



THE SOLACE™ NEUROSTIMULATION PLATFORM

INNOVATE WITH CONFIDENCE

The Solace™ Neurostimulation Platform is a comprehensive platform that can be taken from initial development to commercialization—reducing total product development time and cost.



WORKING TOGETHER

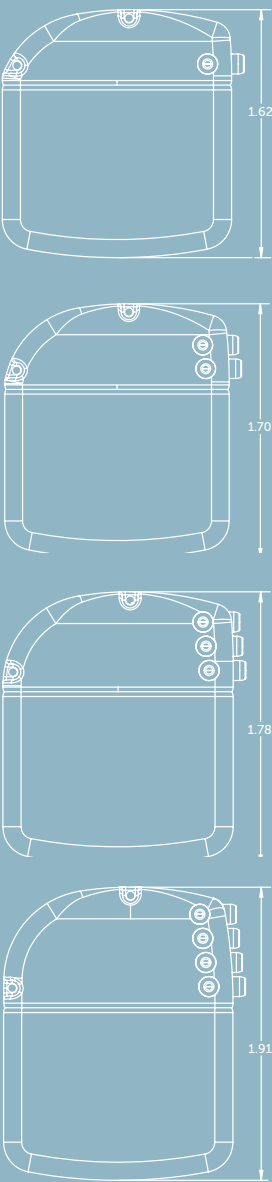
Partnering with us brings you closer to turning your innovative ideas into breakthrough therapies.

- Whether your goal is to bring a novel therapy to market or rapidly move to a next generation design suitable for high volume manufacturing, we have the capabilities and team at-the-ready.
- With more than three decades of experience, we understand the technical, practical and regulatory issues needed to bring new and next generation products to market.
- You can work confidently knowing our platform meets the highest quality standards.

VERSATILE PLATFORM

Comprehensive and customizable, the Solace platform can be used to advance research or to support your commercialization requirements.

- The Platform is adaptable for a variety of therapy applications. Select the components that best meet your needs, or integrate your own:
 - ▶ Printed Circuit Board
 - ▶ ASIC
 - ▶ Enclosure
 - ▶ Header
 - ▶ Leads
 - ▶ Peripherals/Accessories
- Enables a low risk, cost effective and rapid manufacturing transfer into one of Cirtec’s locations.



IMPLANTABLE PULSE GENERATOR

- Configurable from 2 to 32 channels
- 32 Independent current sources (12.5 mA/electrode)
- Supports tonic, burst and high frequency pulse sequences
- Volume 15 cc to 17.5 cc
- Rechargeable battery with charge
- Communication:
 - ▶ Wake-up: 2.45 GHz (1 meter)
 - ▶ MICS: 403 MHz (5 meters)
- Can be packaged in one of two validated thermoform tray configurations
- All tissue contacting materials biocompatible



TRIAL PULSE GENERATOR

- TPG functionality identical to IPG
- 4 lead ports with 8 contacts to support 32 electrodes
- 32 Independent current sources (12.5 mA/electrode)
- Supports tonic, burst and high frequency pulse sequences
- Communication:
 - ▶ Wake-up: 2.45 GHz (1 meter)
 - ▶ MICS: 403 MHz (5 meters)
- Battery capacity: one-week, rechargeable battery with USB AC Adapter
- Reusable main body housed in a detachable and disposable header and base
- TPG housing made of polycarbonate material
- Header and base provided in sterile packaging with three-year shelf life



PATIENT REMOTE CONTROL

- Simple, hand-held rechargeable device to operate IPG/TPG
- Can be used for Patient/Clinician Programmer Applications to communicate with IPG/TPG
- Basic functions:
 - ▶ Check battery and stimulation status
 - ▶ Select a pre-defined stimulation program
 - ▶ Turn stimulation ON/OFF
 - ▶ Change stimulation amplitude



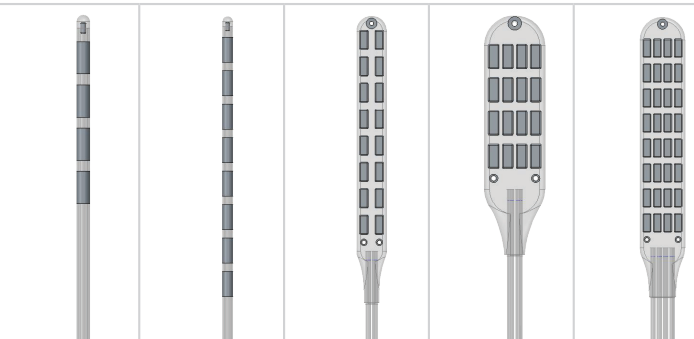
CHARGER

- Placed over IPG and secured with a belt
- Provides audible feedback to guide patient for proper alignment
- Designed for repeated use
- Can be recharged from OV to full charge in 3 hours



LEADS

- Percutaneous (1x4 and 1x8) and Paddle (2x8, 4x4 and 4x8) leads available in multiple lengths with preloaded stylets (choose from 0°, 25° and 35°)
- 1x8 lead extensions and 1x4 splitters are also available for added convenience
- Standard lead body can be quickly customized for most percutaneous, paddle or cuff lead configurations
- Leads are all constructed with biocompatible means
- Validated standard packaging

LEAD PORTFOLIO					
	1 x 4 Percutaneous	1 x 8 Percutaneous	2 x 8 Surgical	4 x 4 Surgical	4 x 8 Surgical
Lead Type	1 x 4 Percutaneous	1 x 8 Percutaneous	2 x 8 Surgical	4 x 4 Surgical	4 x 8 Surgical
Electrode Height (mm)	3 and 6	3	4	4	4
Vertical Electrode Spacing (mm)	1, 4 and 12	1, 4 and 6	6	6	6
Lead Lengths (cm)	35, 55, 75, 95	35, 55, 75, 95	35, 55, 75, 95	35, 55, 75, 95	35, 55, 75, 95

ASIC OPTIONS

	CSI021	CSI040	CSI020
Number of independent channel outputs	4	16	32
Maximum single channel output current (mA)	6.12	25.4	12.7
Maximum stimulation voltage (V)	18	18	18
Maximum pulse frequency (kHz)	12.5	50	14.285
Number of Independently configurable pulses	1	4	1
Pulse width range (uSec)	10 – 2550	2.5 – 1280	20 – 1000
Pulse width resolution (uSec)	10	2.5	10
Integrated battery charge controller	No	No	Yes

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Cirtec Medical

Corporate Headquarters:
9200 Xylon Avenue North
Brooklyn Park, MN 55445
817.372.7591

www.cirtecmed.com

*The Solace Platform is not a finished device
and has not been approved by the FDA*

