



About Us (TWSE: 2476)



Chairman: Yu-Huang Lin



Capital: \$61.82M_(USD)



CEO: Ying-Shuo Lin



Employees: 2,630 (Worldwide)
783 (TW)



Est. 1973



DUNS#: 65632860



Global Footprints

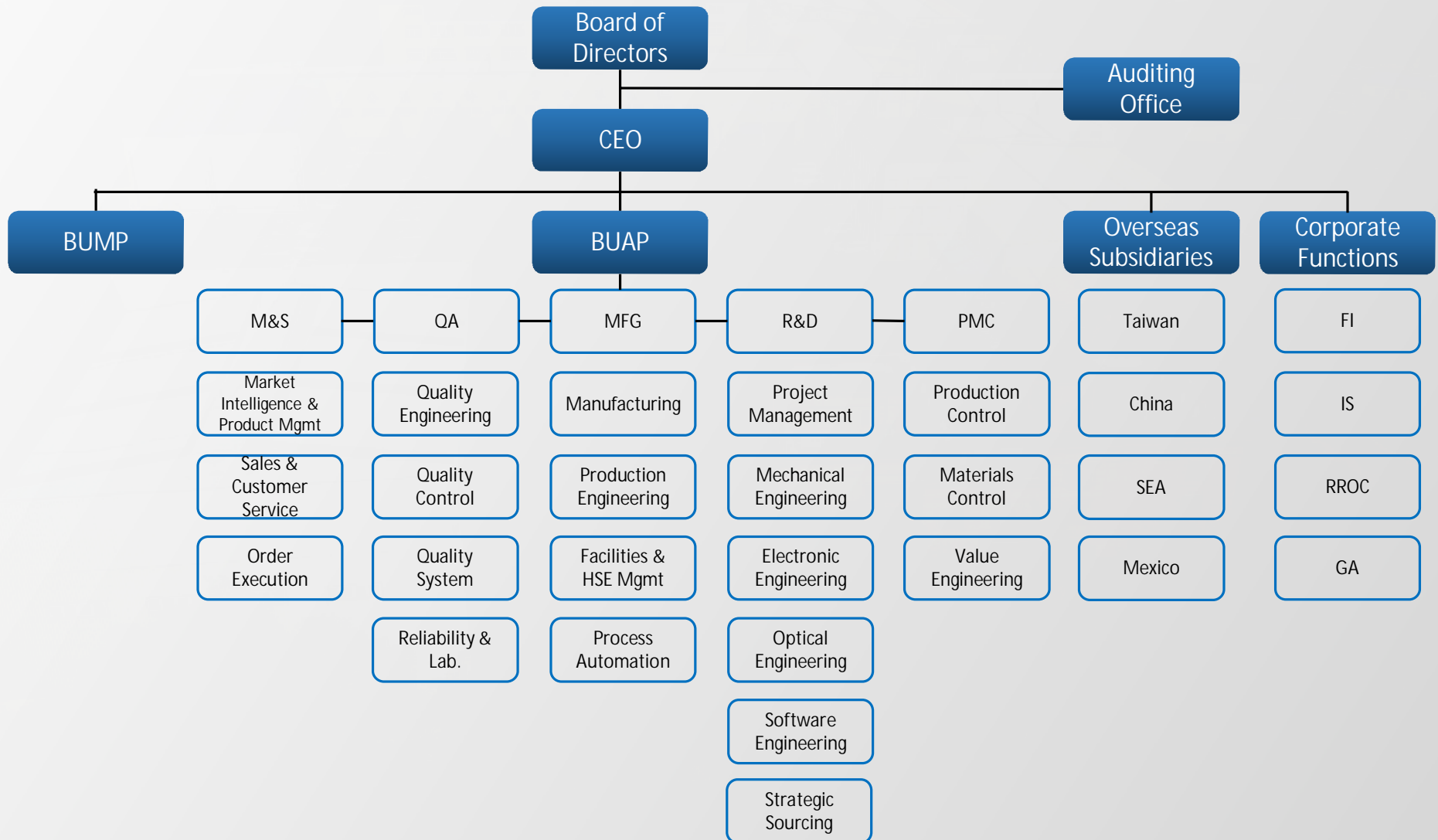


Global Service

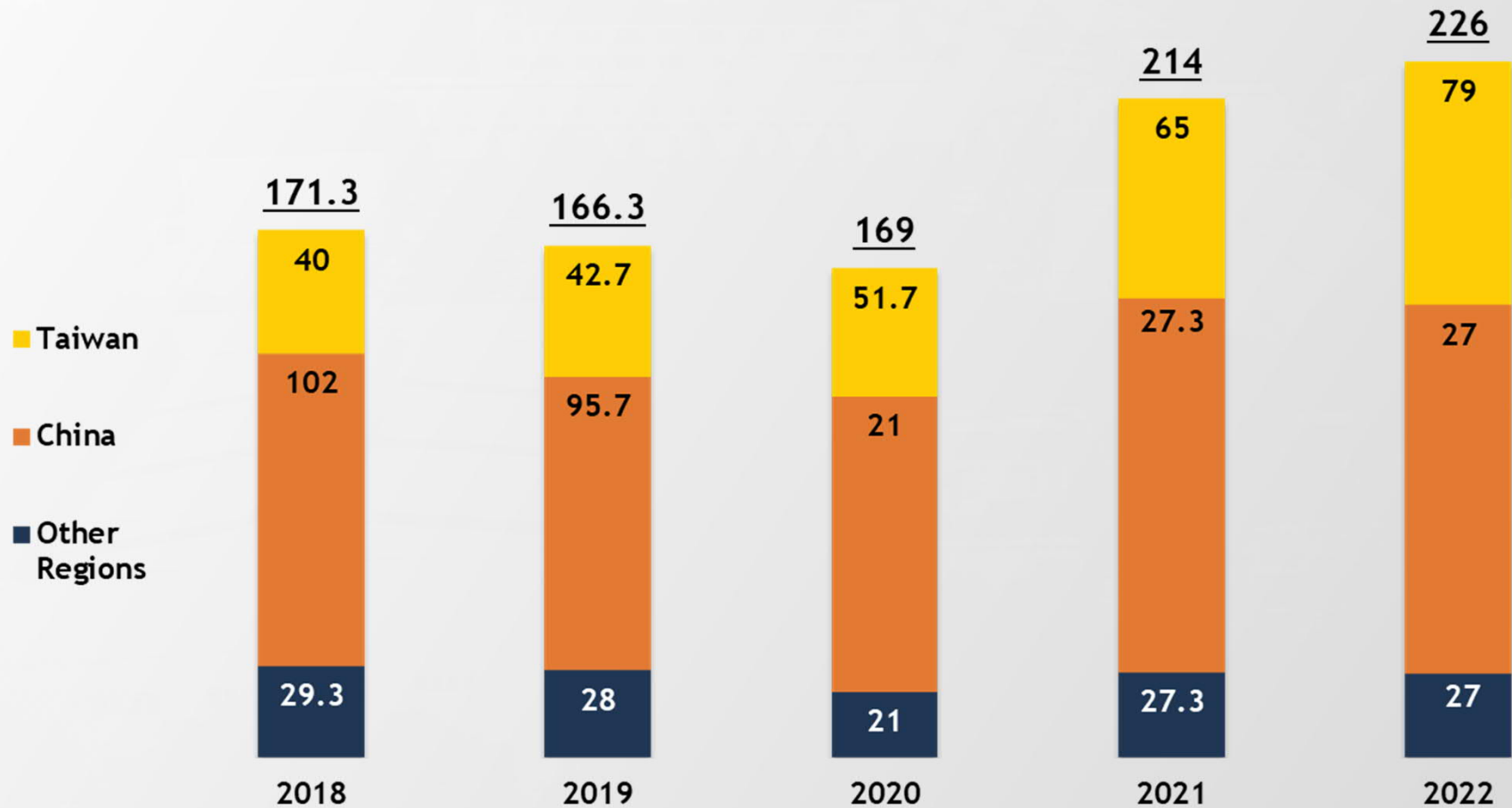
17

- 1 ★ Headquarters
- 14 📍 Branch/ Factory
- 2 ▲ Office

GS Organization



Revenue Growth



\$MUSD %YoY

(2018~2021 audited; 2022 unaudited)

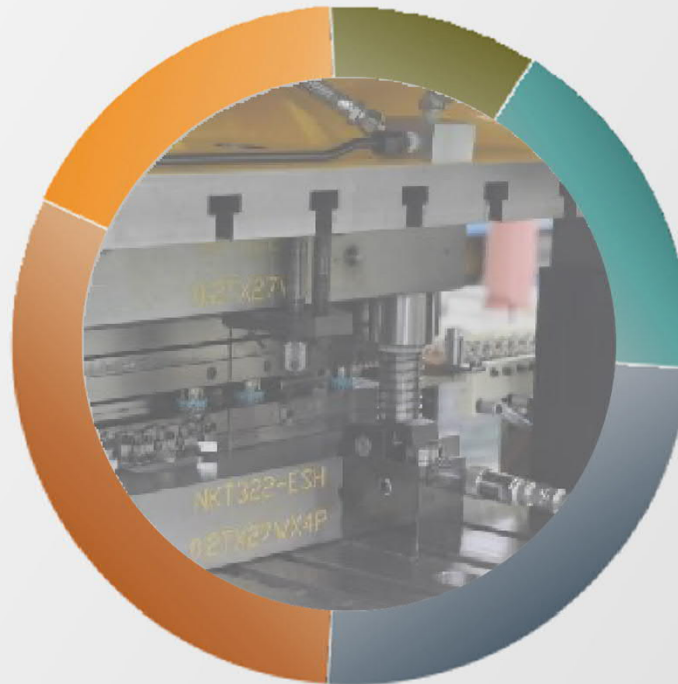
Portfolio by Segments

19% Automotive

- Regulators
- Transmission Coolers
- GPS/ USB/ Charger Connectors
- Airbag & Seat Belt Connectors
- Air Conditioning
- Fuses
- Button Adaptors
- TPMS
- Headlight Parts
- Anti-theft Systems

28% Industrial and Others

- Sensors
- Relays
- No Fuse Breakers/ Switches
- PLC
- Timers
- Blood Sugar Testers
- Scalpels
- Semiconductor Lead Frames
- Furniture Parts
- Electronic Cigarettes



13%

Communications

- Mobile Phones
- ADSL
- Internet Related

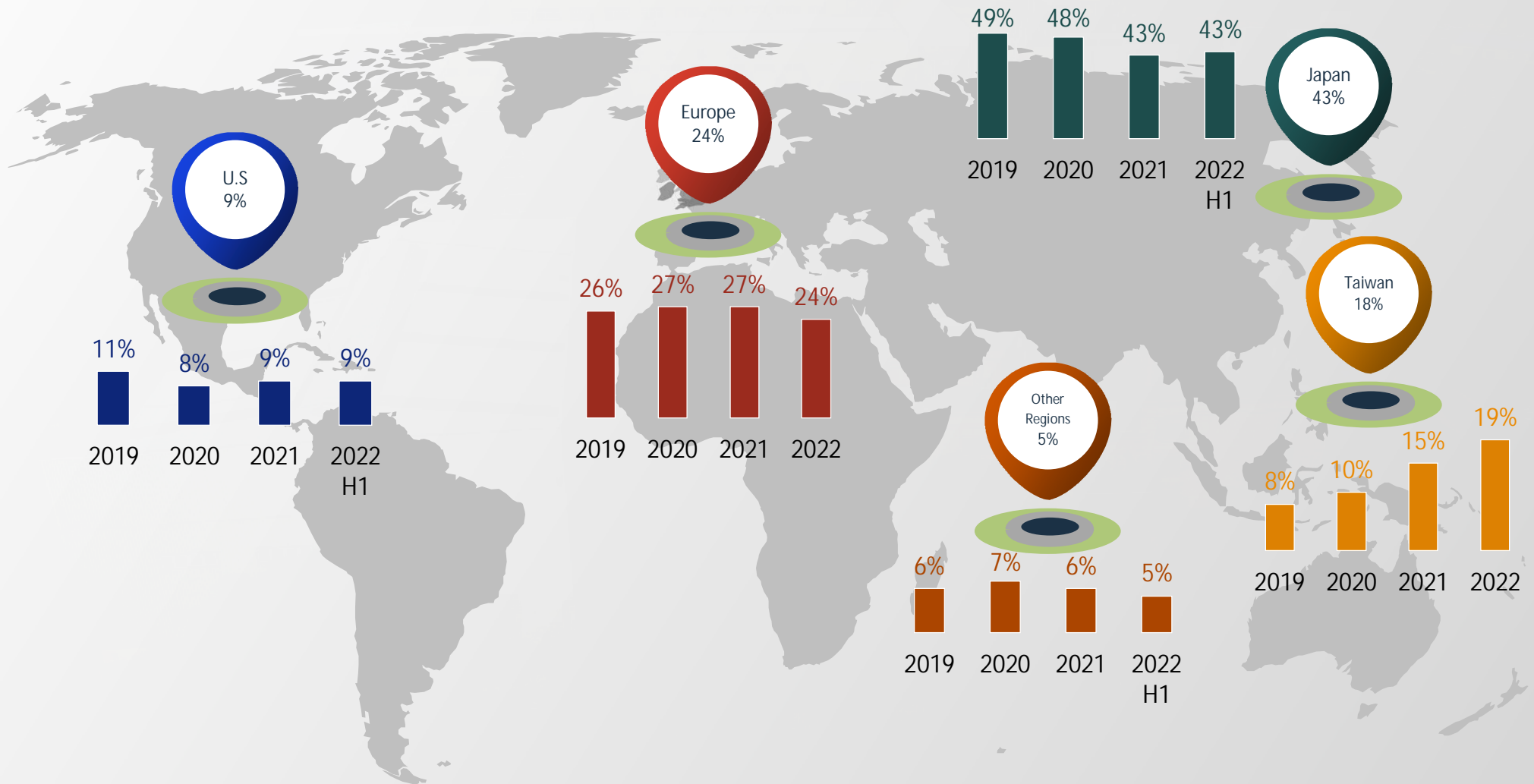
20% PC/NB

- I/O
- Type C
- USB
- HDMI
- FPC/ FFC
- Memory Cards
- Board-to-board

20% Consumer Electronics


- Appliances
- Digital Cameras
- Gaming Parts
- Switches
- Video Recorders

Portfolio by Regions




One-Stop Shop Solution

Die Design

 x**110** sets
(Monthly Capacity)

- 3D/CAD Design
- Design Database System

Stamping

 x**745**
(10 - 400T)

- Servo Feeds
- AOI Machine Inspection

Insert-molding

 x**37**
(35 - 110T)

- AOI Machine Inspection
- Vertical, Horizontal Insert-molding Machine

Machining

 x**543**

- Vertical CNC Machine
- Jig Grinder
- Profile Grinder
- Wire E.D.M
- Grinder
- Lathe
- Milling Machine
- Sawing Machine
- E.D.M
- Drilling E.D.M
- Precision E.D.M
- Horizontal Profile Grinder

Electroplating

 **4** Machines
8 Lines(Hoop)

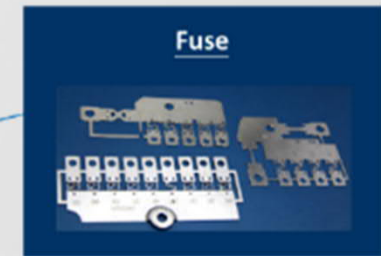
Au (Gold)  Sn (Tin)
Ni (Nickel)

Automated Assembly



- R J 45 Connector
- D-SUB Connector
- Automatic Laser Welding Machine
- Automatic Silver Brazing Assembly
- Automotive Safety Device Assembly

Engaged Auto Parts



Key Focuses



R&D Talents

80+ R&D Engineers

10+ Avg. Length of Service

5 Language:
Chinese/English/
Japanese/Korean/Spanish

3D Design & Database System

3 Industry-University Collaboration
Training Center



Costs

Localized Purchasing
Economies of Scale
TQM
Integrated Services



Quality

48 Years of Experience
3 Quality Certifications
AOI Machine Inspection

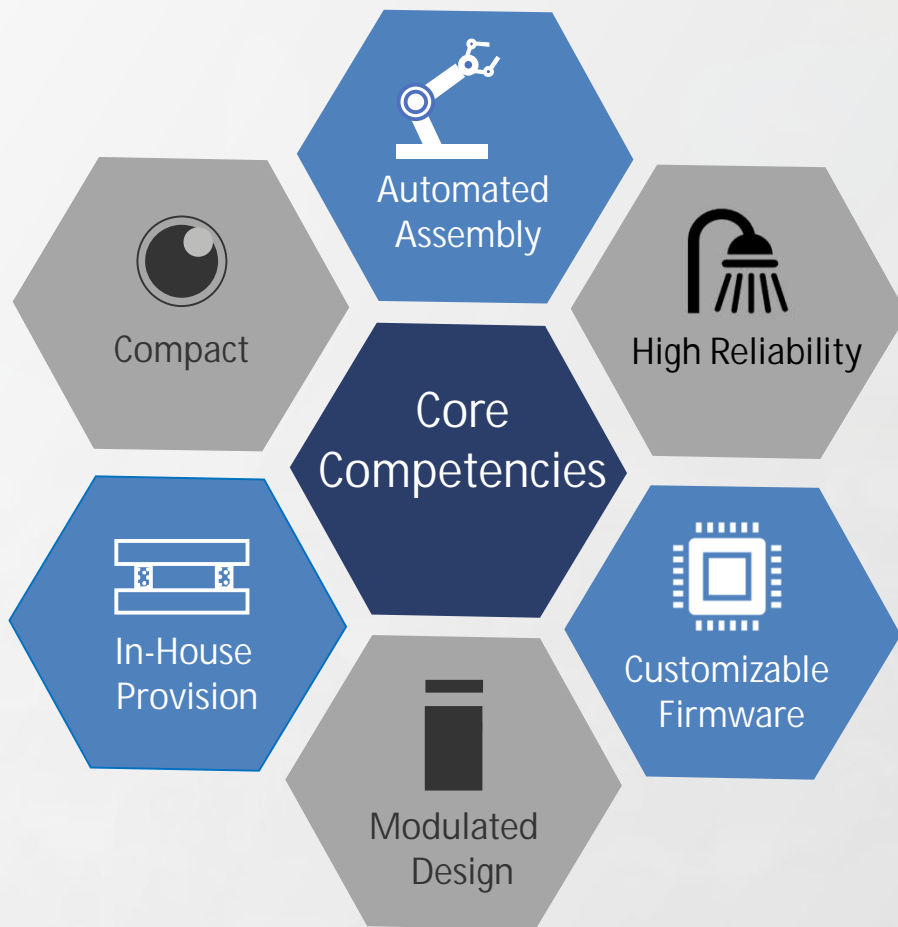


Speed

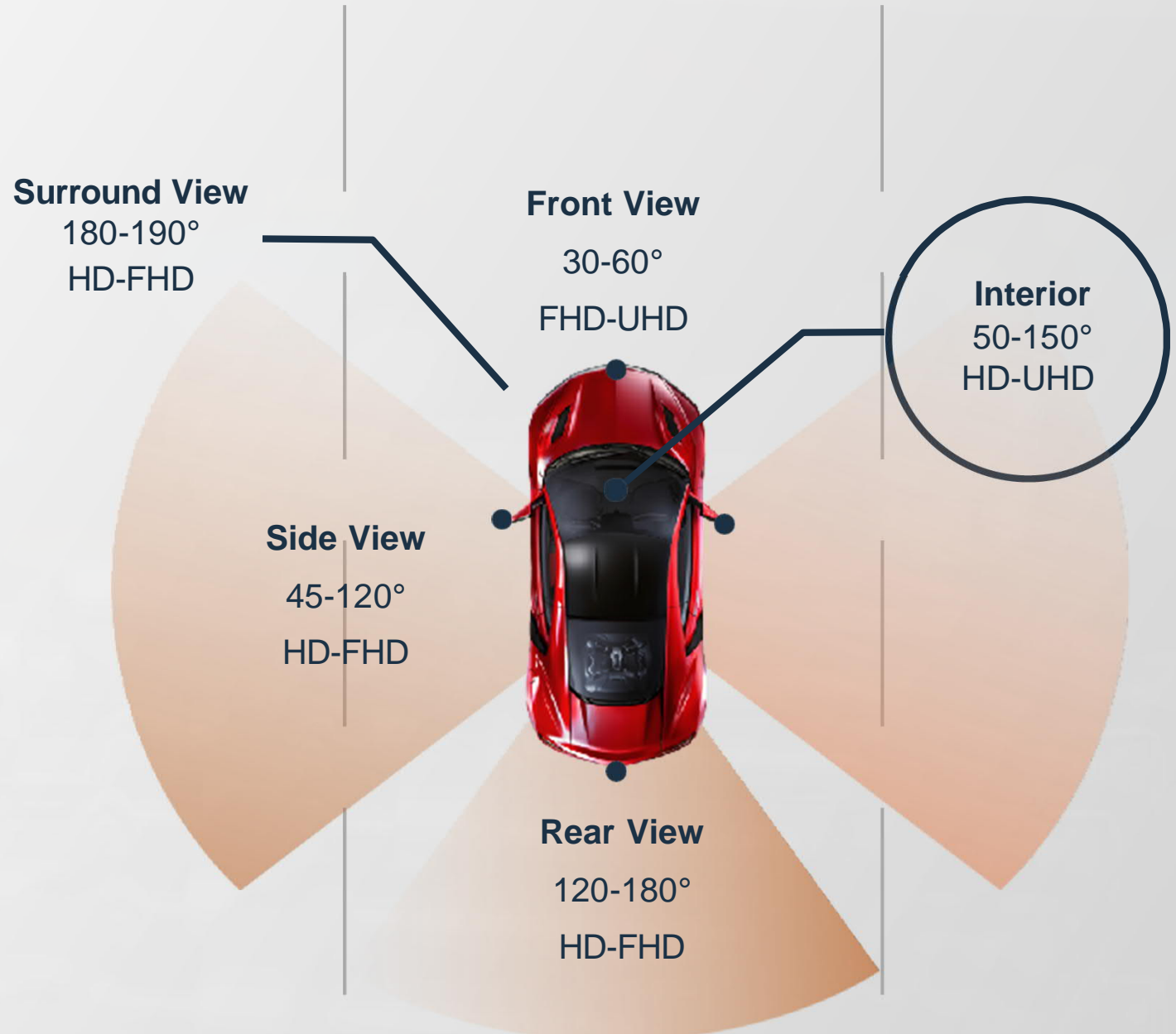
90% of Die Parts
Manufactured Internally
17+ Global Locations
1 Stop Solution

G-Shank Camera

Quality, Cost, Speed, Service



- In-house parts supply to speed engineering up and better control NRE costs
- Reliable and automated production to secure high-level quality and delivery
- Image quality and firmware supports to facilitate joint development with Customers



Features

230° Surround View:
AVM / LKS

Side View:
CMS / BSM

Front View:
FCW/AEB/LDW/PCW/ACC/TSR/
LKS

Rear View:
PAS / APS

Auto Cam Menu

*AHD/TVI

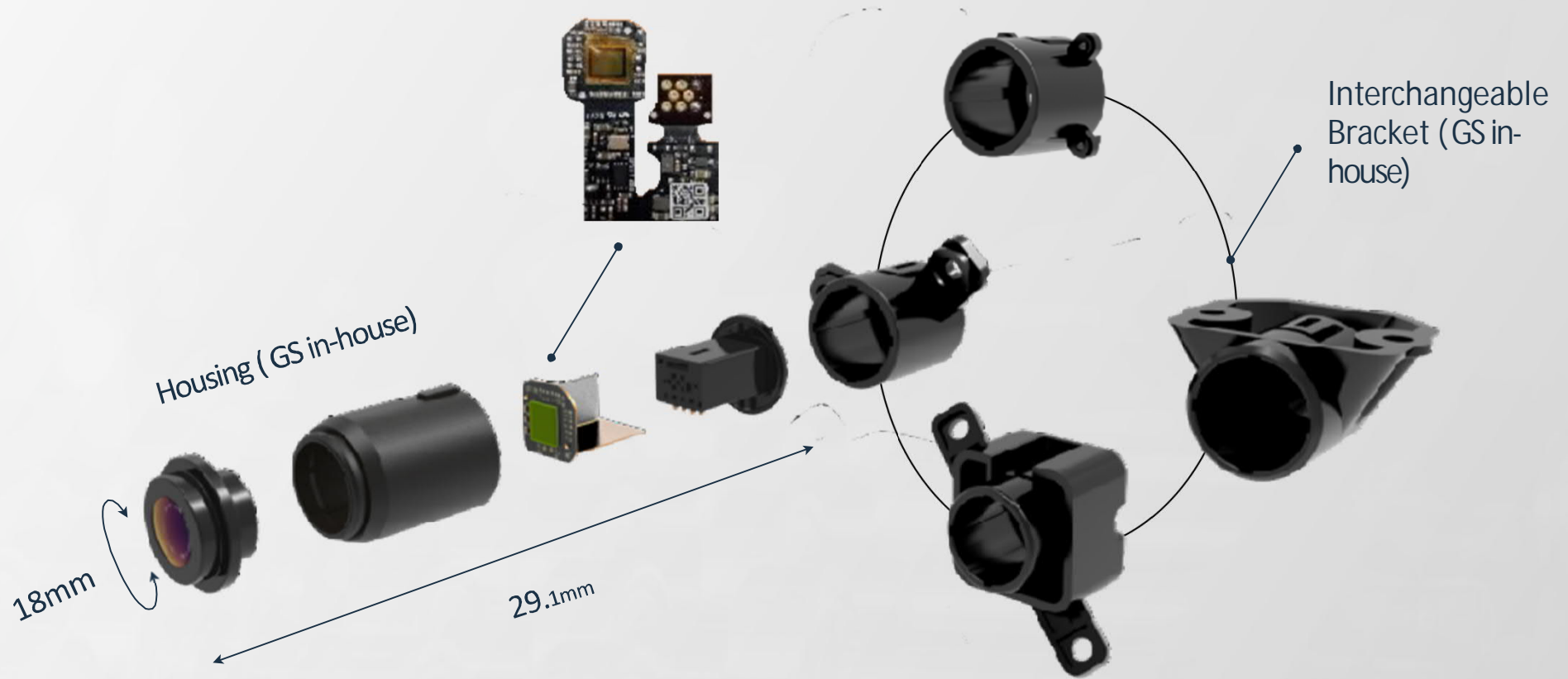
CMOS Sensor	Application	Rear View	Surround View	Side View
PixelPlus	HD	GSH5081*	GSH5072*	GSH50*
	FHD	GSF5051*	GSF50*	GSF50*
Omni Vision	HD	GSH5101 GSH8181	GSH5132 GSH5182 GSH8172	GSH51
	FHD	GSF5101	GSF51	GSF5104 GSF5183 GSF5184
On Semi	HD	GSH52	GSH52	GSH52
	FHD	GSF52	GSF52	GSF52
Sony	HD	GSH53	GSH5332	GSH53
	FHD	GSF53	GSF53	GSF53

Planned
 Engineer Sample
 Mass Production

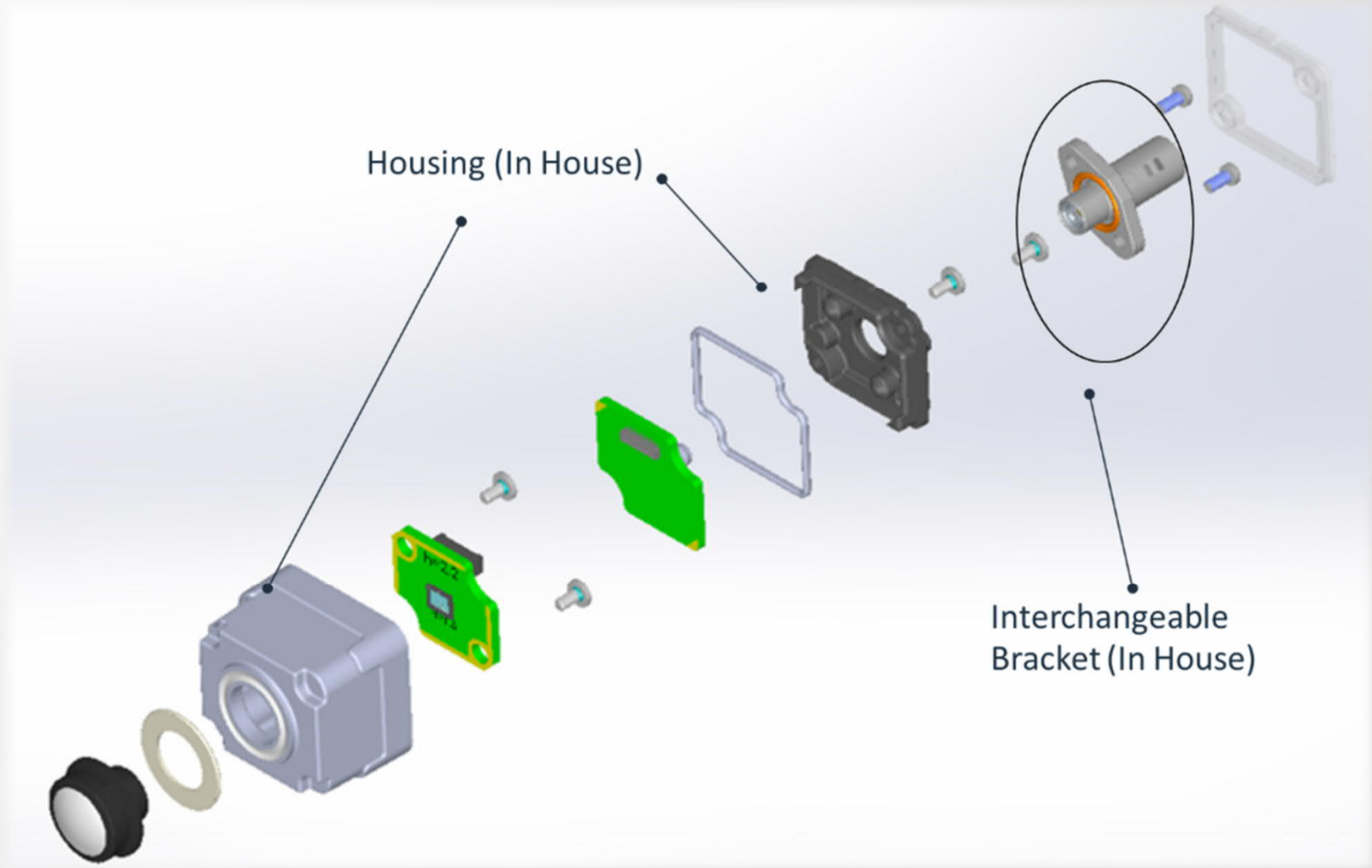
※ HD: 1M~1.3Mpixel FHD: 2Mpixel

Camera (bullet)

FPC/Sensor(GS in-house)

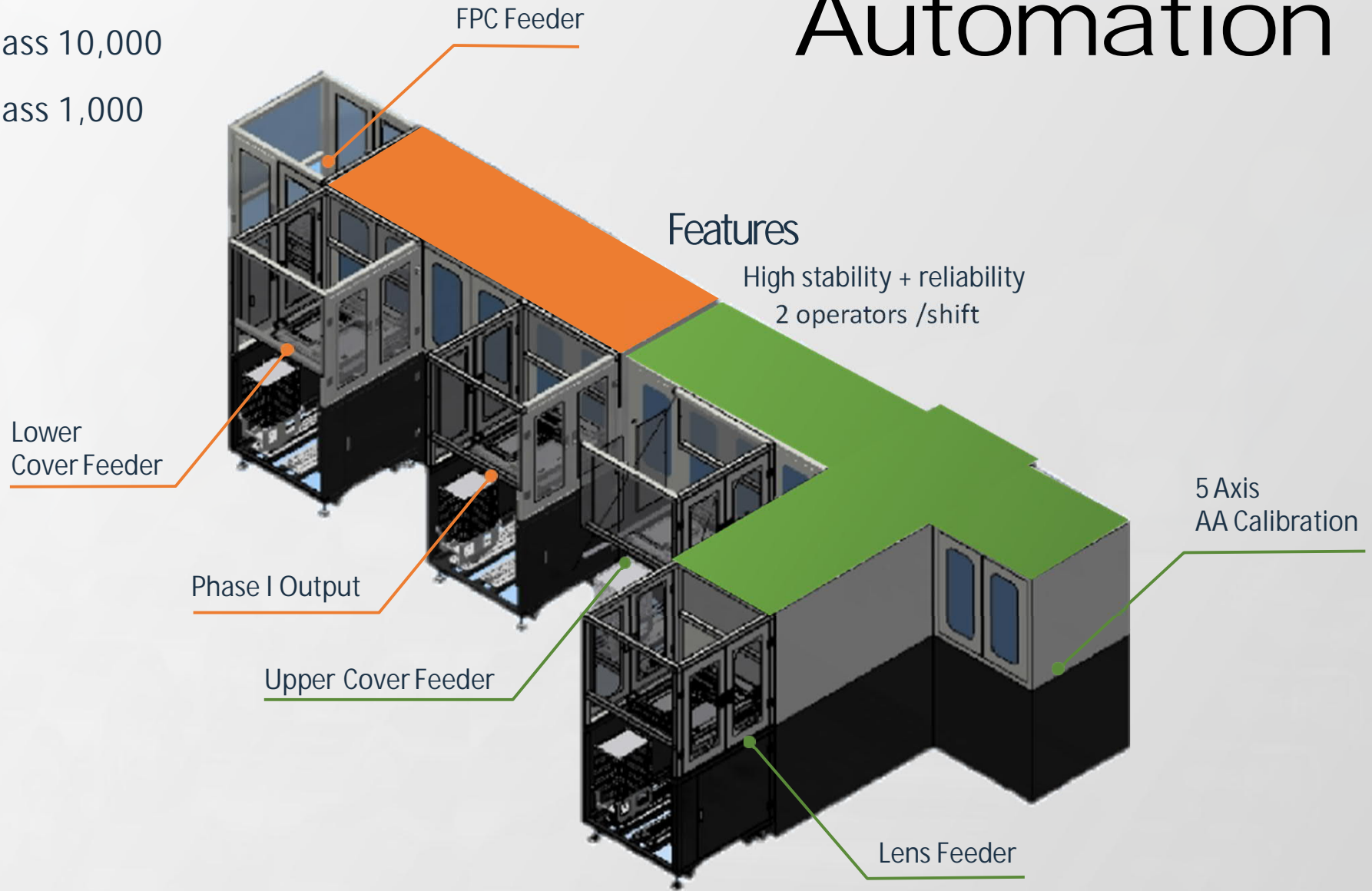


Camera (block)



Process Automation

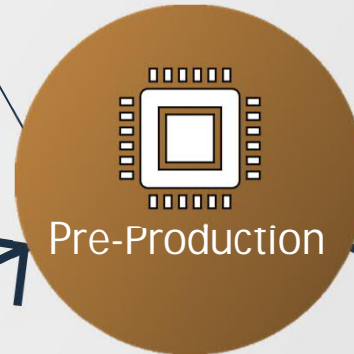
- Class 10,000
- Class 1,000



Quality Assurance

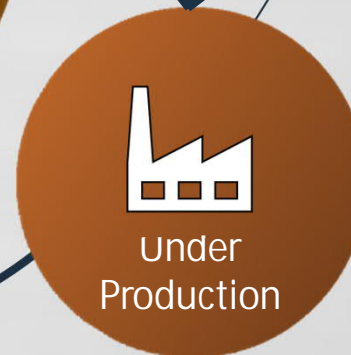
Engineering Phase

- APQP / PPAP
- Design validation
- Supply quality management
- Talents management



Production Phase

- SPC
- Automated assembly and inspection
- CIP culture



Services Phase

- Claim & 8D management
- Feedback & corrective actions
- Close-loop FMEA / CP
- Feedback & corrective actions
- Periodical quality and business review with Customers



Quality Certificates



ISO 14001



IATF 16949



ISO 9001

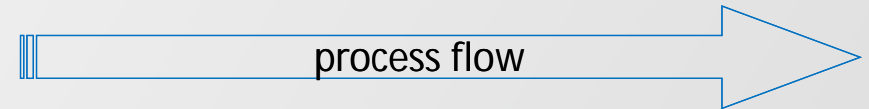


Sony GP

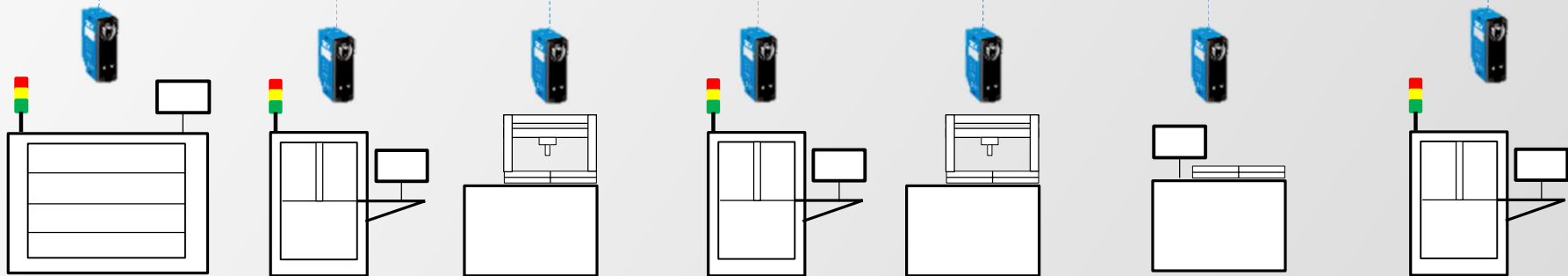


ISO 26000

Product Traceability




ID	QTY	PL	PLN	SN	LV	PS
861000	1000000	1	1	1	1	1
861000	1000000	1	1	1	1	1
861000	1000000	1	1	1	1	1
861000	1000000	1	1	1	1	1



SMT

- Date code
- Production parameters
- SP thickness
- Testing results

IQ Testing

- Date code
- MTF/SFR
- FOV

Holder Mount

- Date code
- Production parameters

IQ Testing

- Date code
- Production parameters
- MTF/SFR

Housing Assembly

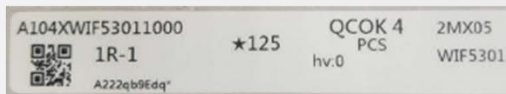
- Date code
- Production parameters

Air Leakage Testing

- Date code
- Tightness values

IQ Testing

- Date code
- MTF/SFR
- Shading
- Flare
- SNR
- OC



Raw Materials

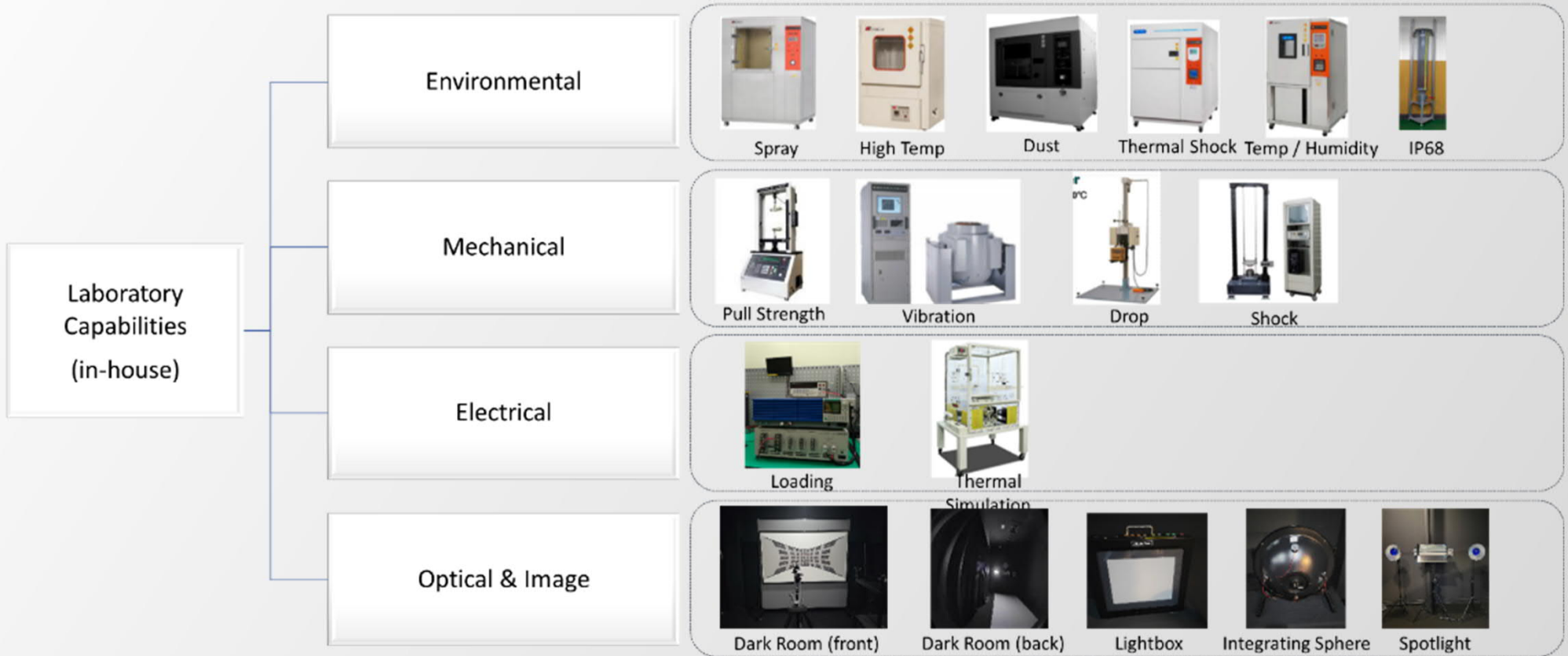


Sticky Label



Laser Marker

Reliability Labs



In-House Testing (30+)

Standard	Item
ISO 16750-4 Climatic Loads	Tests at constant temperature
	Temperature step test
	Temperature cycling tests
	Ice water shock test
	Salt spray tests
	Humid heat, cyclic test
	Damp heat, steady-state test
	Corrosion test with flow of mixed gas
	Solar radiation
	Dust test
ISO 16750-3 Mechanical Loads	Vibration
	Mechanical shock
	Free fall
	Surface strength/scratch and abrasion resistance
	Gravel bombardment

Standard	Item
ISO 16750-2 Electrical Loads	General
	Direct current supply voltage
	Overtoltage
	Superimposed alternating voltage
	Slow decrease and increase of supply voltage
	Discontinuities in supply voltage
	Reversed voltage
	Ground reference and supply offset
	Open circuit tests
	Short circuit protection
	Withstand voltage
	Insulation resistance
	Electromagnetic compatibility

IQ Analysis

Test items	G-SHANK AVM Camera
Horizontal	182°
Vertical	112°
Diagonal	202°
Resolution-Center	620.2LW/PH
Resolution-Corners	511.7LW/PH
Low Illumination - Signal Level	0.72 @10 Lux
	0.12 @1 Lux
	0.15 @0.1 Lux
Low Illumination - Noise	0.67@10 Lux
	0.37 @1 Lux
	0.28 @0.1 Lux
Color Saturation	110.4%
Color Difference	ΔE^*ab Mean=7.77
AWB Error	$\Delta C=3.5$ @ 6500K
	$\Delta C=3.0$ @ 4800K
	$\Delta C= 4.1$ @ 3100K
Auto Exposure	Normal
Low Illumination (vision@0.1Lux)	Normal



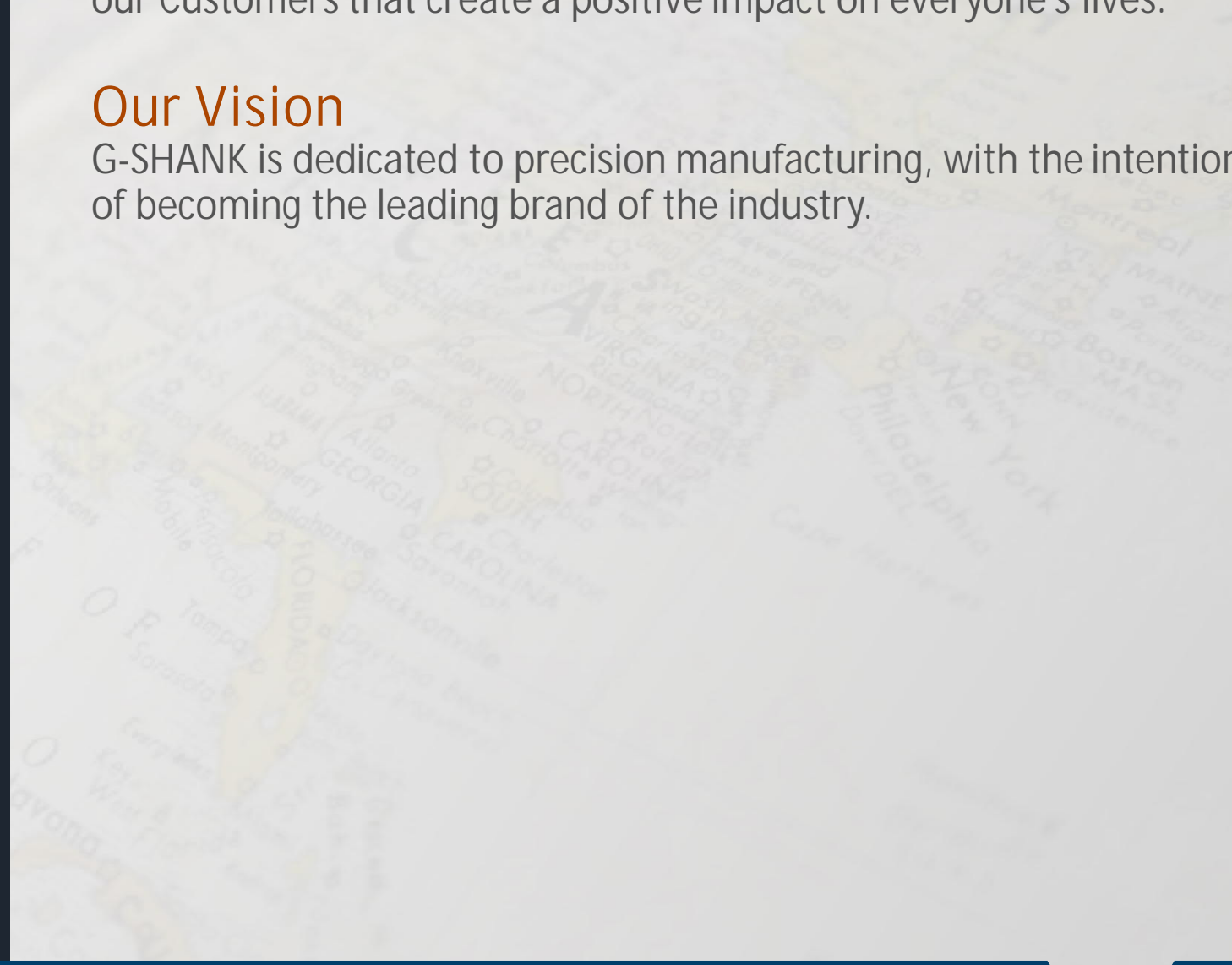
Core Values

Integrity: We strive to create an environment builds on trust in which our employees are treated equally and as valued team members.

Commitment: We make it our aim to develop relationships with our Customers that create a positive impact on everyone's lives.

Our Vision

G-SHANK is dedicated to precision manufacturing, with the intention of becoming the leading brand of the industry.



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Thank You