

KODENSHI Group Introduction

Total Solution for OPTO Electronics and Power Semiconductor

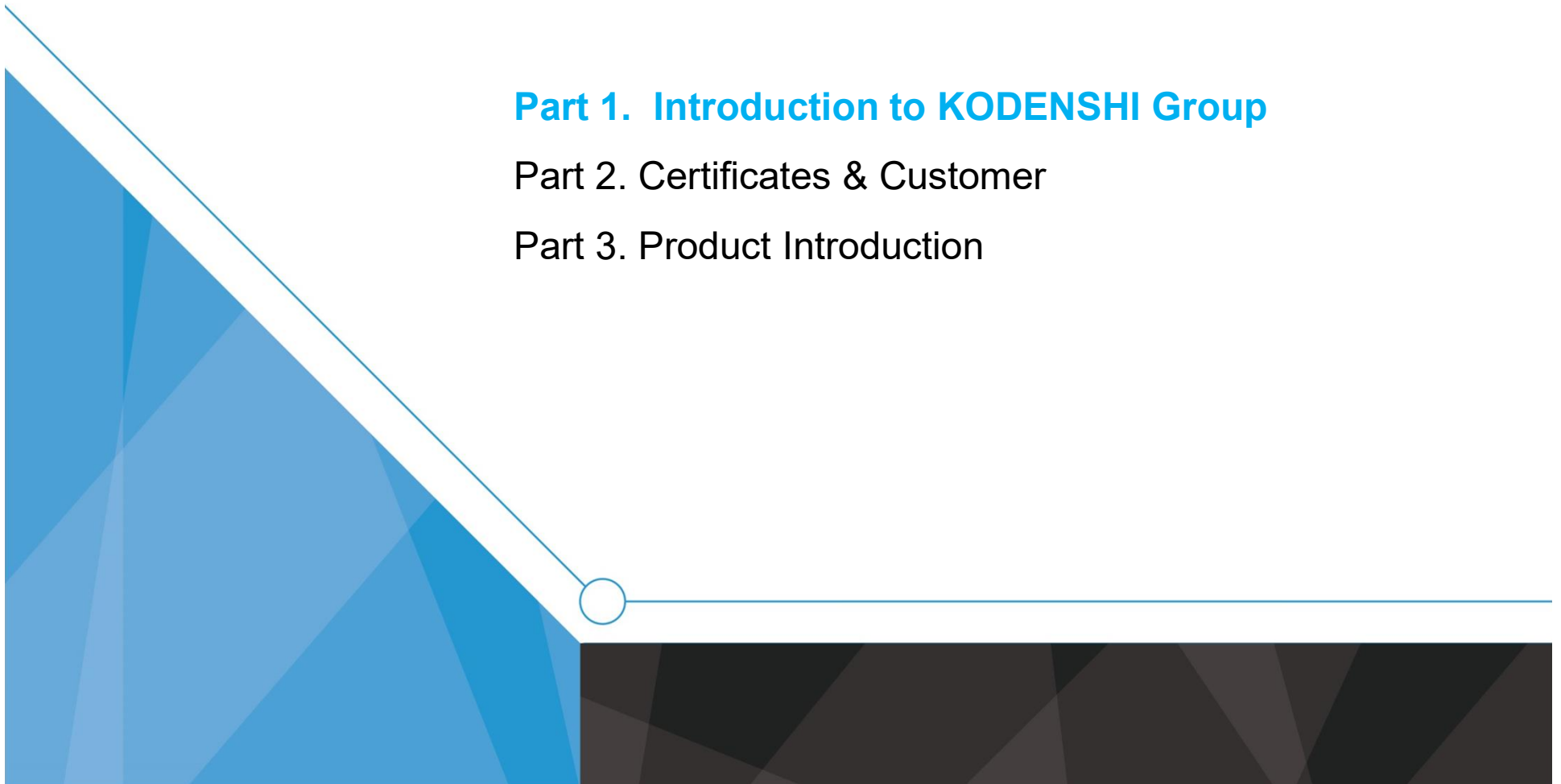


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Part 1. Introduction to KODENSHI Group

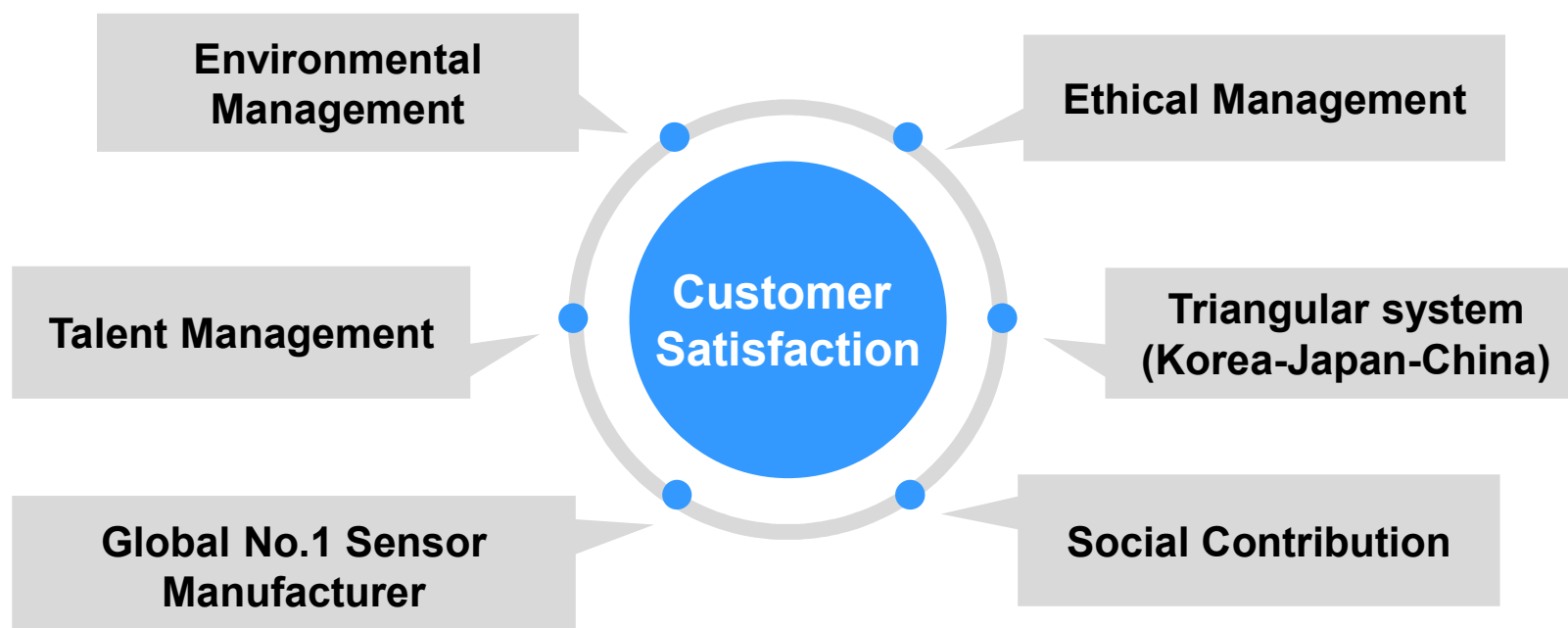
Part 2. Certificates & Customer

Part 3. Product Introduction





**“We will build up its core vision
with endless challenge and talent-oriented management”**





At 2010, Established “Consolidation KODENSHI Group”

OPTO Business



- **1972.**
Founding of
KODENSHI Corp.
(Japan)



- **1980/1992.**
Establishment of Mass
Production Line in
Korea/China



LED Business



- **1988.**
Establishment of
Knowledge-on Co.,Ltd

Power-semi Business



- **1984.**
Establishment of
Korea Techno Co., Ltd

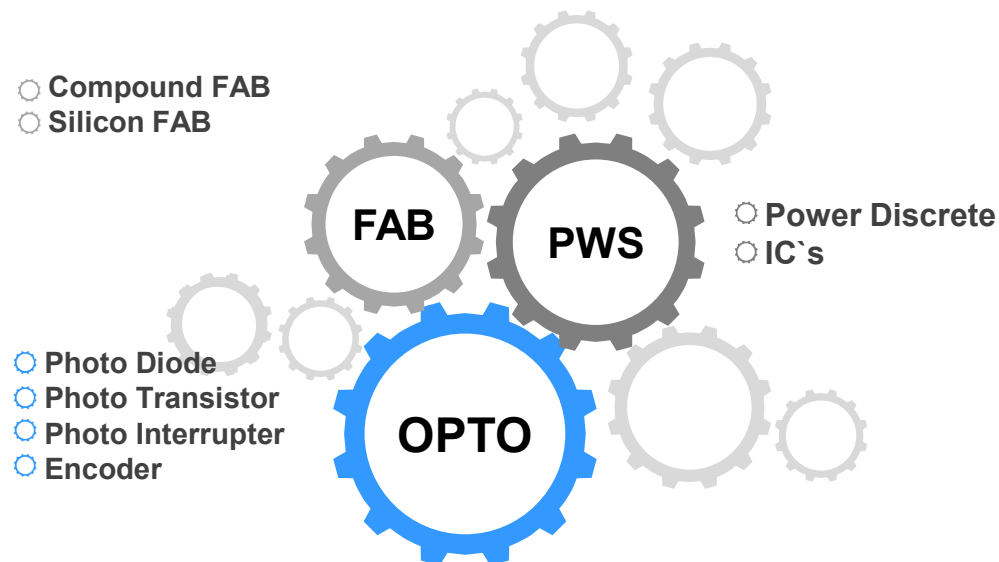


- **1984/1996.**
Establishment of
Mass Production Line
in Korea/China





“Trough our R&D Center chain, KOREA-JAPAN-CHINA,
we can provide High-Tech product with competitive price”



Opto Sensors

- Site : Iksan (Korea), ShenYang (China), Kyoto(Japan)
- Items : Opto Sensors, LED, IrDA, R/M & Etc.



Discrete Device

- Site : Iksan (Korea), Dalian (China)
- Items : Transistors, Diodes, MOSFETs, Ics



FAB Biz

- Site : Iksan (Korea)
- Items : Compound Semiconductor : Chips
Silicon Semiconductor



JAPAN Center

Design Techno Center
MEMS
Analog/Digital IC

KOREA Center

OPTO sensor
FAB/Pws Discrete
LEDs

CHINA Center

Opto Sensor
Optimized if Factory
Automation



**Strengthen global competence through integrate design,
manufacturing and sales infrastructure**



Comment

Factory is located earthquakes safety area in Korea and China.



KODENSHI Group Introduction

Healing Life!
Healing KODENSHI



Company	KODENSHI SY Corp.	AUK Dalian Co.,Ltd
Foundation	1992.08	1990.11
Location	CN (Shenyang)	CN (Dalian)
Employee	3,434	920
Sales	250M\$/Y	-
Main Products	Opto Device /Assy	Wafer FAB/ TR, Diode Assy
Site	www.kodenshi.cn	www.auk.co.kr

Company	KODENSHI Corp.
Foundation	1972.05
Location	JP (Kyoto)
Employee	287
Sales	160M\$/Y
Main Products	Opto Device Design Center/ Wafer FAB
Site	www.kodenshi.jp

Company	AUE	AUK
Foundation	2012.04	1980.05
Location	KR (Iksan)	KR (Iksan)
Employee	174	890
Sales	60M\$/Y	147M\$/Y
Main Products	Opto Device/ Injection Mold	Discrete/ Opto Device
Site	www.kodenshi.co.kr	

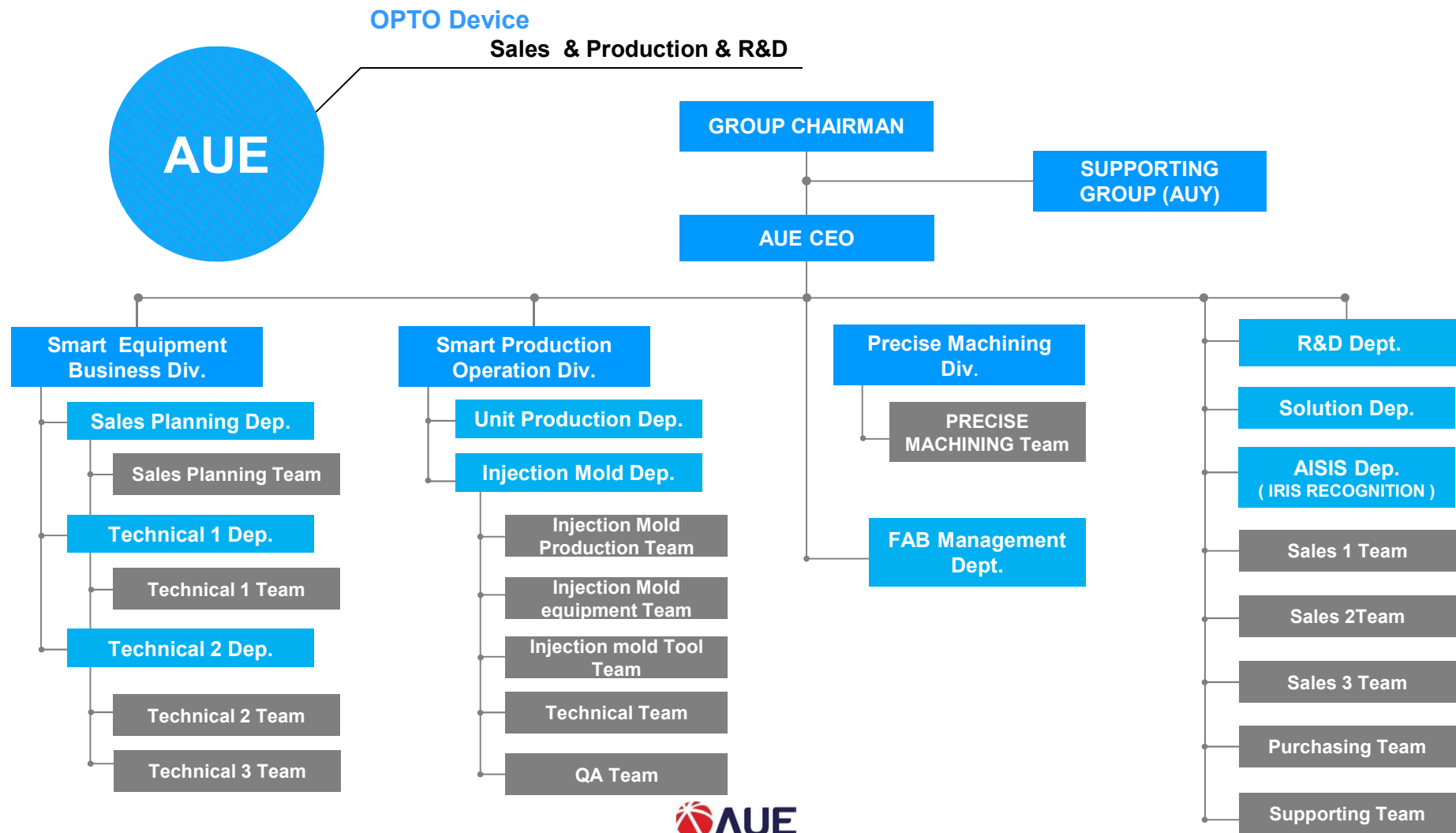


AUE Division Introduction(Korea)

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“Being in charge of OPTO Electronics division,
AUE is constantly under development for Products which will lead the market”

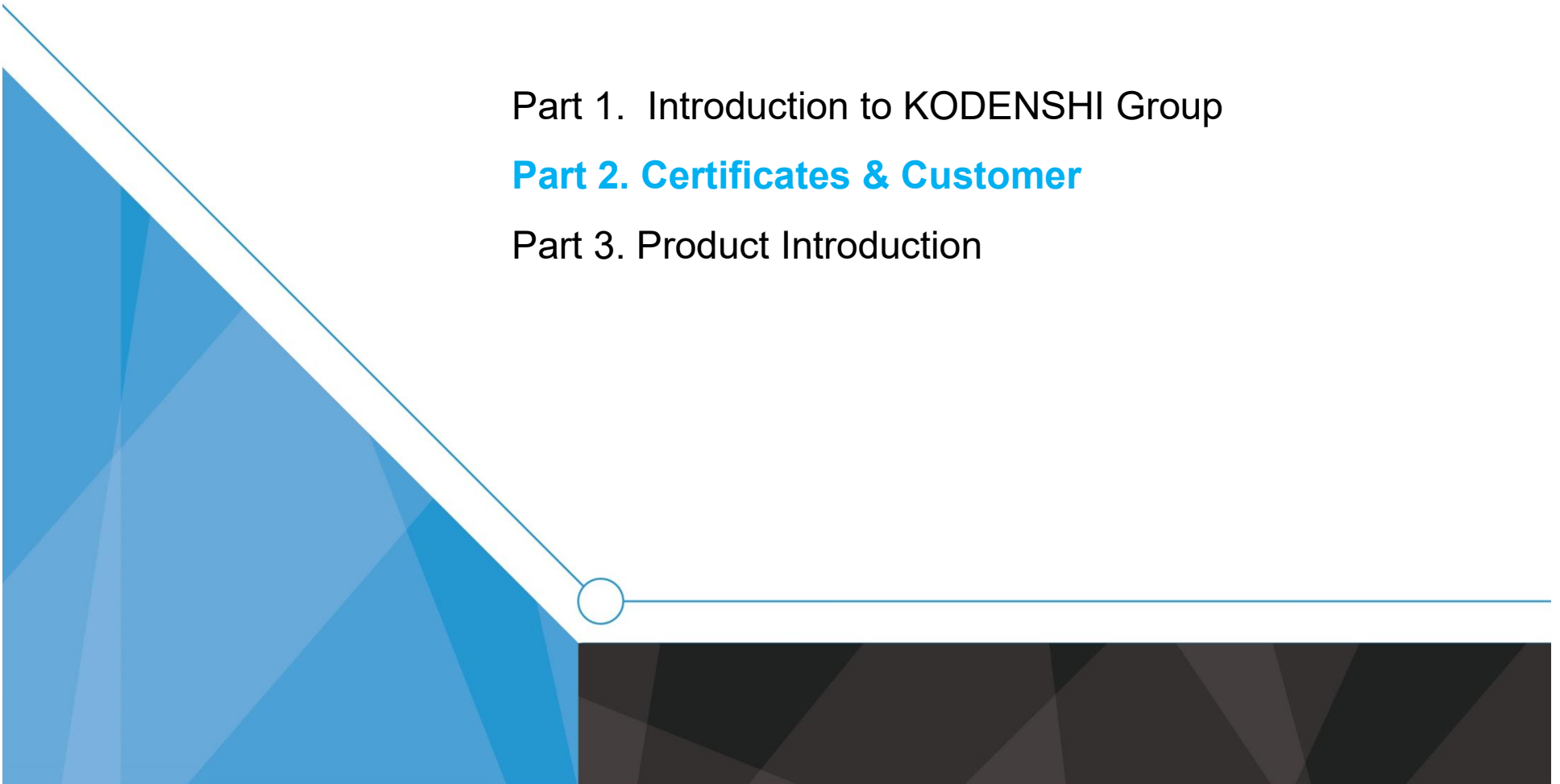


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Part 1. Introduction to KODENSHI Group

Part 2. Certificates & Customer

Part 3. Product Introduction



Certificates · Green Partner

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ISO/TS16949



ISO 9001



HMG (SQ MARK Certified)



ISO14001



SONY
Green Partner



Samsung
Eco Partner



LG
Green Partner



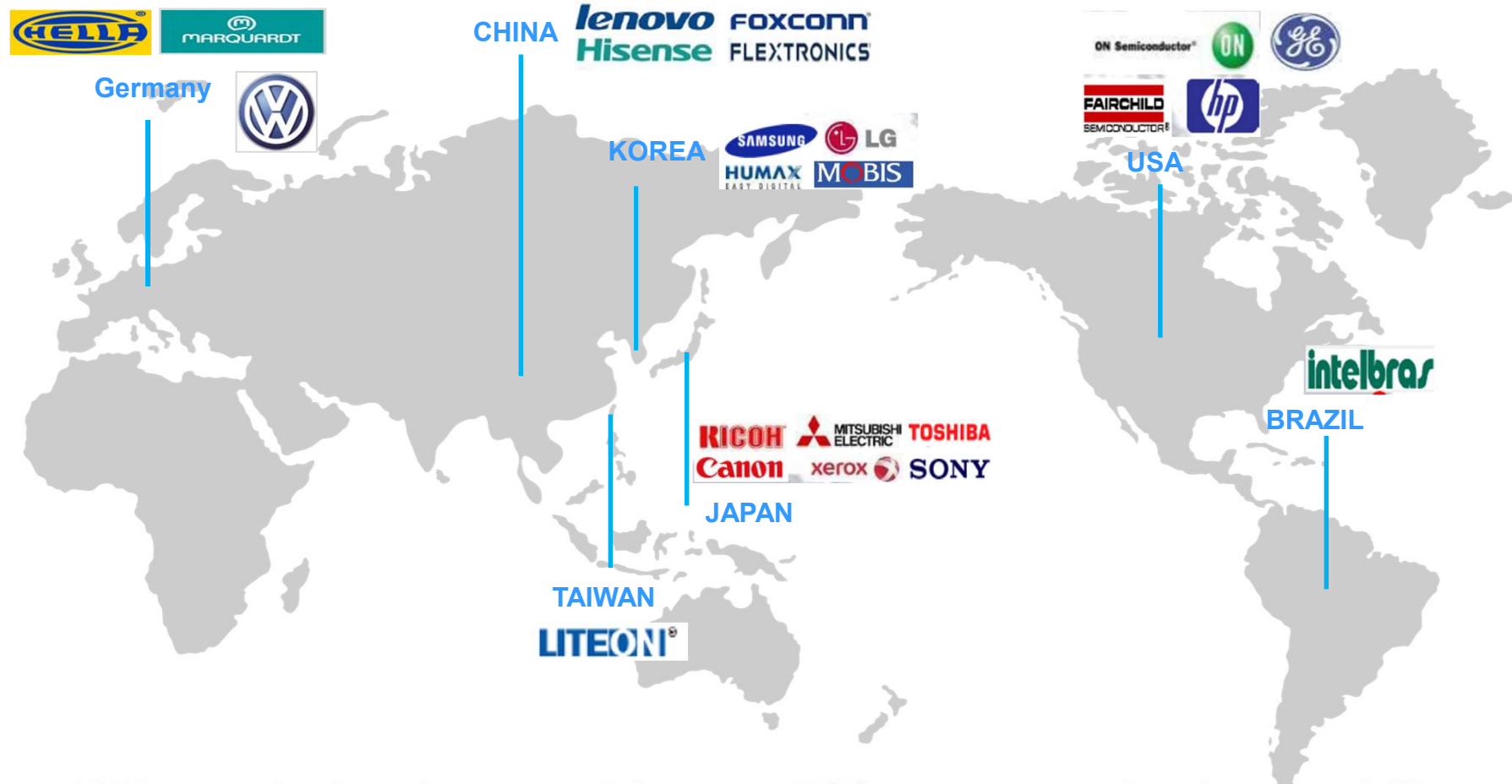
Certificates



Green Partner

Customer

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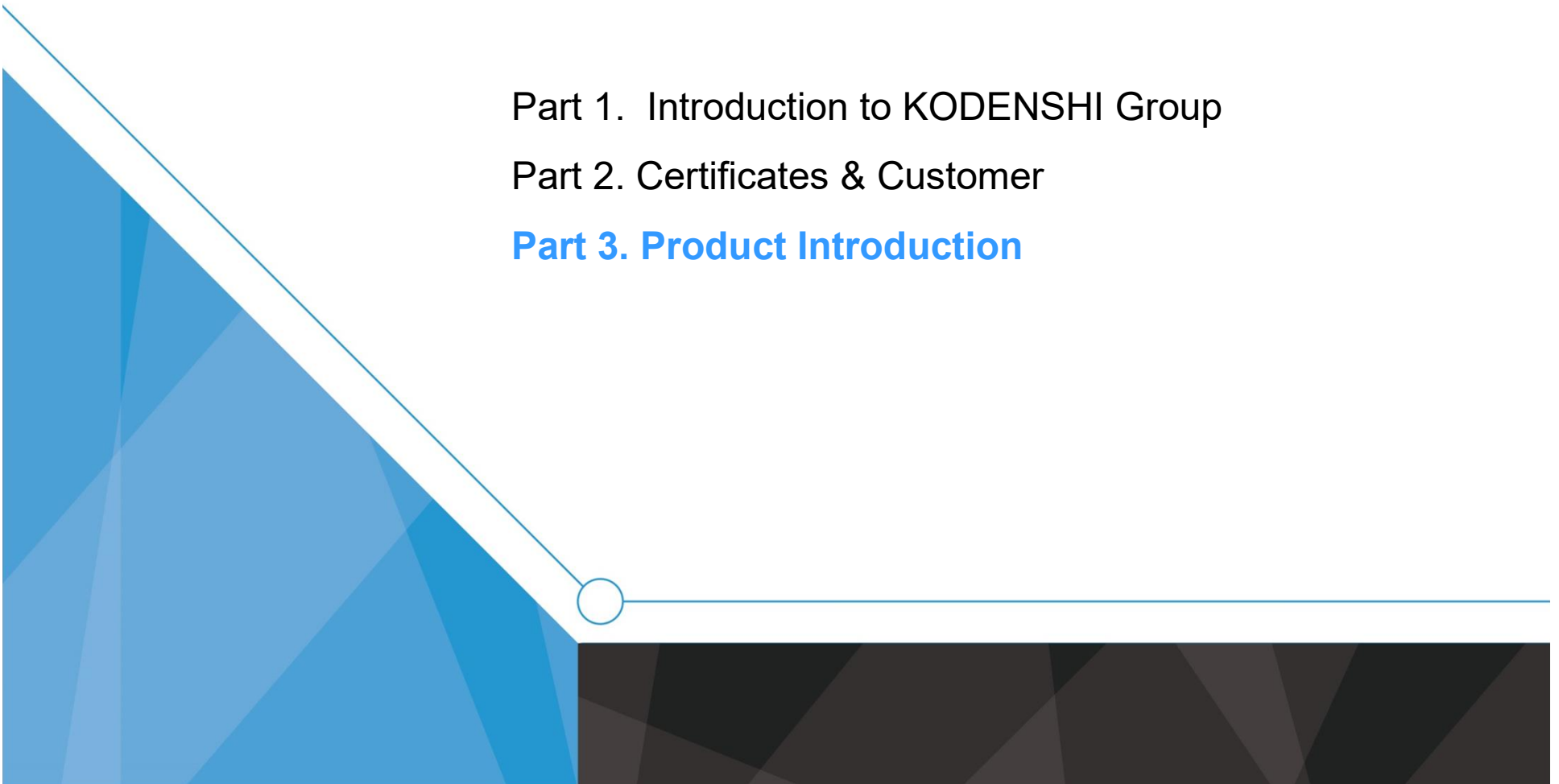
“We are in business with over 500 company in the world”

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Part 1. Introduction to KODENSHI Group

Part 2. Certificates & Customer

Part 3. Product Introduction



OPTO Product Line-up

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Continuous development for new items by utilizing own design ability and
Meet customers needs through efficient production line

Product Line-up

Opto Applied Component

- Paper Sensor
- Sensor Module

Opto Discrete Device

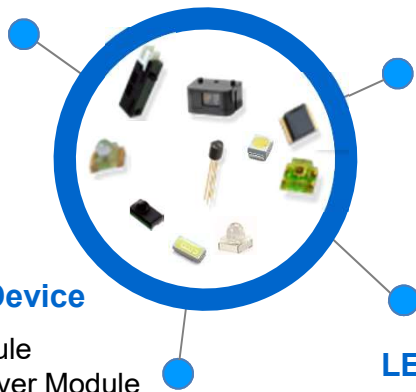
- Emitter
- Detector
- ALS

Opto Compound Device

- IR Receiver Module
- Infrared Transceiver Module
- Photo Coupler
- Photo Interrupter
- Optical Encoder

LEDs

- COB LED
1680,1611, 320, 520, 1313,1414
- PLCC LED 2812, 3810, 3014,
3020,3528, 5450,5630
- LAMP LED $\Phi 3$, $\Phi 5$, Dual



Application



Photo Interrupter Line-up

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※T-Type : Transmissive Type

Item	T-Type / PWB Direct				T-Type / Screw Mount			
Image								
Part No.	SG298	LG209	SG288	KIT8002A	SG23FF	LG2A02	LG217	LG214
Gap	2mm	2.4mm	5mm	8mm	3mm	5mm	5mm	3.6mm
Slit	0.3mm	0.5mm	0.5mm	0.5mm	0.5mm	0.5mm	0.5mm	0.5mm

Item	T-Type / Snap-In Mount				Item	Reflective Type			
Image					Image				
Part No.	KIT5015C	KIT5011C	KIT5033C	SG2481	Part No.	SG105F3	SG112	SG113	SG128IR
Gap	5mm	5mm	5mm	5mm	Detection Distance	0.8mm	2mm	5mm	8mm
Slit	0.5mm	0.5mm	0.5mm	0.5mm					

Item	Actuator Type				Item	Separate Type	
Image					Image		
Part No.	LG413	SG402	SG405	KIA0002C	Part No.	PIE310/PID310	KIS9010C/KIS9011C
					Detection Distance	Typ. 200cm	100cm

Photo Interrupter Line-up

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Item	Paper Sensor	
Image		
Part No.	PS122TL5-A/ KPS1001C/3C/4C/5C/6C/7C	KPS1002C/8C
Detection Distance	1mm ~ 10mm(Kodak 90%) 3mm ~ 7mm(Kodak 18%)	7mm ~ 25mm(Kodak 90%) 10mm ~ 16mm(Kodak 18%)

Item	Dustproof Sensor					
Image						
Part No.	KIT5038C	KIT5039C	KIT3018H	SG2A01-A	KIT5040A	KIR3006H
Gap	5mm	5mm	3.18mm	5mm	5mm	Detection Distance 3.81
Slit	0.5mm	0.5mm	0.5mm	0.5mm	0.5mm	

Item	Dust Sensor
Image	
Part No.	KEMXX010Q
Range of measurement	PM1.0, PM2.5, PM10
Type	Laser Diode

Encoder Line-up

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Item	Thick Type					
Image						
Part No.	KE2109	KE2108	KE2107	KE204	KE203	KE-2B10
Gap	1.7mm	1.7mm	1.7mm	3.0mm	3.5mm	0.5mm
LPI	150, 180, 300	150, 180, 300	150, 180, 300	90-120	0.5mm pitch	150, 180, 300, 360

Item	Slim Type					
Image						
Part No.	KE-2E10	KE-2H10	KE-2E10F	KE-2B10F	KE-2E12	KE-2B12
Gap	0.5mm	0.5mm	0.5mm	0.5mm	0.8mm	0.8mm
LPI	150, 180, 300, 360	150, 180, 300, 360	150, 180, 300, 360	150, 180, 300, 360	150, 180, 300	150, 180, 300

Item	Slim Type					
Image						
Part No.	KE-2B12F	KE-2E12F	KE-2E13	KE-2E18	KE-2H18	KE2H21
Gap	0.8mm	0.8mm	0.8mm	2mm	2mm	1mm
LPI	150, 180, 300	150, 180, 300	1150, 180, 300	150, 180	150, 180	150, 180

Other Products Line-up

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Item	Thick Type					
Image						
Part No.	R24FH4A	R2FV1A	R34FH2A	R24FH4A	R123C6E	R76CC5D
V _{cc}	2.7 to 6.0V	2.7 to 6.0V	2.7 to 6.0V	2.7 to 6.0V	2.7 to 5.5V	2.7 to 6.0V
I _{cc}	(I _{cc} = 1.0mA, V _{cc} = 5V)	(I _{cc} = 1.0mA, V _{cc} = 5V)	(I _{cc} = 1.0mA, V _{cc} = 5V)	(I _{cc} = 1.0mA, V _{cc} = 5V)	(I _{cc} = 0.35mA, V _{cc} = 5V)	(I _{cc} = 0.6mA, V _{cc} = 5V)

Item	Emitter											
Image												
Part No.	KEL3002A	EL6F11T	KET511	EL23G	KEL1001L	KEL-0315C	SI5311-H	EL-1CL3	KEL-1ML2	EL-1KL5	ML-1K3	KCL-1608

Item	Photo Transistor						Photo Diode						
Image													
Part No.	KDT5001A	ST302	KST-312	KDT3002A	ST-1KLB	ST-1CL3H	HPI307	KDP6004A	KHP2032	HPI6FH	HP-2ML	HPI5FCR2	HPI-2C

Item	IrDA			
Image				
Part No.	KOI-6001C	KOI-6007PTN	KOI-6713B	KOI-6702ATS

Item	Module					
Image						
Part No.	KOE1108HA Auto light sensor	KMEE003A Sun sensor	KMEM001C UV sensor	KMED002A Distance sensor	KMEM013C Color Tonor Density Sensor	KIR0105T4 Strip sensor

Total Application

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“ Our products are always
by your side! ”

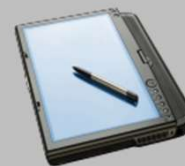
O/A



Bill Judgement



TOUCH PANEL



MOBILE



H/A



GAME



CAMERA



MEDICAL



ROBOT



Automotive



ATM





Thank you for your attention

www.kodenshi.co.kr