RAPIDISE®

QUALITY DELIVERED

Turn-Key Product Engineering & Electronics Manufacturing

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Introduction & Capabilities Deck
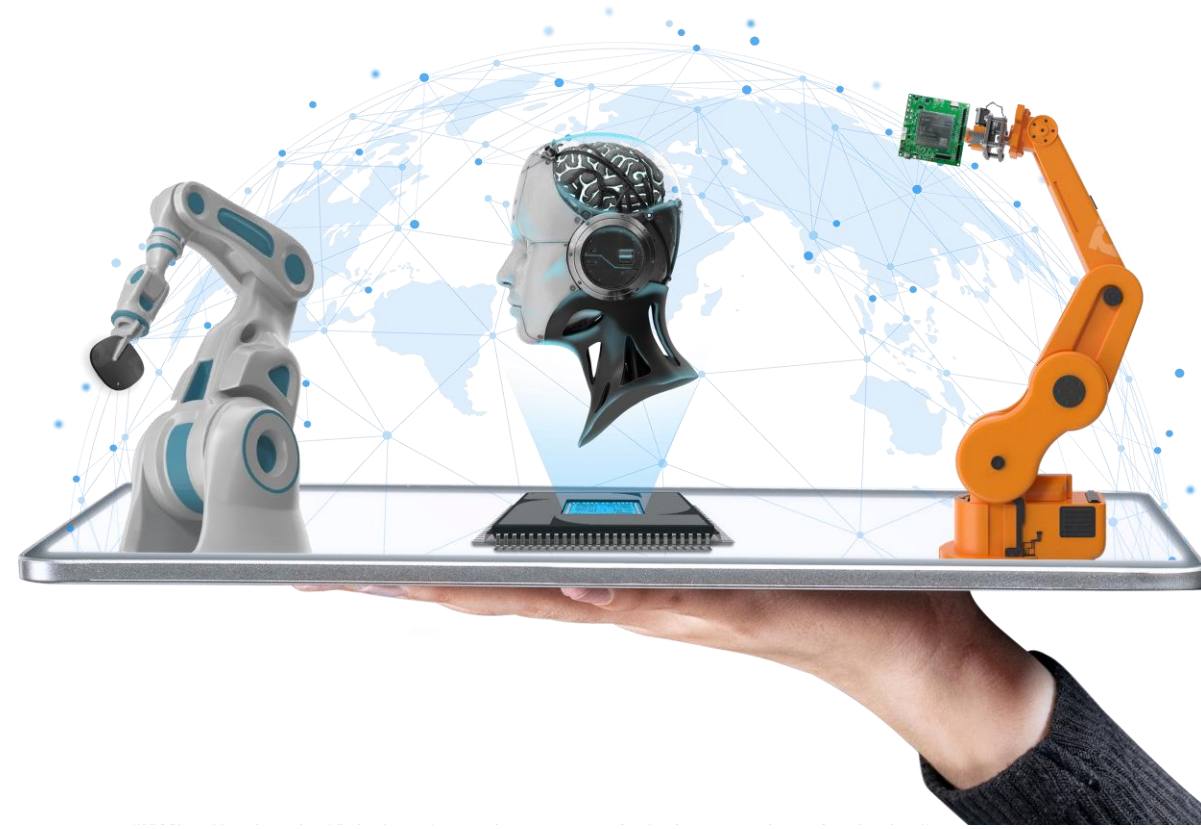
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We are **transforming the ODM landscape** by seamlessly connecting design and manufacturing with our cutting-edge on-demand platform

Our USP

- 25+ yrs of Manufacturing Services Delivery
- 12+ Yrs of Design Services Delivery
- Owned Manufacturing & Assembly Line
- Electronics, Mechanical, IoT, AI & Cloud Development
- Ready Products for White-labelling

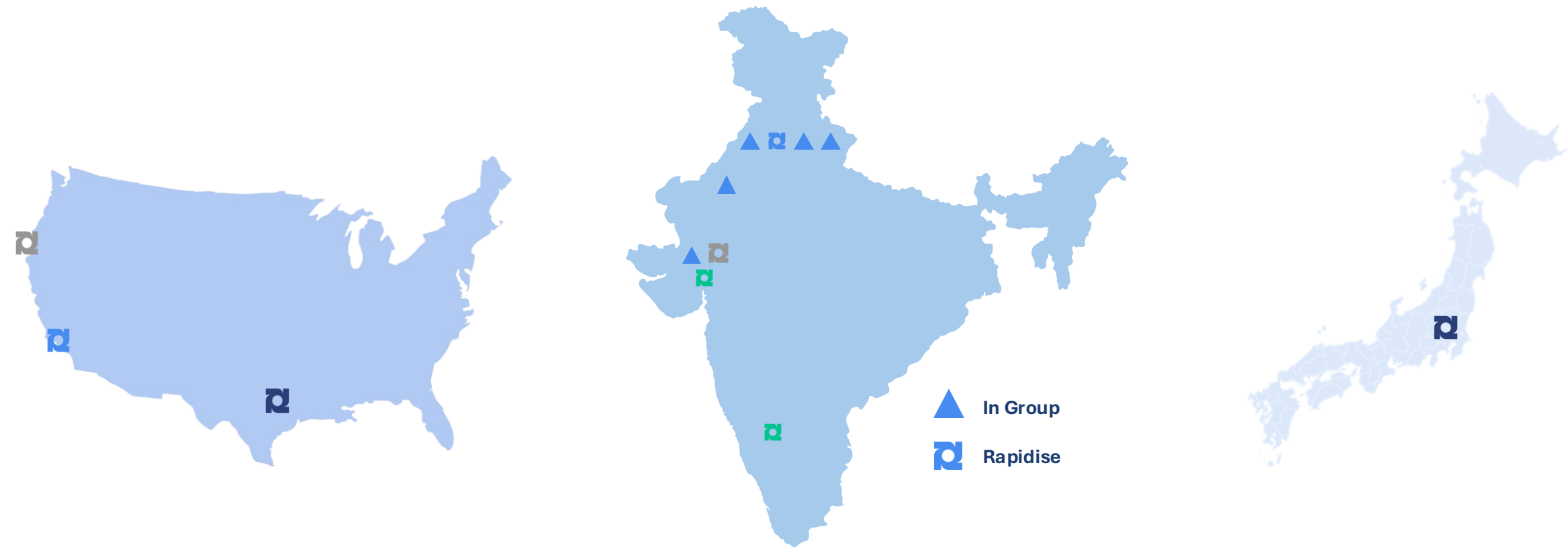|			
Manufacturing & Engineering Team	300+	SMT & PCBA Facilities	2
Successful Product Deliveries	135+	Full Product Assembly & Testing Lines	6
Satisfied Customers	100+	R&D, Development & Product Testing Centers	3

Global Footprint :

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In Group

Rapidise

USA

1 Manufacturing Facility	**1** Sales Offices	**1** USA HQ

India

3 R & D Centers	**9** Manufacturing Facilities	**1** India HQ

Japan

1 Sales Office

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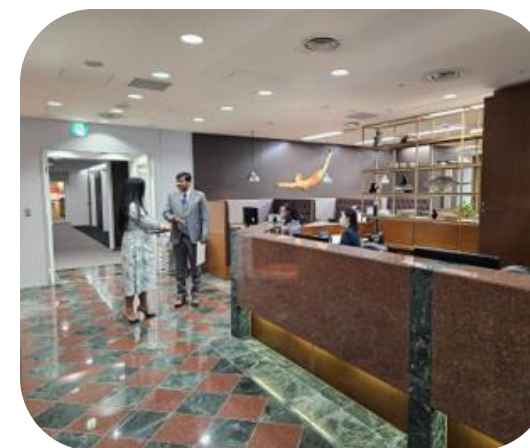# Global Locations - USA & Japan :

🇺🇸 **Executive Office -** Silicon Valley, California

🇯🇵 **Japan Head Sales Office -** Tokyo

🇺🇸 **Manufacturing Facility -** Los Angeles, USA

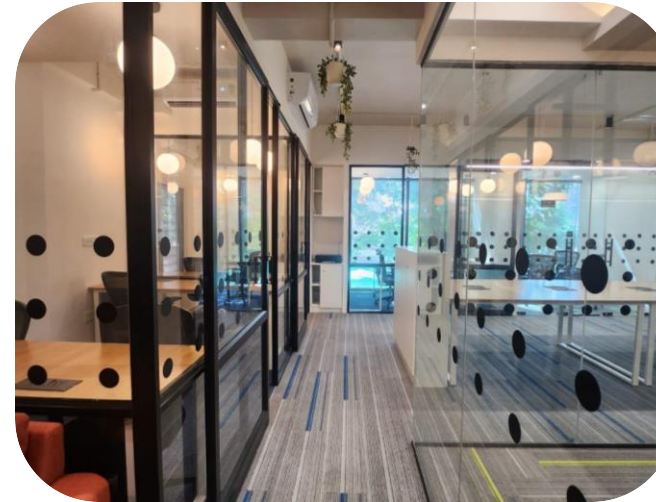# Global Locations – India Executive, Engineering and R&D :

IoT & AI - Design & Development Center, Ahmedabad

Executive Offices, Ahmedabad & Delhi

OEM Product R&D Center, Baroda

IoT & AI - Design & Development Center, Bangalore

Global Locations – India Manufacturing :

Primary Manufacturing Facility - Delhi

Secondary Manufacturing Facilities

Head Office & Plant-l
Manesar

R&D Centre and Plant-II
Manesar

Plant-III
Bhiwadi

Plant-IV
Halol

Plant-V
Haridwar

Plant-VI
Manesar

Plant-VII
Manesar

R&D Centre & Plant-VIII
**Pune**

Core Industries Served :

Consumer Electronics

- Tracking Devices
- Smart Home & Office/Building
- Home Diagnostic
- Connected Appliances
- Wearable Monitoring
- Voice Assistants & IoT Integration
- Smart Sensors & Monitoring

Security & Surveillance

- Video Management System
- Asset Tracker
- Camera Design & Manufacturing
- AI on Edge
- Access Control Systems
- Identity and Access Management (IAM)
- Security Information and Event Management (SIEM)
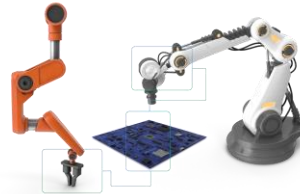
IoT & Industry 4.0

- AI Boxes
- IoT Gateways
- Connected Sensors
- Machine Monitoring
- Predictive Maintenance
- Edge Computing
- NB-IoT
- Digital Twins
- Hardware Product Development

Healthcare

- Health Analytics
- Online Patient Monitoring
- Electronic Health Records (EHR)
- Personalized Medicine and Health Analytics
- Telehealth & Telemedicine
- Remote Patient Monitoring (RPM)
- IoT Medical Devices

Automotive

- ADAS
- AutoSAR
- Android Auto
- Infotainment System
- AGL
- Battery Management System
- Vehicle-to-Everything (V2X) Communication

Services

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Product Engineering Service

- Embedded Hardware
- Embedded Software
- AI Development
- Information Technology (Web, Cloud Engineering, Mobility)
- Mechanical Design
- New Product Introduction

- IP - Accelerators

  - SOM
  - SBC
  - SDK
  - Telep AI Models

Electronics Manufacturing Service

- Supply Chain Setup & Procurement
- PCB Fabrication
- PCBA (SMT, DIP, TH)
- Cables & Wire Harness
- Mold Manufacturing
- Enclosure Manufacturing
- Automated & Manual Product Testing
- Product Assembly
- Packaging & Logistics

ODM Marketplace

- Ready Products
  - Beacons
  - Data Loggers
  - BLE Tags
  - Edge AI Box
  - Dash Camera
  - LTE Camera
  - Body Camera

- Strategic Revenue Driver towards ODM / OEM

Services- Engineering :

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Embedded Hardware

- Hardware Architecture
- BoM Optimization
- Electrical Schematic Design
- Multilayer PCB Layout Design
- High-Speed Board Design
- Analog & RF Design
- Certification & DFM
- Image, Audio, Antenna Tuning

AI Development

- Computer Vision
- Edge Computing & AI
- Algorithm Development
- Recommendation Engine
- Natural Language Processing
- ADAS & DMS
- Healthcare AI
- Predictive Maintenance

Mechanical Design

- New ID concept generation
- Product Design & Development
- Reverse Engineering & Concept designing
- Simulation and Analysis
- IP Standards Validation
- 3D Engineering

Embedded Software

- Bare Metal, RTOS, Linux, AOSP
- BSP, Device Driver and Firmware
- Linux Kernel Customization
- HAL, I2C, SPI, PCIe, WiFi, Cellular, Sensors
- Multimedia Codec & Framework
- FOTA - Firmware Over the Air
- User Interface Software

Information Technology

- Web & Mobile App Development
- API Development and integration
- IoT Dataflow Architecture
- Data Visualization
- Managed DevOps Services
- Cloud Engineering - AWS, Azure, GCP
- Robotic Process Automation
- Metaverse, AR/VR App

New Product Introduction

- Certifications
- DFM Analysis
- Supply Chain Management
- Automated Test Jigs
- Feature Enhancing and Re-engineering
- BOM Optimization
- Performance Optimization

Product Development Life Cycle :

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Phase 1
DESIGN

Key Deliverable

- Requirement Documentation & Technical Blueprints

Key Results:

- Product Requirement Specification (PRD)
- Architecture document
- Test Cases & Acceptance Criteria
- Component Selection & Bill Of Materials(BOM)

Phase 2
DEVELOPMENT

Key Deliverable

- Functional Prototype (1-20 Units)
- Proof of Concept Prototype (if Required)
- EVT Prototype

Key Results:

- Design Version 1.0
- PCB Schematic, Layout & Gerber Files
- Firmware Binary Source Files
- Mobile & Web Applications
- Mechanical Design CAD Files
- Cloud Architecture

Phase 3
CERTIFICATION

Key Deliverable

- DFM Prototype
- Certified Prototype
- DVT Prototype

Key Results:

- Design Version 2.0 :
  -Long Run Testing
  -Corner Cases
  -New Functionalities
- UL, CE, FCC Certifications
- Enclosure Mold Manufacturing
- Injection Molded Enclosure
- Automated Testing Zig

Phase 4
PRODUCTION READY UNIT

Key Deliverable

- Production - Ready Prototype /Golden Sample (50-100 Units)
- PVT Prototype

Key Results:

- Design Version 3.0 :
  - Field Testing
  - Performance Improvement
  - Battery Life Improvement

- Final Design For Manufacturing (DFM) Changes

- Final Manufacturable Design Files Injection Molded Enclosure

Phase 5
MASS PRODUCTION

Key Deliverable

- Fully Commercialized Product

Key Results:

- PCB Assembly & Manufacturing
- Component Supply Chain Management
- Packaging & Shipping
- Ongoing QA/QC Testing

4-8 WEEKS → 12-52 WEEKS → 4-16 WEEKS → 4-8 WEEKS → ONGOING

Products

Camera (Tejas)

Camera

LTE Edge AI LTE
Camera 12 TOPS

WiFi Edge AI LTE
Camera 48 TOPS

LTE Edge AI LTE
Camera 8 TOPS

WiFi Camera

Video
Doorbell

Dashcam

LTE Dashcam

WiFi Dashcam

Edge AI Dashcam

Edge AI Bodycam 8TOPS

LTE Bodycam

5G Bodycam

WiFi Bodycam

Trackers (Tekt)

Beacon

Lite N1

Pro N4

Safety

Tejas Safety Lite

Tejas Safety Pro

Smart Helmet

Smart Hook

Gateway / HMI (RISE)

AI Box 12 Tops

AI Box 8 Tops

8 TOPS HMI

SBC 6125

SOM 6490

SOM 5430

LTE Gateway
2 TOPS

Career Board for
6490/5430

SOM 8550

Career Board
For 8550

Services & Capabilities - Manufacturing :

Manufacturing Services

- Electronic Design Validation
- PCB Assembly (SMD, DIP, TH)
- Supply Chain & Sourcing
- Mold & Enclosure Manufacturing
- Prototyping
- Box Build & Full Product Assembly
- QA/QC & Testing
- Packaging
- Green Manufacturing

Manufacturing Capabilities

- 5 Million+ PCBs Delivered
- Manufacturing & Engineering Team of 500+
- 10 Electronics Manufacturing & PCBA Facilities
- 18 SMT & 22 Full Product Assembly Lines
- 6 R&D and Final Product Testing Centers
- SMT Area Rated Class 100,000 Clean Room
- Camera Module Assembly Area Rated Class 100,000 Clean Room
- Solder Paste Printer
- In line Solder Paste Inspection (Make: Kohyoung)
- Nitrogen and Lead-free Compatible Soldering
- Wave Soldering
- Solective Soldering (Make: ERSA)
- Pin INsertion Machine (Make: TE P350)
- Inspection- 3D Automatic Optical (Make: Omron)
- Inspection- In-line X Ray Machine (Viscom (Germany) and Shimadzu (Japan))
- PCB Cleaning (Make: Unitech)
  - Electromagnetic Testing (EMI & EMC), ESD (Electrostatic) Control workstation
  - Thermal, Humidity, Insulation Testing, Endurance & Ageing Testing
  - Climatic Chambers (Hot, Cold and Humid)
- Component mounting machine Capability:
  - Min : 0402mm/ 03015 inch
  - Max : 102*102*T 25.4 mm
  - Accuracy : 30 Micron

Services- Product Reliability Test Lab :

EMI Testing

- Electro Magnetic Interference
- ESD checker system
- ESD Simulator
- Semi Anechoic Chambers:
- EMI Test Receivers:
- RF Power Amplifiers:
- Pre-Amplifiers
- Antennas
- Directional Couplers
- BCI Probes

IP Rating

- Air Showers
- Bench Top Environmental Chamber
- Temperature & Humidity Test
- Salt Spray Chamber
- Dust Chamber
- Water Spray
- Thermal Shock
- Vibration Test
- Transient Voltage
- Laboratory Oven

RF Tuning

- Spectrum Analyzers
- Vector network Analyzers
- Signal Generators
- RF and Microwave Switches

EPC Testing

- 100x Microscope
- Profile Tuning Suite
- ESD protected production floors
- Electro-Static Discharge
- Dark Room for camera lens calibration
- Resistance Meter
- Power Analyzer
- Thermal Imager
- Function Generator
- Insulation Test
- Electronic Lead Test
- LCR Meter
- Highly Accelerated Stress Test
- Switch Endurance
- Oscilloscope
- ACG Rig Test Bench (Vehicle Simulation)
- Digital Call Box and Analog Call Box

Vehicle Testing

- Vehicle Cold Chamber
- Chassis Dynamometer

Water Spray Chamber

Salt spray & Thermal Shock

Accelerated Stress Test

Hot / Cold Environment Chamber

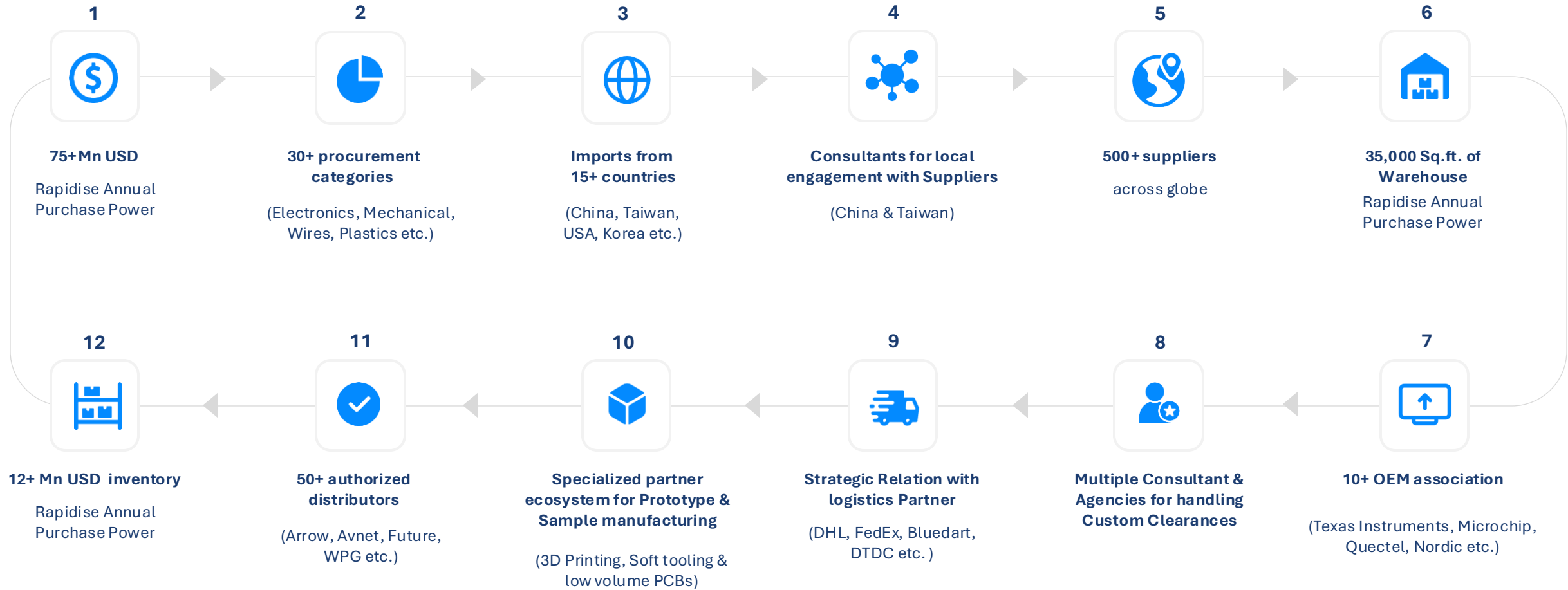MID Motor Performance Test Rig

Sensor Functional Tester

Performance Measurement

EMI-EMC

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Group-level- Supply Chain Capabilities :

1

75+ Mn USD

Rapidise Annual Purchase Power

2

30+ procurement categories

(Electronics, Mechanical, Wires, Plastics etc.)

3

Imports from 15+ countries

(China, Taiwan, USA, Korea etc.)

4

Consultants for local engagement with Suppliers

(China & Taiwan)

5

500+ suppliers

across globe

6

35,000 Sq.ft. of Warehouse

Rapidise Annual Purchase Power

12

12+ Mn USD inventory

Rapidise Annual Purchase Power

11

50+ authorized distributors

(Arrow, Avnet, Future, WPG etc.)

10

Specialized partner ecosystem for Prototype & Sample manufacturing

(3D Printing, Soft tooling & low volume PCBs)

9

Strategic Relation with logistics Partner

(DHL, FedEx, Bluedart, DTDC etc.)

8

Multiple Consultant & Agencies for handling Custom Clearances

7

10+ OEM association

(Texas Instruments, Microchip, Quectel, Nordic etc.)

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Deliveries Across Industries Served :

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Automotive

ADAS Camera

DMS Camera

Infotainment System

Vehicle Tracker

Location Tracker

Telematics

Instrument Cluster

Battery Management System

ECU

Consumer Electronics

Smart Watch

Personal Tracker

Smart Headphone

Smart Speaker

Smart Wi-Fi Plug

Laptop

Mobile

Smart Farming Device

Smart Grain Monitoring

Smart Mailbox

Security & Surveillance

VMS System

Tejas Safety

Surveillance Camera

Smart BLE Lock

Smart Access Control System

LoWRA Gateway

Wi-Fi Door Bell

Healthcare & Fitness
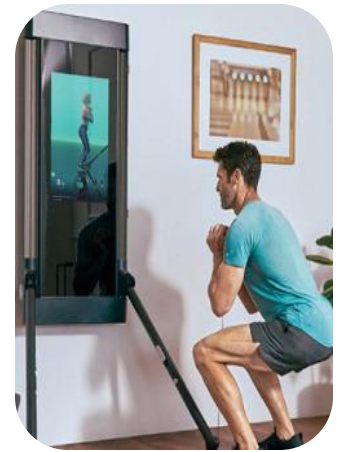
Fitness tracker

Smart headband

Smart Skin Care

Smart Yoga Mat

Smart Lap Counter

Smart Wound Care

Smart Trainer

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IOT and Connected Devices

Smart Tag

Smart Farming Device   Environmental Tracker

Personal Tracker

Asset Tracker

Router

Edge Gateway

ADAS Camera

Telematics

Smart headband

Fitness tracker

Smart Watch

Surveillance Camera   Smart Wi-Fi Plug   Smart BLE Lock

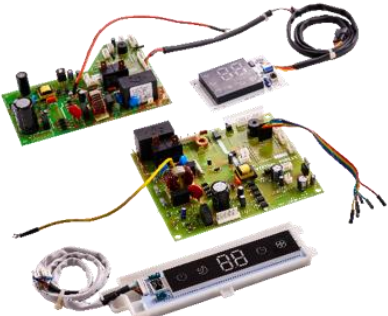Security Devices   Office Devices   Automotive Devices   Health Devices   Home Devices
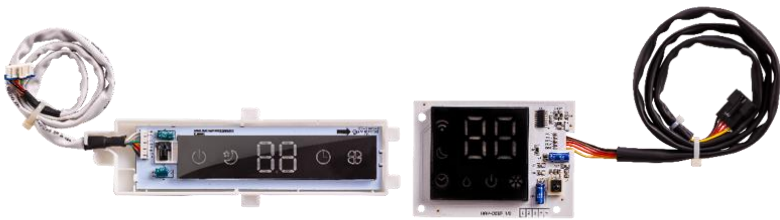
Industrial Application Controller / Controllers for Fans & Air Conditioners

Brushless DC Fan Controller

Internal Display Unit PCB

Internal Display Units (IDU)

Outdoor Unit PCB Assembly

Cloud Based Product Engineering & Electronics Manufacturing

Manage Your Entire Project Directly on Your Rapidise Cloud Dashboard:

- Instant Quoting of Project Efforts, Timeline, and Costing

- Complete Project Management & Delivery Tracking

- Risk Tracking, Escalations & Tickets

- Supply Chain, PO Management, Invoice & Reports

- Resources Management & Tracking

- ODM Product Marketplace, Talent Marketplace
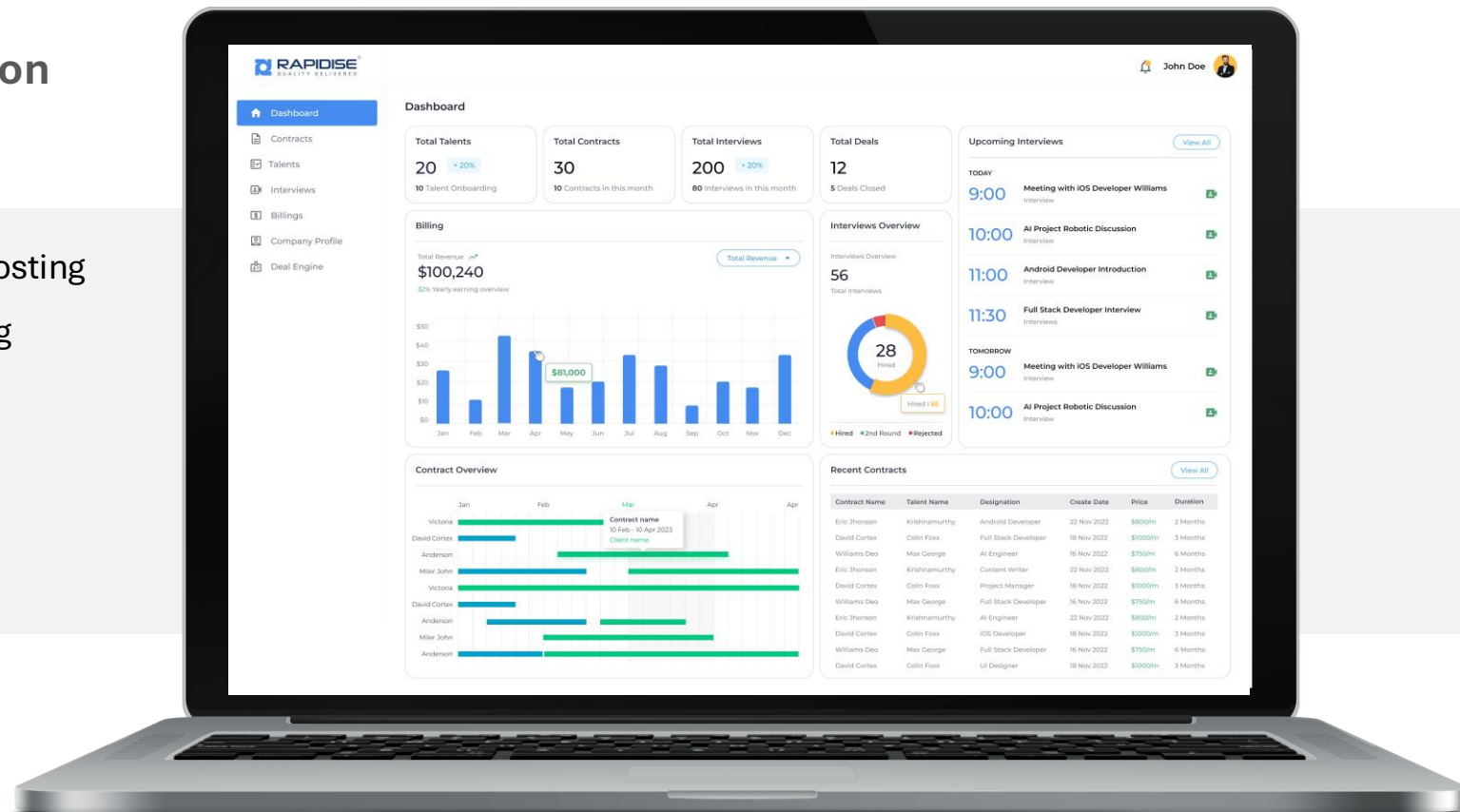
Partners & Plants/R&D Facility Certifications (Entire Group) :

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Certificates

EN ISO 13485

ISO 45001

OHSAS 18001

ESD ASSOCIATION
ANSI/ESD-S20.20

AS9100 CERTIFIED

ITAR

EN ISO 14001

ISO 9001

IATF 16949

Semiconductor Partners

Qualcomm

ST life.augmented

QUECTEL

brainchip

NXP

NORDIC SEMICONDUCTOR

RENESAS

Synaptics
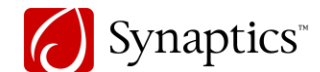
Strategic Partners & Suppliers :
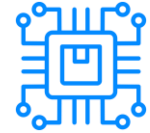
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IoT Product Engineering	Artificial Intelligence & Machine Learning	Digital Transformation	Electronics Manufacturing	PCBA & Full Product Assembly

🇺🇸 USA

1607 South Main Street Unit

Milpitas, CA 95035, USA

Email: business@rapidise.co

Phone: +1 (408) 439-1710

🇮🇳 India

4th Floor, Palladium Business Hub,

Ahmedabad, GJ 380005, India

Email: business@rapidise.co

Phone: +91 79492 60170

🇯🇵 Japan

Level 27, Tokyo Sankei Building

1-7-2 Otemachi Chiyoda-ku, Tokyo

Email: business.jp@rapidise.co

Phone: 03 3242 6217