Abstract

In this paper, presenting the approach to remotely control and monitor “High Voltage Module” through Personal Computer. A programmable voltage input is provided to the analog module ranging from 0 to +4.64V equals to 0 to 100% of rated voltage output (4Kv). Current programmability allows the user to set current limit, anywhere from 0 to 100% of maximum rated current (5mA). The buffered low impedance voltage and current monitor signals can drive external circuitry directly. The IMON and VMON signal is a true output current and voltage monitoring signal. High Voltage (H. V) power supplies are used in various applications in industry. The need was to control the parameter such as voltage and current of the unit remotely and monitor the same. ADuC841 an embedded microcontroller with 8052 core of analog device is used for this application which is providing precision analog input and readout of the output voltages of high voltage module.
Index Terms

Computer Science          Control Systems

Keywords

HV High Voltage  VPROG Programmable Voltage  IPROG Programmable Current  VMON Voltage Monitor  IMON Current Monitor  ADuC841 Analog Device Microcontroller  ADC Analog to Digital Conversion  DAC Digital to Analog Conversion  LCD Liquid Crystal Display  PWM Pulse Width Modulation