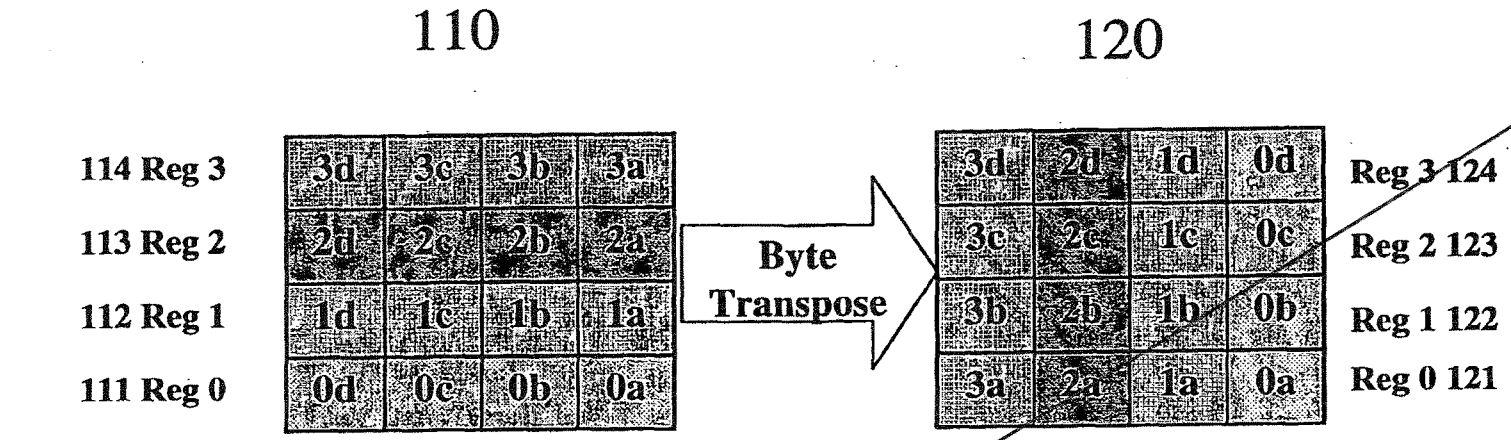

110
120
114 Reg 3
113 Reg 2
112 Reg 1
111 Reg 0
3d 3c 3b 3a
2d 2c 2b 2a
1d 1c 1b 1a
0d 0c 0b 0a
Byte Transpose
3d 2d 1d 0d
3c 2c 1c 0c
3b 2b 1b 0b
3a 2a 1a 0a
Reg 3 124
Reg 2 123
Reg 1 122
Reg 0 121

Figure 1

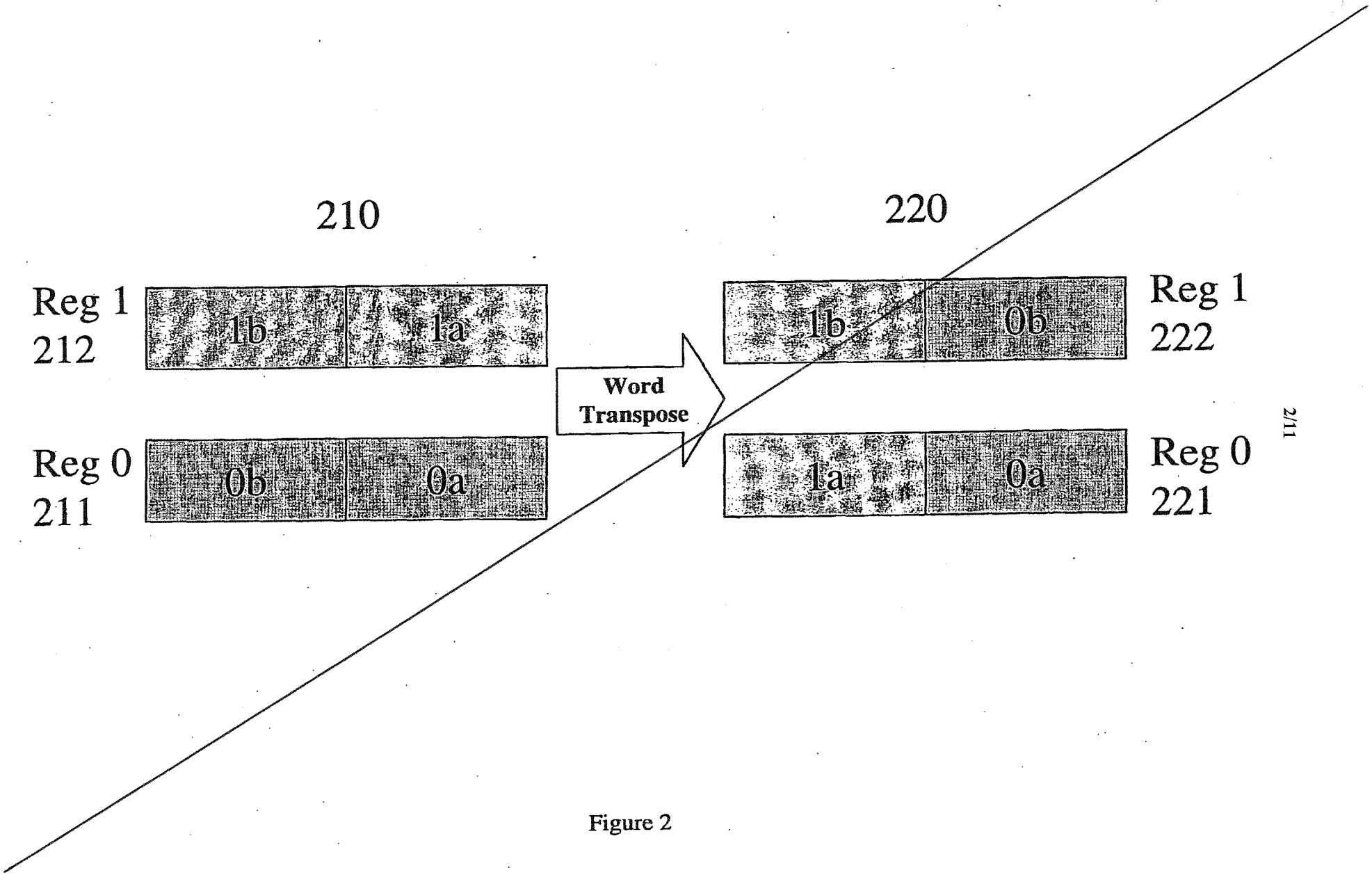

210
220
Reg 1
212
1b
1a
Reg 0
211
0b
0a
Word
Transpose
1b
0b
Reg 1
222
1a
0a
Reg 0
221

Figure 2

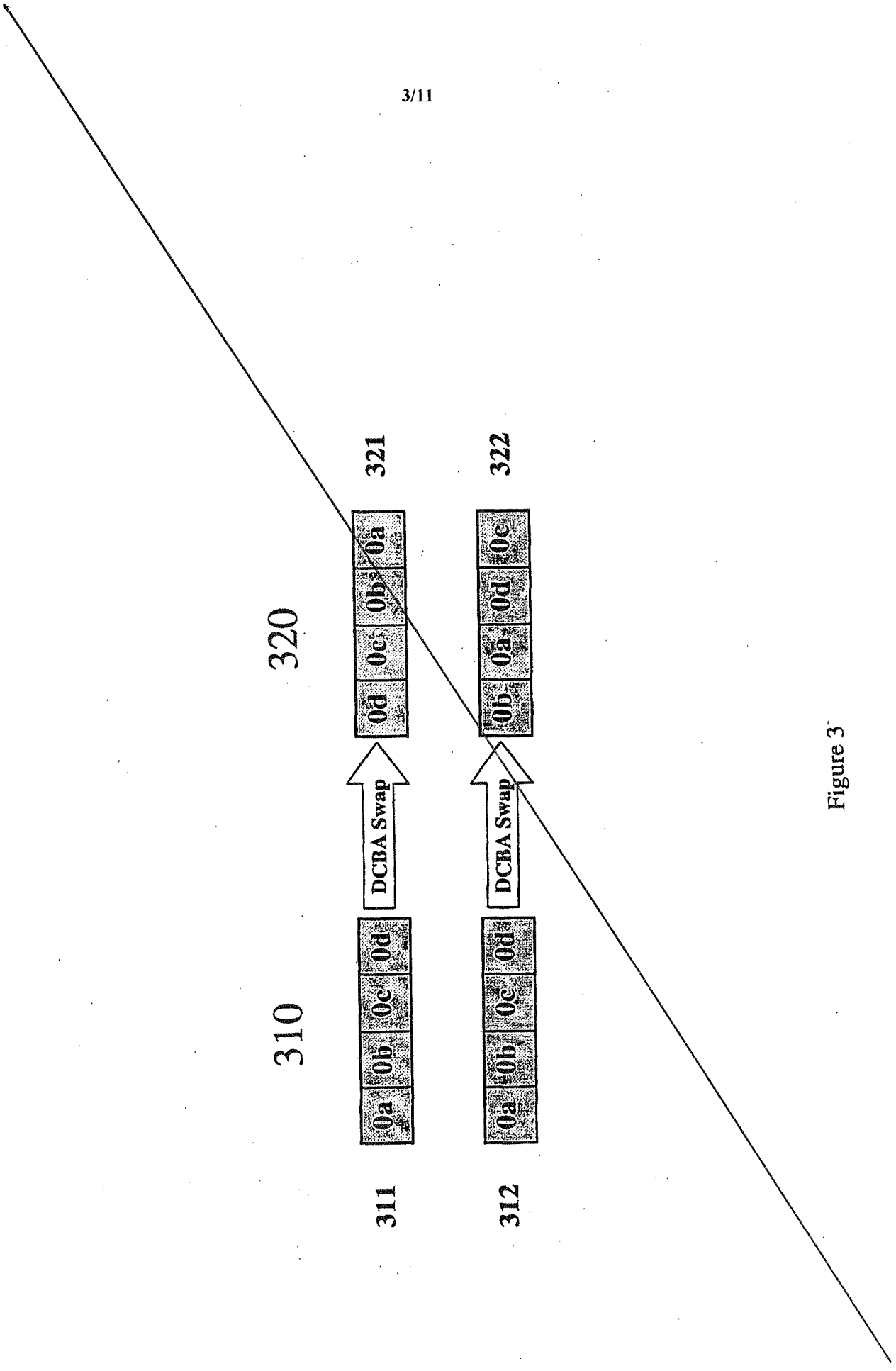


Figure 3

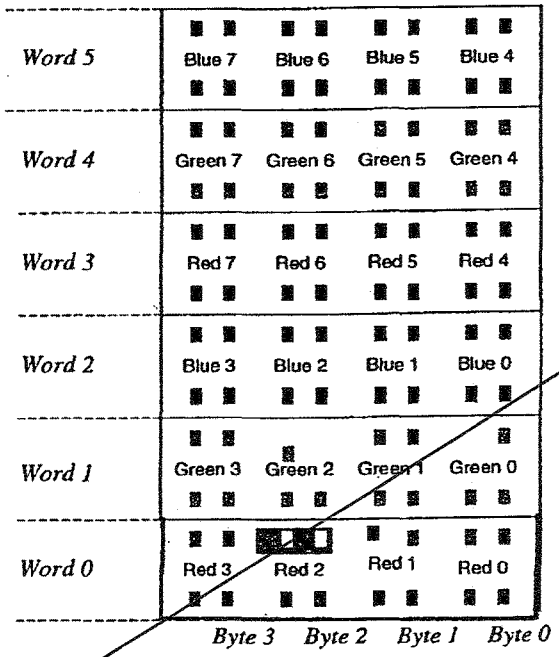

Word 5
Blue 7
Blue 6
Blue 5
Blue 4
Word 4
Green 7
Green 6
Green 5
Green 4
Word 3
Red 7
Red 6
Red 5
Red 4
Word 2
Blue 3
Blue 2
Blue 1
Blue 0
Word 1
Green 3
Green 2
Green 1
Green 0
Word 0
Red 3
Red 2
Red 1
Red 0
Byte 3
Byte 2
Byte 1
Byte 0

Figure 4

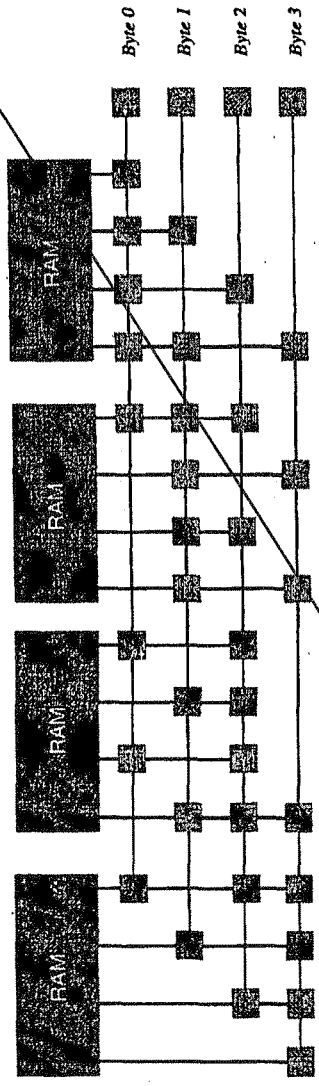


Figure 5a

Figure 5b

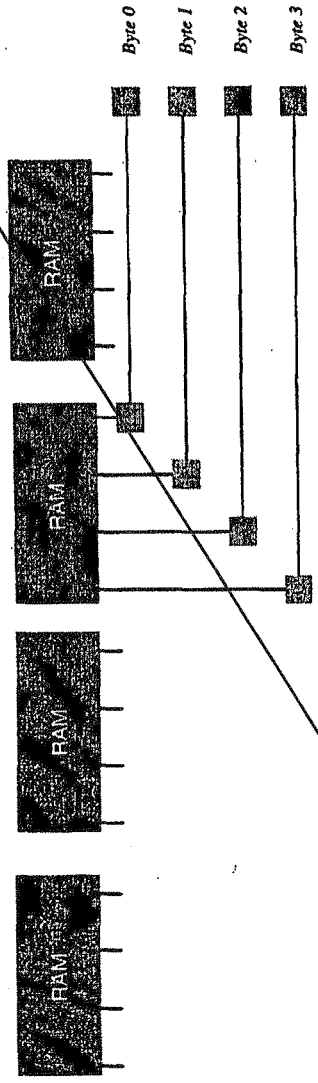


Figure 5c

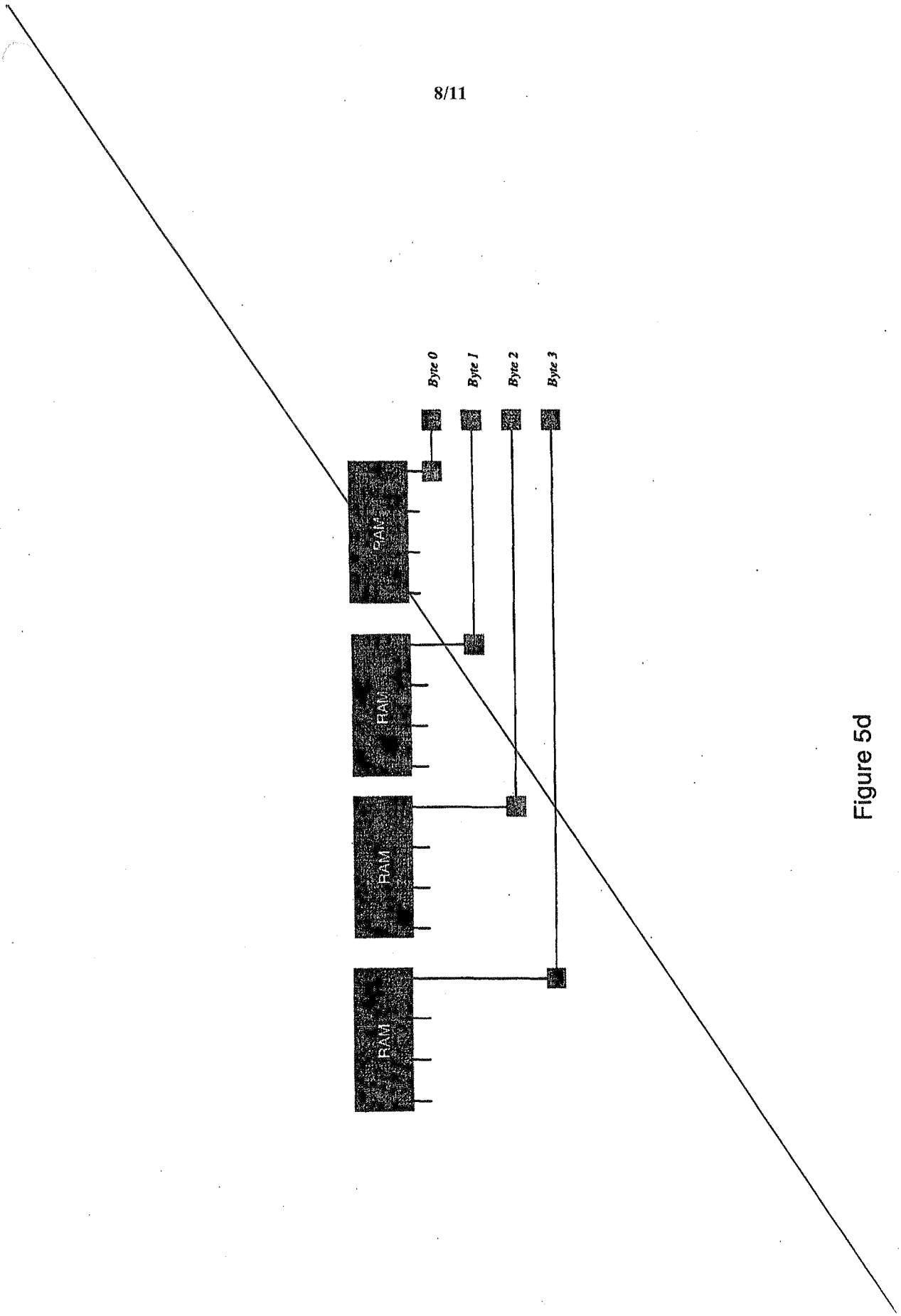


Figure 5d

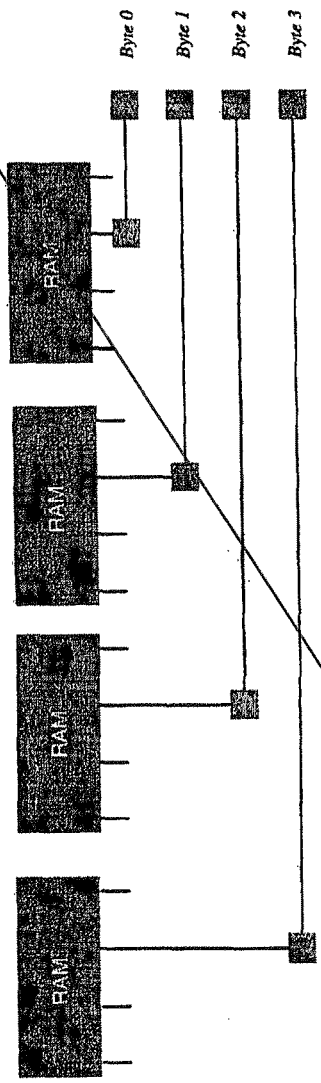


Figure 5e

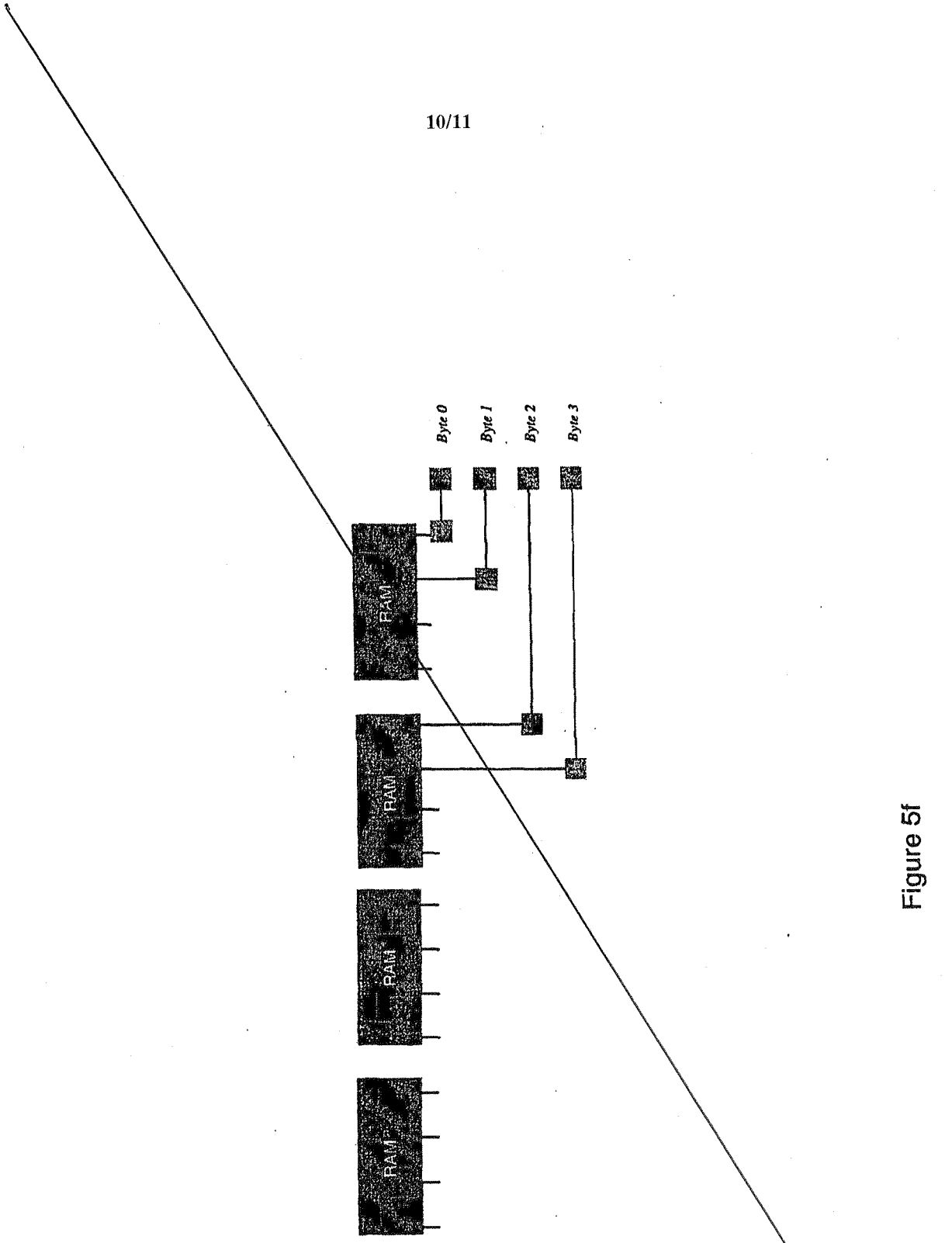


Figure 5f

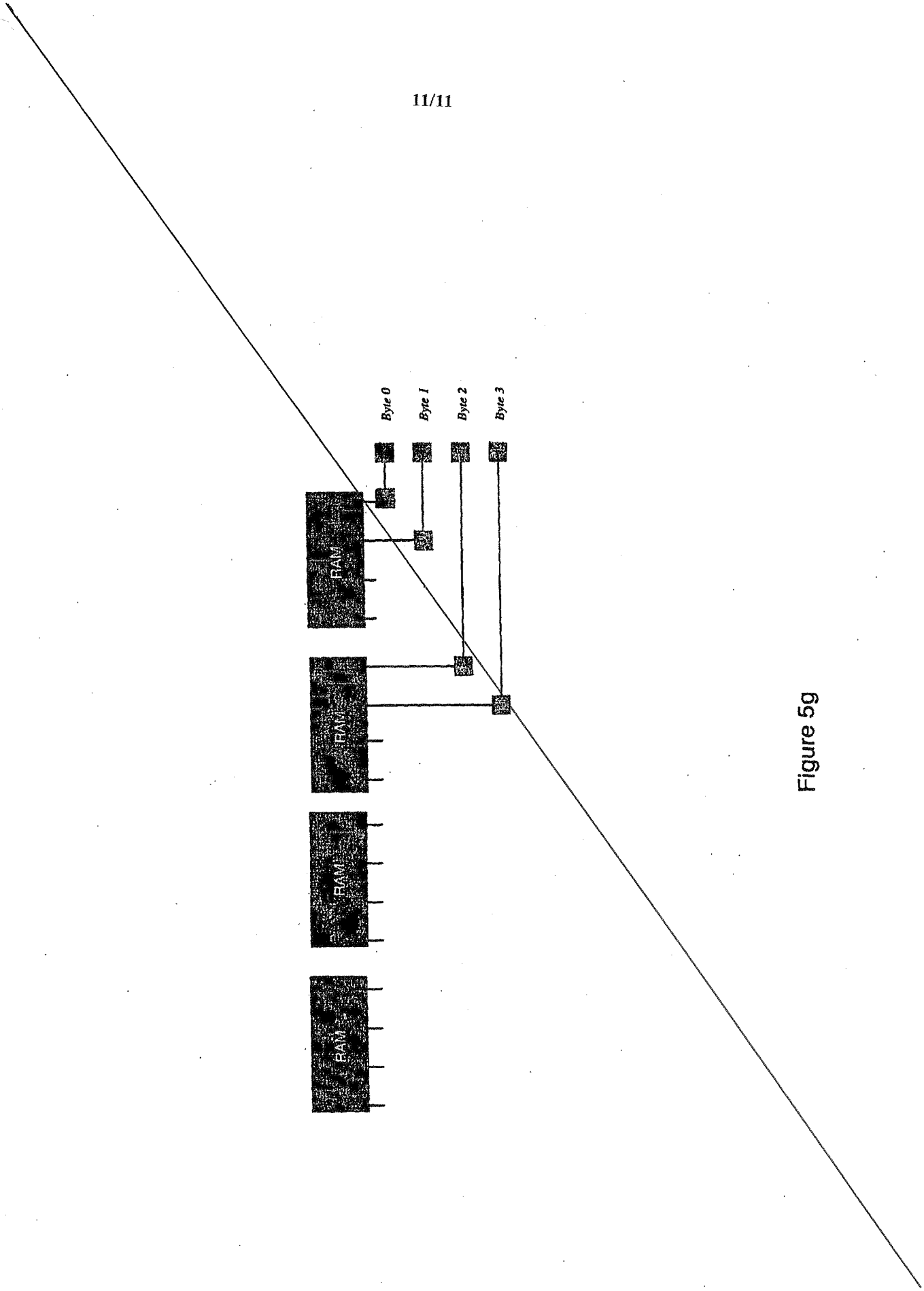


Figure 5g

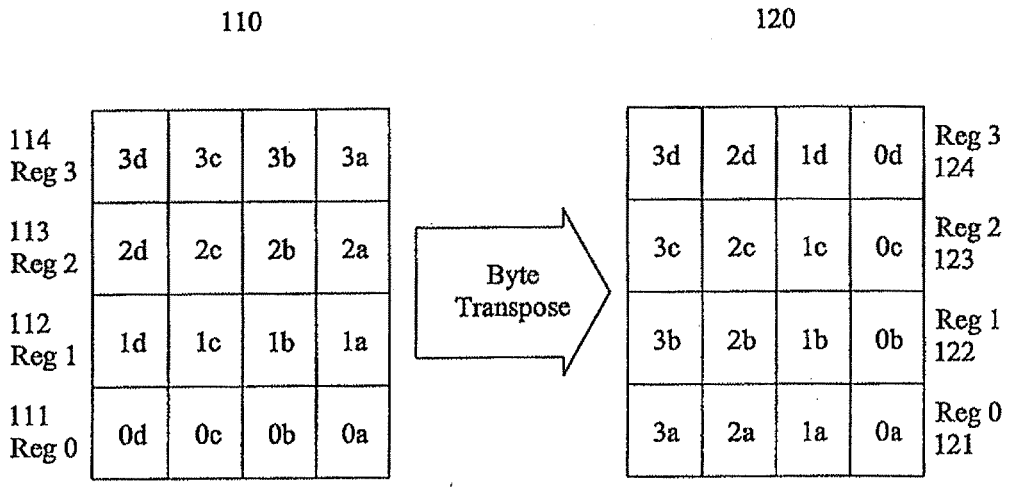

110
120
114
Reg 3
3d
3c
3b
3a
113
Reg 2
2d
2c
2b
2a
112
Reg 1
1d
1c
1b
1a
111
Reg 0
0d
0c
0b
0a
Byte
Transpose
3d
2d
1d
0d
Reg 3
124
3c
2c
1c
0c
Reg 2
123
3b
2b
1b
0b
Reg 1
122
3a
2a
1a
0a
Reg 0
121

Figure 1

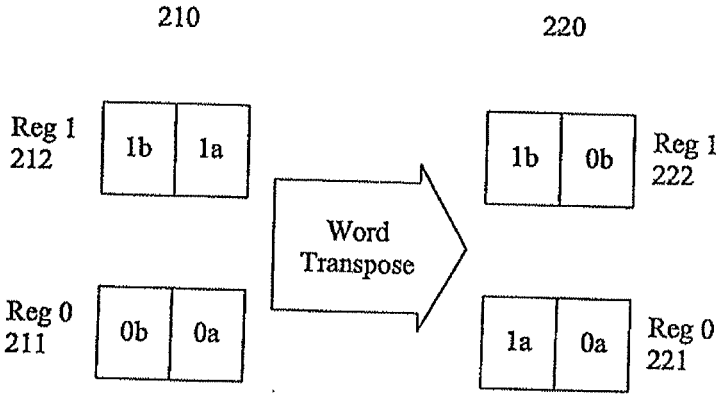

210
220
Reg 1
212
1b
1a
Reg 0
211
0b
0a
Word
Transpose
1b
0b
Reg 1
222
1a
0a
Reg 0
221

Figure 2

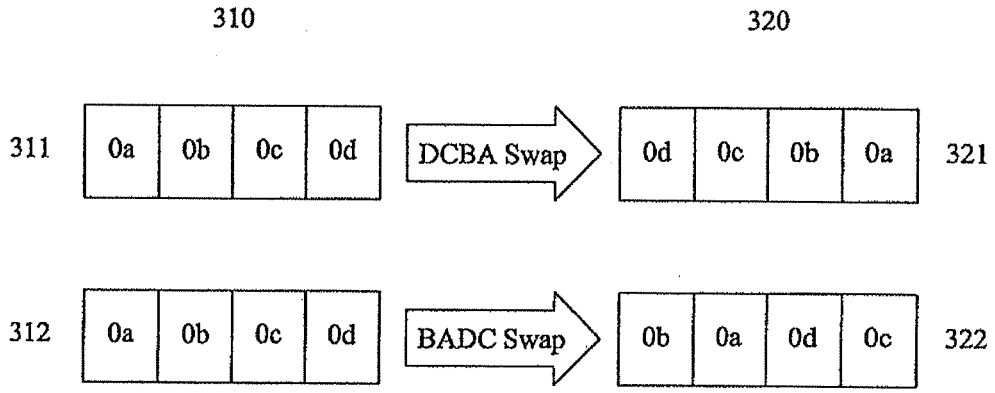

310
320
311
0a
0b
0c
0d
DCBA Swap
0d
0c
0b
0a
321
312
0a
0b
0c
0d
BADC Swap
0b
0a
0d
0c
322

Figure 3

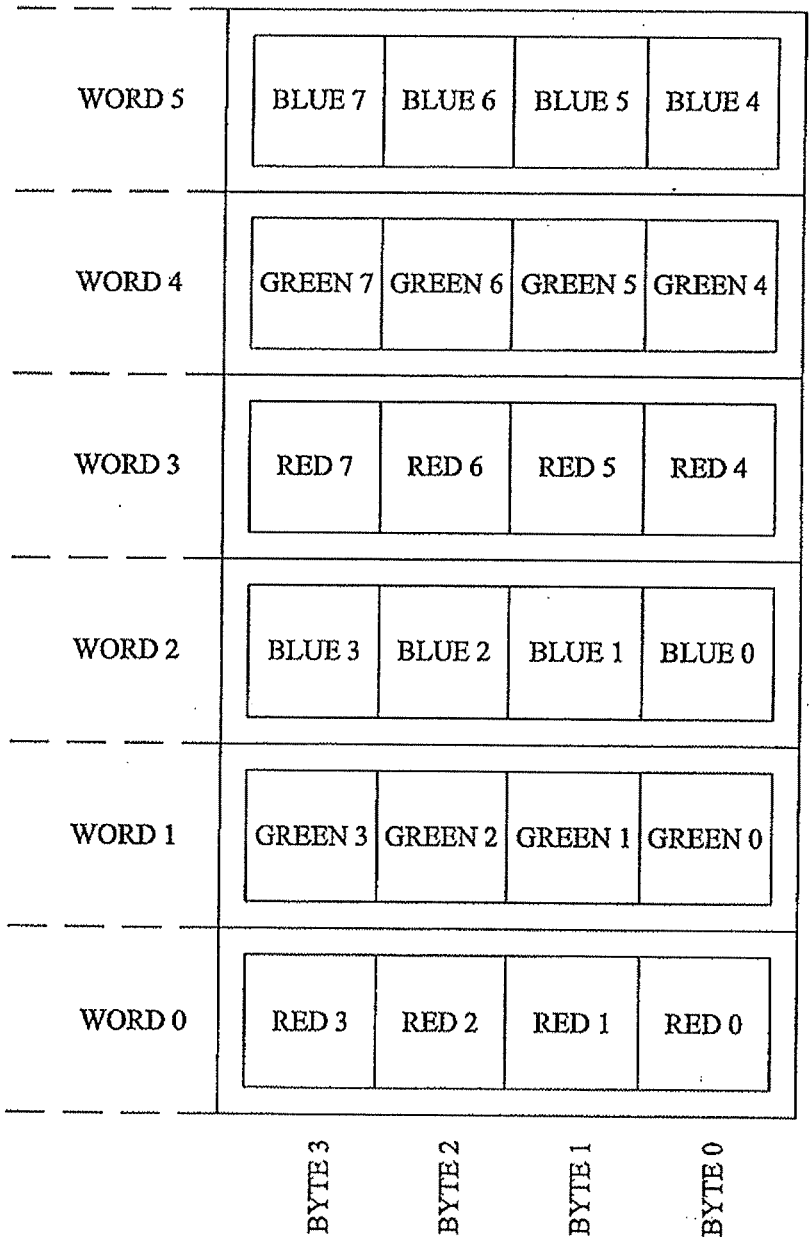

WORD 5
BLUE 7
BLUE 6
BLUE 5
BLUE 4
WORD 4
GREEN 7
GREEN 6
GREEN 5
GREEN 4
WORD 3
RED 7
RED 6
RED 5
RED 4
WORD 2
BLUE 3
BLUE 2
BLUE 1
BLUE 0
WORD 1
GREEN 3
GREEN 2
GREEN 1
GREEN 0
WORD 0
RED 3
RED 2
RED 1
RED 0
BYTE 3
BYTE 2
BYTE 1
BYTE 0

Figure 4

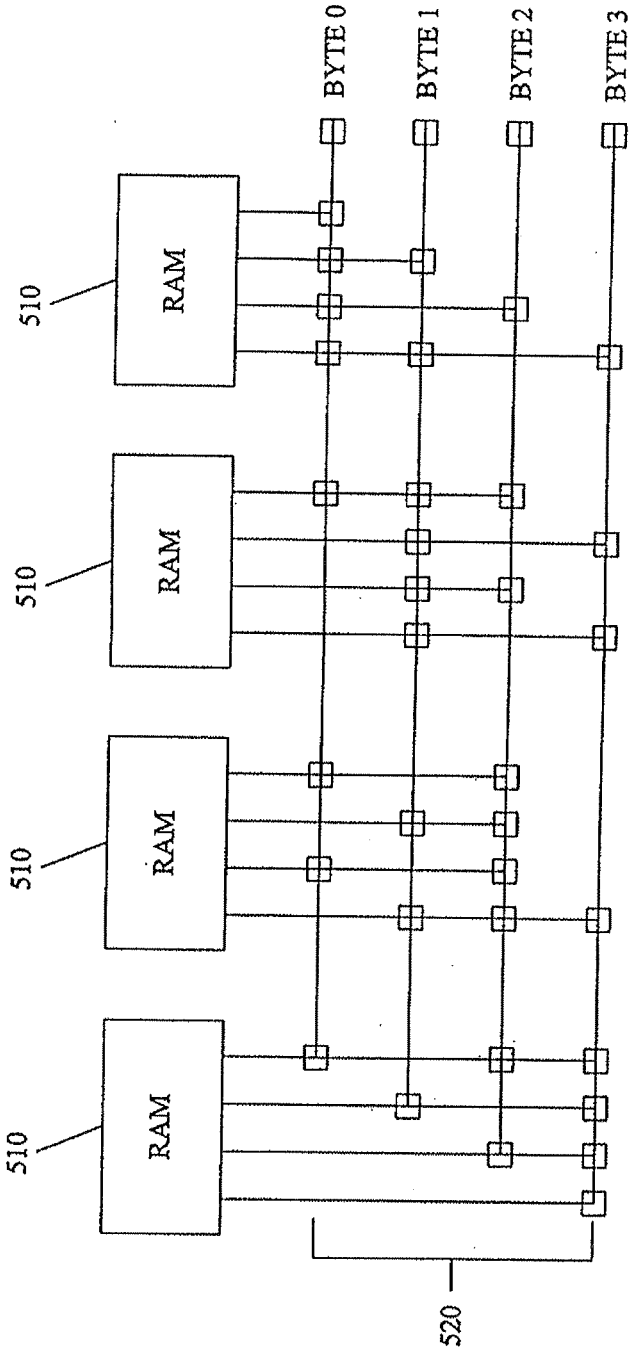


Figure 5a

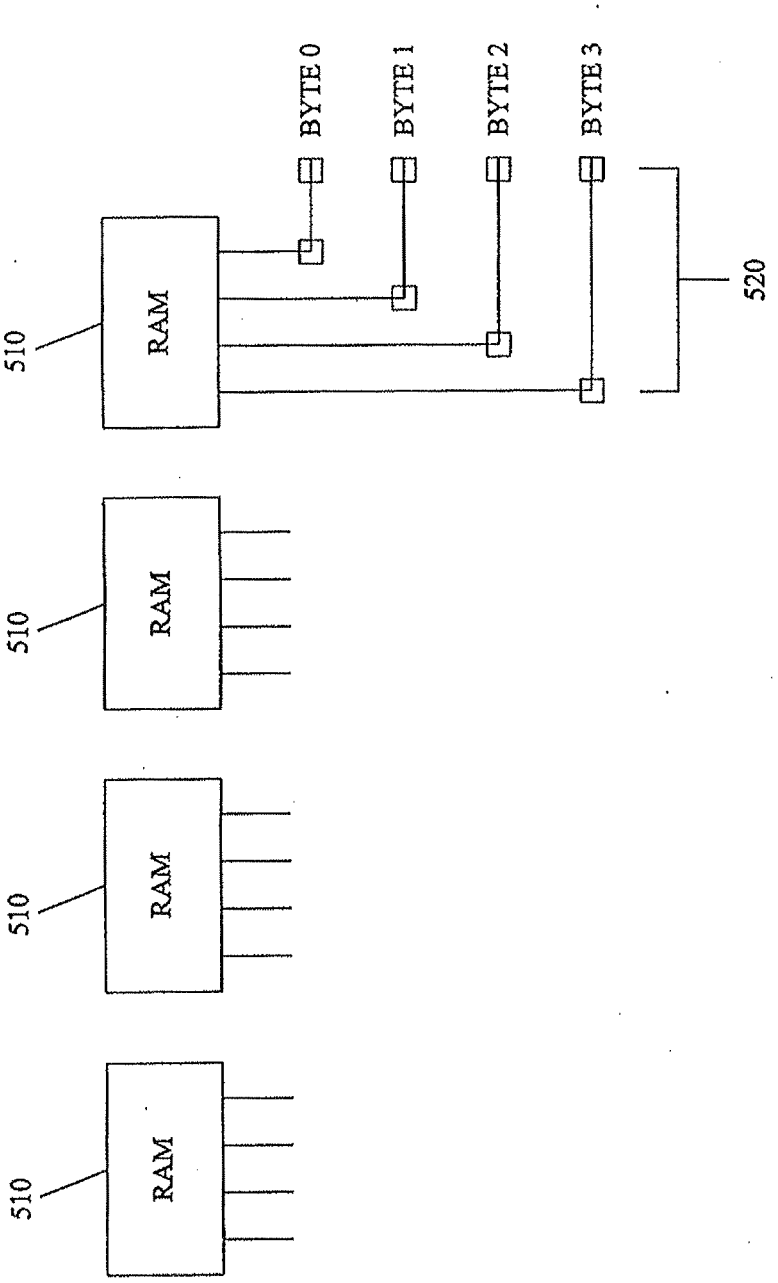


Figure 5b

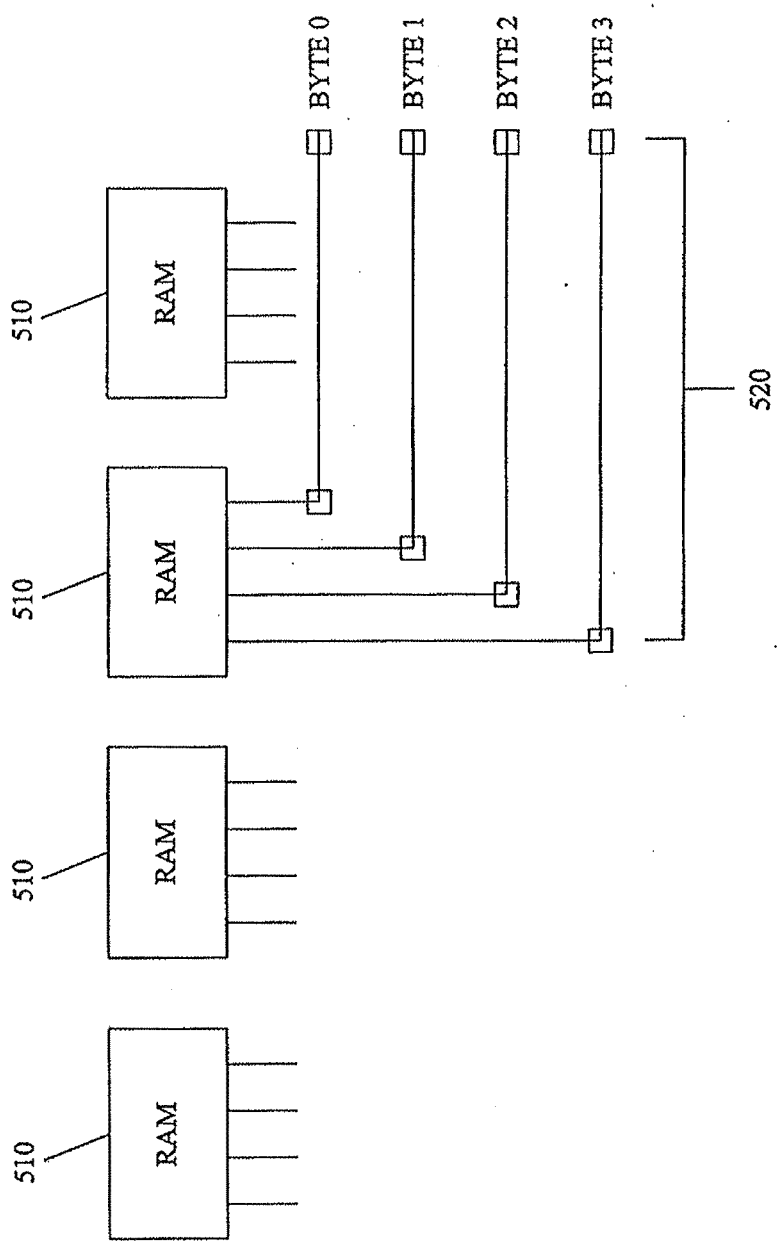


Figure 5c

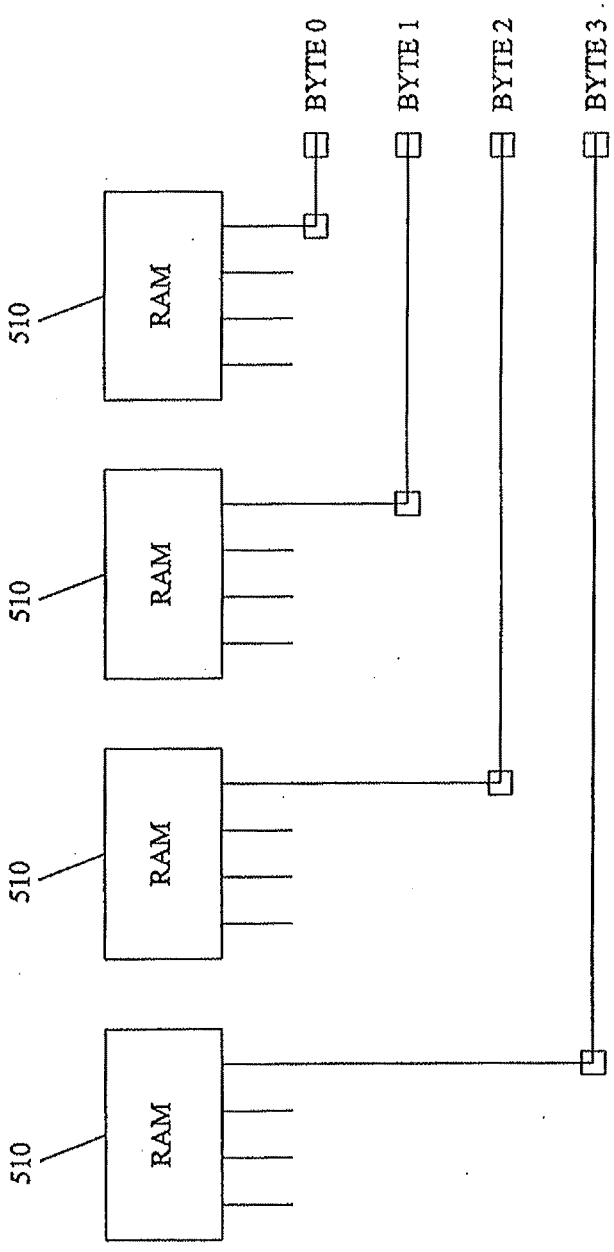


Figure 5d

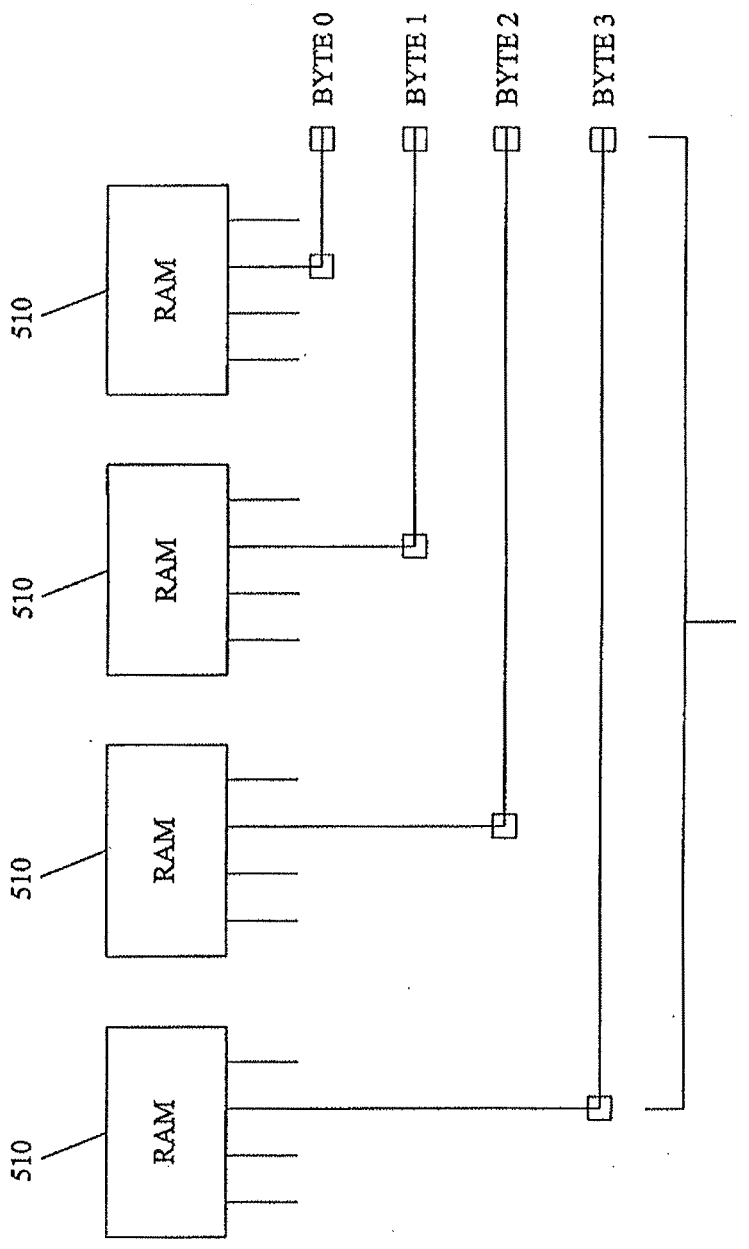


Figure 5e

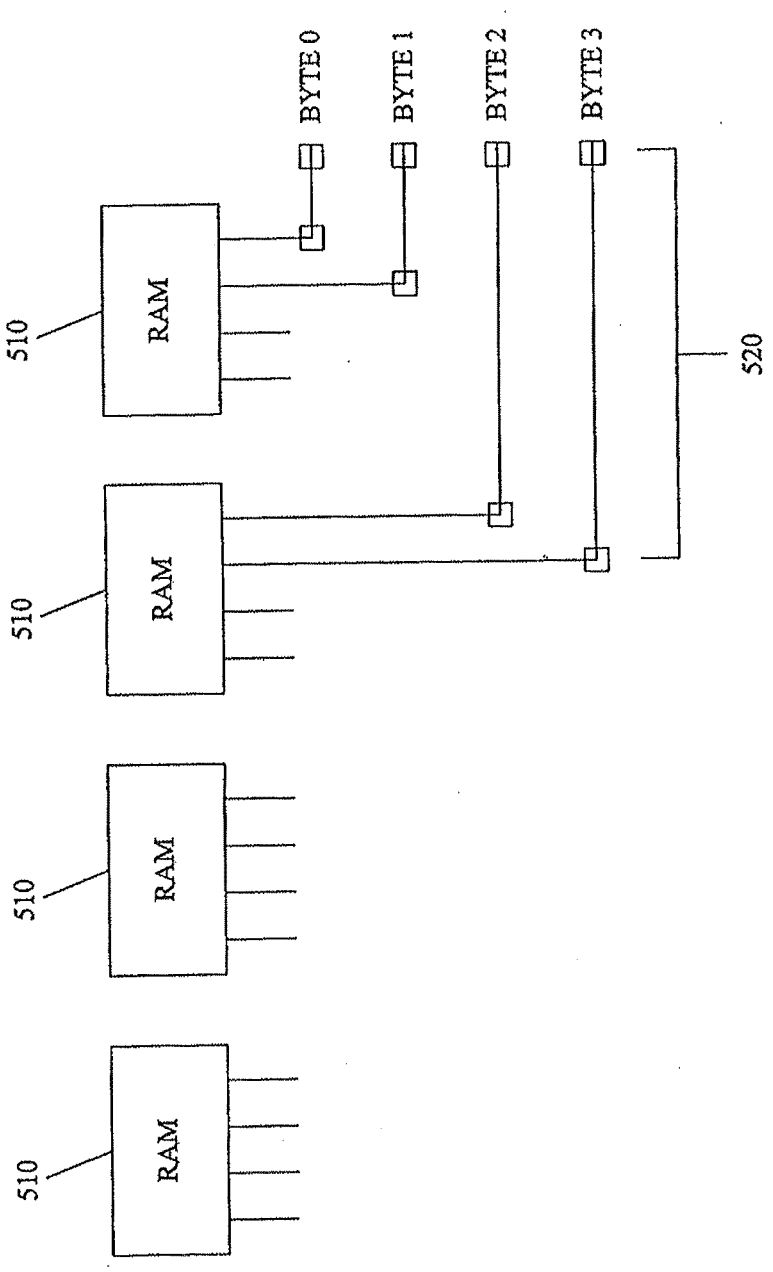


Figure 5f

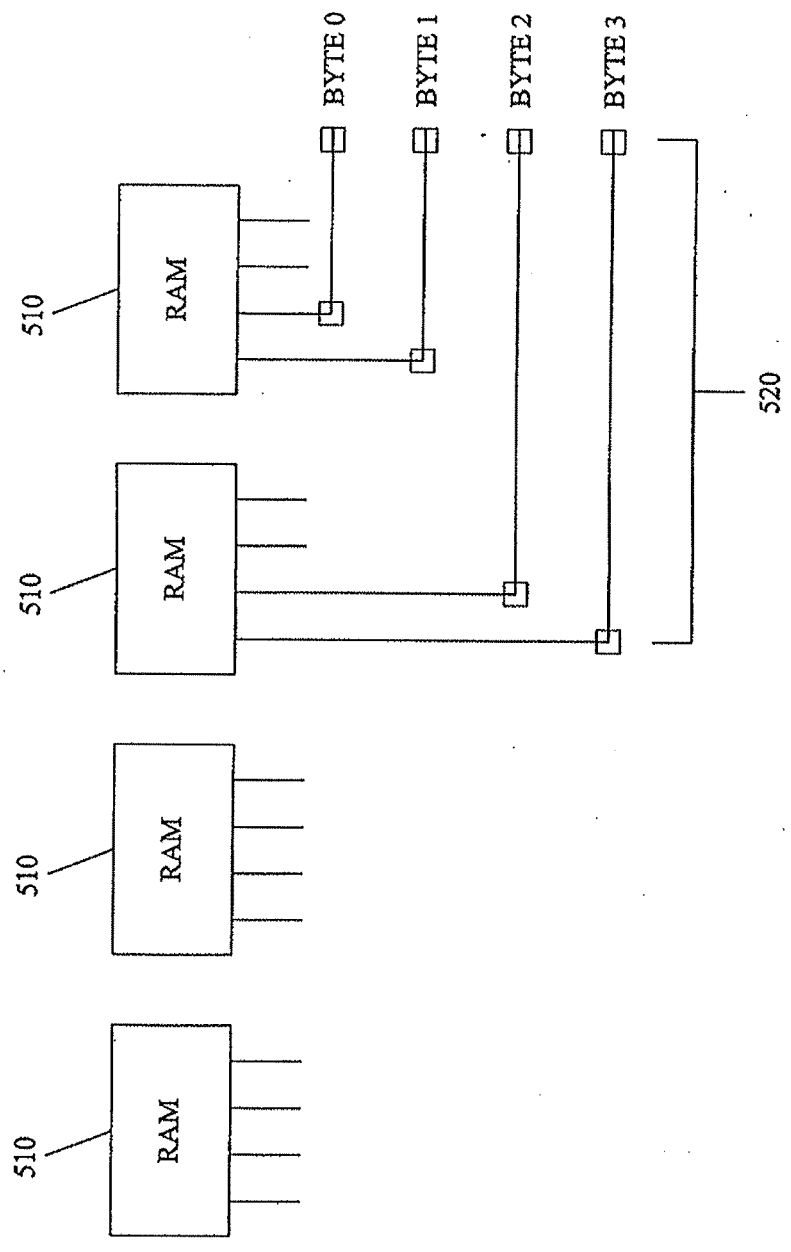


Figure 5g