



industrial/wireless/performance

APPLICATION BULLETIN

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POLLING REMOTE ECHO ELIMINATION

INTRODUCTION

Many host computer software implementations have trouble dealing with the echo and squelch tail noise associated with the outgoing poll. This can be a problem with 4800 and 9600 digital repeater implementations where the polling remote is a 2100/4100 full duplex capable master station. We are currently implementing changes to the master stations that will eliminate this by slowing down the switchback to receive. The change required is different between a 4800 and 9600 baud system but the result is the same. The modem will no longer "hear" until after the repeater has cleared the outgoing message.

IMPLEMENTING THE APPLICATION

9600 SYSTEMS:

Replace the 100K ohm resistor at R89 on the 9600 baud MODEM with a 470K resistor. SW9-1 on the front panel logic board must be set to "OPEN" (Full Duplex) and J7 on the modem must be jumpered 3-4 for half duplex modem operation.

Ensure that there is a diode installed across R93 on the bottom side of the MODEM board in BOTH THE REPEATER AND THE POLLING REMOTE. This diode was added in all production after March, 1993.

4800 SYSTEMS:

These systems require two 1 ufd tantalum capacitors be added to the front panel logic board. U31-5 to U31-8 and U31-7 to U31-8, pin 8 is ground and polarity must be observed. SW9-1 must be set to "CLOSED" for Half Duplex operation.

NOTE: This is different than for 9600 operation

NOTE: Some versions of Master firmware cause timing variations in handling of the actual keying of the Polling Remote transmitter. This could cause the above modifications to be only partially effective at echo elimination. Master version 4.2 firmware and later correct this difficulty.

For more information, contact MDS Technical Services at techsupport@microwavedata.com, or by phone at +1-585-241-5510.