



## ***FINANCIAL PROJECTIONS***

FOR THE IMPLEMENTATION OF:

*A COMPUTE-IN-MEMORY ARITHMETIC CORE WITH  
**+85% EFFICIENCY AND THROUGHPUT GAINS**  
USING STANDARD CMOS TECHNOLOGY*

[www.arrayarchitecture.com](http://www.arrayarchitecture.com)

Our pricing model is not a generic IP licensing fee. It is a value-capture **instrument designed to extract a fraction of the enormous energy and operational savings** our technology delivers.

Rather than commoditized flat fees, Array employs a premium pricing model, based on industry standard forms of revenue. We set a licensing fee for **annual subscription plus running royalties**, to reflect the substantial operational and energy savings our technology enables in different application verticals.

Full ARM CPU architecture licenses are in the range of \$1M–\$10M upfront, plus 1-3% royalties. Our **standard-CMOS Compute-In-Memory design** eliminates bit-level data movement, fundamentally redefining the primary data-path bottleneck, driving the overall efficiency curve and justifying similar pricing in high-impact applications. We focus on two initial verticals, **AI/ML and BTC Mining**, and allow for future scalability into different verticals (**GPUs, DSP, Cryptography, Scientific Modelling, Edge-Devices**, among others).

Our business model and pricing strategies reflect that **our founding team understands the leverage our IP has in the wider market.**

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# Pricing Models

**The \$5M/year anchor is our mid range for Tier-1 enterprises.** It is not our floor or ceiling. Manufacturers familiar with licensing models will recognize that **IP block pricing exists on a spectrum.**

## Tiered Pricing Ranges: Annual Licensing Subscription Fees & Royalties

| Market Tier              | Target Verticals                                           | Upfront License Fee (Per Project) | Royalty Rate (% of Silicon ASP) |
|--------------------------|------------------------------------------------------------|-----------------------------------|---------------------------------|
| Tier 1: High-Performance | Generative AI Cloud (LLMs), Bitcoin/Crypto Mining, Defense | \$1,000,000 – \$20,000,000        | 3% – 5%                         |
| Tier 2: Mid-Performance  | Consumer GPUs, Advanced DSPs, Autonomous Driving (ADAS)    | \$500,000 – \$5,000,000           | 2% – 3%                         |
| Tier 3: Edge & IoT       | Microcontrollers, Edge AI, Wearables, Smart Home           | \$400,000 – \$800,000             | 1% – 2%                         |
| Tier 4: Infrastructure   | Network Switch Fab, 5G/6G Basestations, Data Routing       | \$2,000,000 – \$20,000,000        | 3% – 6%                         |

## Annual Licensing Subscription Fees - Breakdown

|                          | 0 - 100k    | 100k - 500k       | 500k - 1 Million    | > 1 Million       |
|--------------------------|-------------|-------------------|---------------------|-------------------|
| Tier 1: High-Performance | \$1 Million | \$5 Million       | \$10 - \$15 Million | \$20 Million      |
| Tier 2: Mid-Performance  | \$500k      | \$1 - \$2 Million | \$2 - \$3 Million   | \$3 - \$5 Million |
| Tier 3: Edge & IoT       | \$400k      | \$500k - \$600k   | \$600k - \$700k     | \$700k - \$800k   |
| Tier 4: Infrastructure   | \$2 Million | \$2 - \$5 Million | \$5 - \$15 Million  | \$20 Million      |

## Royalties - Breakdown

|                          | 0 - 100k                   | 100k - 500k | 500k - 1 Million | > 1 Million |
|--------------------------|----------------------------|-------------|------------------|-------------|
| Tier 1: High-Performance | \$0.05 - \$0.10 / Instance | 3 - 4 %     | 4 - 5 %          | 5 %         |
| Tier 2: Mid-Performance  | \$0.05 / Instance          | 2 %         | 2 - 3 %          | 2 - 3 %     |
| Tier 3: Edge & IoT       | \$0.05 / Instance          | 1 %         | 1 - 2 %          | 1 - 2 %     |
| Tier 4: Infrastructure   | \$0.05 / Instance          | 3 - 4 %     | 4 - 5 %          | 5 - 6 %     |

## **HASH Engines (Bitcoin Mining ASICs)**

Taking a % royalty in hashrate is worth considering for mining ASIC deals. It aligns the customer's upside with our upside, curving it beautifully with the appreciation of the network itself, and capturing value as the underlying network grows. **A three-party revenue-sharing model presents a highly viable path to market** for Array's technology, as it directly mirrors recent, successful precedents in the Bitcoin mining industry. Our strategy involves a formal agreement between **Array, a leading ASIC manufacturer, and a mining operator, where all parties receive a stipulated percentage of the net mining revenue** generated by the rigs integrating our IP.

This approach is validated by the 2024 partnership between manufacturer Canaan Inc. and Luna Squares Texas LLC, which established a revenue-sharing structure where mining output is split after deducting operational costs, with Canaan even securing a 70% share during initial capital recovery phases for newer models. By adopting this framework, **the manufacturer benefits from the sale and deployment** of more efficient hardware, while **the mining operator gains access to cutting-edge technology** without prohibitive upfront costs, **and Array secures a performance-based revenue stream** that scales directly with the success of the mining operations.

This model not only de-risks our market entry but also positions us to capture ongoing value from the superior efficiency and hashrate performance our technology enables, mirroring the industry's clear shift toward partnership-based, output-sharing business structures.

## Tensor Cores/Matrix Cores for AI Accelerators

Our pricing model for Tier-1 Enterprises in the AI and ML vertical, can be divided into two different schemes to target large clients with massive manufacturing volume, and another targeting smaller single-use projects or silicon start-ups.

- The first pricing scheme is based on a per-centage royalty on the ASP of final products integrating our IP. This is reserved for Tier-1 clients with massive manufacturing volumes. The pricing scheme in this case will consist of a **3-5% royalty on direct ASP of end-products**, depending on volume, contract duration and other factors. Nvidia's A100 processors can sell at more than \$10,000. Considering an up-pricing of models integrating our IP, at \$15,000, our royalties would be around \$600 per unit. This model provides a model for AI matrix cores that scales automatically with customer volume.
- Another common model in the industry is to charge royalties by instantiation. A single processor might instantiate dozens or hundreds of adder arrays (in MAC units, DSP blocks). **A royalty rate of \$0.05-\$0.10 per instance adds up fast.** If a single AI accelerator chip instantiates 500 instances of our matrix multiplication arrays, we're not licensing one adder design. We are licensing 500 matrix multipliers per chip. This per-instance model provides a pricing scheme for AI matrix cores that scales automatically with smaller customer volumes.

# Justification

This is aggressive, but justifiable: our patent protects the mathematical method of addition itself. There is no alternative CIM adder based on CMOS in the market. For a Bitcoin mining company running 200k ASICs, a 30% efficiency gain saves them roughly \$140 million annual electrical consumption. **Our annual subscription fee (\$5 Million) captures about 3.5% of that value they are saving on electricity alone.**

If you walk into a traditional semiconductor procurement office trying to license a primitive arithmetic block to be integrated into a generic mobile SoC, they will treat an arithmetic block like a standard accelerator core. In that specific, generic context, asking for \$5M/year recurring would face immediate pushback because traditional IP blocks of that size usually command a one-time upfront fee of \$100k–\$500k.

However, **in custom high-performance computing (HPC) environments like Bitcoin mining or dedicated LLM/AI hardware, the arithmetic core is the entire value proposition of the system.** In a mining ASIC, the SHA-256 compression engines and fast adders don't occupy a tiny corner of the chip—they dominate 80% to 90% of the active silicon area. In this case, our block isn't a small side feature. Arithmetic units define the chip's total efficiency curve. That is why **Array strategically targets high-performance computing (HPC) verticals like Bitcoin mining ASICs and AI accelerators,** where its arithmetic core dictates the chip's overall efficiency. In these custom environments, **manufacturers readily accept the premium terms and can implement a +50% price increase over traditional ASICs,** driven by the significant real-world dollar savings the architecture delivers.

- Our standard-CMOS, Manhattan-grid topology **saves a licensee months of physical design labor.** Time-to-market is often more valuable than per-unit cost savings.
- Our adder solves a problem no one else can solve: **In-Memory addition on standard CMOS. We have a monopoly.** No alternative exists for true In-Memory, standard-CMOS addition. Mathematically there are two options: the Carry-Over paradigm (and the dozens of variations and modified algorithms), and our verified method. **The only alternative for CIM are the commercially non-viable processors based on exotic transistors and experimental memory cells that require a complete retooling of the industry.** There is no third alternative for true CIM. Monopoly position on CMOS-native CIM commands a premium. And unlike ARM's competitive IP market, we have a patent on the mathematical method that is part of the patent design itself.

- The cost savings dwarf our fee.

- *Silicon Area Savings:* Multiple-input addition directly in the memory array **eliminates separate registers, complex multiplexer routing, and heavy adder trees.** This shrinks the physical size of the chip, instantly saving chip area.

- *End-User Power Consumption Savings:*

- We can assume each mining ASIC consumes around 40,000 kWh per year, at a preferential rate of \$0.05/kWh. A 30% efficiency improvement, over a 2-year operating life cycle, is roughly **\$240 Million in energy savings** for the end buyer. That's just on energy savings, and does not consider additional output from increasing the hash rate an estimated +30%. Considering all factors, an end buyer of our architecture can increase net profitability by +75-100%.
- Energy efficiency is the number one pain point in data centers and edge AI. **A block that demonstrably delivers 75-100% profit gains commands pricing leverage.**

- *Total Licensing Cost:* **A \$5 million annual license for licensing our product to manufacturers for 200k units is equivalent to \$50 per ASIC.**

- *Profit Margins:* Mining ASIC manufacturers have a gross profit margin of about ~10% (If their ASIC unit sells at \$10k they will profit \$1,000). Since the manufacturer can justify a final product increase of +%50, they sell at \$15k, keep \$1,300, and pay \$200 to Array, making an extra \$300 per unit. This means the manufacturer can now make a gross profit margin of 13% on manufacturing. That is a 33% increase in their profit margin.

# Revenue

The verified arithmetic cores will be licensed to design firms and foundries, generating revenue in the form of **Upfront Licensing Fees (\$5 million USD per year), plus In-Kind Royalties (3-5% of BTC mined with our IP)**. This is justifiable because our chips will remain profitable during price dips, our customers will survive bear markets competitors won't, and we will control the mining efficiency curve for years.

- **License Fee:**

- *Tier-1 Non-Exclusive Right-of-Use License:* **\$5 Million USD per Year (upfront)**
- *Minimum Contract Period:* **3-5 Years**

- **Royalties:** The majority of our projected revenue will come in the form of in-kind royalties from licensed purchasers of our products. We will charge a **royalty on BTC mined with our IP, during the ASICs first two years of life-cycle.**

- ***Time and energy efficiency* over state-of-the-art ASICs: +30%**
- ***ASIC Production per License per Year:* 200,000 ASICs**
- ***Annual Bitcoins generated by 200k CIM Mining ASICs:* 13,000 BTC**
- ***In-Kind Royalties per License per Year:* 4% of BTC Output**
- ***Annual Revenue from In-Kind Royalties:* 520 BTC**

The in-kind royalties can be enforced for the first two years of the mining ASIC life-cycle. After that, the ASIC operator is no longer bound to our partnering contract. Under these assumptions, we can say that each manufacturing partnership will generate approximately 520 BTC per year, from one 200k ASIC batch. Since we are contemplating a two year cycle for each batch, then with every partnership we are expecting to get annual royalties from two different batches (the batch from the previous year plus the new batch). This means an average **annual royalty revenue of about 1,040 BTC per partnership. For a five year contract, the total revenue from one partnership can reach over \$350 Million USD.**

## Likely Scenario - Yearly Breakdown

- **Year 1-2:** Although we are ready to start licensing as of now, **every de-risking step will significantly increase the IP valuation.** The next two years are about further de-risking the technology at a physical level and creating the licensable asset (GDSII tape-out ready Stream File), with a **Pre-Seed investment of \$500k USD and a Seed investment of \$6.6 Million USD.** Our cash burn-rate will be primarily driven by the engineering team's salaries, signing bonuses, tools, and resources.
- **Year 3:** We expect to sign our first licensee within 24 months (beginning of the third year) of receiving the pre-seed investment, at the latest. This will generate an expected **capitalization of \$5M USD in upfront payment.** During this period the wafers are manufactured, cut into individual dies, tested and then sent to packaging and assembly.
- **Year 4:** The manufacturer will take another year to perform tests, and final packaging before delivery can be initiated.
- **Year 5:** The miner receives hardware, at the beginning of the year, and Array begins to receive in-kind royalties close to **500 BTC in revenue**, per year for two years.

# THANK YOU!



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