

## Purpose

This document describes IPG and EPG calibration.

## Scope

The scope of this document includes the Model 2408 and 2412 IPGs as well as the Model 4300 trial stimulator.

## References

- [EESP 0071 24-Channel IPG Functional Specification](#)
- [EESP 0091 25 Channel EPG Functional Specification](#)
- [SWSP 0112 IPG/EPG Software Requirement Specification](#)

## Output Channel Calibration

The IPG and EPG output channels are calibrated during manufacturing. This calibration has the following characteristics:

- a. There are four lookup tables with each one containing 52 elements. Each channel has two elements in each table: one for calibrating the current source and one for calibrating the current sink.
- b. Each lookup table is for a different amplitude level. The four tables correspond to the following amplitudes: 15mA, 9mA, 6mA, and 3mA.
- c. Each element in the table contains the value for setting the corresponding output current to the corresponding calibration current within  $\pm 7.5\mu\text{A}$ .
- d. The values in this table are used to linearly interpolate the necessary amplitude setting required to produce the desired output current.

## High-Voltage Supply Calibration

The IPG's high-voltage supply shall be calibrated during manufacturing. This calibration shall have the following characteristics:

- a. There is a lookup table containing 64 elements. The first element in the table shall correspond to the lowest supply setting while the last element shall correspond to the highest supply setting.
- b. Each element is loaded with a value that represents the supply's output voltage for the particular setting.
- c. The IPG/EPG uses this lookup table to determine the appropriate power supply setting to achieve the desired output voltage.