QUADRATURE TO STEP AND DIRECTION DECODER

This is a simple quadrature to step and direction decoder that uses a single 4000 series quad XNOR gate package (HEF 4077). The decoder is a X4 type, it will give 4 step pulses per quadrature cycle. If the source is a 1,000 line encoder then there will be 4,000 step pulses per revolution.

The circuit runs off of a single +5VDC power supply and has a maximum output frequency in excess of 250 kHz. The PNP transistors buffer the outputs to 50mA of drive current.

