

## 48.48 Access Array™ IFC – High Throughput Sample Preparation for Next Gen Sequencing

### HIGH THROUGHPUT SAMPLE PREPARATION

Amplicon tagging simplifies library preparation.  
Sample “barcoding” enables multiplexed sequencing runs.

**The 48.48 Access Array Integrated Fluidic Circuit (IFC)** prepares a single sequencing-ready library, comprising 48 unique samples that have been amplified and barcoded prior to pooling. With this 48-sample throughput, you can access new insight into genomic variations and transcriptome complexity for medical research and population genetics research.

#### Key Benefits –

**High throughput** – 48 samples prepared at a time.

**Easy to use** – only five manual steps per setup.

**Fast** – less than four hours from start to finish.

### Massive Throughput, Massive Multiplexing

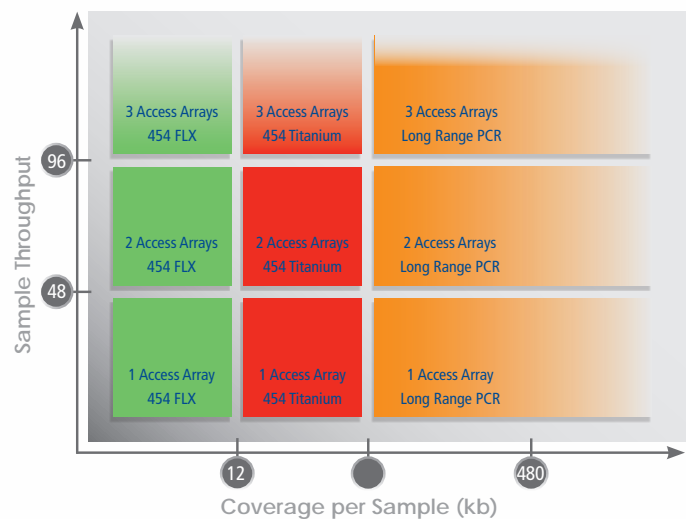
While patented IFC technology enables Access Array IFCs to deliver a huge advance in sample throughput, it also enables “barcoding” (identification by unique tag) of all 48 samples as part of the amplification step. Thus, amplicons can be massively multiplexed at the sequencing step. Furthermore, by incorporating amplicon tagging, the Access Array IFC completely eliminates the library preparation step.

### One-stop Solution

The Access Array IFC provides the flexibility to easily modify your PCR design to work with any library type, giving you a one-stop sample prep solution for any sequencing platform and application.



The Access Array System includes Fluidigm 48.48 Access Array IFCs — single-use chips for fluid control — as well as (shown above) two IFC Controller AX's and a Stand-Alone Thermal Cycler.



## Specifications

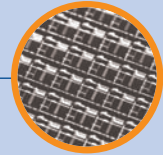
### PARAMETER

Footprint dimensions	128 x 85 x 14 mm
Inlet spacing on input frame	4.5 mm pitch
Liquid transfer steps	192
Primer-probe inlets	48
Sample inlets	48
Reaction chambers	2,304
Reaction volume	35 nl
Instrument compatibility	Stand-Alone Thermal Cycler, IFC Controller AX

- **Fluidigm Access Array System for Next Gen Sequencing**
- **Access Array IFCs**  
Consumable IFCs for next gen sequencing sample preparation.
- **IFC Controller**  
Integrated hardware/software for loading IFCs.
- **Stand-Alone Thermal Cycler**  
Integrated hardware/software for thermal cycling of IFCs.
- **Service Plans**  
Hardware service and software maintenance plans.

## Workflow

- 1 Dispense.**  
Transfer samples and reagents to inlets on the chip using a standard 384-well plate and pipette equipment.
- 2 Load.**  
Automatically load and assemble the reaction mixtures on chip, using the IFC Controller AX.
- 3 Thermal cycle.**  
Perform PCR using the Stand-Alone Thermal Cycler. (Thermal cycling parameters are the same as those for traditional PCR.)
- 4 Pool.**  
Pool each of 48 PCR products on-chip, using the IFC Controller AX.
- 5 Harvest.**  
Use standard pipette equipment to collect the amplified product for each of the 48 samples in 10 ul volume.



**Fluidigm®** 

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Fluidigm recommends that you only purchase TaqMan® dual-labeled probes and/or other licensed PCR assay reagents from authorized sources.

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