



## AgilePulse™ HT

### HIGH VOLUME TRANSFECTION SYSTEM TECHNICAL SPECIFICATIONS

#### EFFICIENT TRANSFECTION FOR 50 TO 1000 ML VOLUMES

The AgilePulse™ HT system is an advanced electroporation solution for fast, efficient transfection of HT Volumes, 50 mL to 1000 mL of cell suspension. Specifically engineered for high throughput volume applications, the AgilePulse HT™ system uses automated batch processing of smaller volumes to ensure uniform electroporation with minimal sample heating for high efficiency and excellent cell viability.

AgilePulse™ HT is a bench-top system with two independent input pumps that simultaneously transport small-batch volumes of cell and transfectant solution to the electroporation chamber for static electroporation. A third output pump then transfers the transfected cells to the collection site. Another batch of cells and transfectant is automatically transferred into the electroporation chamber, repeating the cycle 10 to 200 times until the entire volume of cells has been transfected. Each cycle takes only 7 seconds for fast, efficient transfection of very-large volumes of cells.

The system includes a user-friendly, programmable waveform generator with patented Pulse Agile® technology, our patent-pending large-volume electroporation chamber, and proprietary Cytoporation® medium, optimized for large-volume electroporation.

#### FEATURES & BENEFITS

**Direct Scale-up** – Transfection protocols readily scale-up from standard laboratory cuvettes to large-volume transfection in the AgilePulse HT™ system. No new complicated processes need to be learned.

**Maximal Efficiency with Cytoporation® Medium** – BTXpress™ Cytoporation® medium used with the AgilePulse™ HT system has been optimized for maximal efficiency with a number of cell lines, including K562, A20, HEK293 and CHO-K1. It is compatible with a large range of transfectants including DNA, RNA, siRNA, and oligonucleotides. It can be directly diluted in complete growth medium for post-electroporation cell culture.

**Simple User Interface** – All controls are operated with the simple touch screen on the front panel. Data is quickly retrieved by USB key and can be analyzed for detailed pulse characteristics including pulse voltage and pulse current.

**Pulse Agile® Advantage** – Transfection efficiency and cell viability are enhanced by specialized, programmable electrical pulse waveforms, particularly important for larger polynucleotide delivery such as DNA plasmids. Our patented Pulse Agile® technology combines a unique sequence of short high-intensity pulses to porate cell membranes, followed by long low-intensity pulses to further drive transfectants into cells via electrophoresis, while maintaining cell viability.

# AgilePulse™ HT TECHNICAL SPECIFICATIONS

## LARGE-VOLUME ELECTROPORATION APPLICATIONS

- Transfect cells such as bone marrow cells to produce or replace a missing protein
- Deliver siRNA to suppress gene expression
- Deliver genes for permanent gene correction
- Load cells with a drug for drug delivery
- Cancer immunotherapy
- Transfect eukaryotic cells for protein production in bioreactors
- Large-scale production of replication-deficient viruses

## THE AGILEPULSE HT<sup>®</sup> HIGH VOLUME TRANSFECTION SYSTEM INCLUDES

- AgilePulse HT™ Complete System (47-0100)
- AgilePulse HT™ Waveform Generator with Pumping Subsystem (47-0101)
- Sterile Pak, Including Electroporation Chamber (47-0102)
- Cytoporation<sup>®</sup> Low Conductivity Medium T (47-0002)
- Shaker Apparatus (Optional)
- User Manual

## STERILE PAK WITH ELECTROPORATION CHAMBER

The single-use Sterile Pak maintains sterile conditions while cells are processed in the bench-top AgilePulse HT™ system.

Includes three sterile bags and connectors:

- 1) Cell reservoir
- 2) Transfectant reservoir
- 3) Collection reservoir

## SYSTEM SPECIFICATIONS

User Interface	Touch Screen Display
Chamber Electrode Gap	6-mm
Chamber Volume	5 mL
Total Process Volume	50 mL to 1000 mL
Cycles Per Run	10 to 200
Time Per Cycle	7 sec
Pulse Amplitude	50 to 1200 volts
Pulse Width	0.050 to 10 ms
Pulse Interval	0.200 to 1000 ms (5 kHz to 1 Hz)
Data Access	USB Flash Key via 4 front panel USB ports

## LICENSE REQUIREMENTS

All clinical and therapeutic use of the AgilePulse HT system will require a license from Collectis. Please contact BTX for more information on how to apply for a license.

## TECHNICAL & CUSTOMER SERVICE

For further references regarding specific applications and optimization, please contact BTX Technical Support:

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If outside the United States or Canada: call **508-893-8999** or contact your nearest BTX Distributor.

*For Research Purposes only.*

**BTX**<sup>®</sup>

HARVARD APPARATUS

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