



CHANGNAM I.N.T. Ltd.

# Company profile

February 2015

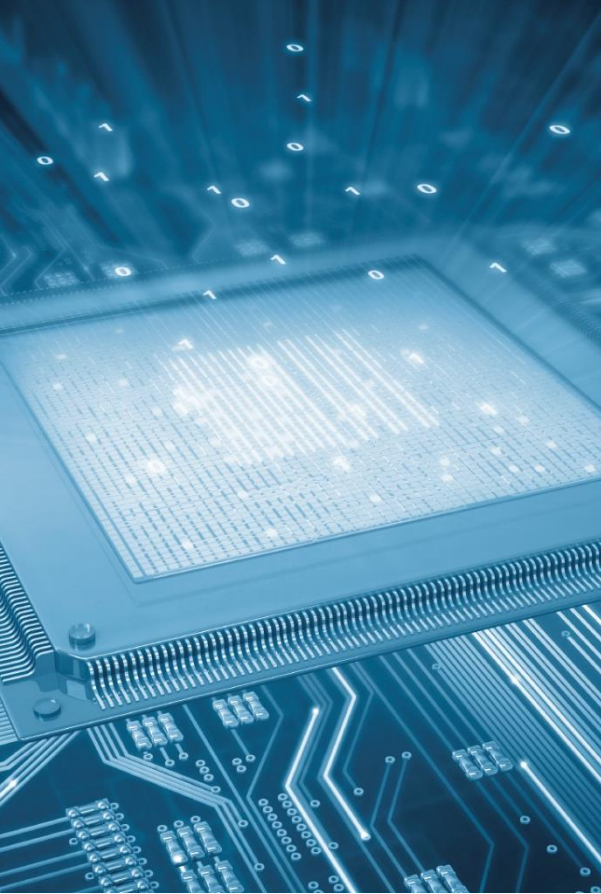
# Agenda

## Overview of company profile

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# Corporate Introduction

## Overview



- Company name: CHANGNAM I.N.T. Ltd.
- Address: Changnam Bldg. 104, Dangsang-Ro, Youngdeungpo-Gu, Seoul, Korea
- Date of establishment: September, 1995
- Employee: 83 persons
- Regional sales office
  - Guro office for Retail market
  - Gumi office for South area.
- Business field
  - Distribution and Representative business of Semiconductors, Various Electronic components and modules.
  - Technical sales and Consulting of Semiconductors & module, etc.
  - Research & Development

# Vision

Corporate vision and philosophy.

## Our vision

We deliver the latest technical information faster and help customers solve their problems in R&D and manufacturing by offering valuable consulting services and try our best to provide utmost supports, electronic components and modules so that customers can stand at the best position in the world electronic market place.

We also focus on finding customers' needs continuously and make them deeply satisfied.

Changnam is targeting to be a # 1 electronics consulting company in Korea by offering high-quality services.





# Affiliated Companies

Company overview and activity fields



## Comtel Global

Logistics and warehousing for Group companies.

Established in Sep. 2009

10 Employees



## Techno hill Co., Ltd

Manufacturing of battery pack, camera module for Mobile phone and Others.

Established in Jul. 1992

300 Employees



## Comtel Korea

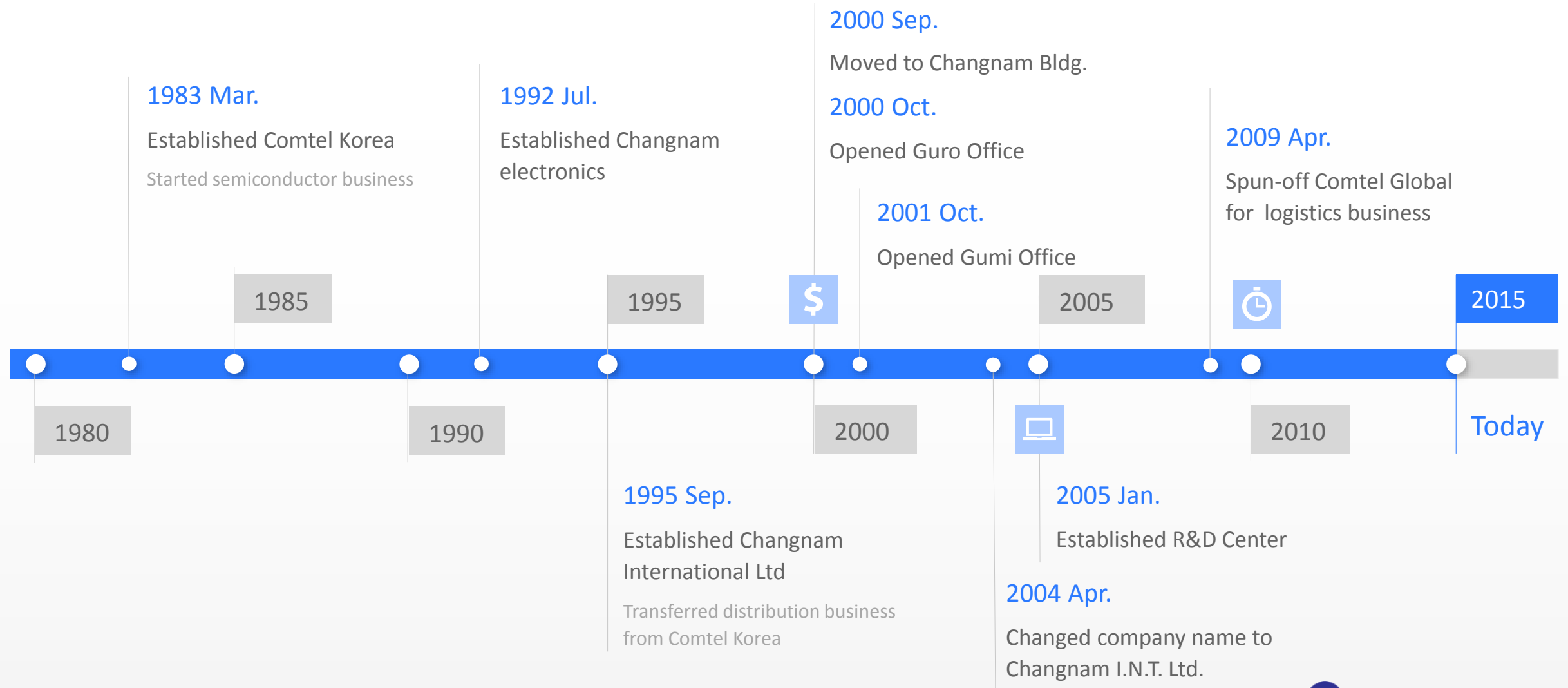
Financing and group business planning.

Established in Mar. 1983

4 Employees

# History

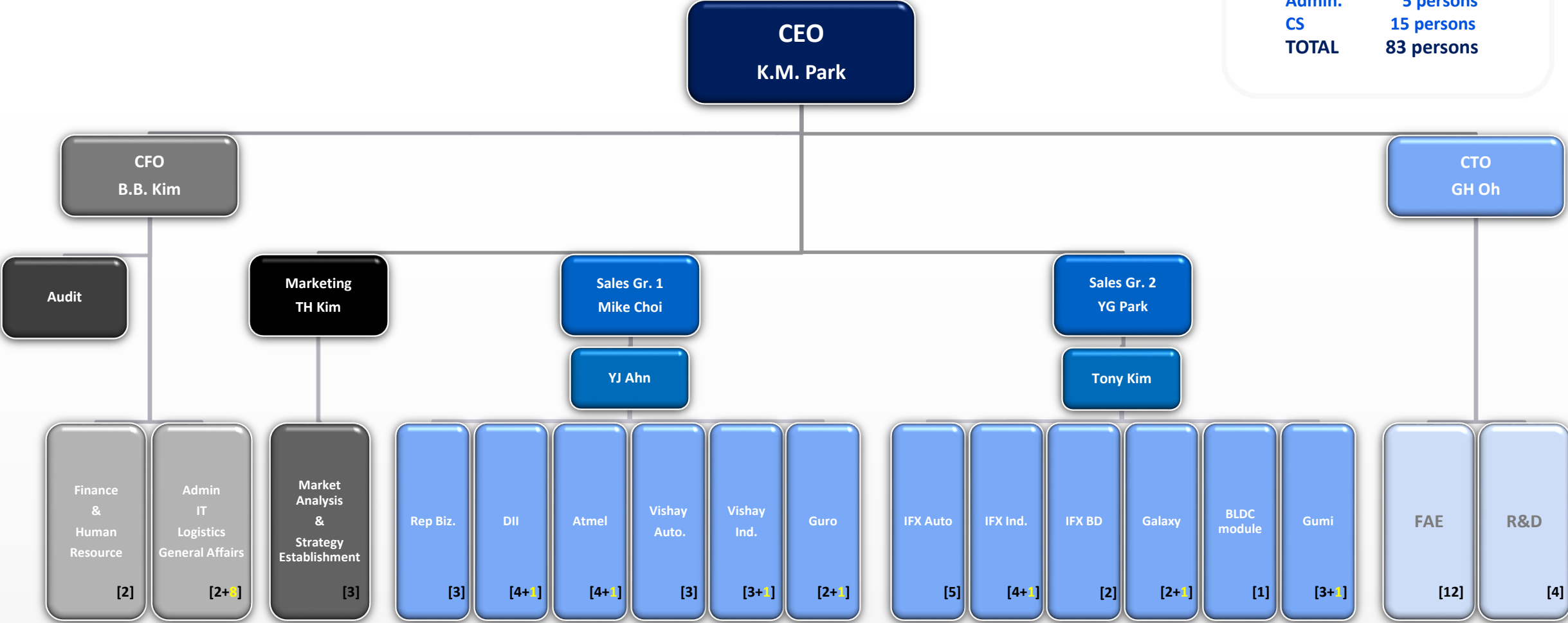
Highlight milestones of company history.



# Organization

Company organization introduction

Executive	3 persons
Sales	40 persons
Marketing	4 persons
F&E	12 persons
R&D	4 persons
Admin.	5 persons
CS	15 persons
TOTAL	83 persons



# Line cards

## Supplier company list





# Company differentiation

## Our competitiveness



### Sales division

Secured extensive customer base

- Appx. 400 customers regulary
- Total customers 2014 were appx. 600.
- Appx 1000 customers in system database.



### R&D division

Rich experience & well trained FAEs

- Both S/W & H/W engineers including RF & Linux design.
- Customized design service for F/W & H/W development
- Applicatoin research.



### Admin. division

Well-equipped logistics system and CS organization.

- Qualified ERP and barcode system.
- Supporting by specialized logistics staff and organization.
- Well-organized CS team



### Marketing division

Independent organization for new business strategy

- New market and application research
- Develop new line-card
- Public relations and promotion.

# Markets & customers

## Major customer list by market segment

Automotive	Consumer	Mobile & Network	Power	Other markets
HYUNDAI AUTRON	SAMSUNG	SAMSUNG	LG INNOTEK	HEAVY INDUSTRY
HYUNDAI MOBIS	LG	LG	YUYANG D&U	S&T
DAESUNG ELEC.	HUMAX	SDC	DONGYANG ENP	TATA DAWOO
DAEDONG	SK HYNIX	PANTECH	SUNGHO ELEC	MEDICAL
OMRON KOREA	OHSUNG	UBCELL	H&E	MEDIANA
WOORI INDUSTRY	CAS	UBQUIOSS	LIENCHANG	JAWON MEDICAL
ALPS KOREA	KAON MEDIA	BLUEBIRD	KTY	MILITARY/AERO
LG INNOTEK	ANAM	DONGYANG TELECOM	POWER NET	RADIOVILLE
DENSO KOREA	FEELUX	ACE TECHNOLOGY	ORIENTECH	PEOPLE WORKS

# R&D Group introduction

## Group organization & Role

### Well-organized FAE & Engineering team

Dedicated engineers assigned for the technical support of each supplier.

Secured plenty of experience for development of modules and reference design of various applications , such as BLDC motor control, Induction cooker, BMS, large screen touch, block box, Mira-cast dongle & etc.



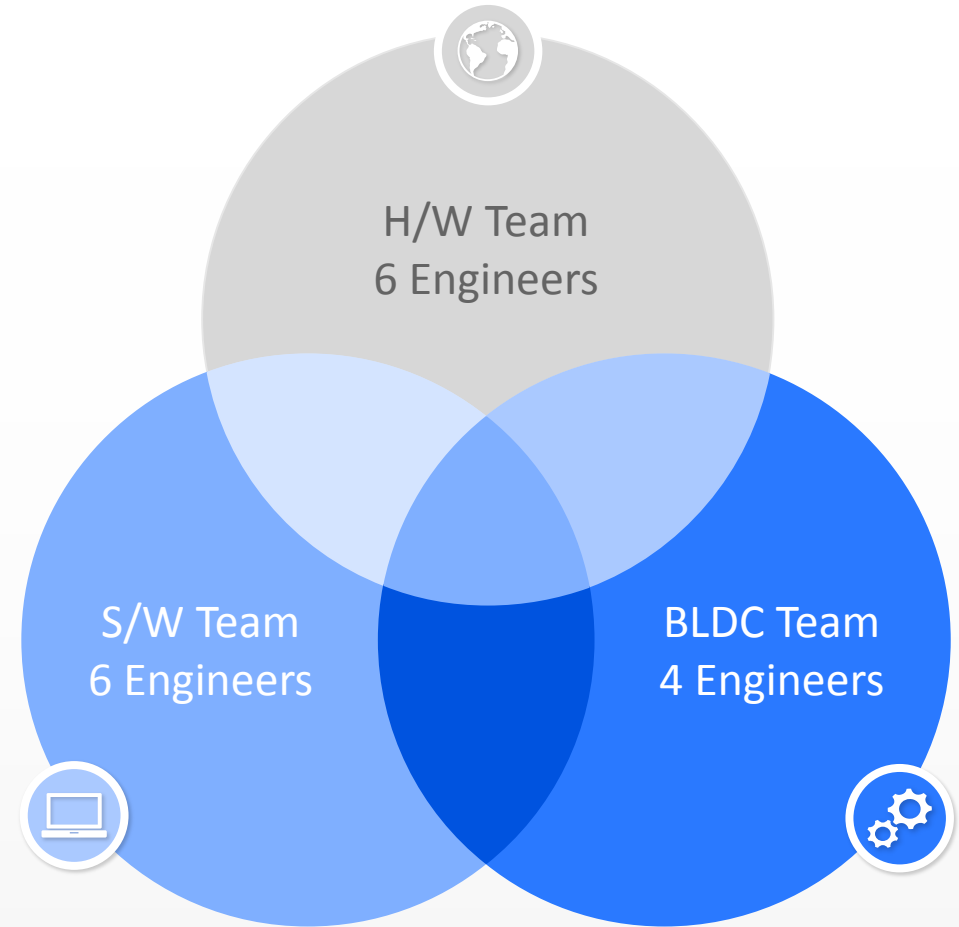
Analysis and promotion for the parts by professional's point of view.



Support development F/W or custom-made module for the volume business opportunity.

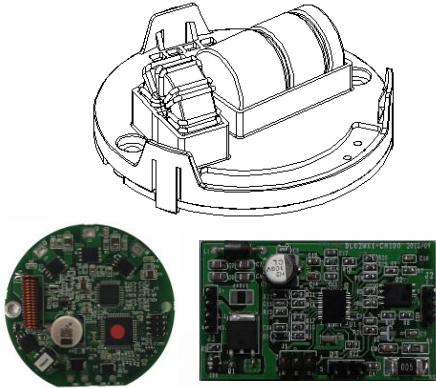


Faster time to market



# R&D achievement

Development results by R&D division



## BLDC Motor control module

BLDC FOC Algorithm

Full power range support  
(20-600W)

EWP/EOP/FAN/e-Bike target



## Induction Range

In put voltage : AC185V ~ AC265V

Out put power : 500W ~ 1KW

Safety protection : OCP, OVP, OTP

EMI regulation compliance

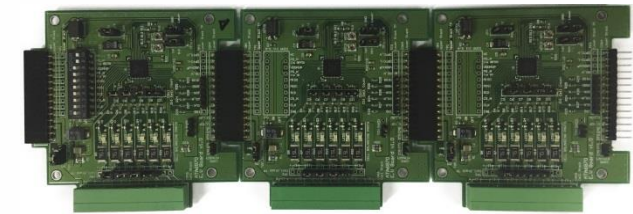


## Large screen touch module

Multi touch support.

7 ~ 15" display.

PCB type standard module



## BMS module

Block type module.

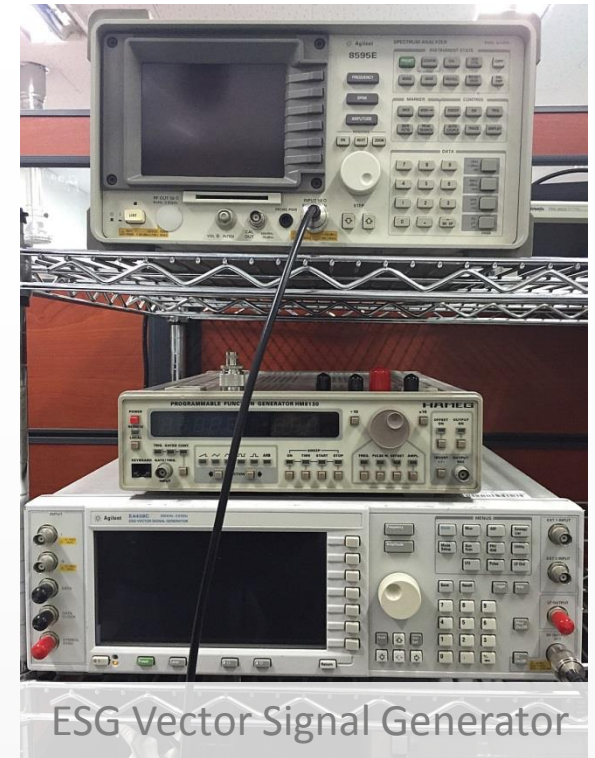
Unlimited battery capacity.

Cell-balancing support.



# R&D Equipment

Secured development equipment and tester





# R&D Equipment

Secured development equipment and tester



Oscilloscope



Oscilloscope



Oscilloscope



Waveform Ganager



Function Generator



Signal Generator



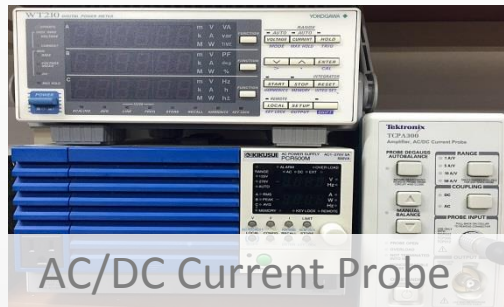
Spectrum Analyzer



LCR Meter



Electronic Load



AC/DC Current Probe



Power Ananlyzer



Thermal Imager

# Logistics & Warehousing system

## Introduction Comtel Global



Bar code system

### Qualified ERP system

Possible to request the delivery status and check the inventory through online real time system.



Location system

### Box level tracking system

Manage the parts and box location through ERP system. Keep first-in, first out.



Temp & Humidity control

### Execute MSL standard

following Moisture Sensitivity Level handling Guidelines.



Security system

### Real time monitoring

Monitoring warehouse situation in real time and recording change of temperature and humidity every hours.





# Supplier

The detail information of all line cards.

# Line cards

Product line-up of supplier



[www.atmel.com](http://www.atmel.com)

Touch Solution  
8/16/32bit Microcontrollers  
Automotive Solutions  
EEPROM / Flash Memory  
Wireless Solution  
LED Driver, Temp Sensor



[www.infineon.com](http://www.infineon.com)

Automotive & Industrial MOSFET  
Power management IC  
Automotive Transceiver  
8,16,32 Bit MCU  
IGBT Power Transistors  
Sensors, RF  
LED Driver Solution



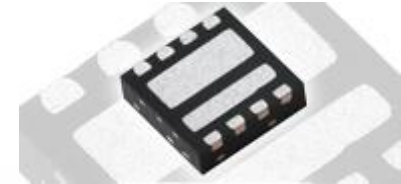
# Line cards

Product line-up of supplier



[www.vishay.com](http://www.vishay.com)

Rectifiers / Bridge / Power Diodes  
Small signal / MOSFET / IGBT  
Thyristor / IGBT Module  
Power IC / Analog switch  
Infrared / Optoelectronics  
Power Inductor / Shunt Resistors  
AC / Tantal Capacitor



[www.diodes.com](http://www.diodes.com)

High Efficiency/Switching/ Zener Diode  
SBR(Schottky)/ DiodeStar(PFC)  
NPN/PNP Transistors / MOSFET  
LDO/ DC-DC (Buck/Boost)  
Reset IC/ USB switch/Load switch  
LED Driver IC / Hall IC/Logic IC





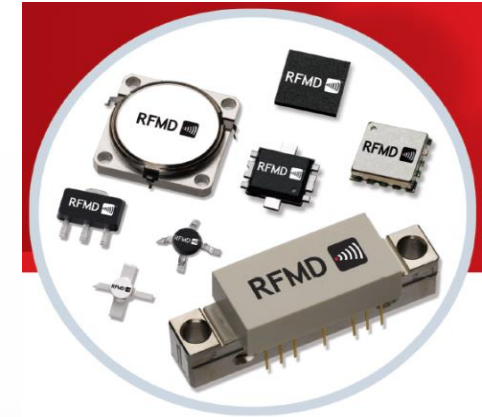
# Line cards

Product line-up of supplier



<http://www.qorvo.com>

CATV Amplifier  
Power Double Amplifier  
Push Full Amplifier  
Return Path Amplifier  
Optic Receive Module  
Power Amplifiers  
Low Noise Amplifiers  
Ant. Switches



[www.littelfuse.com](http://www.littelfuse.com)

Miniature / Subminiature Fuses  
Surface Mount Fuses  
POWR-GARD Products  
Varistors  
TVS / ESD Diodes  
SCR, TRIAC, SIDAC



# Line cards

Product line-up of supplier



<http://www.epson-device.co.kr/>

4/8/16/32-bit Microcomputers  
LCD Controllers / Drivers  
Crystal Unit / Resonator  
Oscillator



[www.aviacomm.com](http://www.aviacomm.com)

Cellular Device Transceivers  
TVWS Device Transceivers  
Infrastructure Transceivers



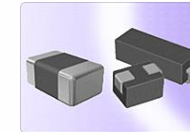
# Line cards

Product line-up of supplier



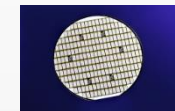
<http://www.lairdtech.com>

Antennas & Reception Solutions  
EMI Solutions  
Power Products  
Thermal Management Solutions  
Embedded Wireless Solution  
Remote Control Systems



[www.cree.com](http://www.cree.com)

High Power Sic Diodes  
FET & its module



# Line cards

## Product line-up of supplier



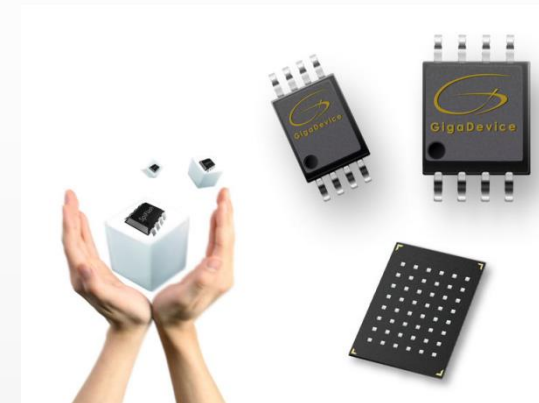
<http://www.gmicroelec.com>

Switching / Zener Diodes  
Schottky / Rectifier Diodes  
TVS / Bridge Rectifiers  
Signal / Double Transistors  
Digital / Power Transistors  
MOSFET  
Regulators / Photocouplers  
LED



<http://www.gigadevice.com>

SPI NOR Flash  
Parallel NOR Flash  
SPI NAND Flash  
Cortex -M3 MCU



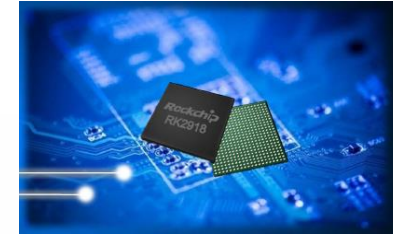
# Line cards

## Product line-up of supplier



<http://www.rock-chips.com>

Main Application Processors  
(Up to Quad-Core cortex-A12)  
Tablet/ PDA solutions  
OTT solutions  
Pico Projector solutions



<http://www.pulseelectronics.com>

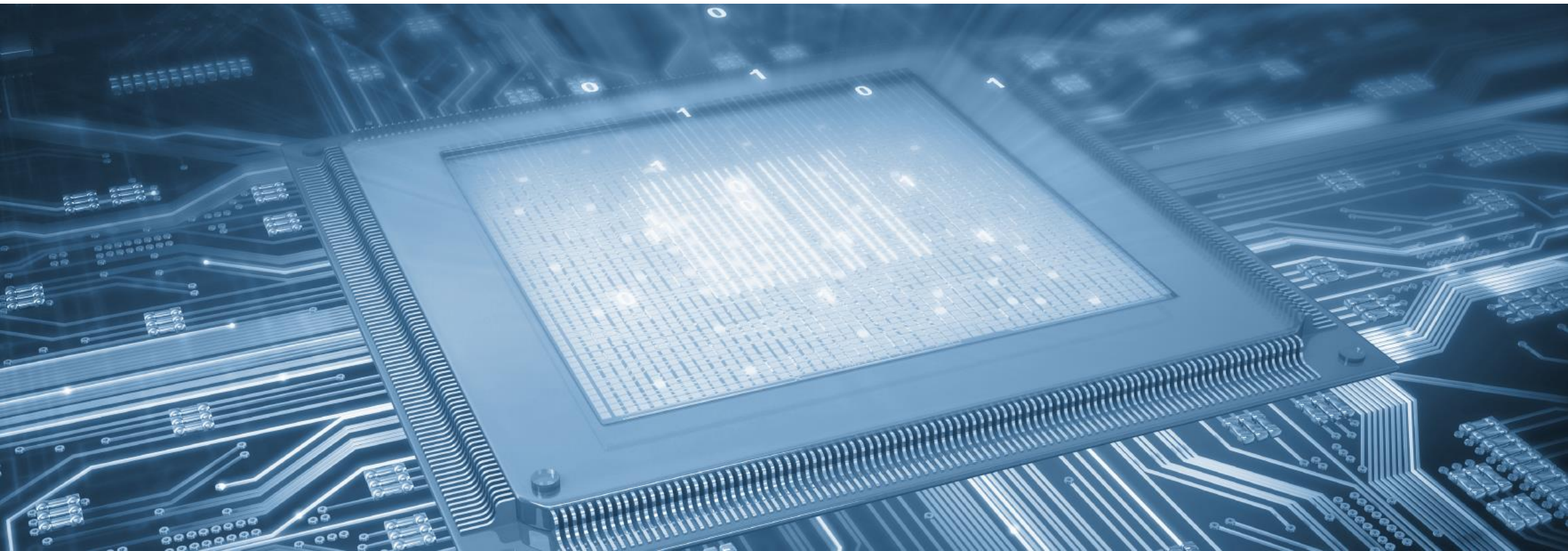
- Switching Power Magnetics  
(Inductors and transformers)
- Signal Magnetics  
(LAN discrete components ICMs)
- Broadband Access Magnetics
- RF chip Inductors & Antennas
- Connectors





# Thank you

Question & Answer



# Contact information

Address, web links, Telephone number

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