

ABSTRACT

In modern communication system, signal generators are used to test and align all types of transmitters and receivers, to measure frequency and to generate a signal, waveform or noise source. They are also used to troubleshoot various electronic devices.

In industry, there's a huge amount of availability of signal generators. Recent industry surveys have identified a number of key customer requirements, which can summarized as follows:

- Must provide exactly the right signal
- Easy to understand current status/setup of machine
- Reasonable affordable price based on cost/benefit
- Large frequency range
- Frequency stability
- Low failure rate

Afterall, this report examines the design of a low-cost programmable frequency generator. The maximum output frequency can goes up to 100kHz. With appropriate hardware and software interfaces designed, it is possible to control the output frequency through the PCs parallel port. This report discusses the hardware and software interfaces designed to establish the connection between the computer parallel port and the design circuit.