

PM7322

RCMP SOFTWARE DRIVER DETAILED DESIGN

ERRATA

ISSUE 1: OCTOBER 1997

CONTENTS

1	CHANGES TO APPNOTE ISSUE 3.....	1
1.1	RCMP_DIAG.C.....	1
1.2	RCMP_PRIM.C	1

1 CHANGES TO DOCUMENT ISSUE 3

This document is the errata notice for Issue 3 of the RCMP Software Driver Detailed Design (PMC-960345A3). Specifically, it includes modifications/enhancements to the C code.

1.1 rcmp_diag.c

The following line is modified to align with the write mask bits in Reg. 0x22:

```
mask[EXTRAMAMSB] = 0x800F0x9F0F;
```

1.2 rcmp_prim.c

The following function is added to include the write mask function provided by WM[4:0] in Reg. 0x22:

```

/*****
/*
/*          SRAM WRITE MASKED
/*
/* function name: wr_sram_masked
/*
/* Parameters:
/* dev    Pointer to the base address of the RCMP device being
/*        accessed.
/* d      Pointer to an array containing the data to be written.
/* vcra   The value presented on the SA[15:0] primary outputs.
/*        Identifies the VC Table entry.
/* field  The value presented on the SA[19:16] primary outputs.
/*        Represents a field within the VC Table entry.
/* mask   The byte masks (5 bits) used to selectively write to
/*        the 5-byte (40-bit) SRAM entry
/*
/* Returns:
/* 0      Success
/* 1      Timed out without a SRAM write enacted. The BUSY bit
/*        appears to be held high.
/*
/* Description:
/*
/* This function writes an external SRAM word. The following

```

```
/* steps are taken: */
/* */
/* 1.) Poll the BUSY bit until a logic 0. It is not a logic 0 */
/* within 10 reads, abort the function unsuccessfully under */
/* the assumption of a hardware failure. */
/* 2.) Write the contents of the "d" array to the External RAM */
/* Data registers (0x23 - 0x25) */
/* 3.) Write "vcra" to the External RAM Address (LSB) (0x21). */
/* 4.) Write "field" and the "mask" to the External RAM Address */
/* (MSB) (0x22) and set the RWB bit to a logic 0. */
/* */
/*****/
```

```
DATA wr_sram_masked ( DEVICE *dev, unsigned char *d, DATA vcra,
                    int field, int mask)
```

```
{
    DATA regd;
    int i, busy;

    i = 10;
    do {
        i--;
        if (i == 0) return(1); /* abnormal termination */
        regd = rd (dev, EXTRAMMSB); /* poll BUSY */
        busy = (regd >> 14) & 0x01;
    } while (busy == 1);

    regd = d[0] & 0xFF;
    wr (dev, EXTRAMDMSB, regd);
    regd = (d[1] << 8) | (d[2] & 0xFF);
    wr (dev, EXTRAMD, regd);
    regd = (d[3] << 8) | (d[4] & 0xFF);
    wr (dev, EXTRAMDLSB, regd);

    wr(dev, EXTRAMALSB, vcra);
    regd = ((mask & 0x1F) << 8) | (field & 0x0F);
    /* clear RWB, write mask, SA[19:16]*/
    wr(dev, EXTRAMMSB, regd);

#ifdef SRAMDIAG
    for (i=0; i<5; i++)
        sram_mimic[vcra*16 + field][i] = d[i];
#endif

    return(0);
}
```

NOTES

CONTACTING PMC-SIERRA, INC.

PMC-Sierra, Inc.
105-8555 Baxter Place Burnaby, BC
Canada V5A 4V7

Tel: (604) 415-6000

Fax: (604) 415-6200

Document Information:	document@pmc-sierra.com
Corporate Information:	info@pmc-sierra.com
Application Information:	apps@pmc-sierra.com
Web Site:	http://www.pmc-sierra.com

None of the information contained in this document constitutes an express or implied warranty by PMC-Sierra, Inc. as to the sufficiency, fitness or suitability for a particular purpose of any such information or the fitness, or suitability for a particular purpose, merchantability, performance, compatibility with other parts or systems, of any of the products of PMC-Sierra, Inc., or any portion thereof, referred to in this document. PMC-Sierra, Inc. expressly disclaims all representations and warranties of any kind regarding the contents or use of the information, including, but not limited to, express and implied warranties of accuracy, completeness, merchantability, fitness for a particular use, or non-infringement.

In no event will PMC-Sierra, Inc. be liable for any direct, indirect, special, incidental or consequential damages, including, but not limited to, lost profits, lost business or lost data resulting from any use of or reliance upon the information, whether or not PMC-Sierra, Inc. has been advised of the possibility of such damage.

© 1997 PMC-Sierra, Inc.

PM-970955 (R1) ref PMC-960345 (A3)

Issue date: September 1997