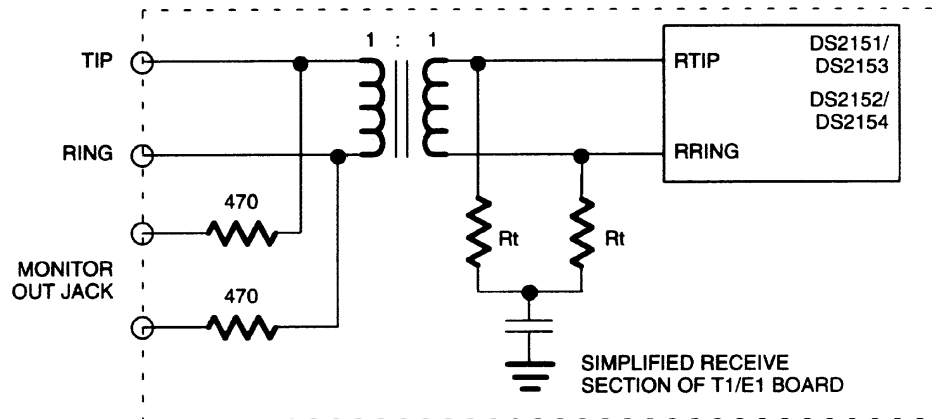
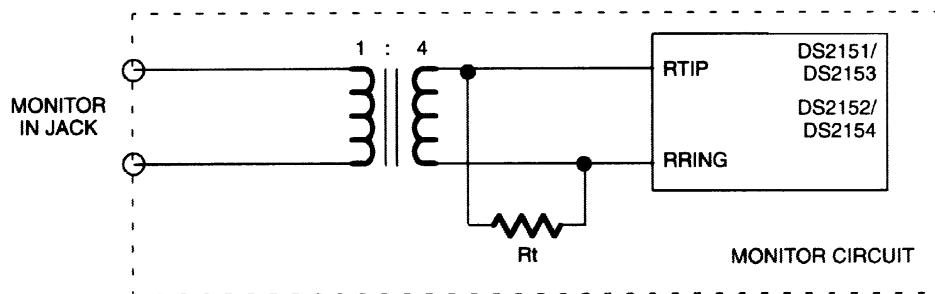


The DS2151, DS2152, DS2153 and DS2154 SCT (Single Chip Transceivers) can be used in a non-intrusive line monitor application. Typical monitor ports are isolated from TIP and RING by  $470\Omega$  (T1) resistors as shown in Figure 1. These isolation resistors along with the termination of the monitor ( $100\Omega$ , T1) produce about 20 dB of resistive loss. Using a 1 to 4 step-up transformer, as shown in Figure 2, will add about 12 dB of gain bringing the signal level up to a recoverable range. Note that the effective termination resistance is  $1/16$  of  $R_t$  in Figure 2 due to the transformer. Table 1 gives the Monitor circuit termination resistor values.

### TYPICAL MONITOR PORT Figure 1



### MONITOR Figure 2



**Table 1**

MODE	RT	DEVICE
T1	1600 Ohms	DS2151, DS2152
E1, 120	1920 Ohms	DS2153, DS2154
E1, 75	1200 Ohms	DS2153, DS2154

**NOTE:**

The DS2152 and DS2154 have a mode in which 6 dB of flat gain can be added by setting the 02h bit in register TEST2.