Fix PCI to DRAM byte enables for non-long transfers.

To make testing easier

DETAILS OF CHANGE:

1. Replace C136 with 10nF (Ceramic, 50v, +/- 10% SMD 0805 - Fairlight part number CCE1338)
2. Replace C135 with 10nF (Ceramic, 16v, +/- 10% SMD 0612 - Fairlight part number CCG6935)
3. Remove C230.
4. Add 6 x 2 Header (P/N JMH1719) at location JP4
5. Add shorting plugs (2 pin jumper, P/N JMJ6765) on JP1/1-2, JP1/3-4, JP1/5-6, JP2, JP4/11-12, JP13/2-3, JP14/2-3, JP15/2-3, JP17/1-2, JP18/1-2, JP18/3-4, JP18/5-6, JP19.
6. Add 20 Pin IC Socket, SMD PLCC (P/N JMS5775), at location: U136 U137 U138 U139.
7. Replace R280 & R281 with 220R SMD1206 (RMF3706).
8. Cut track to U134/2. Connect U134/2 to U134/6.
9. Cut tracks to pin 22 of U95.
   Cut tracks to pin 24 of U95
10. Connect U72/70 to U74/72.
    Connect U72/72 to U74/70.
11. Connect TESTU38_1 test point to R252 on side near it's label.
12. Connect JP8/2 to U132/3.
13. Replace FB1 & FB2 with Choke BLM41P600S (TCS7197).
14. Connect S4/A54 to S4/A62.
15. Check that the revision of "Byte PAL" (U136-U139) is Rev 4.
    Add 8 termination Diodes (D15-D22, RB411D, Fairlight P/N SDS-1592 SOT 23, 3 PIN) as described below:
    (This is a three pin device and the pin numbers are as follows: viewing from the top with the side with the single pin (pin 3) upper most , pin 1 is in the bottom right hand corner.)

TOP OF BOARD:
Connect D15/3 directly to +5V (U64/20). Use mod wire to connect D15/2 to U49/1.
Connect D16/3 directly to U52/1. Use mod wire to connect D16/2 to GND (C83 the end close to U42).
Connect U50/1 to U137/11 (BOTTOM OF BOARD).
Connect D17/3 directly to +5V (U63/20). Use mod wire to connect D17/2 to U45/1.
Connect D18/3 directly to U44/1. Use mod wire to connect D18/2 to GND (U44/12).

Connect U44/1 to U139/11 (BOTTOM OF BOARD).

BOTTOM OF BOARD:
Connect D19/3 directly to +5V (C102 the end close to U108). Use mod wire to connec D19/2 to U108/1.
Connect D20/3 directly to U109/1 . Use mod wire to connect D20/2 to GND (C178 the end close toU109).
Connect U109/1 to U136/11.
Connect D21/3 directly to +5V (U120/20). Use mod wire to connect D21/2 to U112/1.
Connect D22/3 directly to U113/1. Use mod wire to connect D22/2 to GND (C186 the end furthest from U138)
Connect U113/1 to U138/11.

16. Remove R127. Add a 10K SMD0603 resistor (P/N RME8573) at location R128. (Shift R127 to R128 position)

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Place a label marked "BMW40114-E" to cover the PCB's P/N (which is BMW4011A-).