

ZEDEC CONFIDENTIAL

PANGEA ALLIANCE

Cost Analysis & Partner Economics

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1. Bill of Materials (BOM)

1.1 Per-Device Material Costs

Component	Supplier	Quantity	Unit Cost	Total
Graphite/Graphene	Hiyka	0.5 kg	\$5/kg	\$2.50
PZT Ceramics	Sparkler	4 pcs	\$10/pc	\$40.00
Niobium Wire	Metal Fort	5g	\$0.20/g	\$1.00
Germanium Wafer	Metal Fort	2g	\$5/g	\$10.00
Neodymium Nano	Metal Fort	10g	\$0.50/g	\$5.00
Be-Cu Connector	Metal Fort	2g	\$0.10/g	\$0.20
Resin Base	Standard	50g	\$0.10/g	\$5.00
Electronics (MCU, DAC)	Standard	1 set	\$25	\$25.00
Display/Optics	Standard	1 set	\$30	\$30.00

Battery/Power	Standard	1 unit	\$15	\$15.00
Packaging	Standard	1 set	\$5	\$5.00
TOTAL BOM				\$138.70

1.2 Manufacturing & Assembly

Process	Provider	Cost
3D Printing (Multi-material)	Neway Precision	\$80.00
Post-Processing	Neway Precision	\$20.00
Electronics Integration	Neway Precision	\$30.00
Quality Control	Neway Precision	\$20.00
TOTAL MANUFACTURING		\$150.00

1.3 Logistics & Distribution

Component	Provider	Cost
Material Transport (India→UAE→China)	DP World	\$10.00
Finished Device Shipping	DP World	\$30.00
Customs/Documentation	DP World	\$10.00
TOTAL LOGISTICS		\$50.00

1.4 Total Cost Summary (At Scale: 10,000+ units)

Bill of Materials	\$138.70
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Manufacturing	\$150.00
Logistics	\$50.00
Network Setup (LoveMyPod)	\$20.00
Software Licensing (Ocellott)	\$25.00
Carbon Credits (Pachama)	\$1.80
Blockchain Setup (Rootstock)	\$5.00
TOTAL COGS	\$390.50

2. Pricing & Margin Structure

2.1 Device Pricing Tiers

Tier	Price	COGS	Gross Margin	%
Essential	\$999	\$350	\$649	65%
Professional	\$1,999	\$390	\$1,609	80%
Ultimate	\$3,999	\$450	\$3,549	89%

2.2 ZEDEC Royalty Structure

15% Technical Interdisciplinary Architectural Services Royalty

Michael Laurence Curzi, Prime Principality of ZEDEC, reserves:

Total Royalty Rate	15% of gross revenue
Cash Component	13% payable in currency (USD/BTC)
Product Component	2% payable in finished GlyphMap devices

Royalty Coverage:

- FCP-168 Fractal Container Protocol licensing
- EPU (Emotional Processing Unit) architecture
- "Making Chemistry with Sound" resonance formulas
- Orthogonal Lattice circuit design IP
- Ongoing technical consultation and updates

2.3 Revenue Waterfall (Professional Tier - \$1,999)

Component	Amount	%	Recipient
Gross Revenue	\$1,999.00	100%	-
ZEDEC Royalty	\$299.85	15%	ZEDEC
Net After Royalty	\$1,699.15	85%	-
COGS	\$390.50	20%	Alliance Partners
Gross Profit	\$1,308.65	65%	Operating Entity
S&M (15%)	\$299.85	15%	Redhill + Marketing
R&D (10%)	\$199.90	10%	Development
G&A (10%)	\$199.90	10%	Operations

Net Operating Income	\$609.00	30%	-
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3. Partner Revenue Projections

3.1 5-Year Alliance Revenue by Partner

Partner	Year 1	Year 2	Year 3	Year 4	Year 5	5-Year Total
Hiyka (Graphite)	\$125K	\$625K	\$2.5M	\$6.25M	\$12.5M	\$22M
Sparkler (PZT)	\$200K	\$1M	\$4M	\$10M	\$20M	\$35.2M
Metal Fort (Metals)	\$425K	\$2.1M	\$8.5M	\$21.3M	\$42.5M	\$74.8M
Neway (Mfg)	\$1.75M	\$6.25M	\$20M	\$45M	\$80M	\$153M
DP World (Logistics)	\$250K	\$1.25M	\$5M	\$12.5M	\$25M	\$44M
LoveMyPod (Network)	\$2.94M	\$14.7M	\$58.8M	\$147M	\$294M	\$517.4M
IOVLabs (Blockchain)	\$183K	\$913K	\$3.65M	\$9.1M	\$18.3M	\$32.1M
Ocellott (AI)	\$125K	\$625K	\$2.5M	\$6.25M	\$12.5M	\$22M
Pachama (Carbon)	\$9K	\$45K	\$180K	\$450K	\$900K	\$1.6M

Redhill (Strategy)	\$300K	\$300K	\$300K	\$300K	\$300K	\$1.5M
TOTAL PARTNER	\$6.3M	\$27.8M	\$105.4M	\$258.2M	\$506M	\$903.6M

3.2 ZEDEC Royalty Projections

Year	Units	Gross Revenue	15% Royalty	Cash (13%)	Product (2%)
Year 1	5,000	\$10M	\$1.5M	\$1.3M	100 devices
Year 2	25,000	\$50M	\$7.5M	\$6.5M	500 devices
Year 3	100,000	\$200M	\$30M	\$26M	2,000 devices
Year 4	250,000	\$500M	\$75M	\$65M	5,000 devices
Year 5	500,000	\$1B	\$150M	\$130M	10,000 devices
TOTAL	880K	\$1.76B	\$264M	\$228.8M	17,600 devices

4. Alliance Value Proposition

4.1 Premium vs Commodity Comparison

Partner	Commodity Revenue	Alliance Revenue	Premium Gain
Hiyka	\$4.4M	\$22M	+\$17.6M (5×)

Sparkler	\$7M	\$35.2M	+\$28.2M (5×)
Metal Fort	\$20M	\$74.8M	+\$54.8M (3.7×)

4.2 Cost of NOT Joining

For Each Partner:

- Miss premium pricing (3-5× commodity rates)
- No long-term guaranteed volume
- Competitor captures exclusive position
- Zero access to \$1.76B revenue opportunity
- No participation in category-defining technology

Total Opportunity Cost: \$903.6M in partner revenue over 5 years

5. Investment Requirements

5.1 Initial Capital Needs

Category	Amount	Purpose
Prototype Development	\$250,000	10 prototype devices
Manufacturing Setup	\$500,000	Tooling, materials, training
Network Integration	\$150,000	LoveMyPod + Rootstock setup
AI Development	\$150,000	Ocellott QHOL models
Marketing Launch	\$300,000	Redhill strategy execution
Working Capital	\$500,000	Inventory, operations

Legal/IP	\$150,000	Patents, contracts
TOTAL SEED	\$2,000,000	

5.2 Use of Funds

Phase	Timeline	Funding	Milestone
Phase 1: Prototype	Q1 2025	\$250K	10 functional prototypes
Phase 2: Alpha	Q2 2025	\$500K	100 units, beta testing
Phase 3: Beta	Q3 2025	\$500K	1,000 units, market validation
Phase 4: Launch	Q4 2025	\$750K	5,000 units, commercial sales