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Keywords: HDLC Controller, Framer, M13/E13 MUX, T1/E1, Line Interface Unit

APPLICATION NOTE 3344

DS31256 -- T3/E3 MUX/DS3112 Hardware Connections

Nov 04, 2004

Abstract: Application Note 3344 shows how to configure the hardware connections that can be utilized with various Dallas Semiconductor devices. It includes the HDLC Controller, Framer, MUX and Line Interface Unit.

Overview

This application note shows a normal configuration between the DS3112 E13 MUX and the devices to which it would normally connect. **Figure 1** details the DS3112 pin connections to the Dallas Semiconductor E1 Framer, the DS21FF44. The same connections would apply to the Dallas T1 Framer, the DS21FF42. A solution to multiplex 28 T1s to one DS3 would require both the DS21FF42 (16 framer device) and the DS21FT42 (12 framer device). Only the DS21FF44 (16 framer device) is required to go from E1 to E3 because 16 E1 lines are needed for a single E3 line. Also, connections are shown from the DS21FF44 to the DS31256, which illustrate the use of Interleaved Bus Operation (IBO) on the DS21FF44. **Figure 2** demonstrates the configuration of the DS3112 to the Dallas T3/E3 LIU, the DS3150.

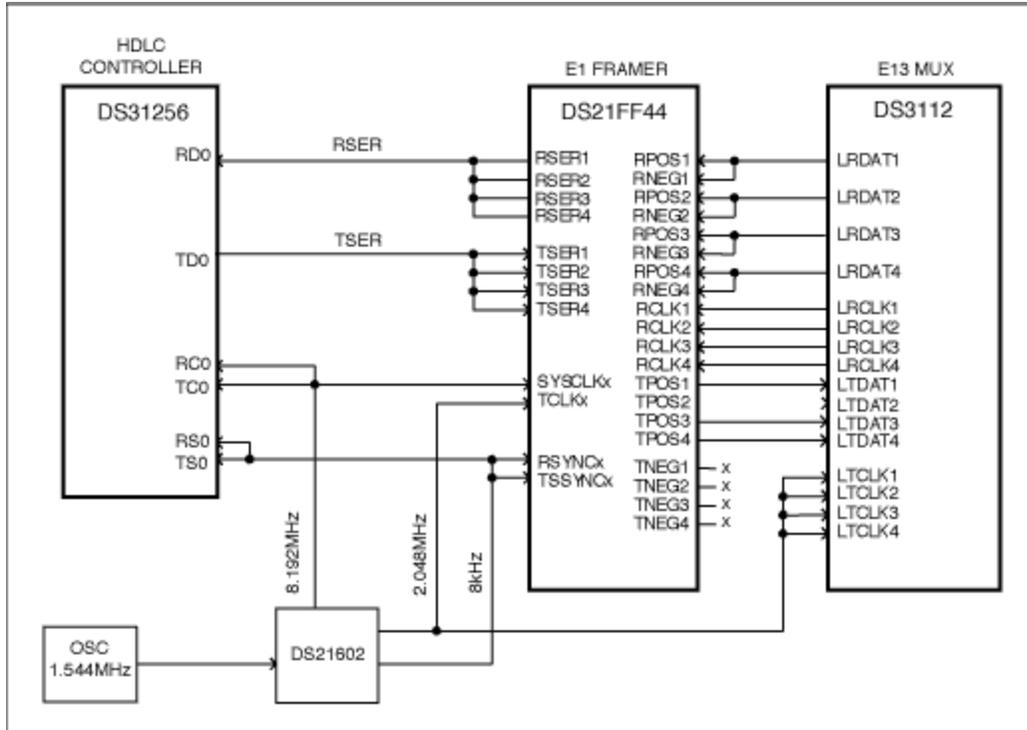


Figure 1. Example OF typical connections.

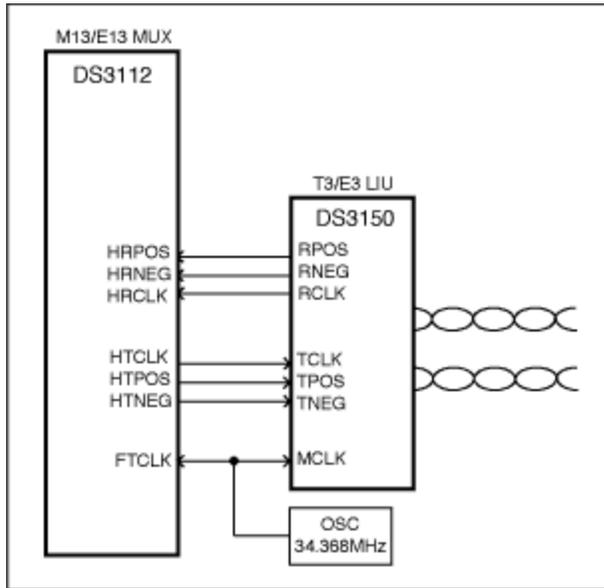


Figure 2. Connections to the DS3/E3 LIU.

Conclusion

This application note has shown different hardware connections that can be utilized with various Dallas Semiconductor devices.

If you have further questions about our HDLC controller products, please contact the [Telecommunication](#)

Applications support team.

Related Parts		
DS21FF44	4x3 Twelve Channel E1 Framer / 4x4 Sixteen Channel E1 Framer	
DS3112	TEMPE T3 E3 Multiplexer, 3.3V T3/E3 Framer and M13/E13/G.747 MUX	Free Samples
DS31256	256-Channel, High-Throughput HDLC Controller	
DS3150	3.3V, DS3/E3/STS-1 Line Interface Unit	Free Samples

More Information

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