

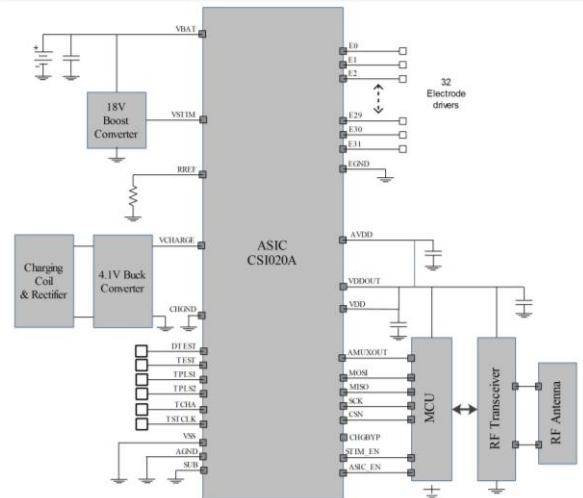
### Applications

- Neurostimulation/Neuromodulation
- Implantable Pulse Generators

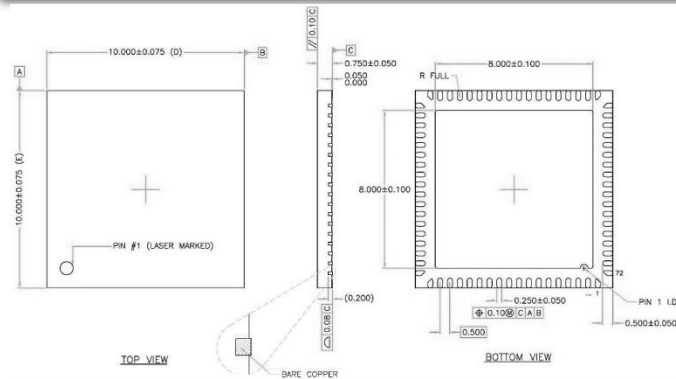
### Features

- 32 Output Channels
- SPI Programmable Pulse Timing
- SPI Programmable Output Current Range
- 7-Bit Programmable Amplitude
- 1-Bit Programmable Polarity
- Channel Arbitration to Ensure Charge Balance
- High Output Current [up to 12.7mA]
- High Output Voltage [up to 18V]
- Low Voltage SPI Interface [2.5V]
- Integrated Li-Ion Battery Charger
- Integrated Oscillator, Reference, Regulator
- 10mm x 10mm QFN72 Package

### Typical Application Diagram



### Packaging



### General Description

The CSI020 ASIC is a custom integrated circuit that includes 32 identical but independently programmable electrode drivers, an oscillator, control registers, a digital controller, a serial communication interface, and battery recharge circuitry. The electrode drivers can source and sink current pulses up to 12.7mA in 0.1mA steps. The ASIC includes a Channel Arbitration feature that prevents the possibility of stimulation charge imbalance, which can be hazardous to patients and electrodes. It also includes an integrated Li-Ion Battery Charger, as well as integrated Oscillator, Reference, and Regulator functions.

### Ordering Information

Part Number	Description	QTY:	3-25	26-100	101-500*
CSI020-020	Packaged Part – 72-pin QFN72	COST:	\$450	\$425	\$400

\*Minimum order 3. Contact us for pricing exceeding 500 units.