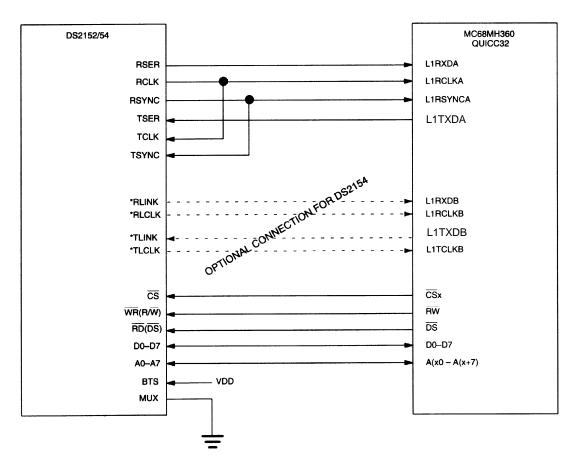


Application Note 319 DS2152, DS2154 PCM Interface, Interfacing to the MC68MH360 QUICC32

Interconnections between the DS2152 or DS2154 and the Motorola MC68MH360 (QUICC32) are shown in Figure 1. The MC68MH360 can be configured as an HDLC controller implementing protocols such as LAPD for both DS0 channel and the E1 Sa bits. The DS2152 has a built in **FULL HDLC** controller for the FDL. Any combination of the QUICC32's SCCs and SMCs can be processed through an internal time slot assignor onto one or two Time Division Multiplex channels, TDMA and TDMB. In the configuration shown, TDM channel A is used for timeslots 0–23 (T1) or 0–31 (E1) and TDM channel B is used optionally for the Sa bit (E1). See the MC68MH360 Quad Integrated Communications Controller user's manual for complete details.

DS2152, DS2154 – QUICC32 INTERCONNECTIONS Figure 1



DS2152, DS2154 NOTES:

- 1. Other signals affecting operation of device are not shown.
- 2. Example circuit has RSYNC in output mode.

MC68360 NOTES:

- 1. Other signals affecting operation of device are not shown.
- 2. Use SI mode register to:
 - A. Set up transmit and receive frame sync delays (0–3 clocks) to mask the F–Bit in T1 applications.
 - B. Set clock edges for transmit on rising edge and receive on falling edge. CEA = CEB = 0.
 - C. In the above example, TDM channel A has a common transmit/ receive clock and sync. CTRA = 1. Use the TIMESLOT ASSIGNER to ignore Timeslot 0 for the DS2154.