DeKTec

Application Note DT-AN-3237-1

LVTTL Serial Control Port on the DTM-3237

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1. Introduction

The DTM-3237 is a compact OEM module for receiving DVB-S2 or DVB-S and outputting it as DVB-ASI. The unit can be managed and controlled through one of the available control interfaces: USB, I^2C or the LVTTL serial control port. This application note contains more information about the use of the LVTTL serial control port.

2. LVTTL Serial Control Port

The DTM-3237's LVTTL serial control port is designed to interface directly with a microprocessor system. The serial control port uses the same protocol as RS-232, but the I/O voltages are entirely different. This LVTTL serial control interface is <u>not</u> compatible with a RS-232 port, e.g. a PC's COM-port, due to its different voltage.

> ⚠ ***Do not connect the LVTTL serial control port to a PC's COM-port*** ⚠

Connecting the LVTTL serial control port of the DTM-3237 to a PC's COM port may cause **permanent damage to the DTM-3237**.

The table below lists the voltage differences between the DTM-3237's LVTTL serial control port and a regular RS-232 port.

	RS-232	DTM-3237 LVTTL serial control port
Digital '0'	+3V … +15V	0V
Digital '1'	-3V … -15V	+3.3V

3. Connecting the DTM-3237 to a PC

If you want to connect the DTM-3237 to a PC, DekTec recommends to use the USB interface.

You can control the DTM-3237 over USB in three ways:
- With *Dtm3237Util*, a Windows GUI tool to view status and control settings of the DTM-3237. The tool can also be used to upload new firmware versions. Dtm3237Util is convenient for initial configuration of the DTM-3237 and for experimentation with the DTM-3237.
- With *DtmCmd*, an open-source command line tool that can be used to execute single read/write commands on a Windows or Linux PC using the USB or I2C interface to the DTM-3237.
- With *DtmHandler*, an open-source set of functions with which you can write your own control application on the host PC.