



industrial/wireless/performance

APPLICATION BULLETIN

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MAS PRODUCTS

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POLLING REMOTE TO SCADA HOST CONNECTION USING FIBER OPTIC MULTIPLEXERS

INTRODUCTION

Sometimes it becomes necessary to connect an MDS Polling Remote radio to its SCADA host computer using cable lengths that exceed the recommended maximum for RS-232. In some cases, the use of RS-422 is acceptable, but more often than not, this presents a special set of problems. Another solution is the use of a pair of fiber optic multiplexers and fiber optic cable. This technique allows the radio(s) and computer(s) to be quite far apart- as much as 5km, if necessary

IMPLEMENTING THE APPLICATION

The RAD FLM-1 Fiber Optic Multiplexer is a twelve channel unit which can operate at speeds up to 38.4kbps. When configured to pass RTS/CTS handshaking signals, it must be used as a six channel unit, as each channel of data/handshaking requires two channels of the muxes' capabilities. The units (one is required for each end of the link) are powered by 115vac and are supplied with DB-25F connectors at each of the channel ports. The fiber connections can be configured in any of a number of ways, depending on the requirements of the cable being installed.

Figure 1 shows an example of an implementation of this idea, as it was configured for a customer. This configuration has five channels of MAS data at speeds up to 9600bps and one channel of Diagnostics. In this design, the Diagnostics are "party-lined" between as many as five Polling Remotes using a modem-sharing device and separate addresses on each Polling Remote Logic Assembly. All cable pinouts are shown, and include handshaking.

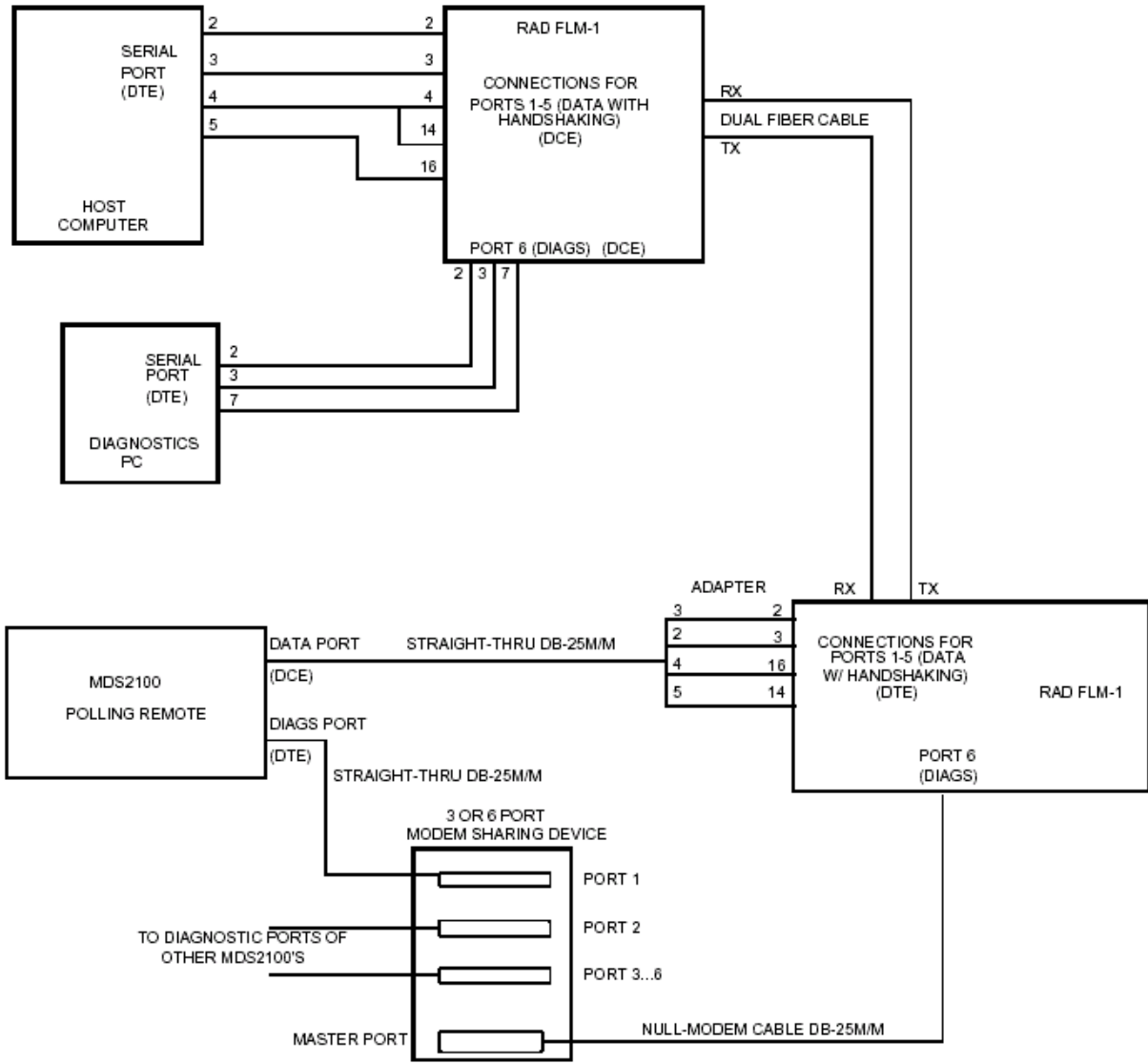


FIGURE 1

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