

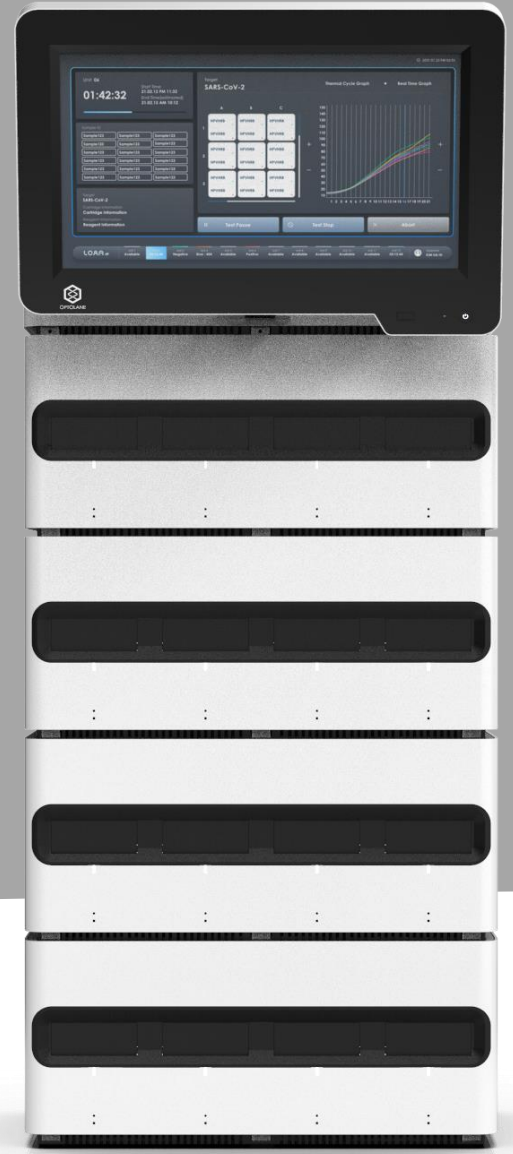


OPTOLANE

Digital Real-Time PCR

LOAN

Genoplexor COVID19 Detection Kit



General information of LOAA-M

Instrument features

Basic components



Expandable upto
4 units of Quads

Full components

Console

Quad



Bar/QR code reader

Cartridge on the Tray

Cartridge eject button

Items	Instrument Specifications
Configuration of instruments	1 Console + 1~4 Modules
No. of tests available	4 tests per 1 Module, random access available
Applicable cartridges	Dr. PCR 20K cartridge, Unicorn Dr. PCR & Mr. PCR
Weight	MTA Module with unit : 12.9 Kg MTA Console : 13.9 Kg
Dimension	1 MTA Module : W 420 x D 354.2 x H 214.8 mm 1 MTA Console : W 420 x D 447 x H 295.6 mm

General information of LOAA-M

Technical features



Genoplexor COVID19 Detection Kit

Technical advantages



1. **30 Minutes**
On-site testing available

3. **Target genes**
RdRp & S genes

2. **UTM direct application**
Simple procedure

4. **High Accuracy**
Comparable to RT-PCR

Product	Genoplexor COVID-19 Detection Kit
Principle	RT-PCR
Target genes	RdRP & S genes
Specimens	VTM / UTM (Direct applications)
LOD	1600 copies / ml
Running Time	30 minutes
Storage Condition	2-28 °C (Cartridge), -20 °C (Reagent)
Q'ty / Kit	48 Tests / Kit

Workflow of Genoplexor COVID19 Detection Kit

Simplified procedures



Result Interpretation

Turn around time: 30 minutes

The screenshot displays a software interface for PCR result interpretation. On the left is a dark blue sidebar with the 'LOAN LAB ON AN ARRAY' logo and a 'Sample ID' field containing '0112_Neg 5m5s5s'. Below this is the 'Product Name' '9 Detection Kit' and a grid of '+' and '-' buttons. An 'Export PDF' button and a 'Back' button are at the bottom of the sidebar. The main area is light grey and contains a filter section at the top with 'Positive', 'Negative', 'AND', 'OR', and 'Ct value' options. A search icon and a list icon are also present. Below the filter is the 'Start Time' '2022.01.12 15:26:52', a running time '00:31:34', and the 'END TIME' '2022.01.12 15:58:26'. A 'Channel' section shows 'CH 1, 2', 'CH 1', and 'CH 2'. The central part of the interface is a 3x3 grid of well results. The top-left well (A1) is labeled 'PCRC' and shows a Ct value of 30.35. Other wells show 'S' and 'RdRp' results with 'Ct -'. On the right is a 'PCR curve' graph showing 'Fluorescence' on the y-axis (0 to 10,000) and 'Cycle' on the x-axis (0 to 40). The curve shows a sharp increase starting around cycle 30.

● Sample ID

● PCR result in each well

● PCR Running time

● PCR curve

Clinical performance data

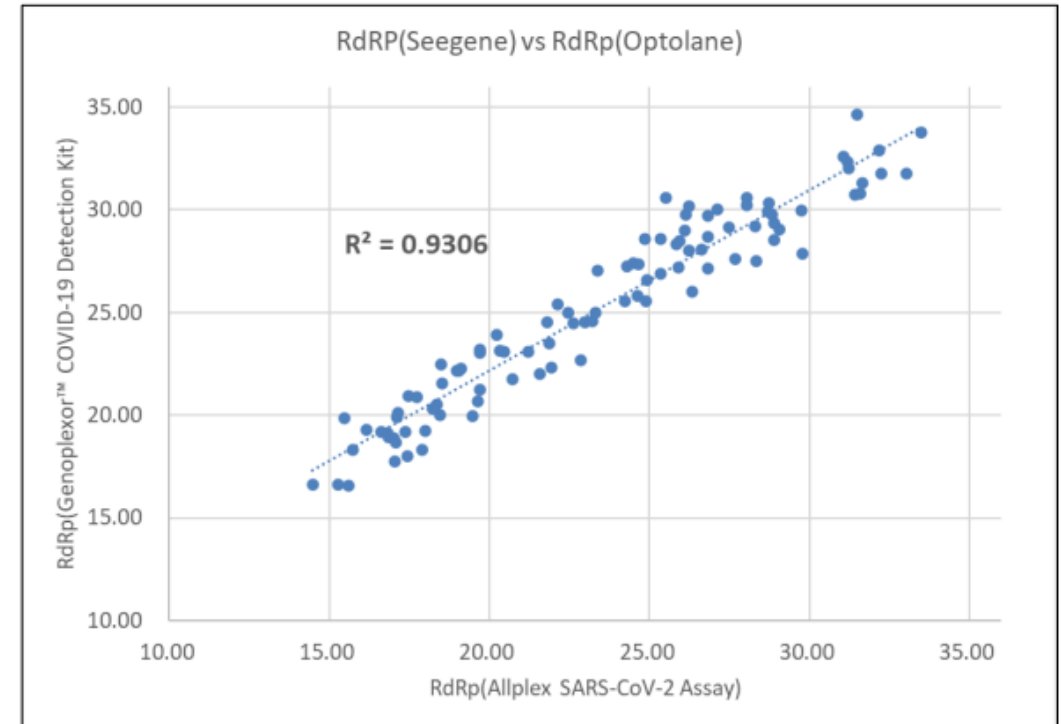
Comparison with RT-PCR

Performance Data

Performance		S Company		TOTAL
		POS.	NEG.	
Genoplexor COVID19	POS.	99	0	99
	NEG.	1	200	201
		100	200	300

- Sensitivity: **99%** (95%CI: 94.55 - 99.82%)
- Specificity: **100%** (95%CI: 98.12 – 100.00%)

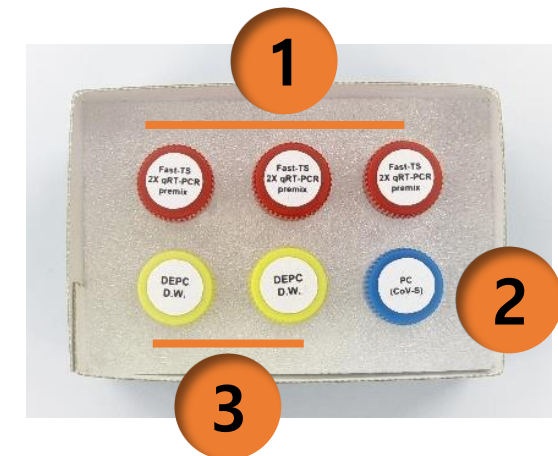
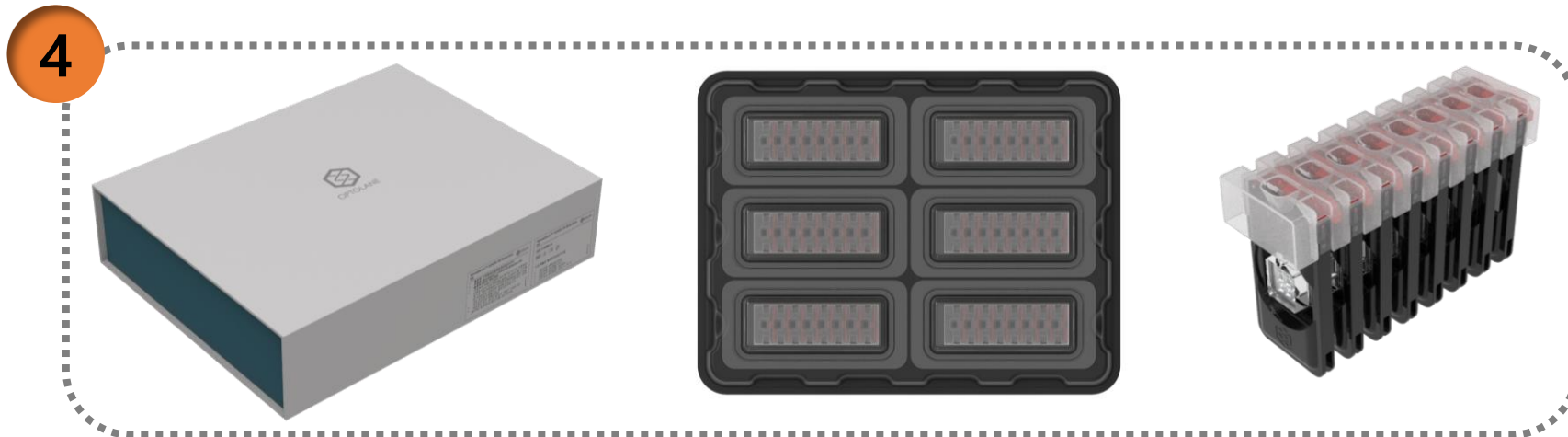
Target	RdRP & S genes
LOD	1600 copies/ml



Kit components

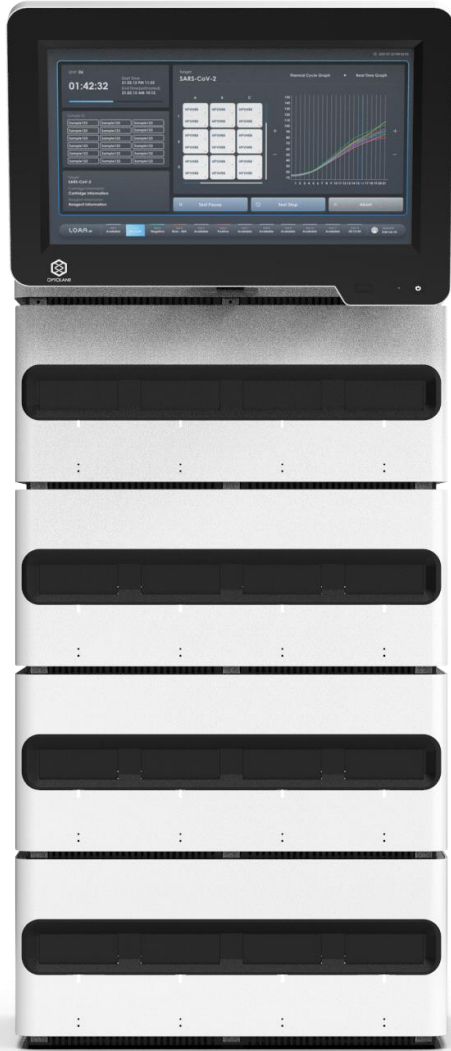
Genoplexor™ COVID-19 Detection Kit

No.	Contents	Unit	Quantity	Description
①	Fast-TS 2X qRT-PCR premix	480 µL/tube	3 tubes	1.5 mL clear screw cap tube (Red cap) - Optimal buffer composed of reverse transcriptase, Taq polymerase, etc.
②	PC (CoV2-S)	100 µL/tube	1 tube	1.5 mL clear screw cap tube (blue cap) - Positive Control(PC) for PCR Control
③	DEPC D.W.	500 µL/tube	2 tube	1.5 mL clear screw cap tube (yellow cap) - Distilled RNase free water (NTC)
④	Mr. PCR chip (CoV2-S)	48 ea	1 box	- Disposable chip with 9 well structure spotted with Primer&Probe on it



Technical specifications of LOAA-M

Configurations

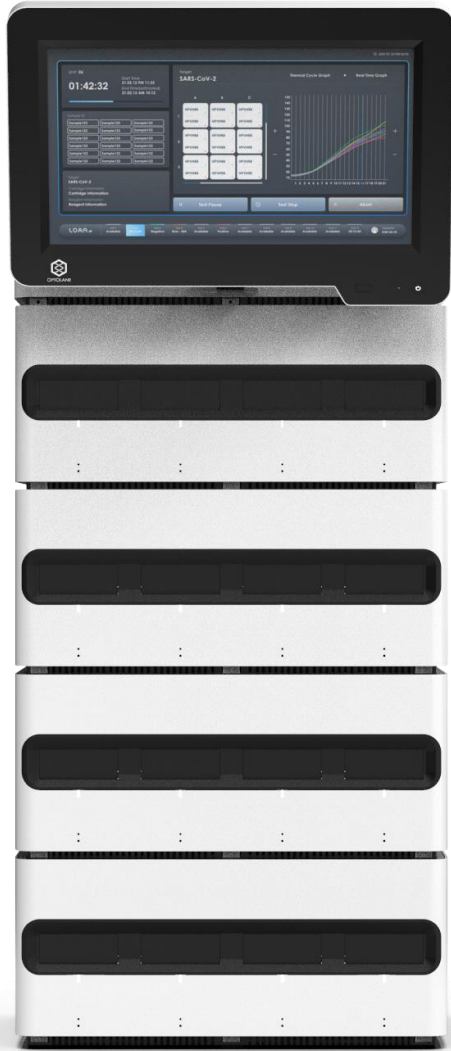


Items	Instrument Specifications
Configuration of instruments	1 console + 1~4 MTA quads
Minimum units of instruments	1 console + 1 MTA quad
No. of tests available	16 tests / 1 console + 4 quads, Random access available
Applicable cartridges	Dr. PCR 20K cartridge, Unicorn Dr. PCR, Unicorn Mr. PCR (Genoplexor)
No. of fluorescent channels	2
Display	15.6" FHD LCD (IPS)
Touch	Multi-touch available
Barcode Scanner	Aztec, Codabar, Code 39, Code 93, Code 128, Data Matrix, EAN, Interleaved 2 of 5, JAN, MaxiCode, UPC
HDD	4TB
Operating temperature	15 ~ 30 °C / 20%~80% RH
Languages	English, Spanish
Weight	MTA quad with unit : 12.9 Kg MTA console : 13.9 Kg
Dimension	1 MTA quad : W 420 x D 354.2 x H 214.8 mm 1 MTA console : W 420 x D 447 x H 295.6 mm
Power consumption	100-240V, 50/60Hz, 250W



Ordering Information

Instrument and reagents



■ Instruments

Catalogue Number	Products	Quantity
LAM301-01	LOAA Analyzer (On-Point)	1 EA
LAM303-01	LOAA-M Console	1 EA
LAM304-01	LOAA-M Quad	1 EA
UIM301-01	Unicorn Injection System	1EA

■ Cartridges & Reagents

Catalogue Number	Products	Quantity
COM402-X	Dr. PCR DiS 20K SARS-CoV-2 Detection Kit, CE	1 Kit (30 Tests)
COM408-X	Dr. PCR Di 20K SARS-CoV-2 Detection Kit, CE	1 Kit (30 Tests)
GCO01-Y	Genoplexor COVID-19 Detection Kit, CE	1 Kit (48 Tests)
CTR002-R	Dr. PCR 20K Cartridge (RUO)	1 Kit (30 Tests)

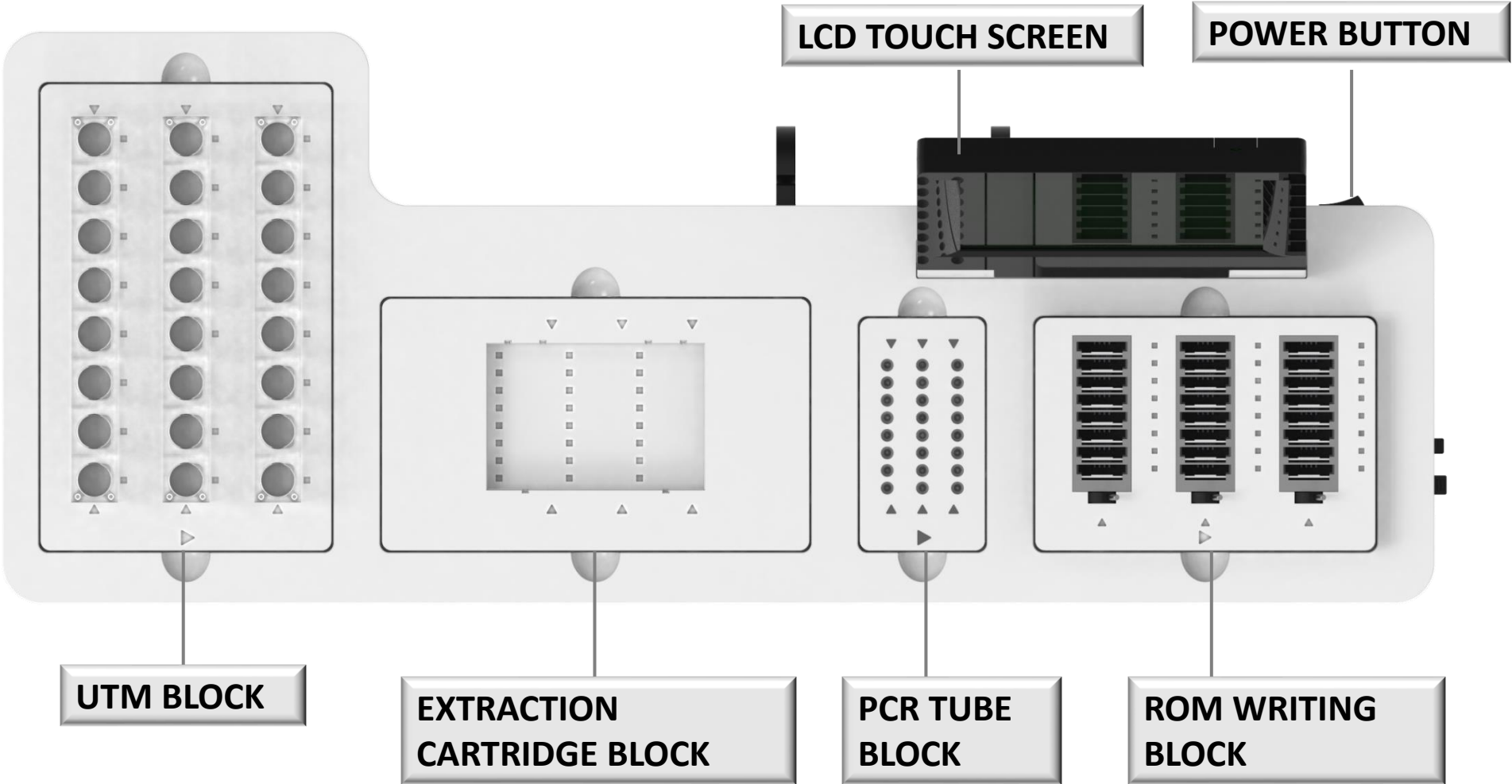


Appendix 1. Assemble of Cartridges

Re-usable Cartridge Cases

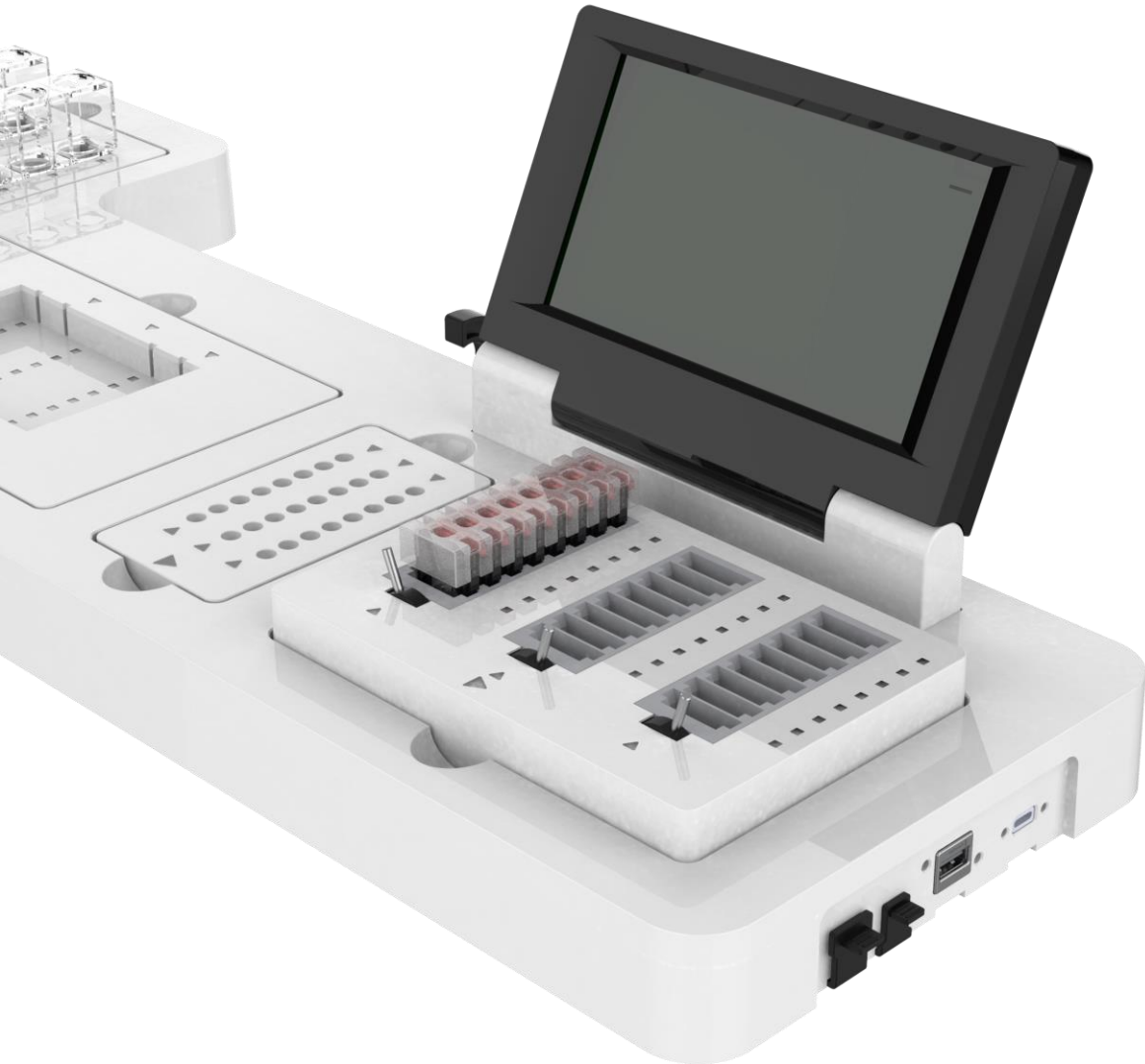


Appendix 2. Unicorn Injection System Configurations



Appendix 2. Unicorn Injection System

Blue marble for no paper works



1.

Barcode scanning available

QR/Barcode available

2.

ROM function integrated

Easy to track Information

3.

Intuitive User Interface

Easy to follow the instructions

4.

Easy to monitor the process

Minimized Human errors



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