



WCON ELECTRONICS





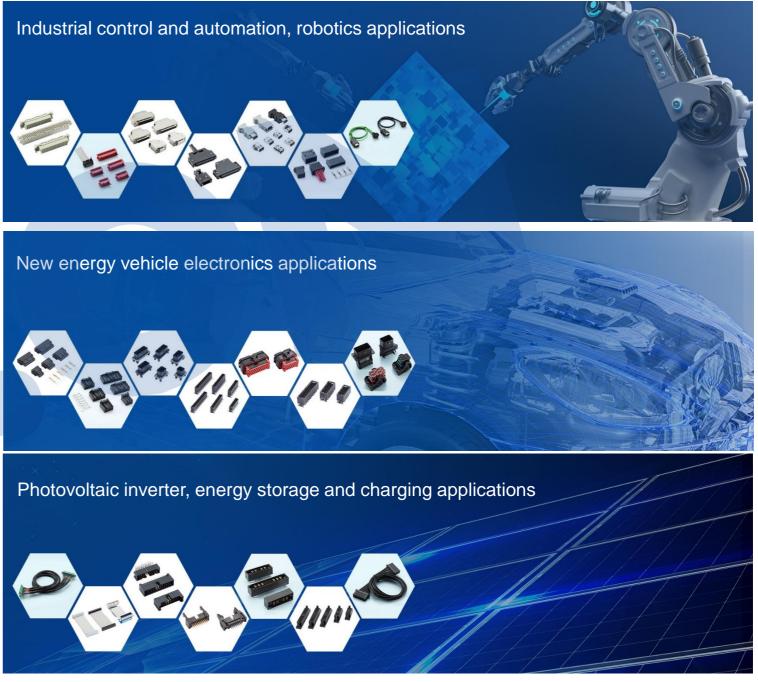
High end precision connectors and customer solution Service Provider

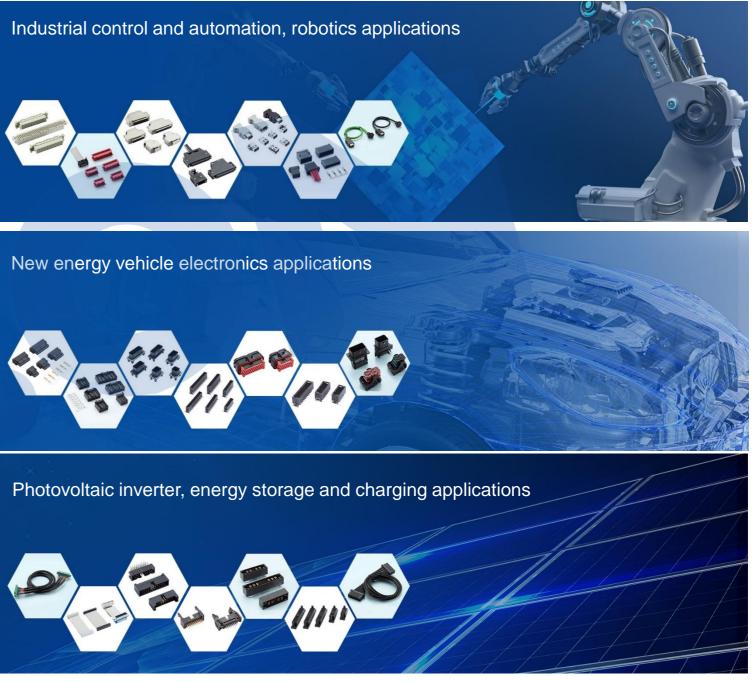
Company Profile

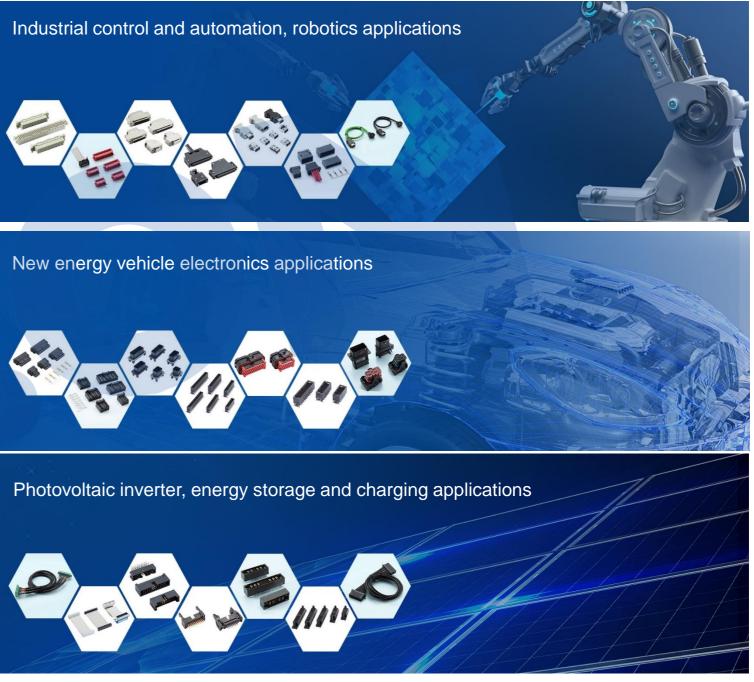
Wcon, founded in Nov. 2002, is a committed to provide a high end precision connectors and customer solution. The application industry of product ranges from industrial automation an control, battery, motor and electric control system of new energy vehicles and photovoltaic inverter system.



- National High-Tech Enterprise
- China Well-known Trademark Enterprise
- AAA level Enterprise of Observing Contract and Valuing Credit
- Professional, Proficient, Special, New Enterprise
- Guangdong Innovative Enterprise









Sales Network

WCON ELECTRONICS :

- ➢ Wcon Kunshan
- > Wcon Automotive Electronics

Italy

- ➢ Wcon Hefei
- Wcon Hengyang

- Wcon Hongkong
- Wcon Europe (Italy)
- Dongguan Shiyu New Energy





Kunshan(2006.07)



Dongguan (2017.10)



Hefei 🧿 Hengyang 😵 Kunshan **†**Dongguan Hongkong



Hefei (2022.10)



Hengyang (2022.11)

		WCON Electronics (Guangdong) CO.,LTD	
	WCON	- Kunshan WCON Electronics CO.,LTD	
	ELECTRONICS	- Hefei WCON Electronics CO.,LTD	頭
	301328	- WCON Electronics Europe S.R.L (Italy)	友中心
-		- Dongguan WCON Automotive Electronics CO.,LTD	
		- WCON Hardware Electronics Limited (Hongkong) Wcon Electronics Grou	•
		 Hengyang WCON Electronics CO.,LTD Wcon Automotive: 60 	
		 Dongguan Shiyu New Energy CO.,LTD Wcon EE : 1 	





oup : 1,500+ Employee

1020 Wcon Kunshan:300

Wcon Hefei: 50

Donguan Shiyu New Energy: 30

Wcon Roadmap





- Industrial Automation and Control Signal connectors and harness:
- Product series: Pin header, Female header, Box header, Ejector header, Wafer, PSP, IDC, DIN41612, Terminal Blocks etc...

Field Direction

- New energy passenger car triboelectric system applications :signal connectors and harness ;
- Industrial control and automation :Precision BtB, WtB;
- Photovoltaic inverter : signal connectors and harness;



- New fields: AI, Robotics, Energy storage, Charging, industrial power supply, Commercial vehicles, Construction machinery, ADAS, CCS management;
- Industrial new products: Floating BtB, high-speed BtB, high-speed I/O, new harness components:
- New energy vehicles products: HSD high-speed signal connectors, FARKA, MINI FARKA, In-vehicle Ethernet and wiring harnesses, In-vehicle Type C wiring harnesses, etc.

Product Roadmap 2023-202X

2023

New energy vehicles: Press fit terminal, M50 series, power signal hybrid type, waterproof type, wire-to-wire, floating board-to-board, Photovoltaic application: Solar photovoltaic C104 series, junction box series Industrial control: high-speed BTB, WTB, circular connectors Others: Customized Joined research projects

2024

New energy vehicles: Miniaturized, Integrated, high-performance series connectors; HSD high-speed signal connectors, FAKRA, Mini FAKRA, vehicle Ethernet wire harness, vehicle Type C wire harness, CCS system;

Industrial automation and control: Small pitch, High-speed, Power signal mixed series connectors, etc.

New energy: Small size, High current, Waterproof and anti-UV series connectors, etc.

New fields: Commercial vehicles, Construction machinery, Robots, Energy storage, Charging, power supply, medical care, rail transit, city and building intelligence









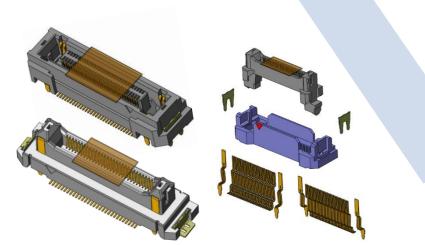
- R&D Team : 70+
- Research Institute : 7+

Rigorous design procedures, Scientific simulation analysis

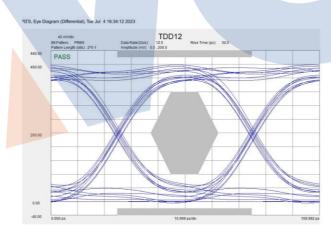
- Current-carrying temperature rise simulation
- High-speed high-frequency simulation

mechanical stress strain

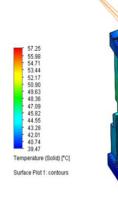
Simulation (CAE) is a sharp tool for product design, product improvement, and product optimization; it provides comprehensive analysis and performance level information, shorten the development cycle and reduce the overall cost of the product.



High Precision BTB Project Development

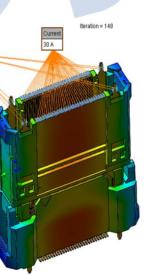


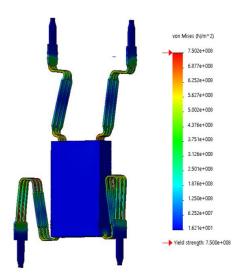
Rigorous Structure Analysis



Professional Simulation analysis of Mechanical stress and Temp rise





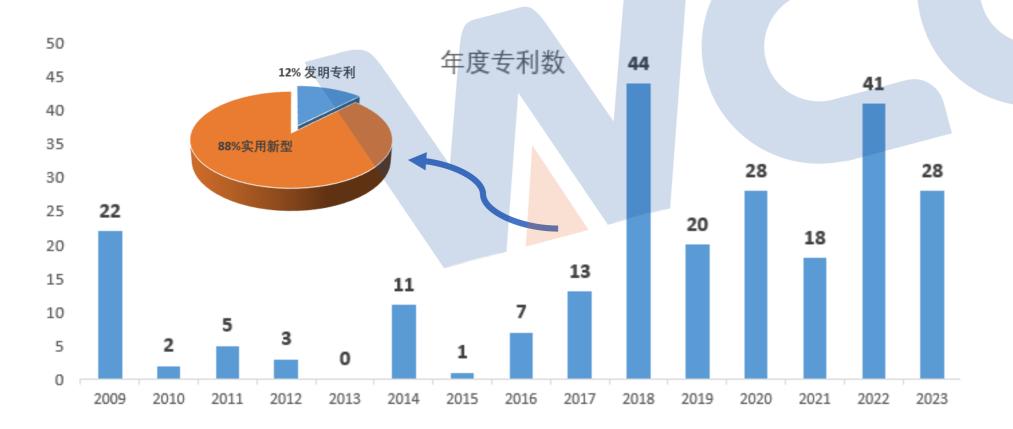


Product Mutual Matching simulation Analysis





- \geq 30+ Invention patents;
- > 50+ Invention patents over the next three years;
- 8 Industry group standards (edited 6 items)







\$ 31.220.10 3				T/CECA 61-2021	
オ	体	柡	准	前言	
T/CECA 61-2021 1. Omm、1. 27mm、2. Omm、2. 54mm 间距印 制板用两件式连接器 Two-part connectors of 1. 0mm、1. 27mm、2. 0mm、2. 54mm pitch for printed circuit boards			Imm 间距印	本文件按照(8/11.1-2000《标准化工作导则 第1部分:标准化文件的结构和起草规则》的规 皮起弯。 端注意本文件的某些内容可能涉及专利。本文件的货布机构不承担识别这些专利的责任。 本文件由中国电子元件行业协会电接插元件分会提出。 本文件由中国电子元件行业协会电接插元件分会归口。 本文件起草单位:维峰电子(广本)股份有限公司、沈阳兴华航空电器有限责任公司、深圳市得 据电子股份有限公司、深圳市通度电子有限公司、东莞高端精密电子股份有限公司、厦门唯思电气有 限公司、合兴汽车电子股份有限公司。 本文件主要起草人:李文化、周松林、赵世志、李晴、姜睿智、孔祥超、霍柱东、董茂杰、李玉 龙、嘉海珠、谭达兴、吴立波、林平、熊洪煌、刘冬旭。	

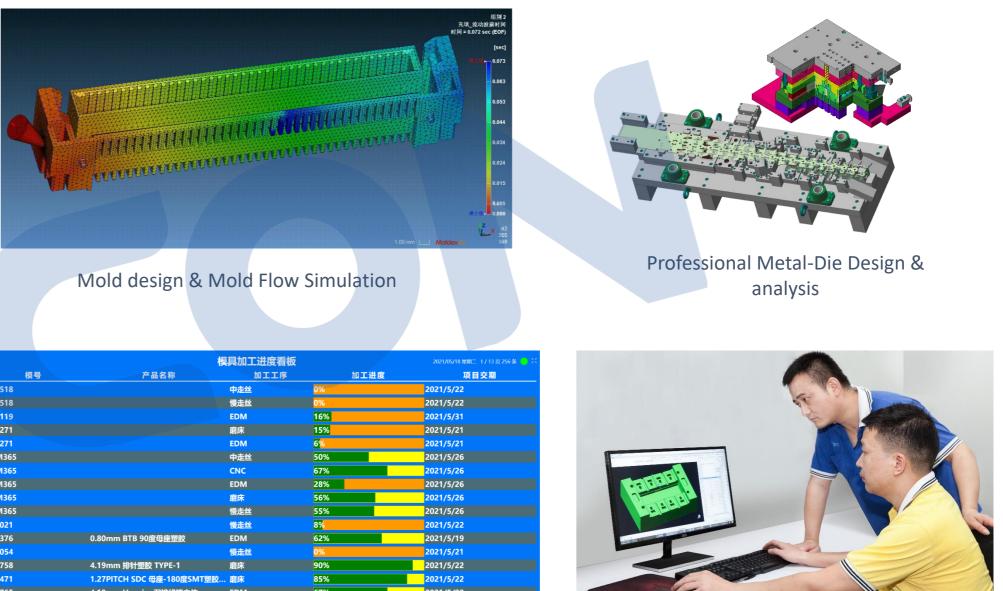
Engineering Realization

High end precision connectors and customer solution Service Provider

Professional Tooling Design and Fabrication Team: 278

- Mold design: 46 Engineers
- Mold processing: 107 Engineers
- > Hardware & injection molding production: 125 Engineers

Using CAD, UGNX (3D), MOLDEX3D, VISI 3D and other software to design precision high-speed metal stamping dies and precision plastic injection molding dies.



		ŧ	莫具加工进度看板	
	模号	产品名称	加工工序	加工进度
WF17518			中走丝	0%
WF17518			慢走丝	0%
WF06119			EDM	16%
WF20271			磨床	15%
WF20271			EDM	<mark>6%</mark>
WFCM365			中走丝	50%
WFCM365			CNC	67%
WFCM365			EDM	28%
WFCM365			磨床	56%
WFCM365			慢走丝	55%
WF04021			慢走丝	<mark>8%</mark>
WF13376		0.80mm BTB 90度母座塑胶	EDM	62%
WF04054			慢走丝	0%
WF21758		4.19mm 排针塑胶 TYPE-1	磨床	90%
WF16471		1.27PITCH SDC 母座-180度SMT塑胶.	磨床	85%
WF21765		4.19mm Housing双排线端主体	EDM	67%
WF21761		4.19mm 双排 板端母座 主体 带定位柱	中走丝	99%
WF21761		4.19mm 双排 板端母座 主体 带定位柱	慢走丝	59%

Advanced Tool production process and schedule management



2021/5/18 2021/5/18

Tool Solution Analysis

Mold & Die Fabrication

High end precision connectors and customer solution Service Provider

Mold processing equipment : 250 sets

(130 sets in Dongguan, 120 sets in Hengyang and Kunshan):

- 1. Wire cutting: Shamir, West
- 2. EDM : Mitsubishi, Makino, Akishimi
- 3. CNC: Yashida, Micron, Makino
- 4. Grinding : Mitsui, Okamoto, Yuqing, WAIDA PG optical grinding machine, WAIDA JG coordinate grinding machine
- 5. Mold material: CD650, ASP23, SKH-9; Viking, SKD61
- 6. Mold: Rich Bagel plus hard molding die, SLD ultra cryogenic treatment die
- 7. Current Mold capacity: plastic mold 28 set/month, stamping die 15 sets month
- New planning, Added two CNC+EDM+ robot automatic mold parts 8. processing lines;
- 9. Hengyang Factory: Mold processing center and training base for precision mould processing personnel;











Injection

Injection Machine: 49

- Horizontal: 7~180 tons;
- Vertical: 35~55tons;
- Brand: Fanuc, Rijing, Baisu
- Mold: 1500+ sets; Mold frame: 100*100 to 500*600
- Mold holes: 2~64 holes
- Capacity: 50M PCS/ month
- Feed: Centralised, single-machine automatic drying and feeding, automatic online crushing cycle













Stamping Die

High end precision connectors and customer solution Service Provider

Stamping : 32 sets

- Miniature Press Machine: 3, 5 tons: SPM 500MAX
- ➢ High-speed gantry: 20∼60 tons: SPM 1500MAX
- Brand: Jingli, Yamada, Boruida
- Accuracy: 1um;
- Material belt: 2 out of 4, internal riveting, two-way
- Mold: 760+ sets
- Capacity: 400 M PCS/ month
- > Automation: 100% CCD detection, automatic packaging











Assembly

High end precision connectors and customer solution Service Provider

Assembly Machines: 760+

- Fully & semi-automatic assembly machine
- Quality: Professional CCD size and electrical performance detection, automatic classification
- ➢ Pass rate: 99.5%
- Flexibilisation: more than 30 manual assembly lines
- Capacity: 40-45M conn./month; Wiring harness 0.5M/month
- Features: Variegation, Small batch, High quality, Consistency, Stability
- Professional management: Separate production areas and specialised process management in accordance with product range and characteristic requirements









Quality Assurance

- Perfect quality system, All-round quality assurance
- CNAS Laboratories (Expected 2024)
- Adequate testing equipment: material analysis, environmental testing, electrical , mechanical and environmental characteristics, failure analysis,

dimensional measurement, etc.



1.Material analysis:

Moisture analyzer, melt index tester, Vickers h thickness tester (0.01um);

2.Environmental testing:

SEA100A (Pb,Cd,Hg,Cr,Cl), GC-MS (ROHS2.0 polybrominated biphenyl);

3.Electrical characteristics:

Voltage/brilliant tester (5%), four-wire resistance meter RM3545($\pm 0.006\%$, $0.01u\Omega$), micro-resistance tester ($\pm 0.05\%$), contact resistance tester ($0.01u\Omega$), multi-channel temperature tester 10 sets (± 0.05 °C), digital multimeter (0.5%~0.8%), contact voltage drop tester, dynamic resistance tester, programmable DC power supply 10 sets, network analyzer;

4.Mechanical characteristics:

Instantaneous breaking meter, electromagnetic vibration meter, mechanical impact tester, drop tester, metal tensile tester, rotary tensile tester, automatic inserting and pulling force tester (each class), belt stripping force tester (each class), torque wrench tester (dial type, automatic type, ordinary type);

5.Environmental characteristics:

Steam aging test machine, alternating salt spray test box, reflow welding simulation tester, constant temperature and humidity test instrument, rapid change of hot and cold shock tester (10S), high temperature aging test box, hot wire tester ($\pm 5^{\circ}C \pm 0.1S$)), waterproof tester (IPX9K), reflow welding, air tightness tester, dust proof test box, horizontal and vertical combustion tester, needle flame tester

6.Failure analysis:

VHX-7000 ultra HD microscope, EVO18 scanning electron microscope, temperature, humidity and vibration three comprehensive testing machine, polishing grinder, metallographic cutting grinder, Dimension measurement: three dimensional (2 sets), 2.5 dimensional, 2 dimensional (15 sets), dynamic warping analyzer, caliper (300+), micrometer, micrometer, height gauge, etc. The highest comprehensive measurement accuracy is 10, WWW.WCON.COM



Moisture analyzer, melt index tester, Vickers hardness tester, X-ray spectrometer, infrared spectrometer Nicolet is50, film

Quality Assurance



Microwave Network Analyzer

- High frequency test from 900 Hz/10 MHz~43.5 GHz
- Two signal sources 4 ports



Fisher X-Ray

- Plating thickness test and guarantee;
- The minimum measuring point @0.1mm;



Infrared spectrometer



Ultra HD microscope





EVO 18 SEM

Temperature, Humidity and Vibration Comprehensive Tester





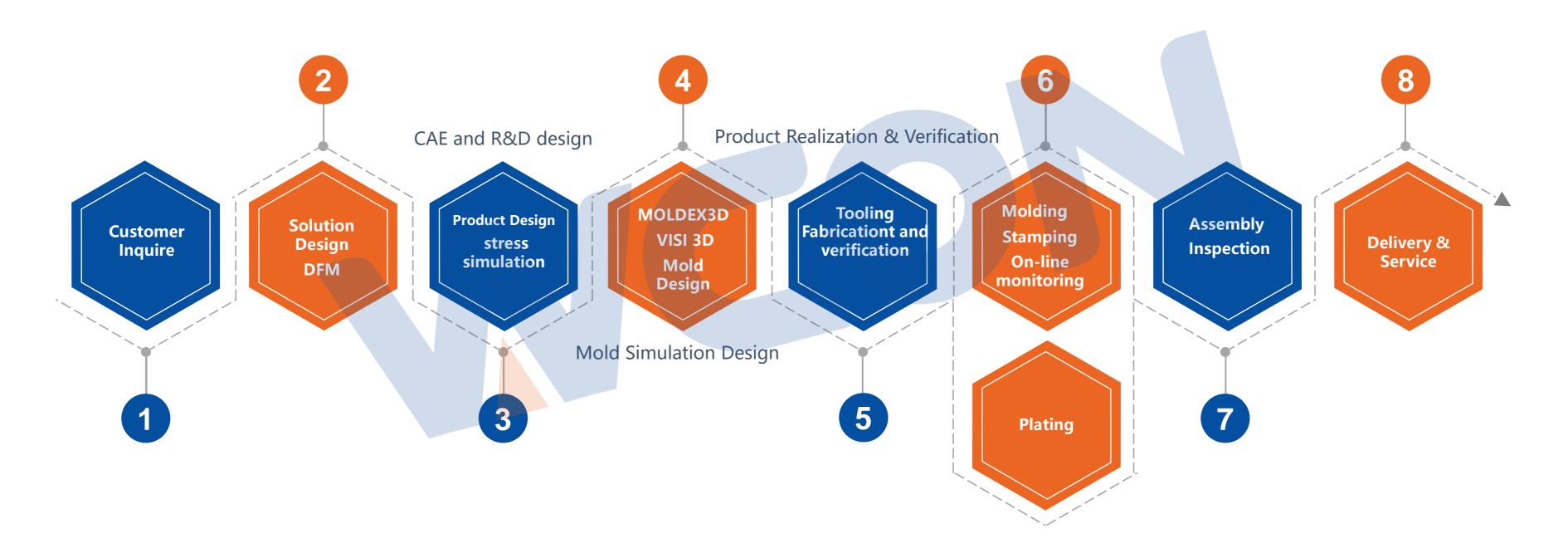
Instantaneous break detector:

- Simulation testing in vibration environment of • automobile, construction machinery etc.;
- Test range: $1\Omega \sim 20K\Omega$; •
- Test range: 0.1µs 100µs •



GC-MS test equipment



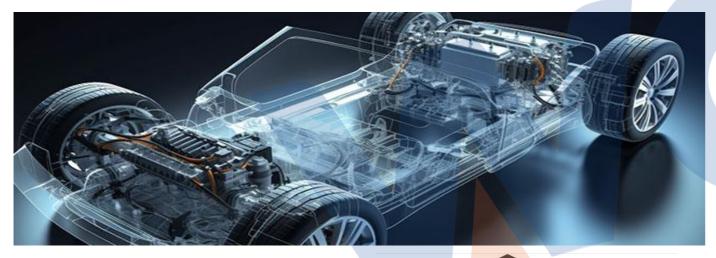




Automotive Solutions I

Automotive:

- > Three electric, ADAS, intelligent cockpit, internal connection;
- Passenger Cars
- Engineering Vehicles
- Construction Machinery
- Agricultural Machinery
- Intelligent Logistics handling

















Automotive Solutions II

Passenger Car

- ➢ BMS,OBC,ECU
- > ADAS
- Smart cockpit connectivity

Bus

➢ BMS, CCS

Engineering vehicles and machinery

> Controller





- 72525、72040、72022、72000、72025、72025A、
- WF2509、WF2011、WF2012、WF2010、WF1258;

Pin header, Wire to Board connector, Board to Board

Industry Control Solutions

Industrial Automation and Control

System

- > PLC、IPC
- Industrial intelligent
 - equipment

Industrial Robot

- Industrial robot arm
- Motion control box

Smart city

- Smart buildings and elevators
- Commercial server



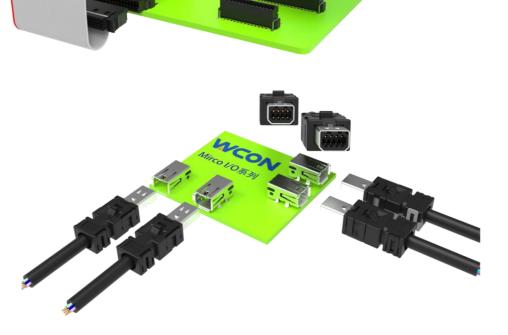
. F . B . B . V . II



Product Selection

- 1. Pin HDR and Female
 - HDF Connector
- 2. Box Header and Ejector
 - Header Connector
- 3. BTB Free-High Connector
- 4. WD&WF connecor
- 5. IDC、FFC、FPC
 - Connector

- 6. Micro I/O Connector
- 7. PSP、DIN41612 Connector
- 8. M8、M12、HDC Connector
- 9. Motor and machine
- Connector
- 10. Wire Harness & Flat Cable



Solutions: Photovoltaics & New Energy

Photovoltaics

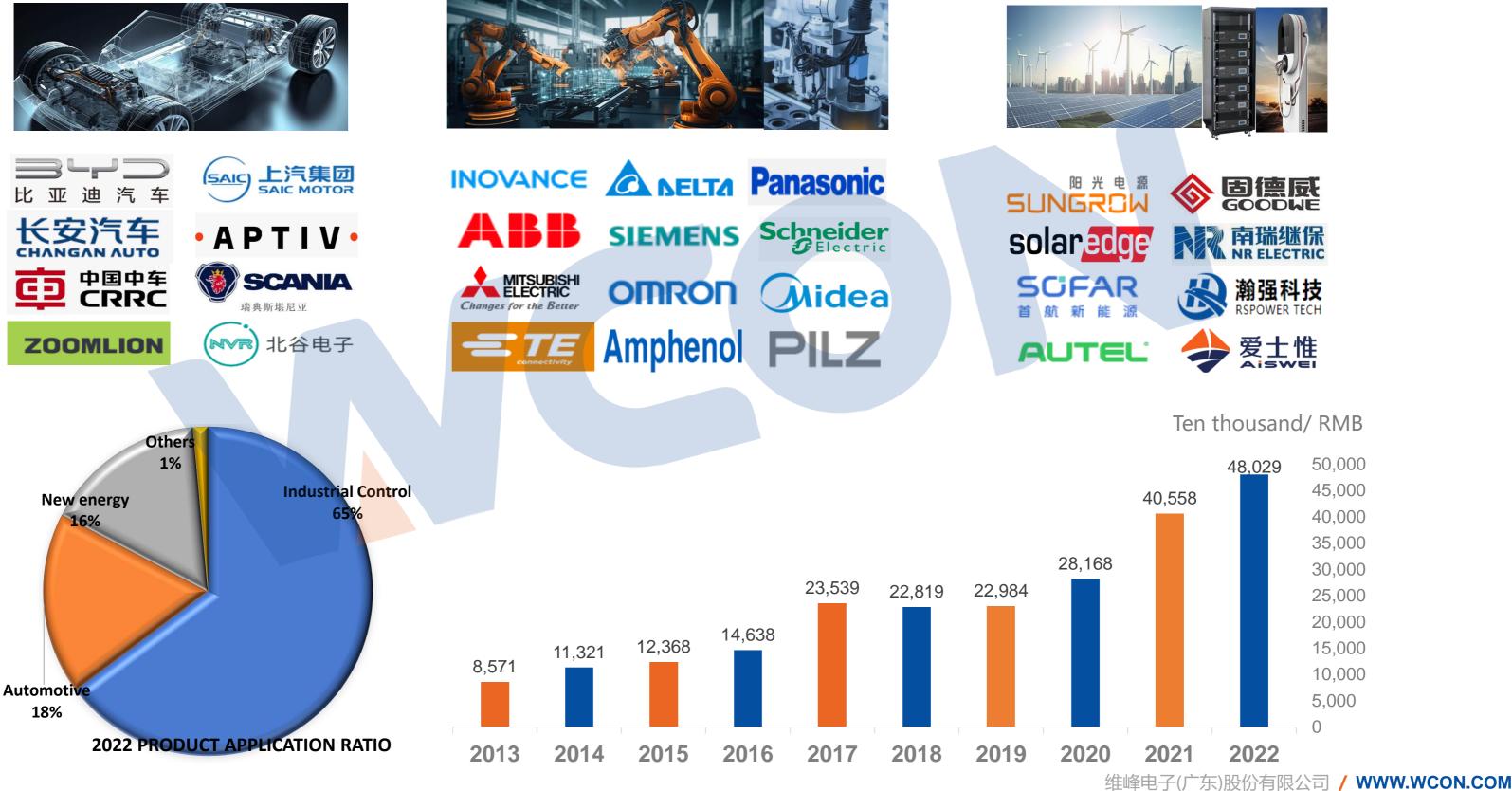




Charging and Power



Strategic Partners & Revenue











m B

8

- Fast delivery: Local production, Short LT, Fast Logistics.
- Strong Technique: Full categories, International Brand substitution, Own property rights, Optimization and upgrading
- WCON[®] > Unification of Standards: Integration of the three major international automotive standards QC/T1067, USCAR, LV214



Quality Assurance : Recognized by many OEMs and Tier-1s.

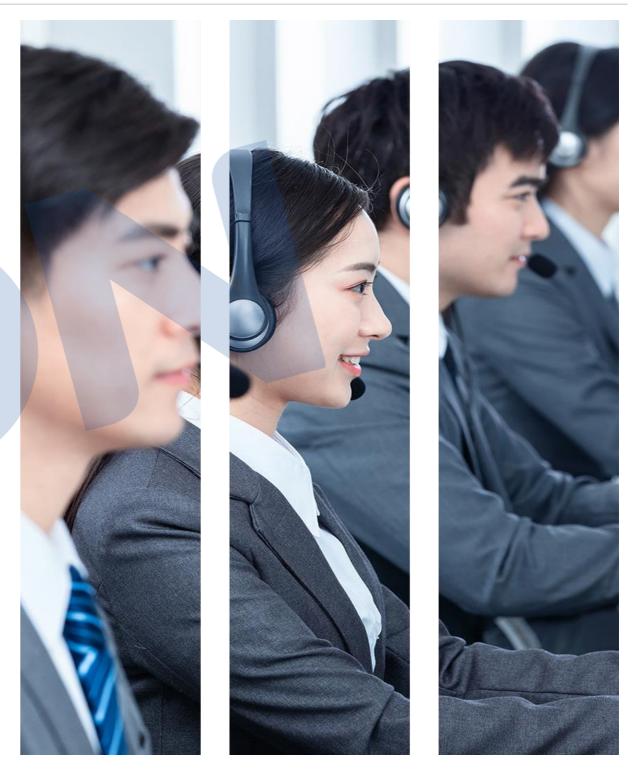


Quality service , Flexible service , fast action



Localization, Creating higher value for customers and achieving win-win situation.









WCON ELECTRONICS (GUANGDONG) CO.,LTD (HQ)

Add :No.7,Changxing Road, Ludong,Humen Town, Dongguan City, Guangdong Province .523935, China

Tel: +86-769-8535 8920 Fax: +86-769-8535 8915 Http: www.wcon.com

South China Sales Dept E-mail: mktdg@wcon.com salesdg28@wcon.com salesdg21@wcon.com Int' I Sales Dept E-mail : Salesdg01@wcon.com

KUNSHAN WCON ELECTRONCIS CO., LTD (East of China)

Add : No.321, Xinhong Road, Shipu, Qiandeng Town, Kunshan, Jiangsu, China

Tel: +86-512-5746 8408

Sales Dept E-mail:

Salesks@wcon.com ; Salesks01@wcon.com

HEFEI WCON ELECTRONCIS CO., LTD

Add : 2F, Building E, Greentown Science Park, High-tech Development Zone, Hefei, Anhui, China Tel: + 86-551-6288 2325

Sales Dept E-mail: wconhf@wcon.com



WCON ELECTRONICS EUROPE S.R.L. (Europe)

Add: Via dei Mille 8020861 Brugherio (MB) Italy

Tel.: +39 039 677 4129

Contact: Mr. Alberto Quadrio

E-mail: alberto.quadrio@wcon.com

DONGGUAN WCON AUTOMOTIVE ELECTRONCIS CO.,LTD

Add :No.7,Changxing Road, Ludong,Humen Town, Dongguan City, Guangdong Province .523935, China Tel: +86-769-8535 8920 E-mail: salesauto01@wcon.com