

16.3 Bport state machine actions

16.3.1 C code common function

The transmit and receive state machines share a common function, as defined in table 16-11.

Table 16-11—Port transmit and receive shared function

```

9 // bport_shared.c
10 #define unsubscripted
11
12 #include "1394.h"
13 #include "p1394a.h"
14 #include "b_link.h"
15 #include "b_port.h"
16 #include "phy_pkt.h"
17 #include "arb.h"
18 #include "bport_int.h"
19
20 // a shared function, internal to the port, used by both the transmit and receive sides
21
22 int update_rd(int character, disparityType rd) {
23     int i, no_of_ones=0;
24     for (i=0; i<6; i++)
25         if (((character <<i) & 0x200) != 0) no_of_ones = no_of_ones + 1;
26     if(no_of_ones>3 || (character & 0x3F0)==0x070) rd = positive; // rd is positive if 6 msb's are 000111
27     else if(no_of_ones<3 || (character & 0x3F0)==0x380) rd = negative; // rd is negative if 6 msb's are 111000
28
29     no_of_ones=0;
30     for (i=6; i<10; i++)
31         if (((character <<i) & 0x200) != 0) no_of_ones = no_of_ones + 1;
32     if(no_of_ones>2 || (character & 0xF)==0x3) rd = positive; // rd is positive if 4 lsb's are 0011
33     else if(no_of_ones<2 || (character & 0xF)==0xC) rd = negative; // rd is negative if 4 lsb's are 1100
34
35     return (rd);
36 }

```