Quotation for transmission LED PCB

Scope of supply:

An Atmel ATMEGA32 based PCB, fully assembled and tested meeting all aspects of the requirement specification. The microcontroller will be programmed using avr-gcc. There will be no bootloader on the controller so programming must be done using an ISP programmer. These are cheap to acquire. All software tools to program the controller are free.

The driving of the LEDs would be achieved with transistors driven by the microcontroller in a matrix configuration and use 10 IO pins, 5 of these would be PWM to control the brightness. This is cheaper than using multiplexers and avoids being tied to a particular multiplexer chip. Whilst this isn't fully isolated from the controller i'm of the opinion that full isolation isn't necessary if the LED supply voltage is 5V rather than 24V. If true isolation is required this can be achieved using optocouplers but I don't see this is necessary.

Communication with the controller would be via RS232 using a MAX232 IC.

Cost breakdown:

- 40 hours labour @ £26/hour = £1040
- £25 per board assuming minimum of 5 boards. This is an estimate and cannot be confirmed until the layout has been sent to the supplier, from past experience they will probably be less.