

Company Profile



Your name

Your Job Title/Department

June 2024

Agenda

01 Introduction **Company Overview**

02 What IBASE Offers Product Lines and Solutions

03 Why IBASE Core Competence

04 How IBASE Works Product Design and Manufacturing

05 Success Stories Customer Case Studies

06 Summary Conclusion and Discussion

Company Snapshot



HQ

Taipei,
Taiwan



Founded

February
2000

**Design and Manufacturing of
Robust Computing Platforms**



Capital

US\$
66.5M



Revenue

US\$
193M
(2023)



**Stock
Code**

TPEX
8050
(Since 2003)



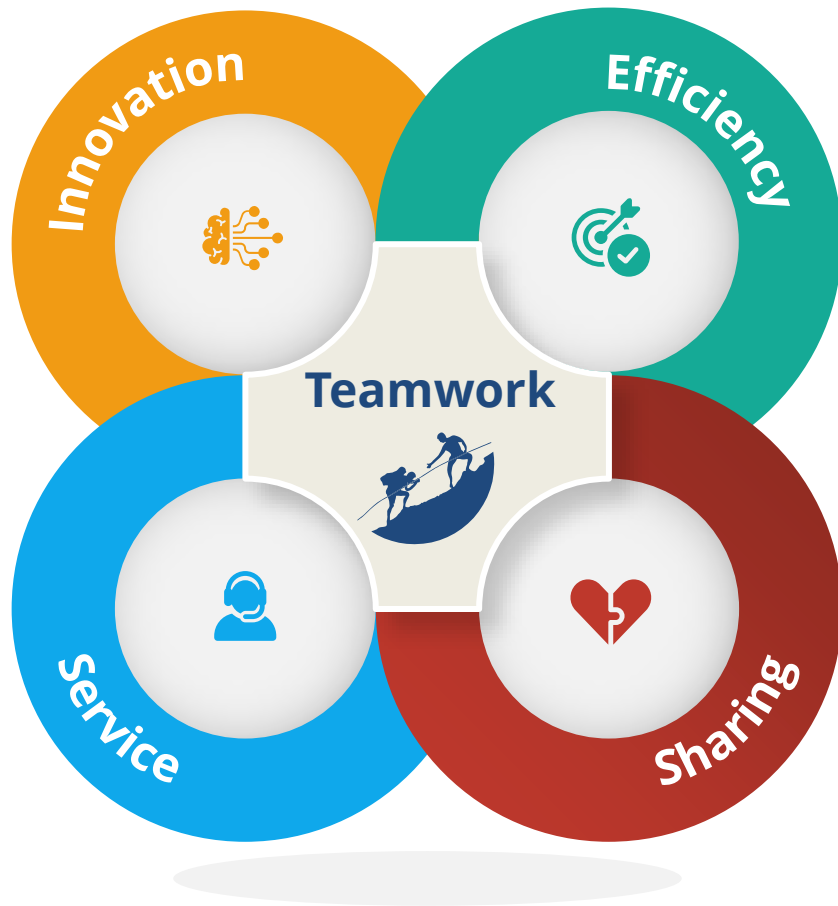
Chairman

C. S. Lin



Employees

980
(Worldwide)
750
(IBASE HQ)



Our ESG Commitments

[Download IBASE 2022 ESG Report](#)



Sustainable Development Goals (SDGs)

Aspects	SDGs Advocated by United Nations 
Social	  
Governance	   
Environmental	

IBASE ESG Execution Results

Targets

Results

Carbon Reduction

Greenhouse Gas Reduction
1,000tons CO2e

(Supply Chain GHG Reduction Project)

1,794.054
Tons CO2e/Year

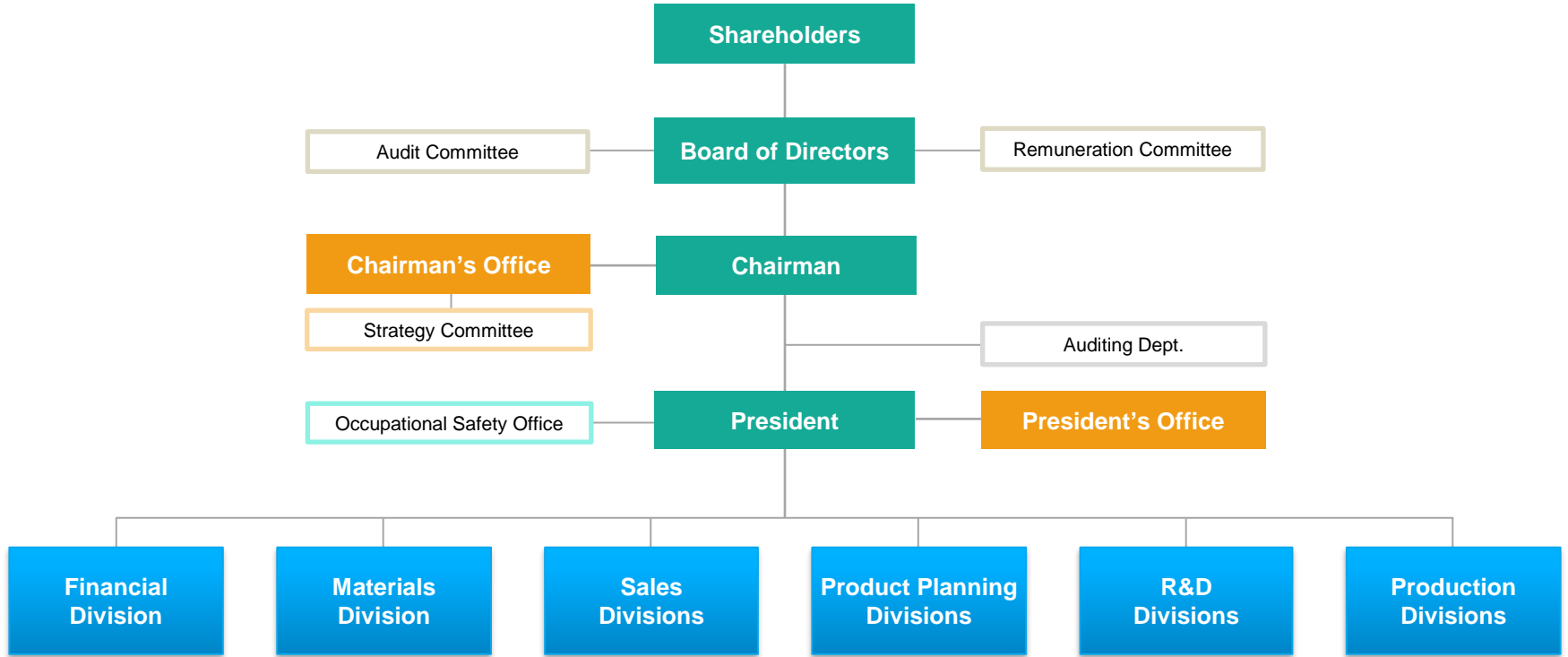
Green Electricity

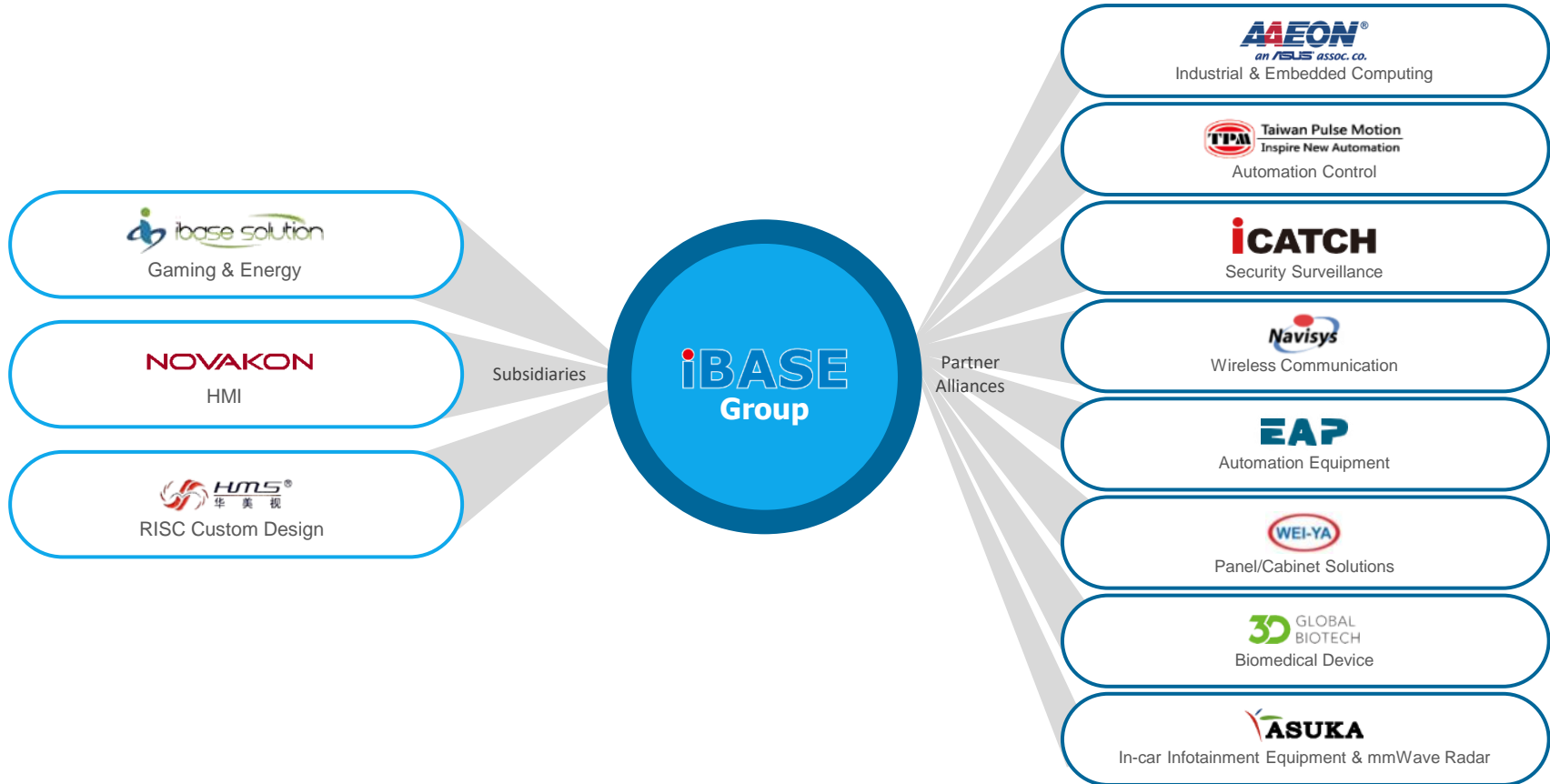
Build solar panels for our own use at the **Ping-Zhen Manufacturing Site.**



Estimates that a total of **696.595kw Sustainable Green Energy** will be produced in 2024.

IBASE Organization Chart





Worldwide Presence



**Design & Manufacturing
100% in Taiwan**

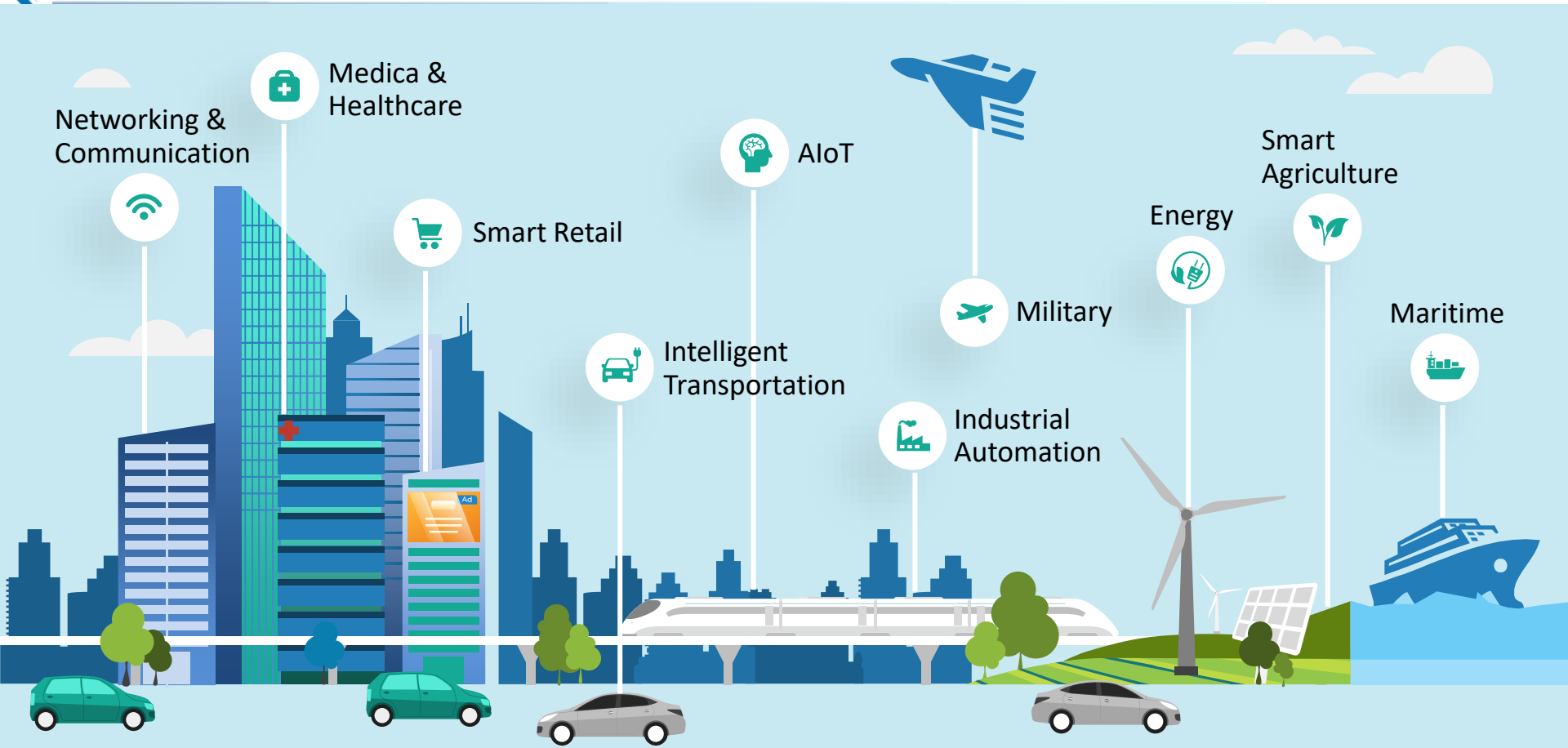
Headquarters
Taiwan
Taipei

Manufacturing Sites
Taiwan
Ping-Zhen

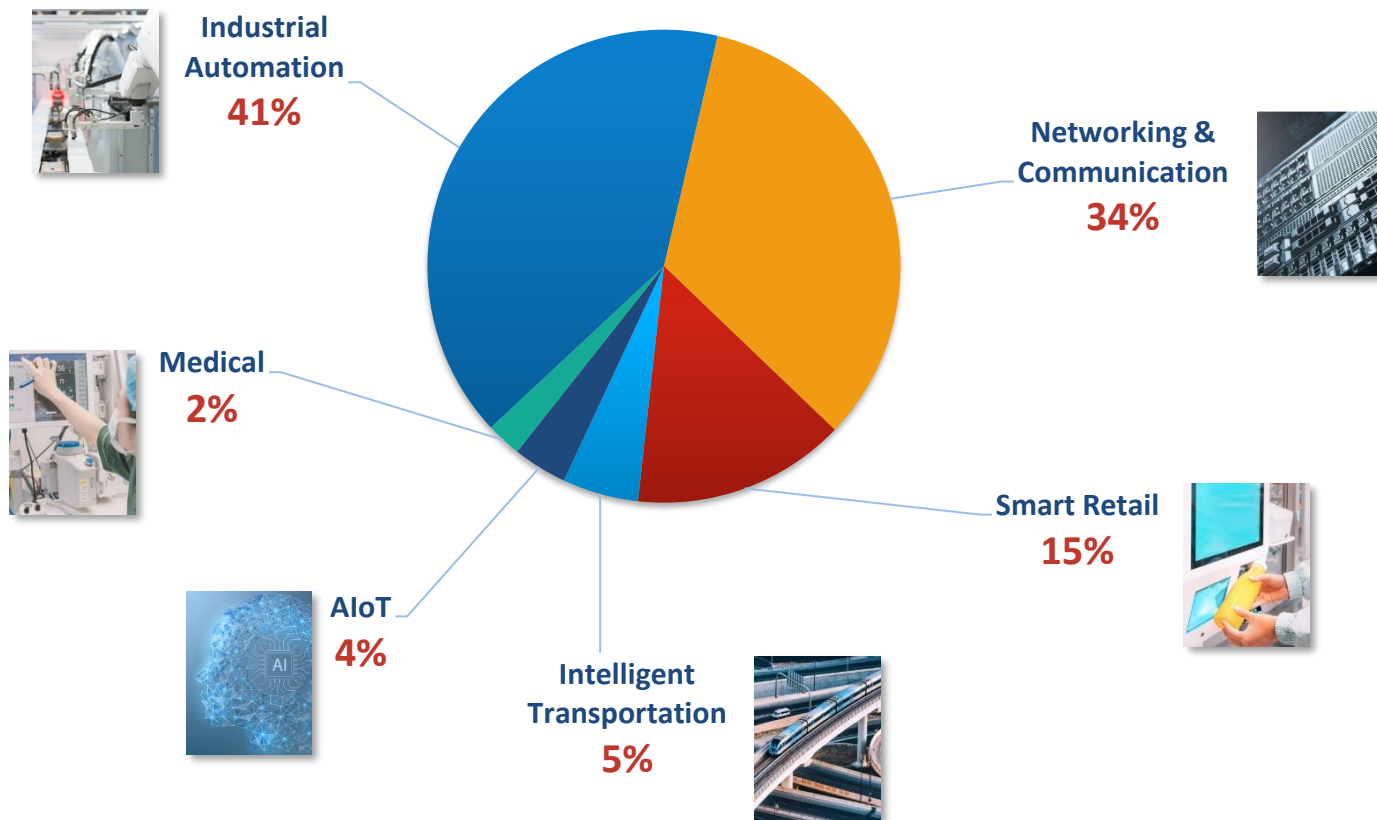
Hsin-Chuang

San-Chung

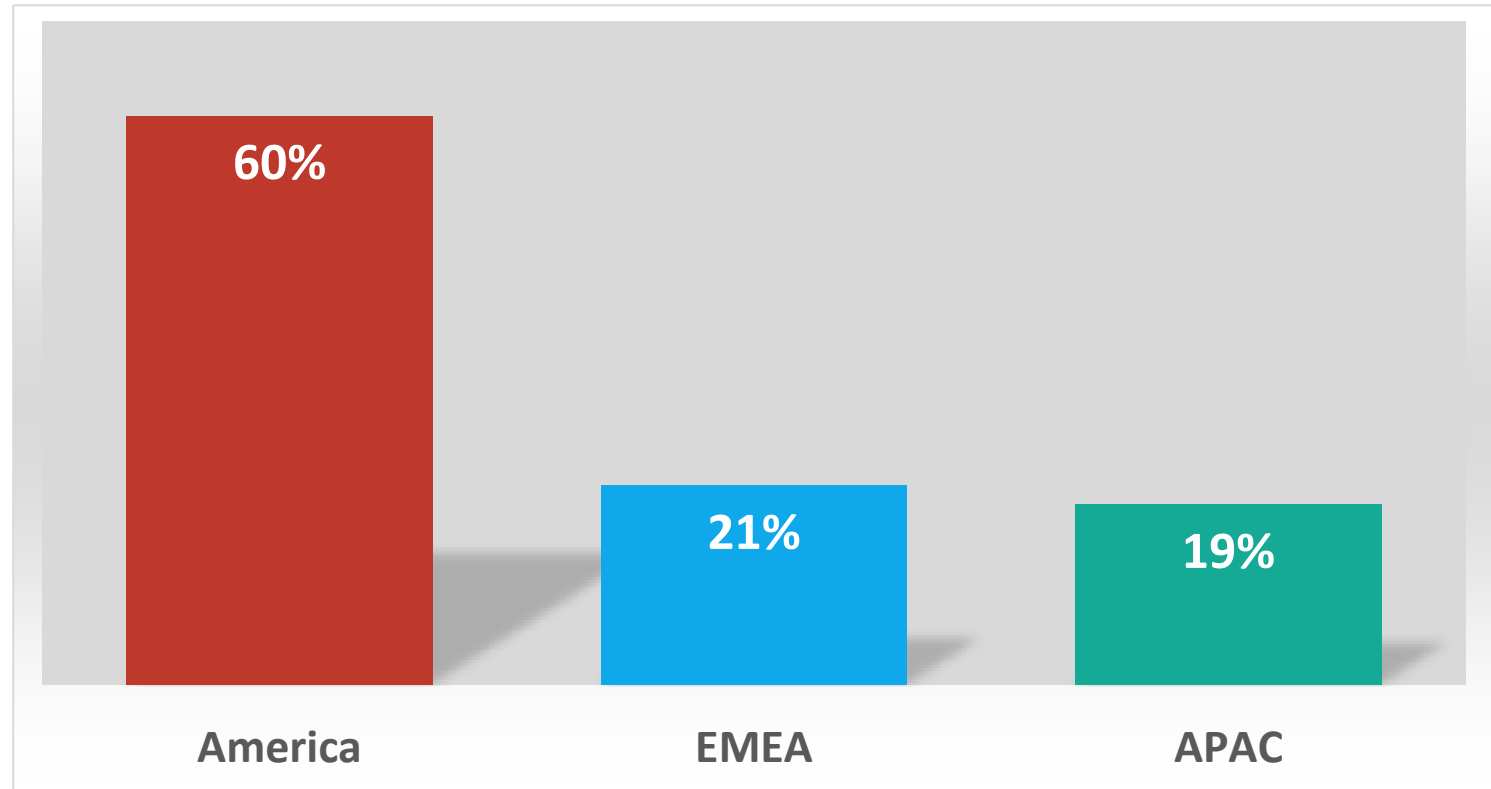
Vertical Applications



Sales Breakdown – By Application



Sales Breakdown – By Region



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IBASE Solution Offerings

Edge AI Computing



Embedded Computing



Intelligent System



Panel PC



RISC Platform



Network Appliance & SD-WAN



MEC Server



Digital Signage Player



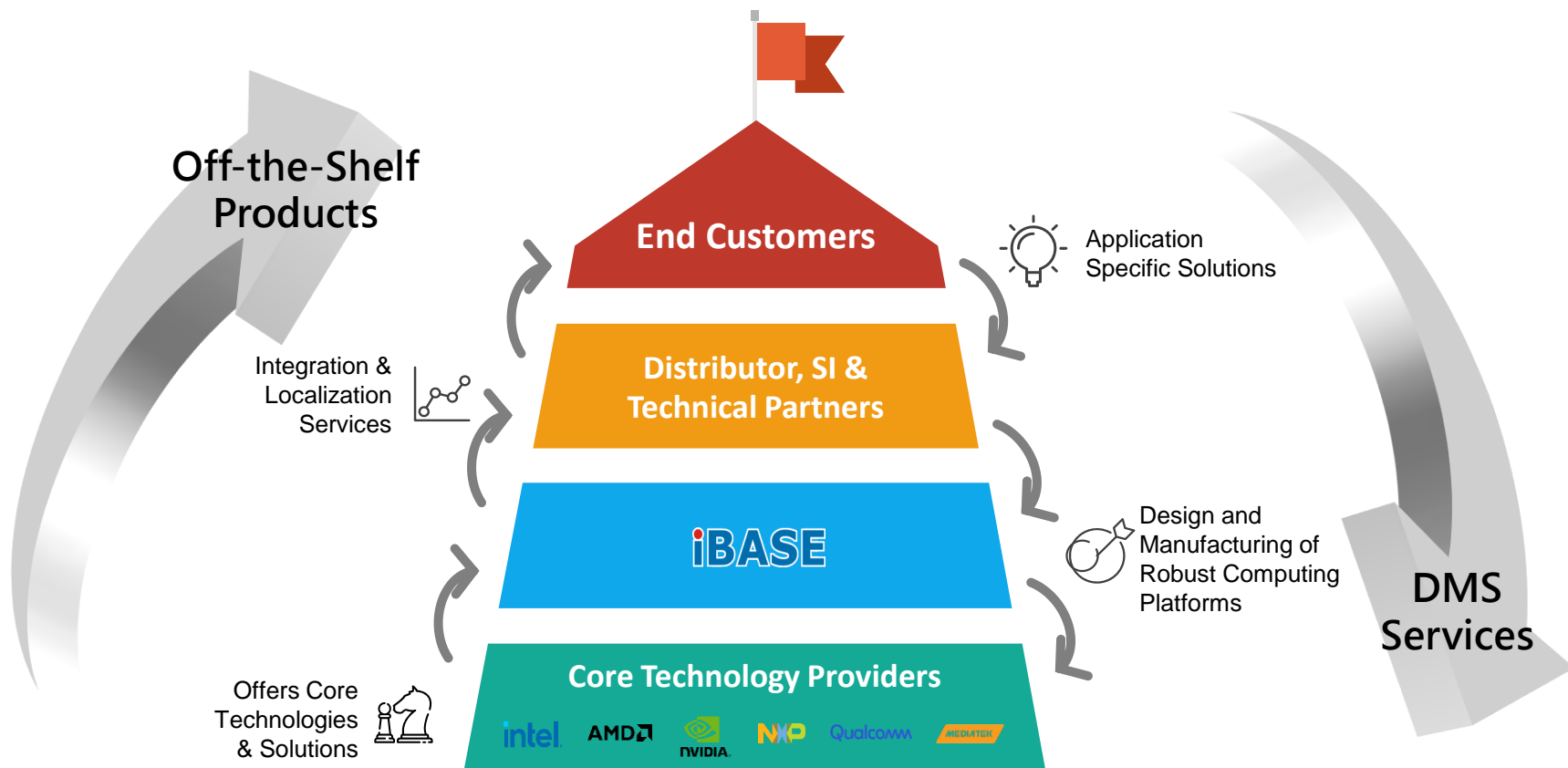
Intelligent Transportation System



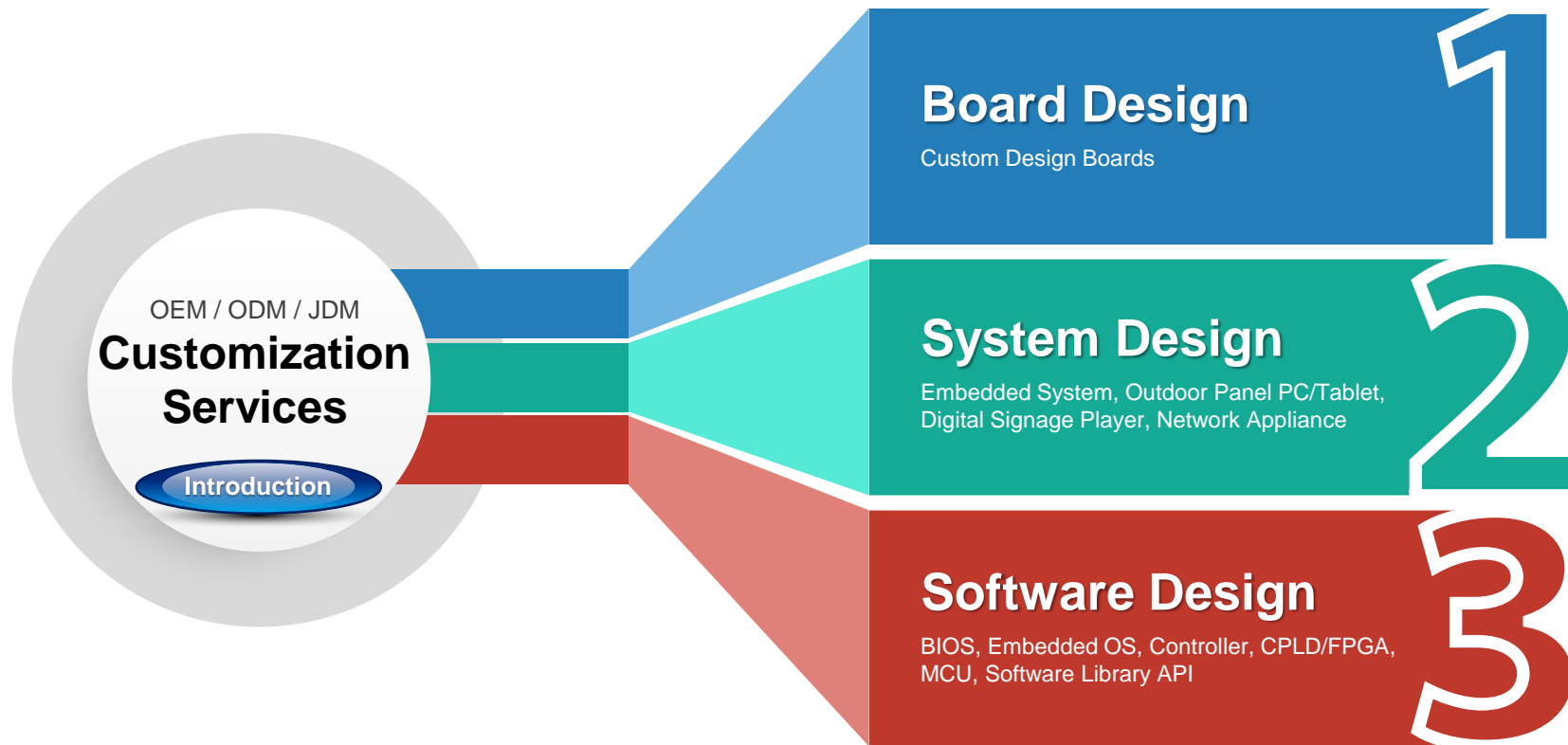
Customization Services



Core Business



Product Customization Services



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Core Competence – R&D Design Capabilities

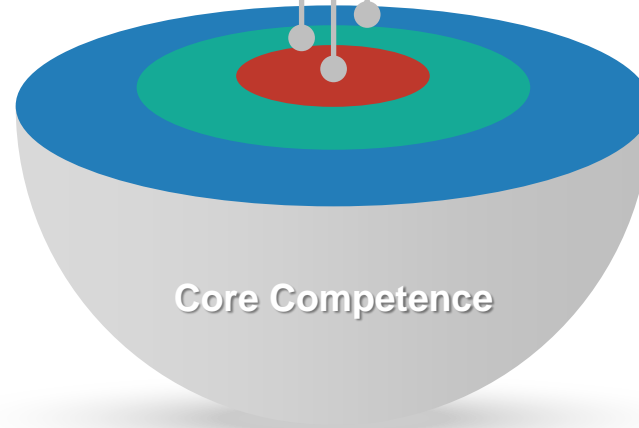
**Experienced, Reliable
& Highly Skilled
Engineering Team**



**Adaptive Innovation
& Custom Design
Capabilities**



**Rapid Prototyping &
Flexible Design for
Faster Time-to-Market**



Core Competence

R&D in Different Fields

Total: 133 R&D Engineers

Layout
Engineers



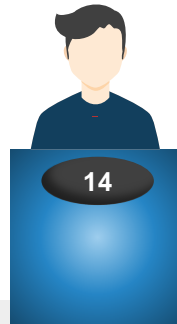
FAE



Mechanical
Engineers



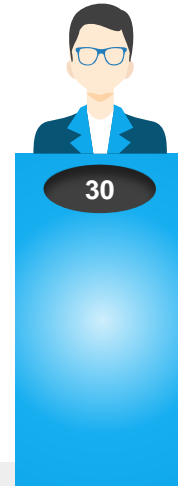
Test
Engineers



System
Engineers



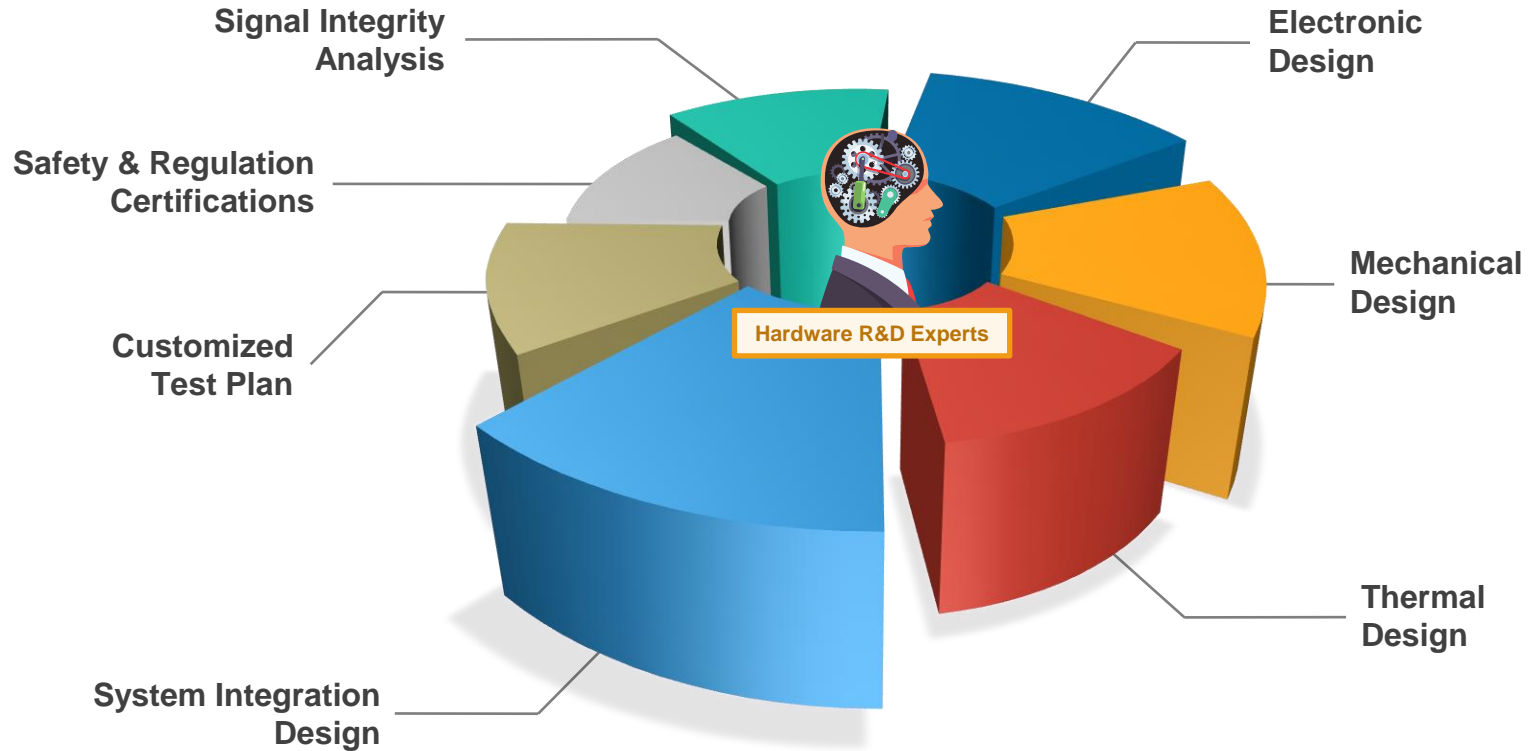
Software
Engineers



Electronics
Engineers



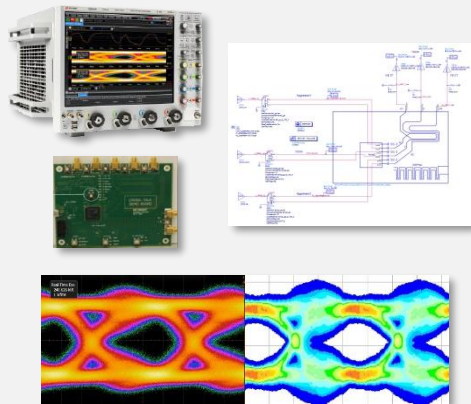
Hardware Development Capabilities



Advanced Hardware Simulation Tools

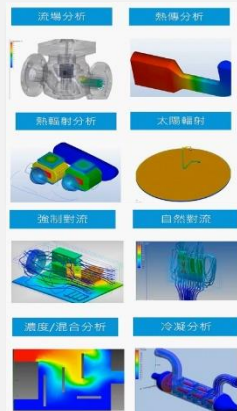
Signal Integrity Simulation Tool (for Board)

Keysight
Advanced Design System



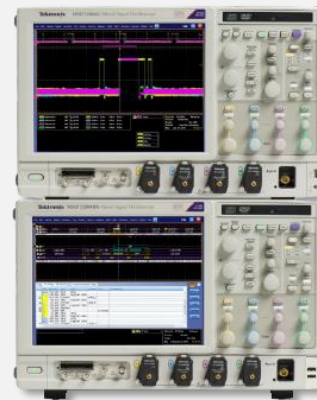
Thermal Simulation Tool (for System)

Autodesk
CFD Advanced

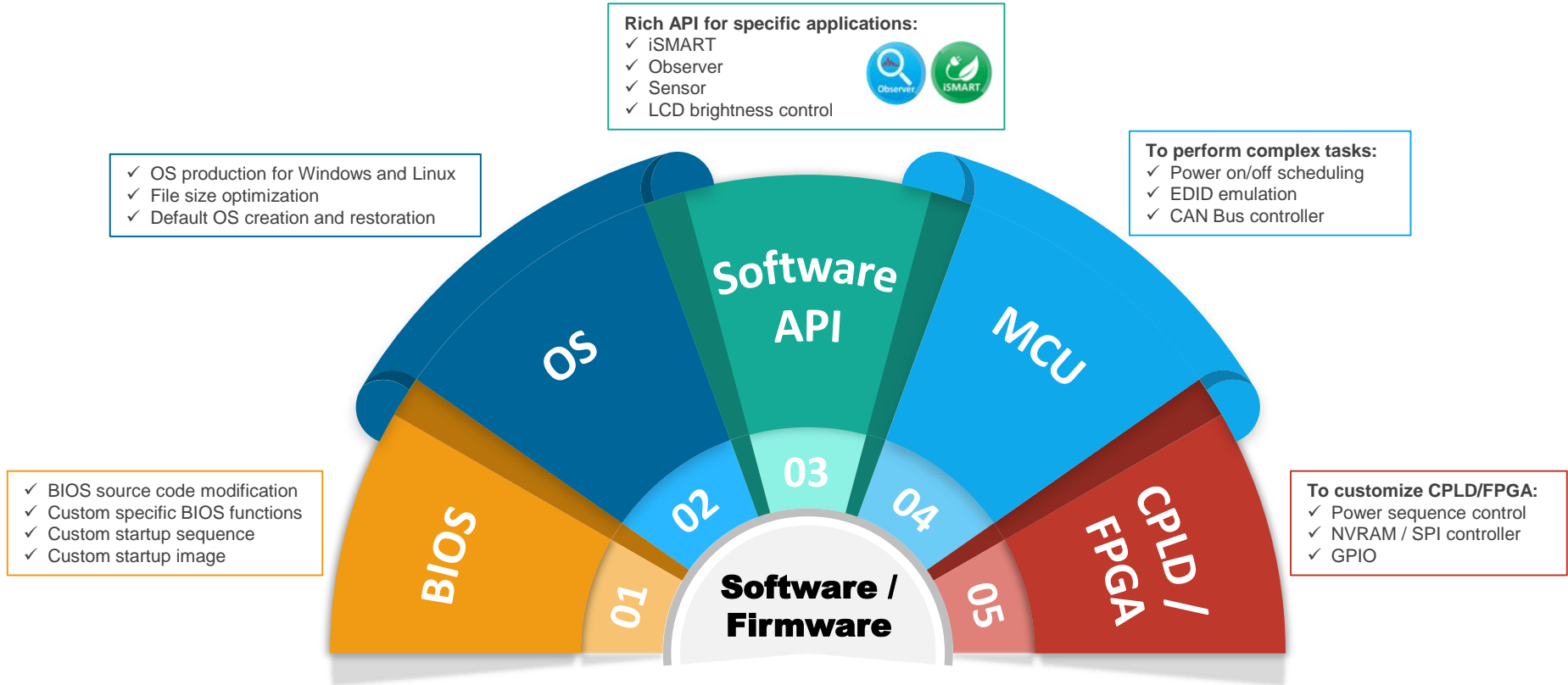


Digital and Mixed Signal Oscilloscopes

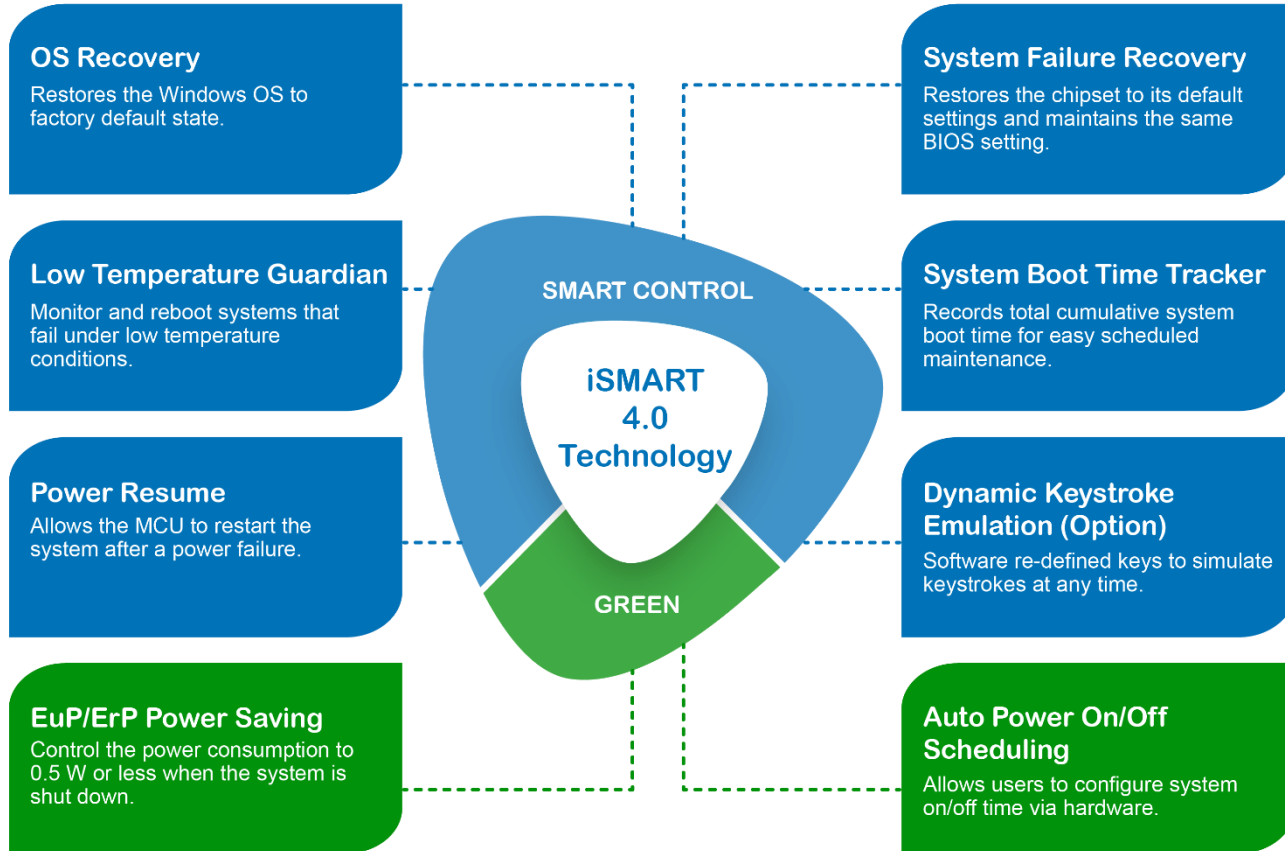
Tektronix
MSO/DPO70000 Series



Software/Firmware Development Capabilities



iSMART 4.0 Smart Control Green Technology



Third-Party Award-winning Recognitions



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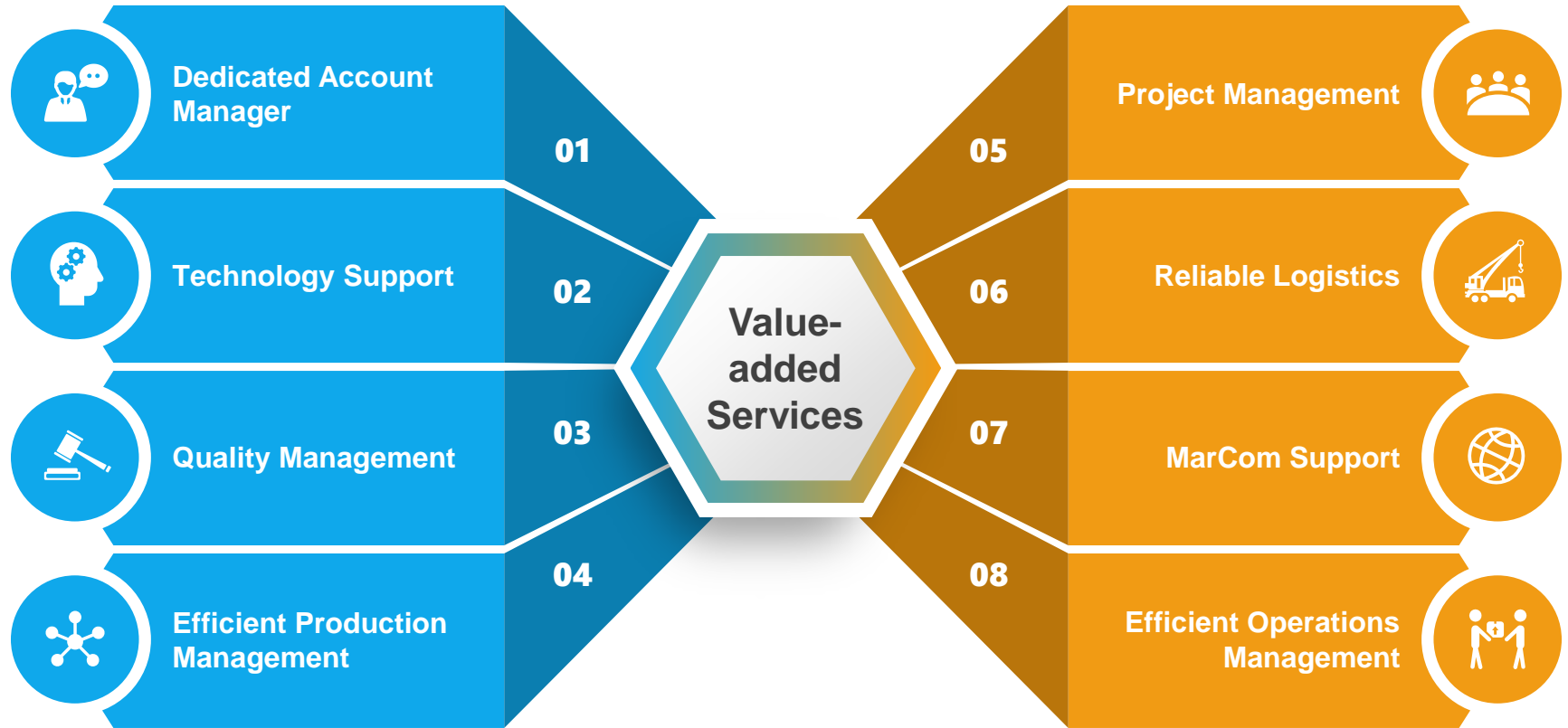
03 Why IBASE Core Competence

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How IBASE Works



Effective Product Management

**Strict
Revision Control**



**Extended
Product Life Cycle
Management**



**Reliable
Products**

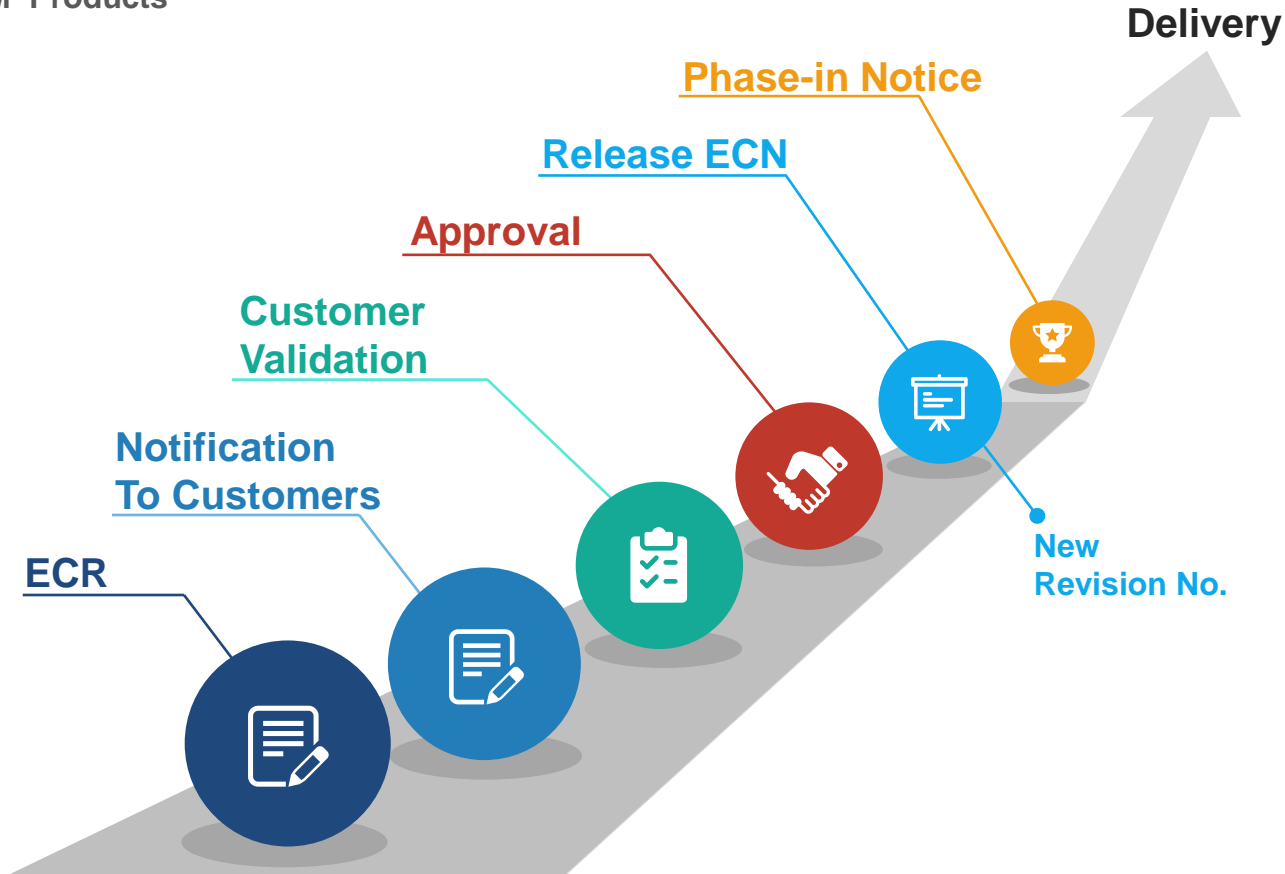


**Effective
Logistics
Management**

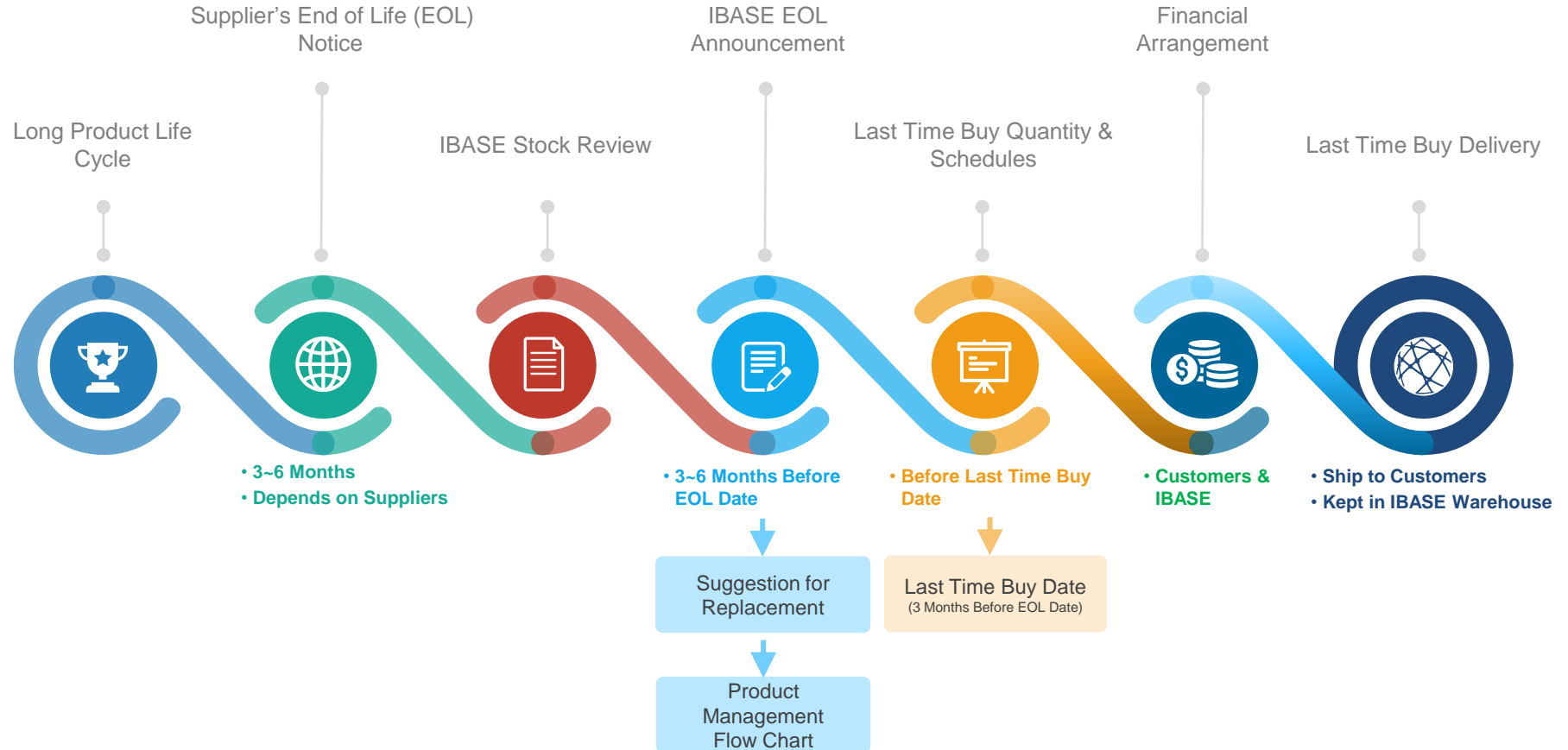


Product Longevity Management – Revision Control

ODM / JDM / OEM Products



Product Longevity Management – EOL



IBASE Manufacturing Sites in Taiwan



18,481 m² / 5,591 Ping

Ping-Zhen

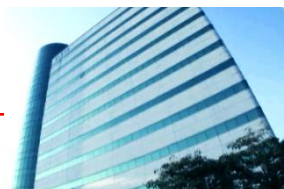
- ✓ Board Production
- ✓ System Assembly
- ✓ Validation



6,070 m² / 1,840 Ping

Hsin-Chuang

- ✓ System Assembly
- ✓ Validation



3,124 m² / 945 Ping

San-Chung

- ✓ Board Production
- ✓ Validation

Total Size

297,891 Square-feet
(27,675 m² / 8,376 Ping)

Capacity

- SMT Line x 7
- DIP Assembly Line x 4
- System Assembly Line x 10
- Cleanroom x 2
- Burn-in Room x 20

PCBA

80K/month (In-house Production)
+ Outsourcing

System Assembly

50K/month (In-house Production)
+ Outsourcing

Certifications



ISO 9001



ISO 14001



ISO 13485



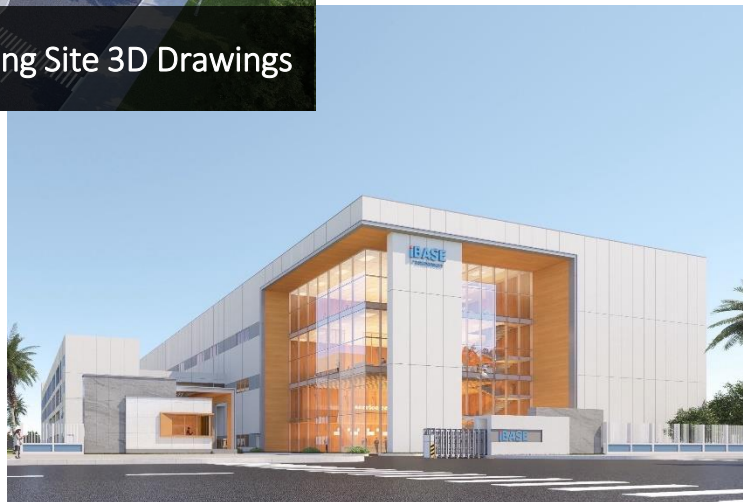
ISO 27001



IBASE Upcoming Manufacturing Site in Vietnam



Q1, 2025
Available



Estimated Total Size

194,106 Square-foot
(18,033 m² / 5,455 Ping)

Estimated Capacity

- SMT Line x 6
- DIP Assembly Line x 6
- System Assembly Line x 10

PCBA

60K/month

System Assembly

30K/month

Professional Production Lines



DIP Assembly Lines



SMT Lines



Press Fit



Touch Up Lines



Pre-test

Advanced Manufacturing Facilities



SMT Nitrogen Reflow Oven



X-Ray Component Counter



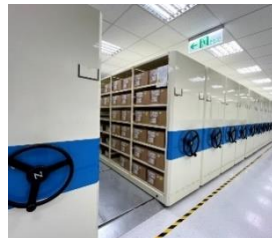
DIP AOI



Pick & Place



Smart Reel Rack



Warehouse



3D Automated Optical Inspection

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Success Story – Smart Warehouse Application

Warehouse Management

Equipped with automatic obstacle avoidance function, the system seamlessly completes missions along an automated orientation route.



Autonomous Mobile Robot System



Powered By
ASB200 Embedded System

Intel Core Platform



Success Story – Medical Application

CT Angiography

It provides X-ray imagery during interventional procedures employing a catheter and facilitates comprehensive treatments spanning the whole body, from the head to the lower extremities.



Digital Angiography
System



Powered By
IBASE ODM Panel PC

Intel Atom Platform



Success Story – Medical Application

3D Endoscopic Surgery

Harnessing AI deep learning technology, this system transforms 2D endoscopic images into 3D visuals, enhancing precision and safety of minimally invasive surgeries.



3D Visualization
System



Powered By
IBASE ODM System

Intel Core Platform



Success Story – Smart Agriculture Application

Intelligent Potato Sorting

The intelligent automatic sorting line effectively helps customers to perform high-speed and high-precision AI recognition, sorting, and grading on the farm.

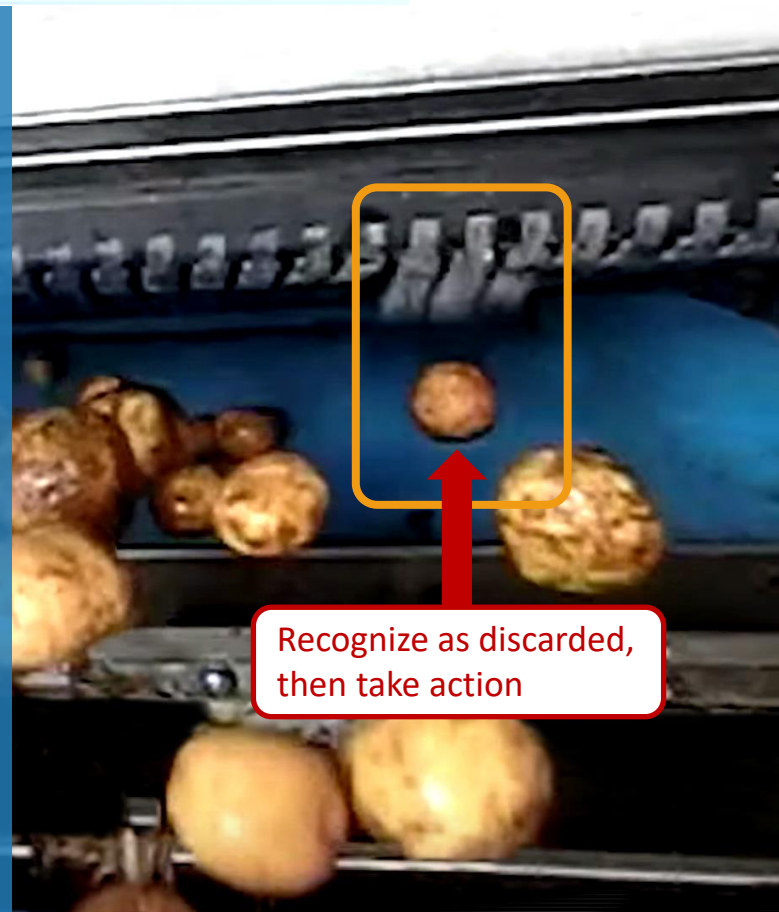


Vision Inspection
Sorting Control System



Powered By
MAF800 Industrial AI Computer

Intel Core Platform



Success Story – Intelligent Transportation Application

Metro Entrance Gates

The system has been used as a controller in the Taichung metro station in Taiwan for automatic passenger ticket verification, fare calculation and trip data collection.



Intelligent Fare
Collection System



Powered By
IBASE ODM System

Intel Atom Platform



Success Story – Intelligent Transportation Application

Metro Carriage Signage

The system furnishes up-to-the-minute information to metro passengers, enabling them to promptly access arrival, departure, and reminder messages.



Case Study
Video

Passenger Information
Display System (PIDS)



Powered By

MRD-028-N 27.6" Bar-Type PIS
Panel PC

Intel Atom Platform



Doors are Closing



Dilarang bersandar
di pintu kereta
Do not lean on the train

Success Story – Intelligent Transportation Application

Parking Management

The IoT-enabled smart parking meter offers highly efficient parking management services, including real-time occupancy detection and seamless online payment options.



Case Study
Video

Intelligent Parking Meter



Powered By
IBASE ODM Board + System Assembly

NXP Platform



Success Story – Intelligent Transportation Application

Charging Station Management

The charging station offers convenient swappable battery exchange services at locations such as gas stations, convenience stores, and parking lots for a renowned electric scooter company.



Battery Swapping Station



Powered By

IBASE ODM Outdoor Panel PC
+ System Assembly

Intel Celeron Platform

Sunlight Readable +
IP65 Waterproof

Outdoor Panel PC
ODM Introduction



Success Story – Smart Retail Application

Driving Range Scoreboard

Serving as a digital scoreboard, the durable outdoor panel PC tally shots and gather data to generate comprehensive scores for driving ranges across the globe.



Outdoor Entertainment System



Powered By
IBASE ODM Outdoor Panel PC

AMD Ryzen Platform

Sunlight Readable +
IP65 Waterproof

Outdoor Panel PC
ODM Introduction

Success Story – Smart Retail Application

Drive-In Menu Board

Employed as interactive menu board signage, the sunlight readable panel PC offers anti-reflection and waterproof properties, and convenient payment functions for drive-in restaurants.



Outdoor Ordering
System



Powered By
IBASE ODM Outdoor Panel PC

Intel Atom Platform



Sunlight Readable +
IP65 Waterproof

Outdoor Panel PC
ODM Introduction

Success Story – Smart Retail Application

Airport Video Wall

The signage player powered an expansive video wall at Hong Kong International Airport, featuring multi-port displays for an eye-catching and stunning visual experience.



Video Wall AD
Signage



Powered By
SI-614 Video Wall Signage Player

Intel Core Platform



Success Story – Smart Retail Application

Cinema Signage Boards

The signage boards were strategically placed above cinema ticket counters in Mexico, serving as menu boards and platforms for showcasing advertising messages.



Ticket Counter
Menu Board / AD
Signage



Powered By
SI-626 Menu Board Signage Player

Intel Core Platform



Success Story – Smart Retail Application

Outdoor Signage

The system synergizes self-service electric vehicle charging stations with outdoor signage, delivering instant charging updates and promotional information.



Self-service Electric Vehicle Charging Station Signage



Powered By
SI-12 Digital Signage Player

Intel Atom Platform



Success Story – Network Security Application

Data Center Firewall

The network appliance offers real-time, proactive protection by employing the data center firewall, ensuring comprehensive internal and external network security for enterprises.



Network Security
Appliance



Powered By
ODM Network Appliance

Intel Xeon Platform

Network Appliance
ODM Introduction

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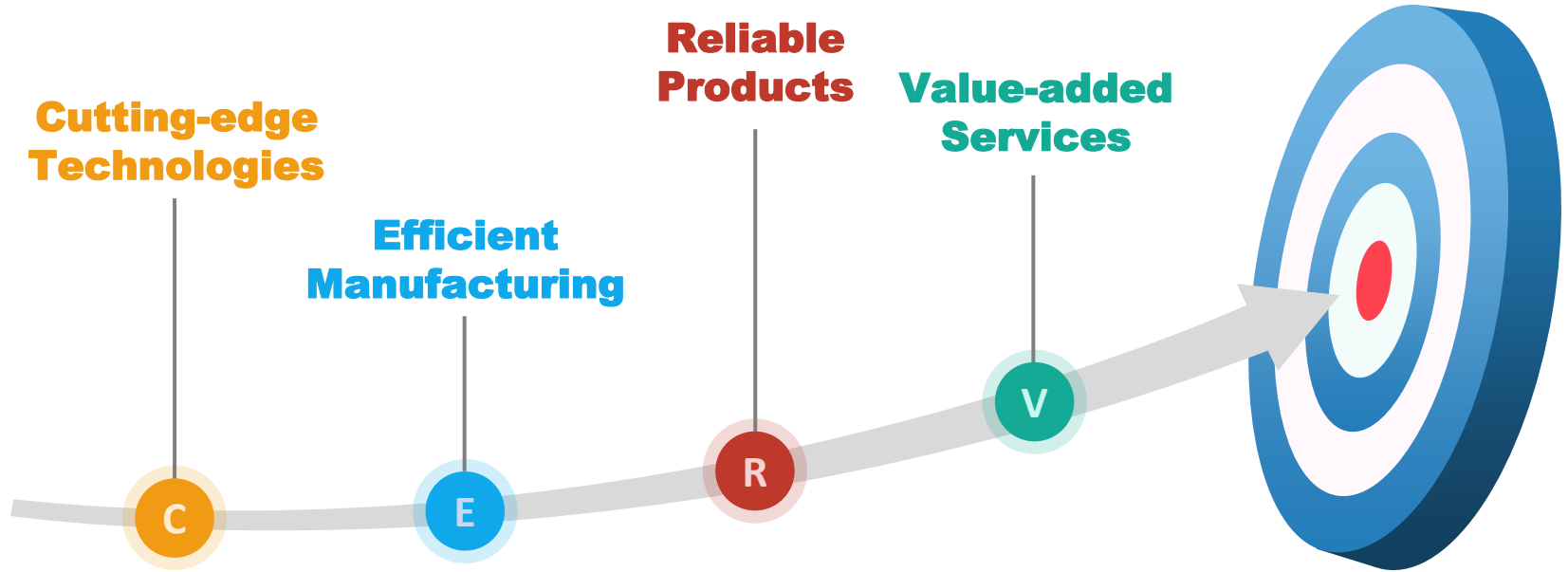
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In a Nutshell



IBASE – Your Trusted Partner



Thank You!



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www.ibase.com.tw

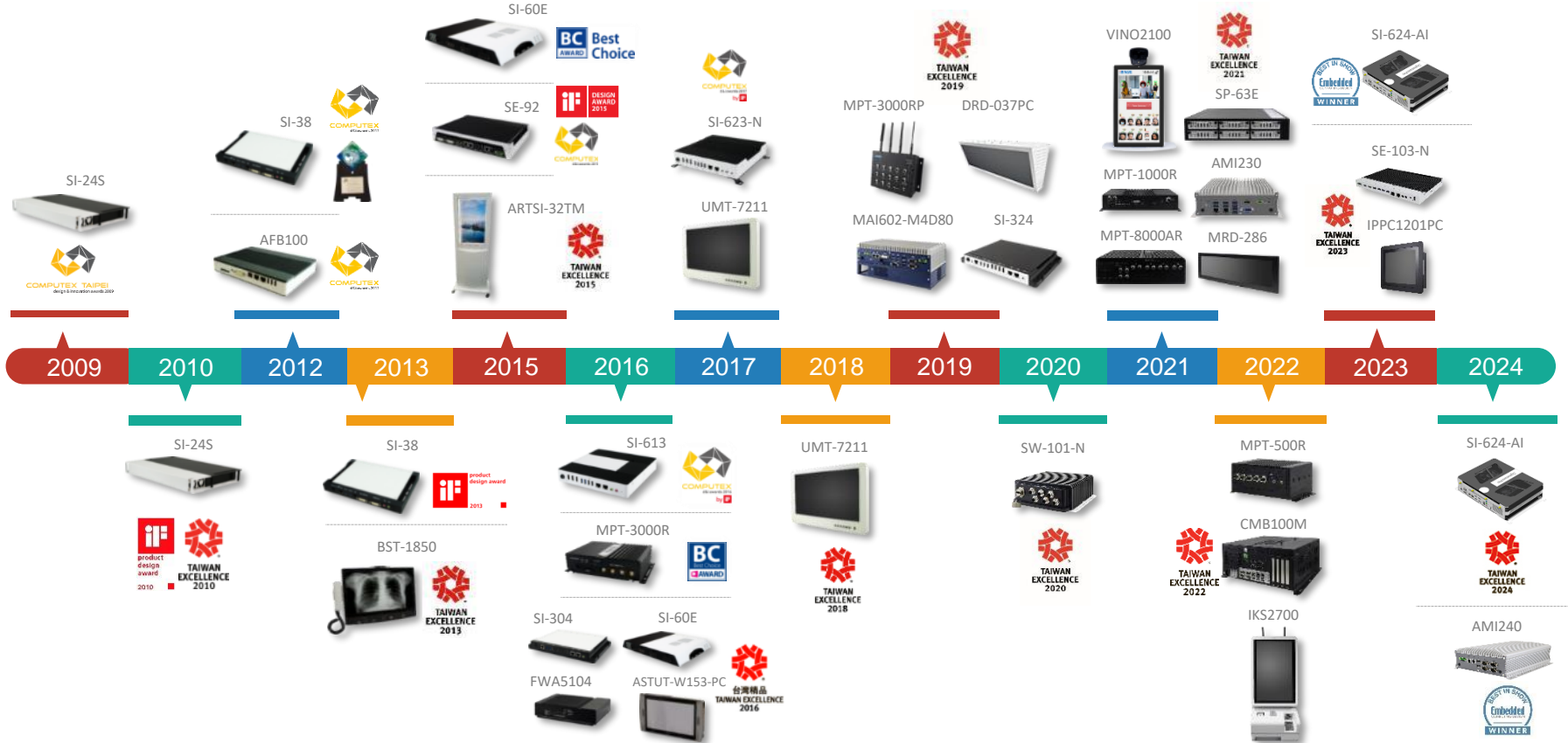


www.ibase.com.tw



Appendix

Award-winning Products



Patent Achievements

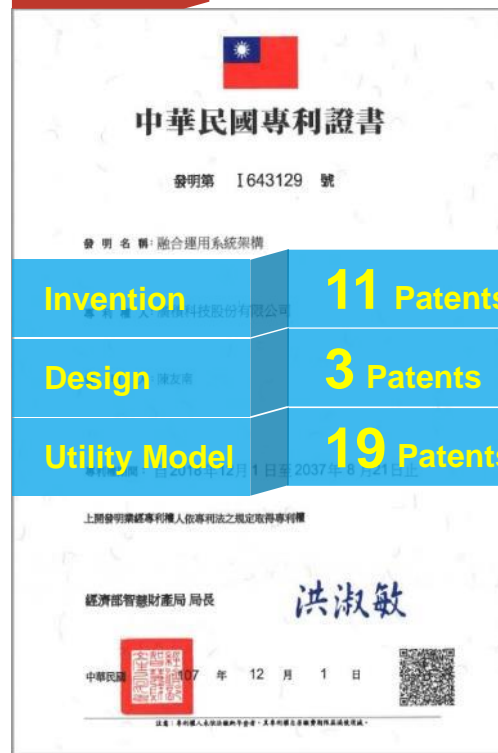
USA



Invention

5 Patents

Taiwan



Invention

11 Patents

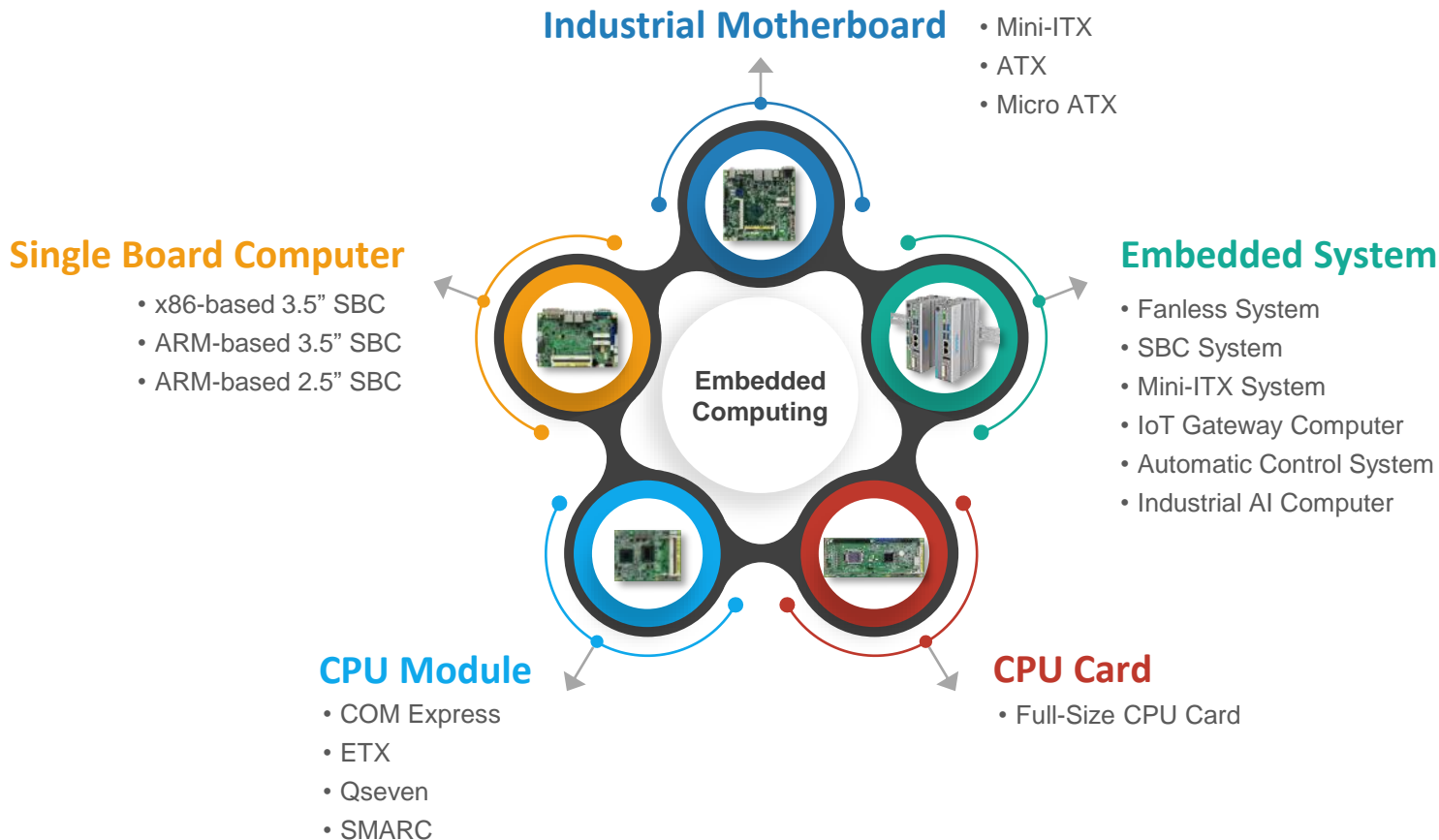
Design

3 Patents

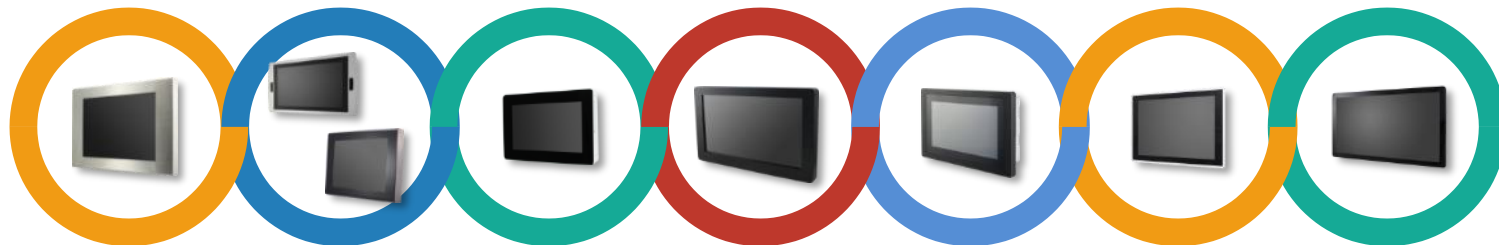
Utility Model

19 Patents

Embedded Computing Solutions



Panel PC Solutions



INOSP Series

Stainless Steel Panel PC

ASTUT/IPPC Series

Heavy-Duty Panel PC

BYTEM Series

Compact Panel PC

IDOOH Series

Outdoor Panel PC

BYARM / MRS Series

ARM-based Panel PC

OFP Series

Smart Retail Panel PC

UPC/IKS Series

Service Machine Panel PC



Livestock Petro



Ticketing Controlling



Vending Gate



Signage



Terminal Door Sign



Smart Retail



Kiosk Service Machine



Food Washing



Logistics FA



Kiosk Information



Information HMI



Signage









FA Controller



HMI

Digital Signage Player Solutions

					
Entry-Level	Mid-Range	Extreme Performance	Outdoor / In-vehicle	OPS	All-in-one Bar Type Display
<p>Intel-based</p> <ul style="list-style-type: none">▪ SI-111-N▪ SI-12-J19 <p>AMD-based</p> <ul style="list-style-type: none">▪ SI-212-N	<p>Intel-based</p> <ul style="list-style-type: none">▪ SI-613▪ SI-623-N▪ SI-642-N▪ SI-654(N)▪ SI-663-N <p>AMD-based</p> <ul style="list-style-type: none">▪ SI-324▪ SI-324-N▪ SI-323-N▪ SI-334	<p>Intel-based w/ AMD/NVIDIA GPU</p> <ul style="list-style-type: none">▪ SI-624▪ SI-614▪ SI-626▪ SI-62S▪ SI-61S▪ SI-30S▪ SP-63ER▪ SI-636	<p>Intel-based</p> <ul style="list-style-type: none">▪ SE-603-N▪ SE-103-N▪ SE-102-N▪ SI-12 <p>Waterproof</p> <ul style="list-style-type: none">▪ SW-101-N	<p>Intel-based</p> <ul style="list-style-type: none">▪ iOPS-602	<p>Intel-based</p> <ul style="list-style-type: none">▪ ARD-028-NA▪ ARD-037-N▪ ARD-042-N▪ ARD-048-N

Network & Communication Solutions



uCPE/SD-WAN Appliance & Edge Server

INA1600
INA8505



Rackmount Network Appliances

2U
INA7600

1U
INA3605
INA3604
INA3600
FWA8800
FWA8708
FWA8600
FWA8506
FWA8408
FWA8406
FWA6706R



Desktop Network Appliances

FWA6706D



Network Interface Modules

Expansion Module
Cards

RISC-based Panel System



BYARM-181-PC

18.5" All-in-one Panel PC



MRS-801-RE

8" Power-over-Ethernet Panel PC



**IPR-F04F-N
IPR-P07F-N
IPR-P10F-N
IPR-P12F-N
IPR-P15F-N**

Resistive Touch HMI

RISC-based Embedded System



**ISR101
ISR201
ISR215
ISR301**

Embedded Systems



SA-101-N

Fanless Signage Player

RISC-based SBC



**RM-QCS610
RM-N8M Series
RM-N8MMI Series
RM-F6 Series**

SMARC Modules



**PR-105
RP-103-SMC
RP-102-SMC**

Carrier Board for SMARC Modules



**IBR210
IBR117
IBR215
IBR115**

Industrial Grade SBCs

Intelligent Transportation Solutions

R Series

Railway Solutions



MPPC1001PC



MPPC1201PC



MPPC1501PC



MPT-500R



MPT-1000R



MPT-3000RP



MPT-3000R



MPT-7000R



MPT-8000AR

V Series

In-Vehicle Solutions



MPT-1000V



MPT-3000V



MPT-7000V

iCONTROL – Intelligent Control Technology

Hardware EDID Emulation



The hardware EDID (extended display identification data) emulation function prevents screen convergence issues due to cable disconnections, and erroneous wrong settings or digital playback software settings.

Display Status Monitoring



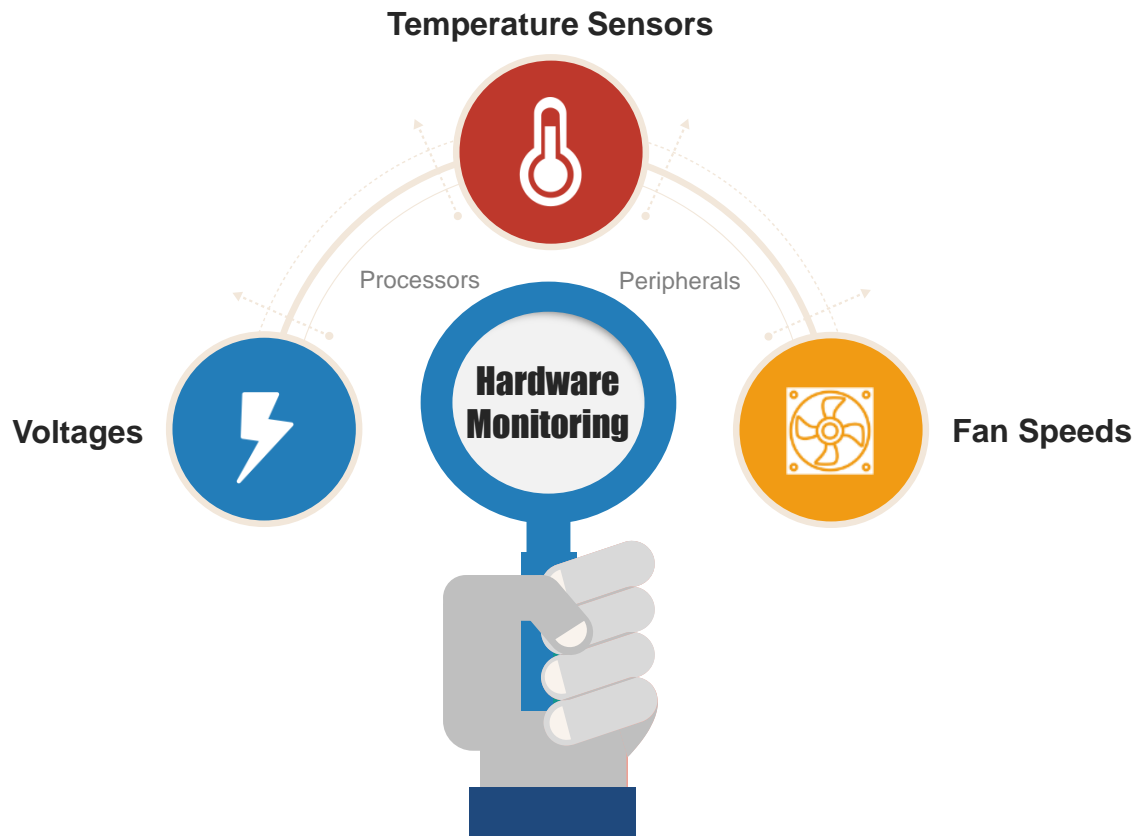
Built-in display monitoring function helps to continuously monitor display status from the field sites.

HDMI-CEC Function



CEC Allows for Display On/Off Remote Control via HDMI.

Observer Utility



Reliability & Compatibility Validation

Hardware

01

Electrical Validation - Low Speed Signal

- Clock / SMBus / SPI Waveform Test
 - Intel/AMD Power On Sequence Waveform Test
-

02

Electrical Validation - High Speed Signal

- USB / SATA / PCIE / Ethernet Eye Diagram Test
 - SFP+ / SFP28 / HDMI / DP Eye Diagram Test
-

03

Power Verification

- Transient and Ripple Measurement
- Output OC/OV Protection
- Turn On/Off Overshoot
- Power Efficiency Test
- Multi Phase Synchronous Control Test
- Thermal Compensation Test

Software

01

Mainstream OS

- Windows or Windows Server
 - Linux
-

02

Reliability

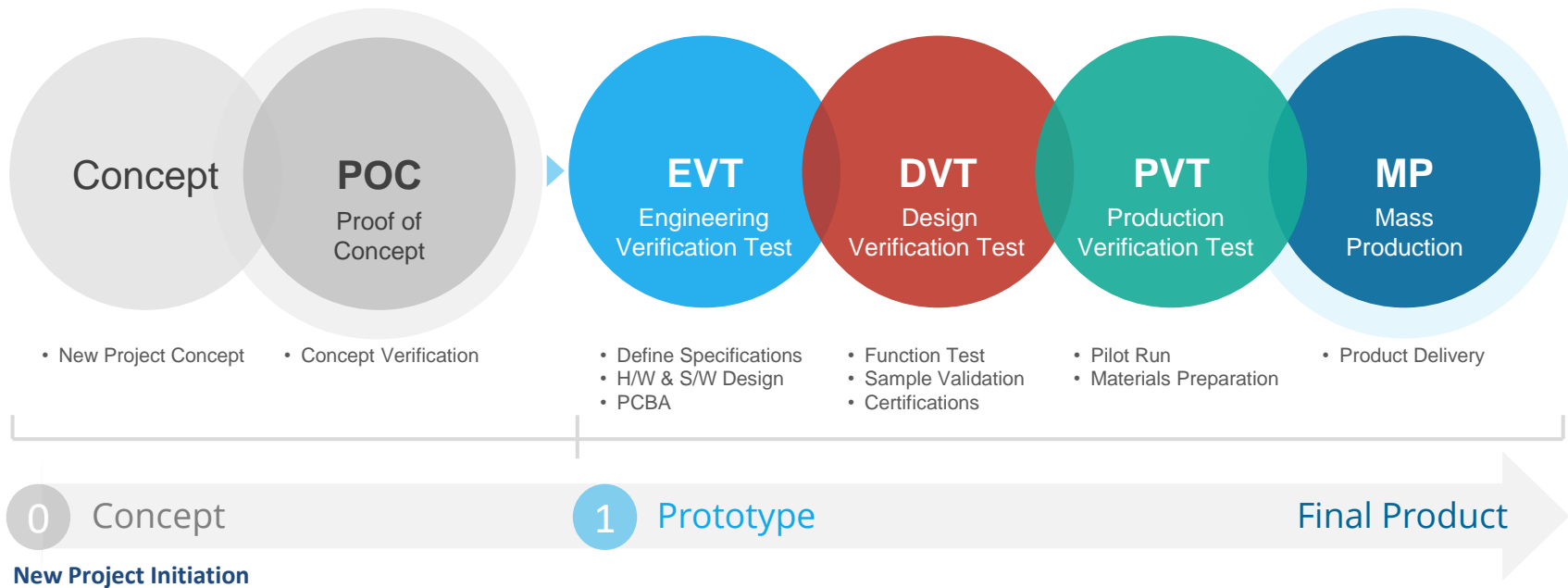
- 3DMark 11 Advanced Edition
 - FurMark
 - PassMark BurnInTest for Windows/Linux
 - MemTest86 Pro
 - MobileMark
 - PCMark Advanced Edition
-

03

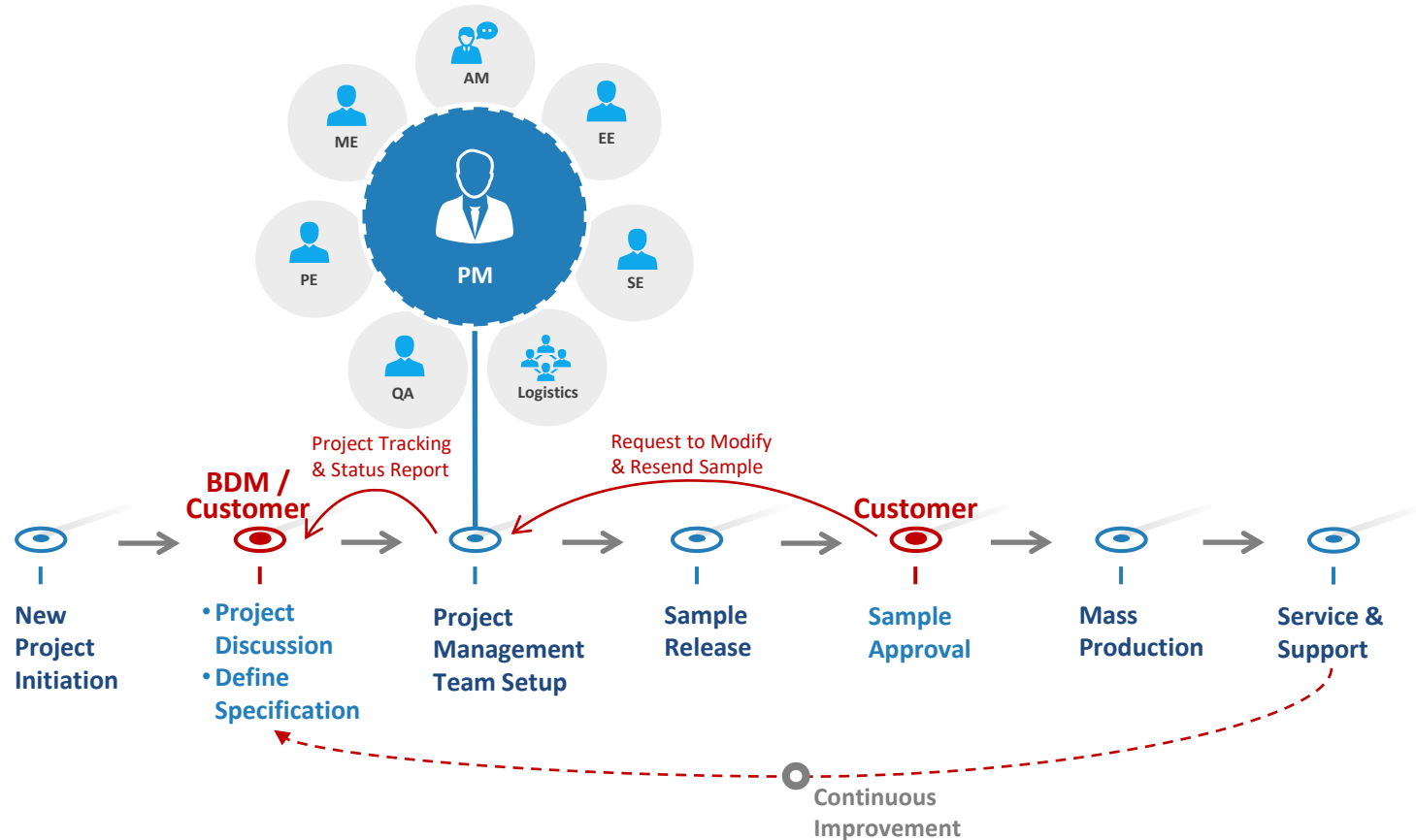
Performance

- Xena Network Throughput Test
- PassMark Performance Test
- 3DMark Fire Strike
- 3DMark 11 Advanced Edition
- PCMark

New Product Development Process





Custom Design Flow Chart





Testing Capabilities – Temperature Cycle & Vibration

Temperature Cycle



	IBASE	Outsourcing
Inside Dimension	800L / W100*H100*D80 cm	800L / W100*H100*D80 cm
Temperature Range	-40 ~ 100°C	-70 ~ 180°C
Ramp Rate	1°C /min	20°C /min
Photo		

Vibration



	IBASE	Outsourcing
Max Displacement	25 mm	100 mm
Max Velocity	1.6 m/s	2.0 m/s
Max Force	80kgf	12,750kgf
Frequency Range	3 ~ 2000 Hz	1 ~ 2000 Hz
Table Size	600*600 mm	2,000*2,000 mm
Photo		

Testing Capabilities – Drop & Mechanical Shock




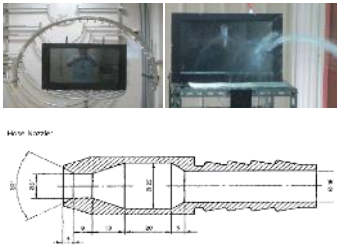
Drop

	IBASE	Outsourcing
Max Load	65 kg	Up to 2,800 kg
Drop Height	30 ~ 160 cm	220 cm
Photo		

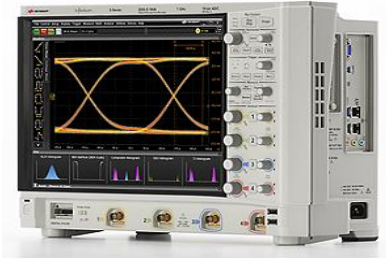
Mechanical Shock

	IBASE	Outsourcing
Max Acceleration	100 G	500 G
Table Size	500*500 mm	1,000*1,000 mm
Wave	Half-Sine, Square, Saw-Tooth	Half-Sine, Square, Saw-Tooth
Photo		


Testing Capabilities – Thermal Shock, Altitude, Dust & Water

	Thermal Shock	Altitude	Dust Test	Water Test
Inside Dimension	2,880L / W200*H120*D120 cm	4,800L / W150*H160*D200 cm	W300*H200*D160 cm	N/A
Temperature Range	-60 ~ 0°C / 60 ~ 130°C	N/A	N/A	N/A
Transfer Time	within 3 mins	N/A	N/A	N/A
Max. Bearing Capacity	800 kg	N/A	800 kg	N/A
Pressure Range	N/A	101.3 ~ 10 kPa	N/A	N/A
IEC 60529	N/A	N/A	IP5X / IP6X	IPX1 / IPX2, IPX3 / IPX4, IPX5 / IPX6
Photo				


Electrical Validation - Low Speed Signal


Digital and Mixed Signal Oscilloscopes		Test Items
Model	Keysight DSOS254A	<ul style="list-style-type: none">• Clock Waveform Test• Intel/AMD Power On Sequence Waveform Test• SMBus Waveform Test• SPI Waveform Test
Bandwidth	2.5GHz	
Sample Rate	20GS/s	
Analog Channel	4	
Photo		

Electrical Validation - High Speed Signal


Digital and Mixed Signal Oscilloscopes		Test Items
Model	Tektronix MSO73304DX	Compliance Test Solutions: <ul style="list-style-type: none">• USB 1.0/2.0/3.1/3.2 Eye Diagram Test• SATA Gen1/2/3 Eye Diagram Test• PCIE Gen1/2/3/4 Eye Diagram Test• Ethernet 1G/2.5G/5G/10G RJ45 Diagram Test• SFP+_10G/40G Eye Diagram Test• SFP28_25G/100G Eye Diagram Test• HDMI 1.4/2.0 Eye Diagram Test• DP1.2/1.4 Eye Diagram Test
Bandwidth	33GHz	
Sample Rate	100GS/s	
Analog Channel	4	
Photo		


Power Verification

Digital & Mixed Signal Oscilloscopes		Test Items
Model	Tektronix MSO64	<ul style="list-style-type: none"> • Transient Test • Power Regulation & Ripple/Noise • Output OC Protection • Output OV Protection • Turn-on Overshoot • Turn-off Undershoot • Power Efficiency Test • CPU Current Balance • Stability Measurement
Bandwidth	1GHz	
Sample Rate	25GS/s	
Analog Channel	4	
Photo		


DC Electronic Load		Test Items
Model	Chroma 63601-5	<ul style="list-style-type: none"> • Short Circuit Simulation • Pmax Measurement for OCP • Load Transient Response Simulate • Multi Phase Synchronous Control Test • Self-test at Power On
Voltage Range	0.8 ~ 80V	
Current Range	0 ~ 60A × 5	
Load Channel	5	
Photo		


Power Verification

DC Electronic Load		Test Item
Model	Vector Network Analyzer - Bode 100	<ul style="list-style-type: none"> • Complex gain of active and passive circuits • Complex impedance and admittance of active and passive devices • Swept S-parameters of electronic circuits and filters • Group delay characteristics
Frequency Range	1 Hz to 50 MHz	
Connector	Type B	
Input Voltage / Frequency	100...240 V / 47...63 Hz	
Photo		

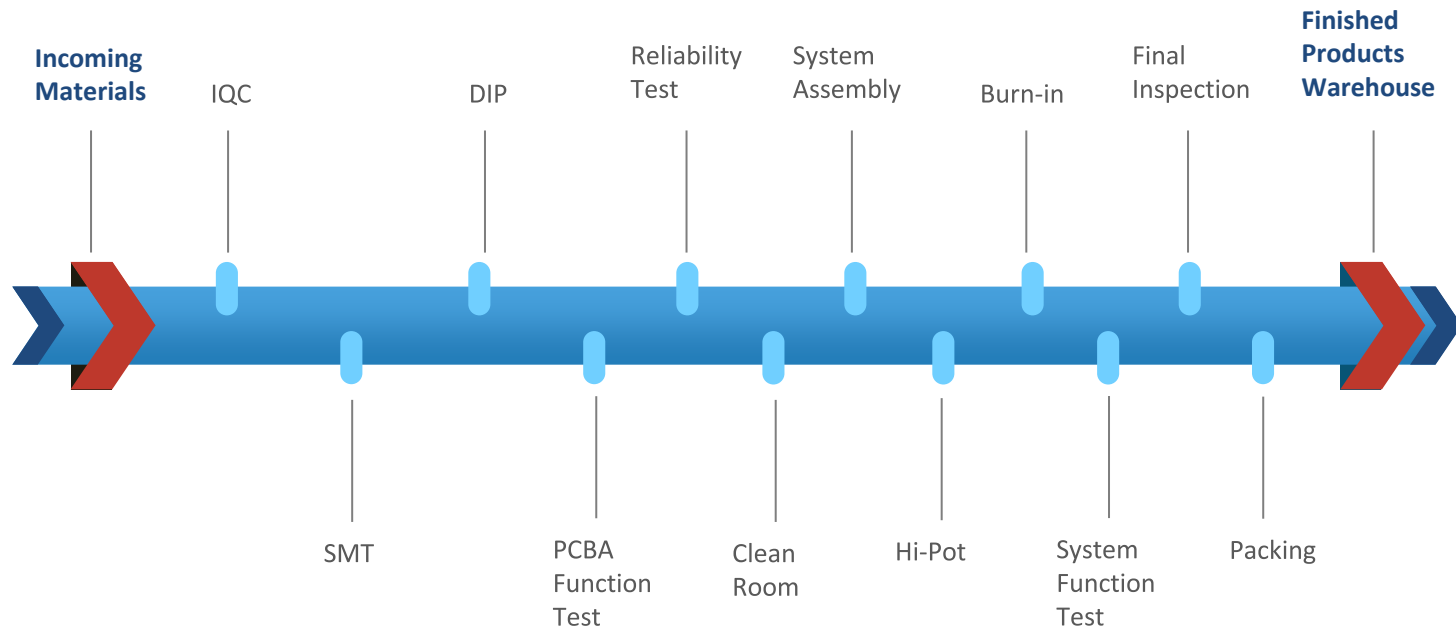
DC Electronic Load		Test Item
Model	62012P-40-120	<ul style="list-style-type: none"> • Soft Start Testing • Voltage Step Waveform • Pulse Charge of Battery • Life Cycle Testing • Line Regulation Testing • D/D Converter Surge Testing • D/D Converter Cycle Drop Testing
Voltage Range	0-40V	
Current Range	0-120A	
Output Power	1200W	
Photo		

Power Verification

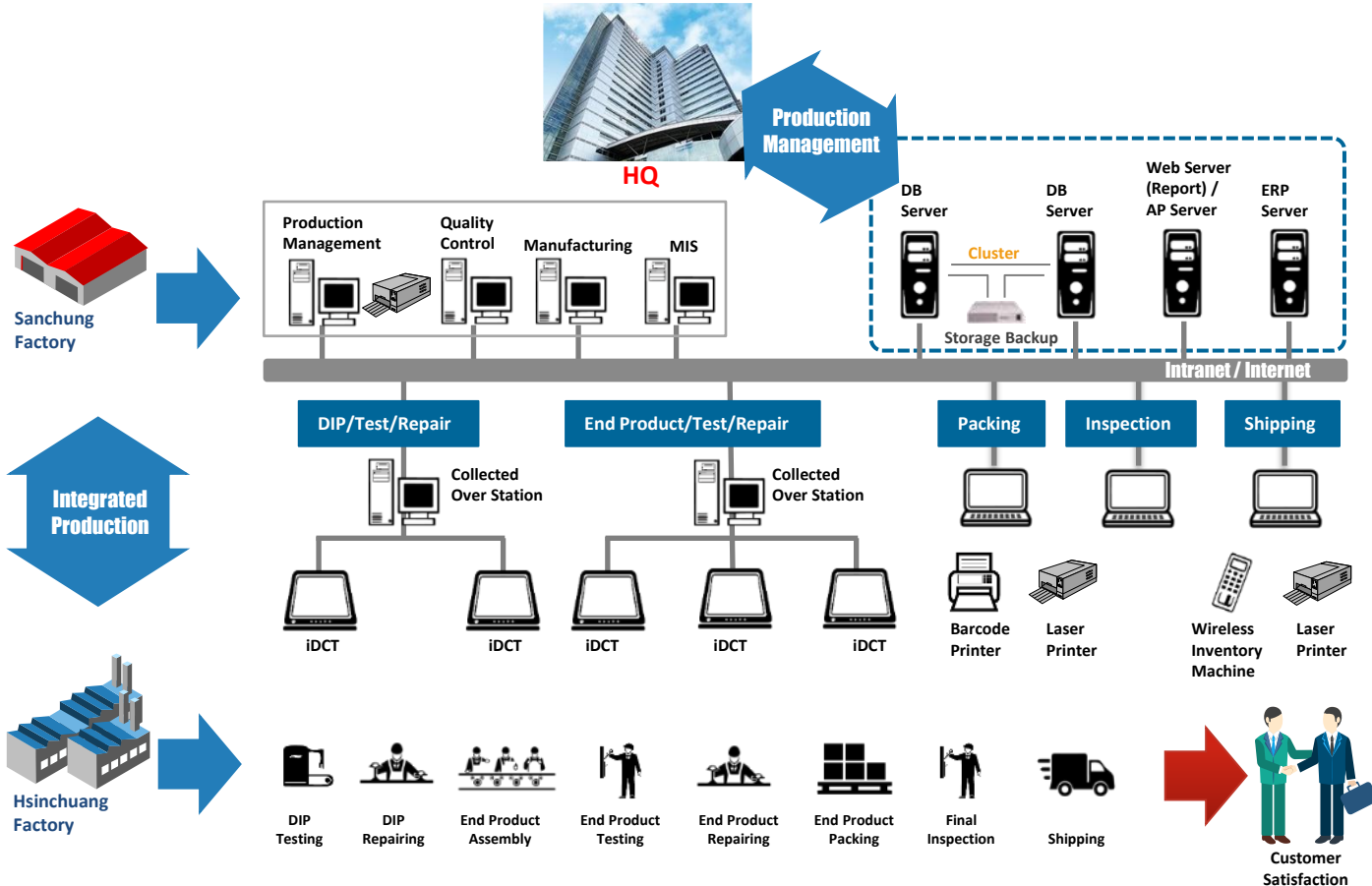
DC Electronic Load		Test Item
Model	Model GX10 Recorder	<ul style="list-style-type: none"> • Recorder of the Power Consumption • Recorder of the Power Voltage • Recorder of the Power Temperature
DCV	20 mV ± (0.01% of rdg + 5 μV)	
Group	5 ms (fastest)	
Channel	10	
Photo		

DC Electronic Load		Test Item
Model	GEN 5 VRTT Tool	<ul style="list-style-type: none"> • Thermal Compensation Test • PL2 TDC Test • VID1 in Static Voltage • Large Step Transient Response • SetVID_Fast Dynamic Response • Output Current Accuracy
Watt	800W peak)	
Frequency	10Hz – 10MHz	
Interface	SVID	
Photo		

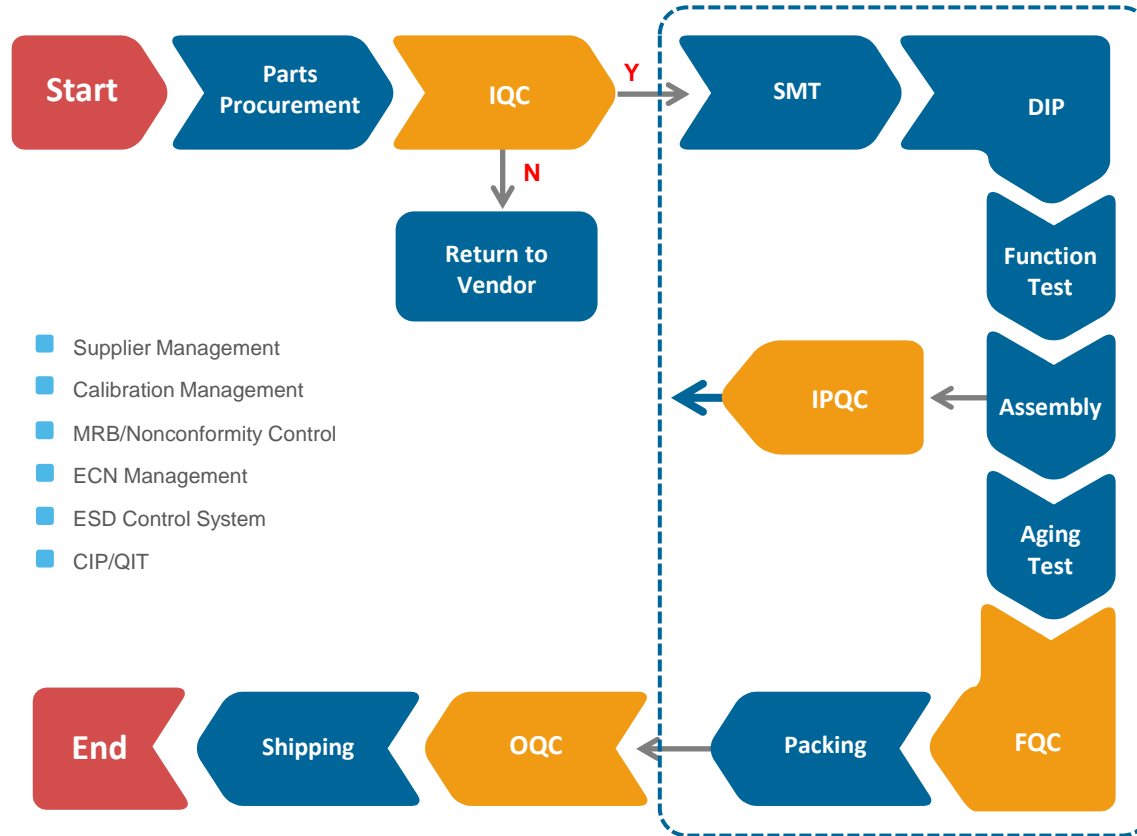
IBASE Manufacturing Processes



Manufacturing Execution System



Manufacturing Quality Assurance System



Manufacturing Quality Control

