TDK SEMICONDUCTOR CORP. Application Note

Differentiating 73K322L and 73K321L In Software

DESCRIPTION OF THE ISSUE:

The ID register in K-series modems is intended to allow the programmer to identify which modem chip is present and change software to match the features and modes available. When the 73K321L chip was developed from the 73K322L device it was not possible to change the ID register bits and so the ID register cannot be used to distinguish between the two devices.

TSC RECOMMENDATION:

The absence of V.22 in the 73K321L can be used to identify whether a 73K322L or 73K321L is fitted:

1) Put the device in DPSK mode (V.22, see 73K322 register CR0) with Analog Loopback (CR1 D1&D0=01) and transmit a mark or a space.

2) If RXD (DR bit D5) is a mark or a space, matching the transmitted data, then the part is a 73K322. If the part is a 73K321, RXD will alternate at around 10Hz.

3) By checking for at least one polarity reversal in RXD in 100msec the parts can be differentiated.

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