



CHANT SINCERE CO., LTD.

高速接続ソリューションのスペシャリスト

About COXOC

\$ 29M_{US}
Capital

\$ 42M_{US}
2023 Revenue

Factory



Chant Sincere Group

-  **Founded : 1985**
-  **Employees : 500**
-  **Taiwan Factory**
-  **Dongguan Factory**
-  **Zhongshan Factory**

FAKRA / Mini FAKRA / HSD / HMTD-N
USB4 Type C
High Speed & High Frequency

台湾に拠点を置くコネクタ/ケーブルメーカートップ10

- Top 10 connector & cable manufacturer in Taiwan
- Strong Asian production base
- Specialized in Hi-Speed & HF interconnections
- Focused growth plan in automotive sector



ビジネスモデルと主要顧客



サービスとコアコンピタンス

What do we do ?

- Product deficiency analysis
- Cost optimization of the design
- Fast delivery from concept to production
- Flexible automated manufacturing setup from pre-production to mass production stage

Benefits

- Short lead time from concept to production
- Cost effective solution
- Ensure smooth ramp up

Competence comparison

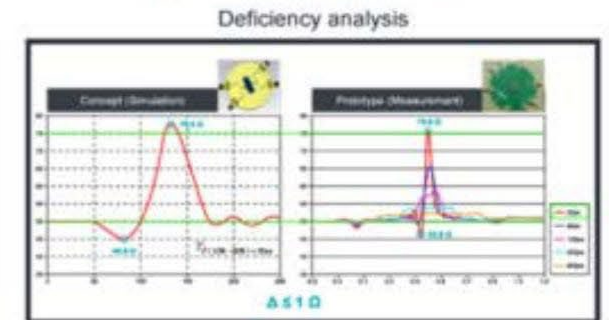
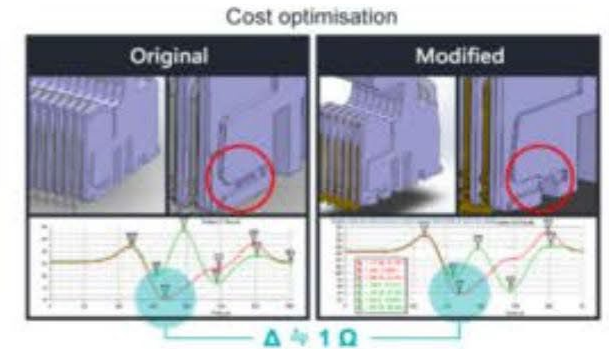
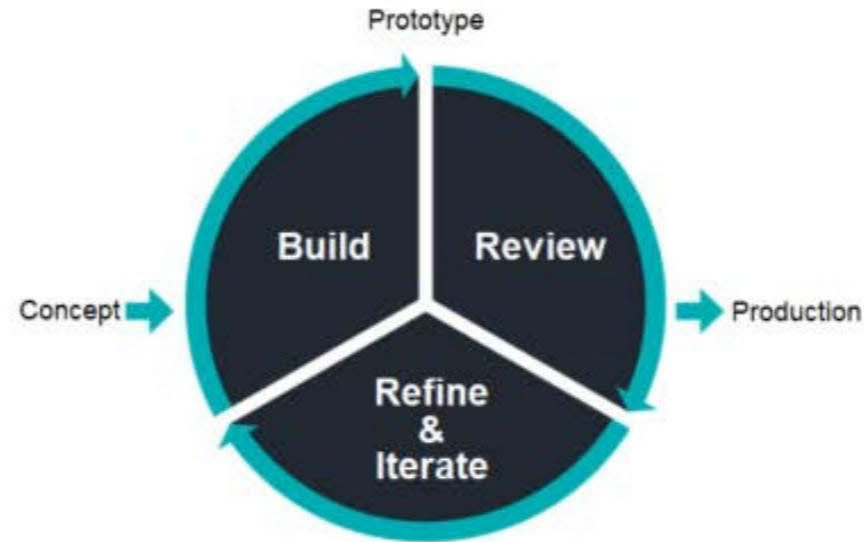


Service Items		COXOC	Global Supplier
Design Capability	Mechanical Simulation	●	●
	Signal Integrity Study	●	●
	Test Board Verification	●	●
	Automated Machine Design	●	●
Integrated Manufacturing & Quality System	Tooling, Molding, Stamping Plating and Assembly	●	●
	Laboratory and Associated Production Equipment	●	●
Overall Cost Effectiveness		●	●
Time to Market		●	●
Rapid Prototyping		●	●
Production Lead Time		●	●
Service Flexibility		●	●

コアコンピタンスの証明 – 迅速な共同サービス

Benefits

- Shorten lead time from concept to production
- Cost and deficiency analysis during design phase
- Manufacturing optimization without sacrificing performance



コアコンピタンスの証明 – 製造の柔軟性

Benefits

- Fully automated process with modular production units
- Flexible manufacturing scheduling
- Easy adaptation of production station
 - Smooth transition from preproduction to mass production stage



コアコンピテンスの証明 – 相互運用性と互換性

Benefits

- Multiple HMI interface expertise
 - USB C / A or both for charging & data needs
- Inter-operability
 - Integration of Memory card and USB interfaces
- Compatibility Interface from TE / Amphenol / Rosenberger



Innovative COXOC Patent:
Micro SD + USB A – USB C multi-interface reader

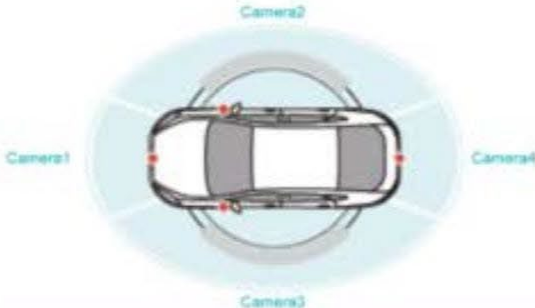
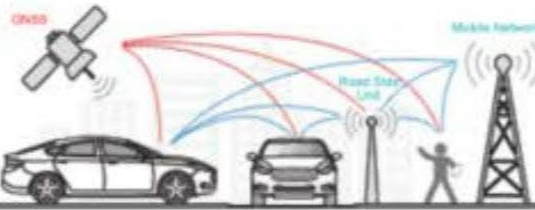


Charging Module:
USB A / USB C with
built-in Light guide (Tandem)



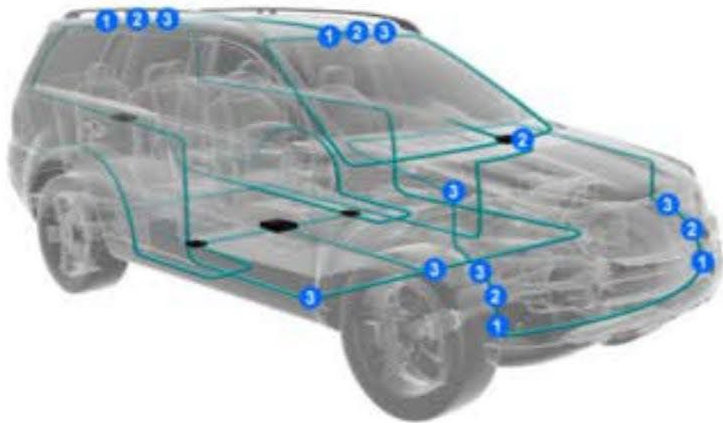
Charging Module:
USB A / USB C with
built-in Light guide (Stack)

次世代接続ソリューション

Trend	Application	Device	Solutions																							
• <u>Ultra resolution data transmission for ADAS</u> • <u>Low Latency requirement for active safety & communication systems</u> • <u>More high-speed infotainment needs due to Autonomous driving</u>	AVM System (Around View Monitoring)  V2X (Vehicle-to-Everything) 	<table><tr><td>Camera</td><td> • FAKRA • Mini FAKRA • HSD • HCMTD </td></tr><tr><td>ADAS</td><td> • FAKRA • Mini FAKRA • HSD • HCMTD </td></tr><tr><td>Infotainment (Device Conn.)</td><td> • USB C • HSD • HCMTD </td></tr><tr><td>Antenna</td><td> • FAKRA • Mini FAKRA </td></tr></table>	Camera	• FAKRA • Mini FAKRA • HSD • HCMTD	ADAS	• FAKRA • Mini FAKRA • HSD • HCMTD	Infotainment (Device Conn.)	• USB C • HSD • HCMTD	Antenna	• FAKRA • Mini FAKRA	<table><tr><td>FAKRA</td><td>➔</td><td>Mini FAKRA</td></tr><tr><td>HSD</td><td>➔</td><td>HCMTD (Auto. Ethernet)</td></tr><tr><td>HSD</td><td>➔</td><td>HCMTD</td></tr><tr><td>HMI</td><td>➔</td><td>USB C/DP/HDMI</td></tr><tr><td>FAKRA</td><td>➔</td><td>Mini FAKRA</td></tr></table>	FAKRA	➔	Mini FAKRA	HSD	➔	HCMTD (Auto. Ethernet)	HSD	➔	HCMTD	HMI	➔	USB C/DP/HDMI	FAKRA	➔	Mini FAKRA
Camera	• FAKRA • Mini FAKRA • HSD • HCMTD																									
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自動車コネクティビティー 高速 RF ソリューション

Safety system



- Functional safe links
- High data volumes (uncompressed sensor data)
- Real time communication
- Time sensitive networking (TSN) in development



1 FAKRA Series

- Mature mechanical & color coding system
- Reliable and durable
- Highest possible mounting safety
- Signal from Antenna to camera (up to 6GHz)

- High locking strength
- Waterproof version
- Customized solution
- Rotating coaxial insert and cable with secondary locking



2 Mini FAKRA AM

- Small dimensions – Optimized space design
- Fully shielded Modular system
- Transmitting signal up to 28Gbps with low latency
- Robust for automotive application

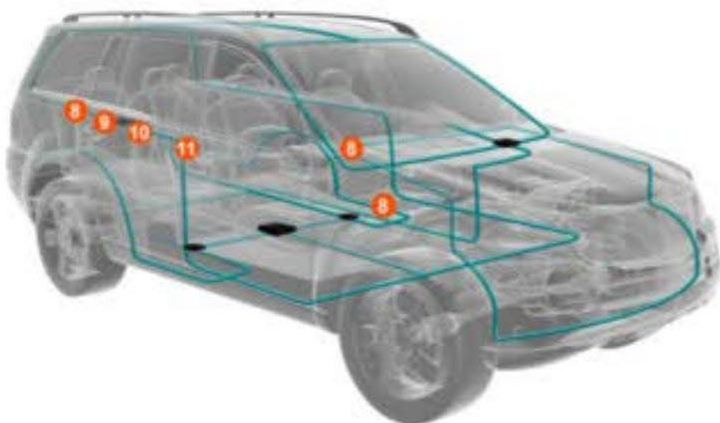


3 Mini FAKRA BM

- Fully protected terminals
- High key effectiveness (min. 130N)
- Supports existing cable type: RTK-031 / RG174
- Supports 9GHz and up to 15GHz bandwidth

自動車コネクティビティ - 高速差動データ

Infotainment (HMI)



- High performance links
- High data volumes
- Time-synchronous data-streams on multiple device
- Audio video bridging (AVB) might be used in future



8 DisplayPort

- DisplayPort transmit audio and video simultaneously
- DP V2.0 supports up to 16K resolution
- HDR at 60Hz



9 USB 4 / USB C / USB A

- New interface with data, power, audio and video
- Data transmission up to 10Gbps for USB 3.1 Gen 2
- Power delivery function up to 100W for 5A/20V
- USB 4 enables data transmission up to 40Gbps
- 10,000 Cycle + durability



10 HDMI

- No 1. High speed video and audio data solution.
- HDMI 2.1 supports 10K resolution at 120Hz
- HDR dynamic enhanced Audio Return Channel (eARC)
- Supports Atmos & DTS : X audio



11 CFexpress / SD 7.0

- Ultra high-speed memory solution for camera system
- PCIe Gen 3 up to 16Gb/s
- Excellent resistance against RF EMC & cross-talk
- Mechanically robustness according to Automotive requirements
- THR & THT capable for automated production

統合企業とネットワークの補完性



詮欣股份有限公司
CHANT SINCERE CO., LTD.

Precision
Connector
Manufacturing



Stamping / Plastic Injection / Plating / Automated Assembly / AOI / Nikon 2.5D

Quality
System



ISO9001 / ISO14001 / IATF16949 / ISO13485

Quality
Policy



Value Creation for Customers

Quality
Strategies



Quality Starts From Design



GUANGDONG QUANJIE
TECHNOLOGY CO., LTD.



DAVID ELECTRONICS
COMPANY LTD.

Complete Cable
Manufacturing



Wire Stripping / Cable Sorting / Automatic Soldering / Molding / Bending / SI Testing

なぜCOXOCなのか？

39Y Manufacture Experience



Design Request

- Additional Modification
- Patent Research



Solution Proposal

- Cost Structure Analysis
- Value Adding Service



Sample Development

- CST
- Ansys HFSS
- IATF 16949
- ISO System



Verification

- Mechanical
- Electrical
- Third Party
- Environmental



Production & Delivery

- Automated Machine
- AOI

製品 - 製品開発の歴史

Automotive	 HCMTD Conn.	 HCMTD Cable	 Mini FAKRA Conn.	 Mini FAKRA Cable	 FAKRA Cable/Conn.	 HSD Cable/Conn.	 HCMTD / Mini FAKRA	 CM50/MQS/HSD+MQS 8P
High Speed Products	 Mini-SAS HD	 Slimline	 OCulink	 PCIe Gen Z	 QSFP Series	 MPO Patch Cord	 Type C to C Gen2 Cable	 High Speed Board to Board pitch 0.5 / 0.8
Telecom Electronic	 RJ45	 QSFP & SFP Cage/Conn.	 QSFP/SFP Cable	 Mini-SAS	 OCulink	 Slimline	 U.2 to PCIe U.2 to OCulink+4P Power	 LC / UPC-FC / UPC Patch Cord
Consumer Electronic	 CFexpress	 SD 4.0 card	 DisplayPort	 HDMI	 USB Type C Cable	 USB Type C Conn.	 USB Type C Dongle	 USB Type C Reader
PC & Peripheral	 SCSI II	 Slim D-Sub Conn.	 Stacked USB+RJ45	 Wafer	 USB dual port	 High stack USB 3.0 A Type	 USB Type C Plug	 USB Type C Recep.
Industrial	 D-Sub Conn.	 Compact Flash	 CFast	 IEEE 1394	 SD 4.0	 DIN 41612	 Waterproof-M12 Cat 6 Cable	 Waterproof-M12 A/D X code

高速データ接続ブリッジデータ カメラ/センサーと高性能コンピューティング(HPCユニット)

Features:

- Infotainment
- HD-Entertainment
- Driver Assistance
- Telematics
- LVDS-Camera
- GVIF-Video Transmission
- IEEE1394 / USB2.0 / USB3.0 / Ethernet Data



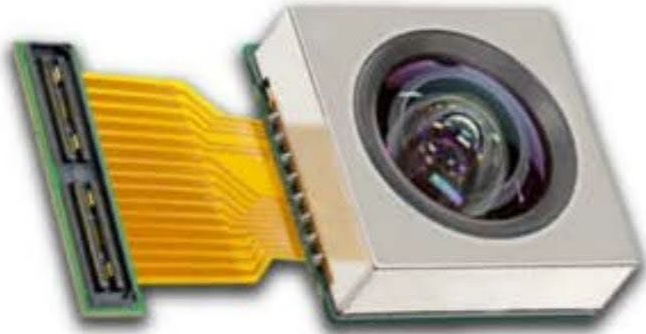
 **NIKKEN KIKI**



小型基板对基板接続 - HSBTB コネクタ

Features:

- High Speed Board to Board Solution up to 28Gbps
- High Density and Accuracy Connector
- Selection of 60/120/180 and 40/80/120 Positions
- Great for Camera Module Function Expansion



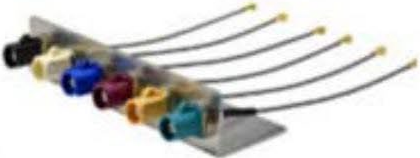
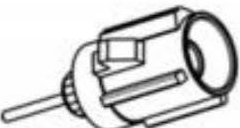
自動車インフォテインメント接続-USB C

Features:

- Full Feature Type C Cable Support 3A/20V and 5A/20V
- Speed Compatible with Gen1 (5Gbps) and Gen.2 (10Gbps)
- Selection of Twist and Coaxial Cable
- Connector and Cable with TID Certificate
- Popular Consumer Interface



参照プロジェクト

Product Type	Direct Customer	End Customer	Brand Customer	Application
Fakra to IPEX 	QUAN***		Volvo	ADAS System
			Tesla	
USB C Waterproof 	KEBO** /BU**		VW	Internal light / Charger / Data Transfer System
			Skoda	
Bulkhead Fakra 	KEBO** /BU**		VW	Antenna Application
			Skoda	

参照プロジェクト

Product Type	Direct Customer	End Customer	Brand Customer	Application
MxM 230 pin Connector 	Xxxxx Germany	Har*** Be****	BMW	Automobile Entertainment System
			Mercedes	
			Porsche	
			Land Rover	
			Audi	
Type C Conn. and Cable 	Xxxxx Germany	Bos****	BMW	Charger / Data Transfer
			Skoda	

参照プロジェクト

Product Type	Direct Customer	End Customer	Brand Customer	Application
HCMTD 	Nvi***	Qu**** Ad****	BMW	ADAS System
			Mercedes	
			Porsche	
			VW	
			Audi	
Mini Fakra 	Xxxxx Germany	B****	BMW	Charger / Data Transfer
			Mercedes	

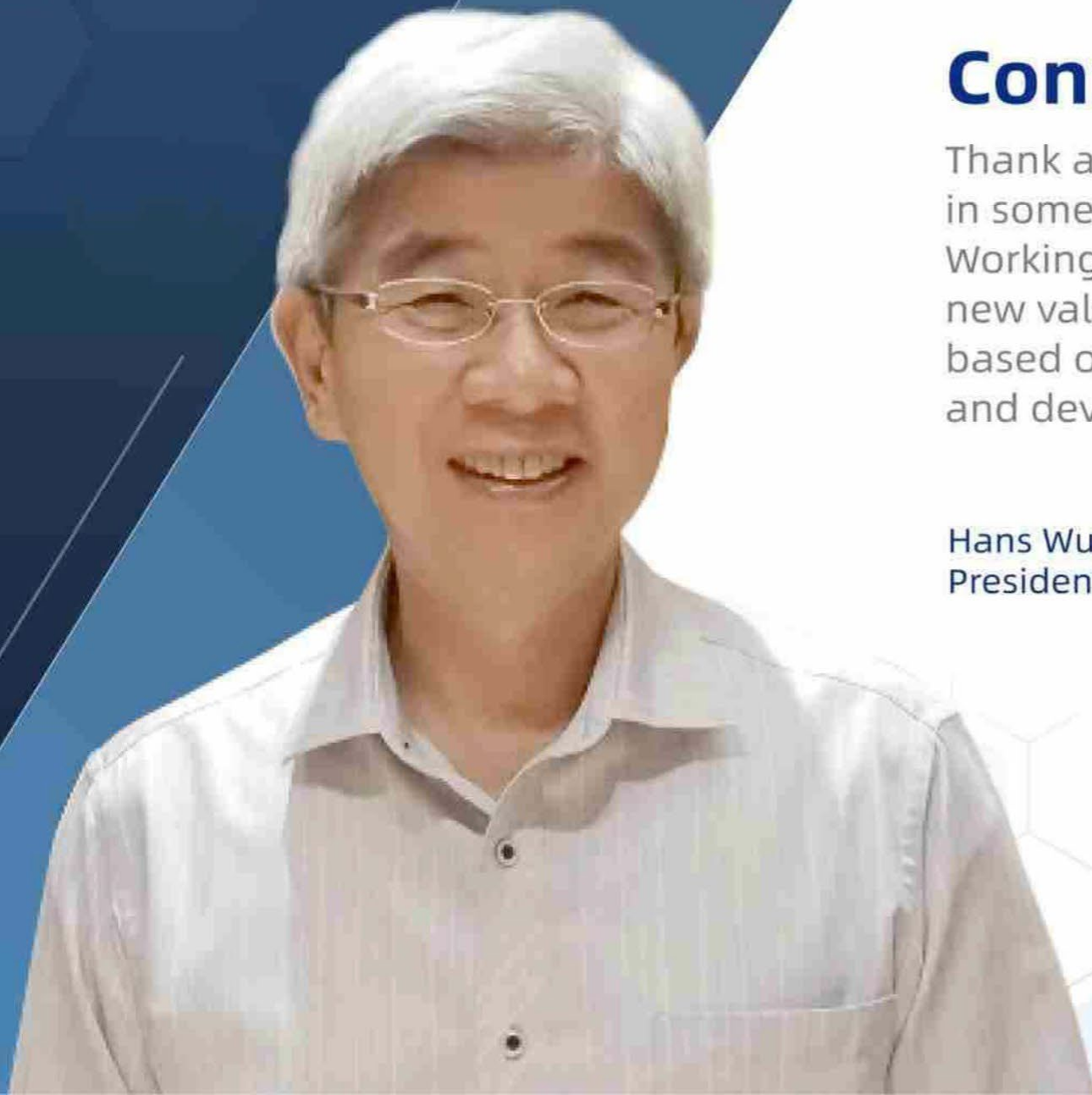


Connected Together

Thank all of our customers for your support to COXOC, in some cases over the course of decades. Working with all our partners, we will create new value in the 5G Era, aiming to grow sustainability based on constant innovation, research, and development of new products.

Hans Wu
President of Chant Sincere

A handwritten signature in black ink, appearing to read "Hans Wu".



Past, Present, Future. We are connected.

George, Gou george_gou@coxoc.com.tw



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TEL (代表) 029-212-8117

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