Total Display Control

CHIP NE

Scan the QR code
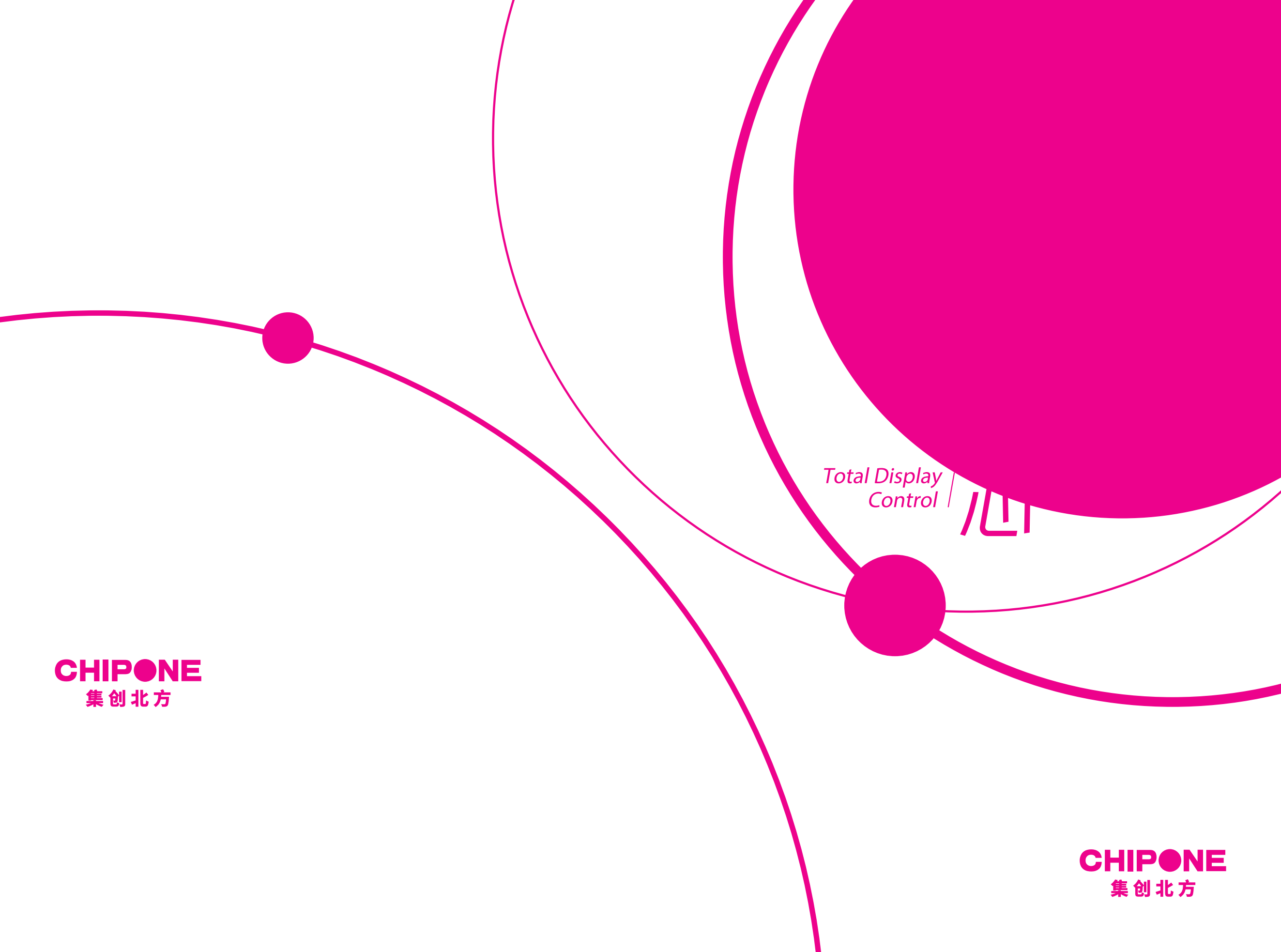Subscribe Chipone offical account

CHIP NE

December 2023 1st edition

Total Display
Control

CHIPONE
集创北方

CHIPONE
集创北方

Chipone Core Values

Integrity, Responsibility,
Professional Perseverance

Vision

To be a leading company
of display IC design

Devote to becoming the world's leading provider
of display IC products and solutions
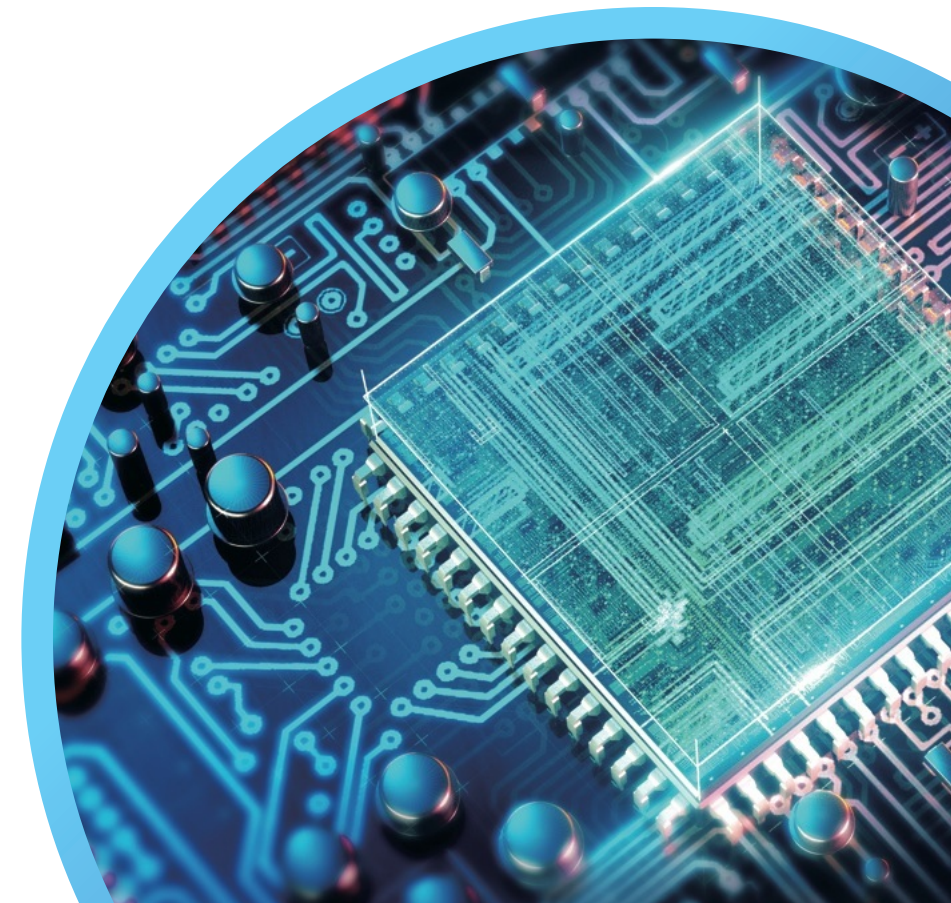
→ Chipone
Official website

Company Profile

Founded in 2008, Beijing Chipone Technology Co., Ltd. is an international leading display chip design company, committed to becoming a leader in total display control.

The company now has a full range of display driver chips, power management chips, SoC chips, automotive chips and other product series, which can be widely used in mobile terminal products, wearable devices, indoor and outdoor ultra-high-definition displays, AR/VR, industrial,automotive,medical and other scenarios.

The market share of Chipone's LED display driver chips has ranked first in the world for four consecutive years, and the market share of LCD DDIC, TDDI chips and panel power management chips for smartphones has ranked first among mainland manufacturers. As of the end of September 2023, Chipone has applied for a total of 2,119 domestic and foreign patents, and has won many honors such as "National Intellectual Property Advantage Enterprise" and "National Manufacturing Single Champion Demonstration Enterprise".

Chipone Profile

1250⁺ Employees

62%⁺
R&D staff

93%
Bachelor and above

50%
Master and PHD

2008

Established in 2008 with 15 years of history

12 countries and regions

Beijing		Zhuhai		Shenzhen
Shanghai		Suzhou		Hefei
Chengdu		Hong Kong		Taiwan,China
Silicon Valley, USA		Korea		Singapore
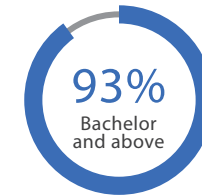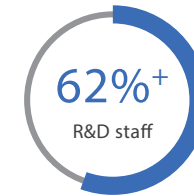
2119⁺ Items

2119⁺ Patent applications

Invention patents 1816⁺

Oversea patents 1079⁺

1st
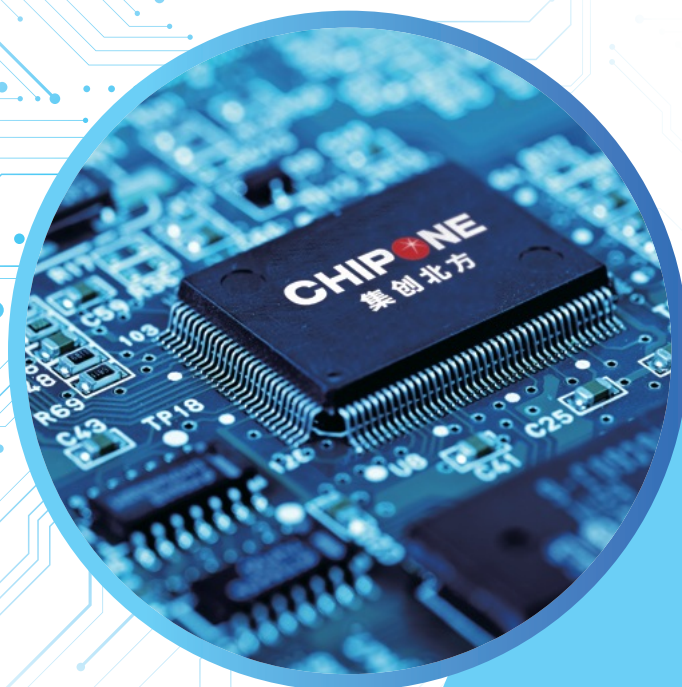
- 2022 Global market share of LED display driver chip ranks 1st
- 2022 Mainland China market share of Panel power management chip ranks 1st
- 2022 Global market share of LCD TDDI chip ranks 1st among the mainland Chinese manufacturers
- 2022 Global market share of smartphone LCD DDIC ranked 1st among mainland Chinese manufacturers

Data source: Omdia 2023 CINNO Research TrendForce

25 million

- TDDI IC shipments exceed 25 million in a single month
- 10 million chips lit up the Tiananmen Square screen on the 70th anniversary of the National Day

500 million

- TDDI total shipment exceeded 500 million
- Touch IC has shipped over 100 million in consecutive years

Enterprise Honor
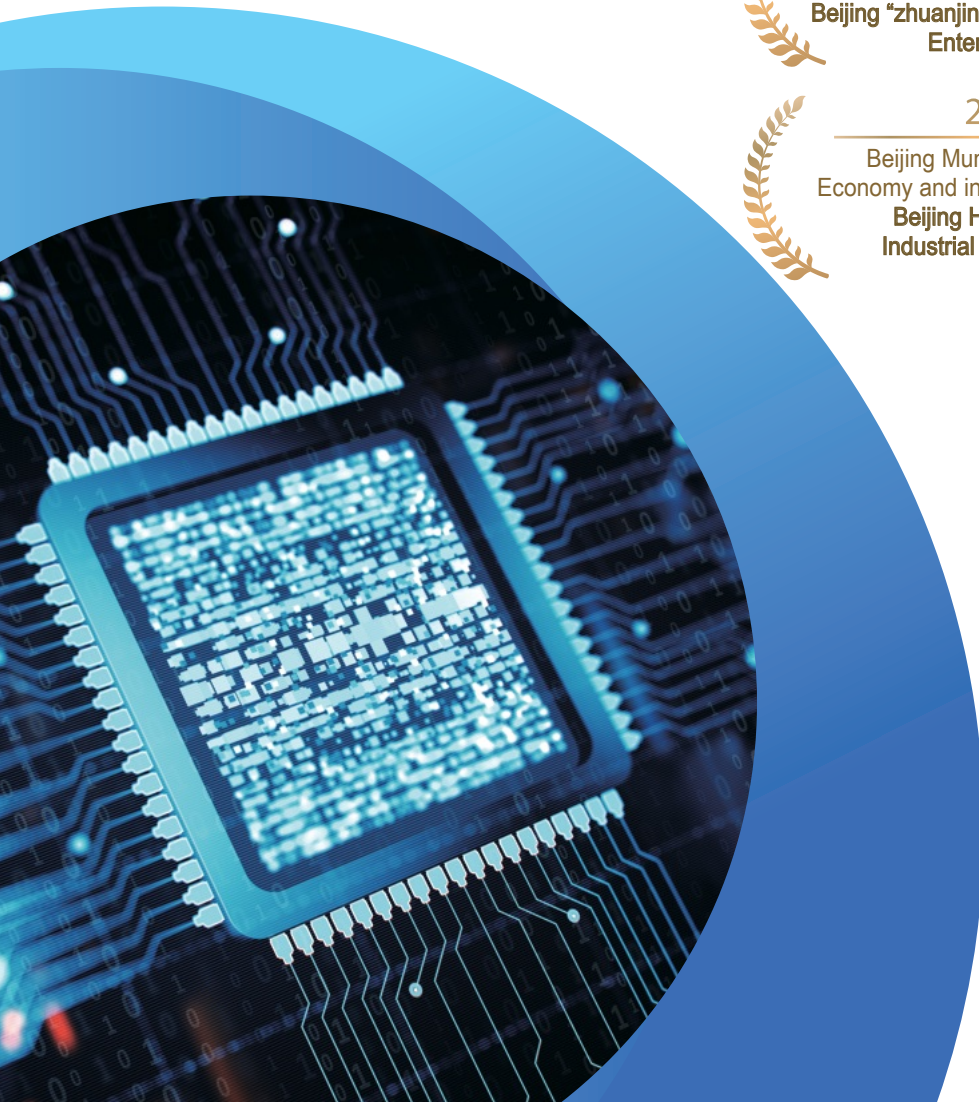
2022
National Intellectual Property Office
National Intellectual Property Advantage Enterprise

2022
Ministry of Industry and information Technology of the People's Republic of China
National Manufacturing Single Champion Demonstration Enterprise

2020
Beijing Municipal Bureau of Economy and informationTechnology
Beijing "zhuanjingtexin Little Giant Enterprise"

2019
Beijing Municipal Bureau of Economy and informationTechnology
Beijing High-Precision Industrial Design Center"

|			
2021 **ISLE** Excellent Product Award	**2022** **ICDT** Display of The Year Award	**2022** **PMIC** Outstanding Market Performance Product Award	**2022** **AMOLED** The 5th IC Innovation Award Achievement Industrialization Award
2021 Beijing National Intellectual Property Demonstration Enterprise	**2022** **AMOLED** SID Best Display Component Product Award	**2021** Beijing Private Enterprises Technology Innovation Top 100	**2021** **LED** ISLE Display Excellent Product Award
2018-2021 Four consecutive times IC Unicorn Award	**2021** **TDDI** SID Best of the Year Gold Award for Display Module Component Products	**2020** 8K driver chip "China Chip Award" Excellent Technology Innovation Product Award	**2020** Zhongguancun High-Tech Enterprise Association Zhongguancun Top 100 High-Growth Enterprises
2020 Beijing Cultural Investment Group Jointly with relevant industry associations Most Influential Brand Enterprise in Audiovisual Industry	**2020** China Optical Electronics Industry Association Liquid Crystal Branch Outstanding Contribution to the Development of China's New Display Industry Chain	**2019** Beijing Municipal People's Government The Fifth Beijing Invention Patent Award Third Prize	**2019** Beijing Municipal Bureau of Economy and information Technology Beijing High Precision and Advanced Industrial Design Center
2019 Beijing Science and Technology Commission/ Beijing Municipal Bureau of Finance High-tech enterprise	**2018** China Quality Center ISO14001/ISO9001 Environmental Management System Certification	**2018** Beijing Municipal Human Resources and Social Security Bureau Postdoctoral Workstation	**2017** National Intellectual Property Office Outstanding Patent Excellence Award

Ecological Partners

In terms of upstream suppliers, Chipone has established stable cooperative relationships with large wafer manufacturers and sealed packaging and test-ing manufacturers, such as Vanguard Intentional Semiconductor Corporation, Nexchip, SMIC, TFME, JCET, and CHIPMOS to ensure the steady improvement of the company's products'shipments and quality.

In terms of downstream clients, Chipone's key clients include BOE, TCL, HKC, Leyard, ,Unilumin, Absen, LG Display, and other domestic and foreign famous panel factories/LED screen factories. Meanwhile the products are widely used in TCL, LG, Samsung, OPPO, vivo, Xiaomi and other domestic and foreign famous terminal enterprises and have gained long-term recognition from many large and well-known clients from the whole value chain in the field of display business.

Wafer Fabrication Packaging and Testing

- Nexchip
- VIS 世界先進
- SMIC
- SILTERRA®
- GLOBAL FOUNDRIES
- tsmc
- ChipMOS
- UMC UNIONSEMICON
- 華潤微电子 CR MICRO
- TF 通富微电
- JCET 长电科技
- GREATEK
- Amkor Technology®

Panel Factories Screen Factories

- LG Life's Good
- Unilumin
- Absen
- BOE
- TIANMA
- 华星光电 CSOT
- 利亚德 LEYARD
- HKC

Key Terminal Clients

- Mi
- vivo
- OPPO
- Lenovo.
- TCL
- LG Life's Good
- SAMSUNG
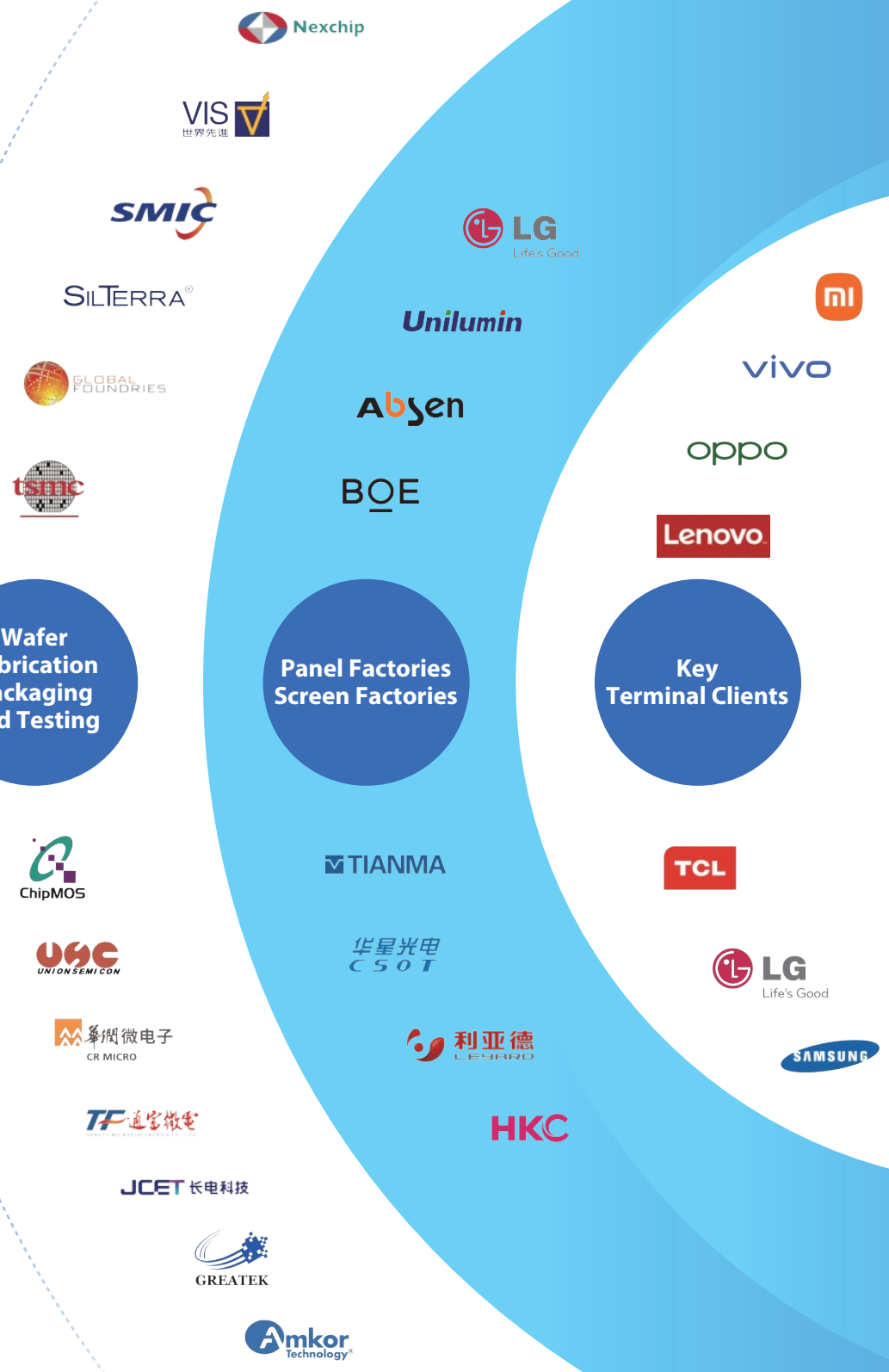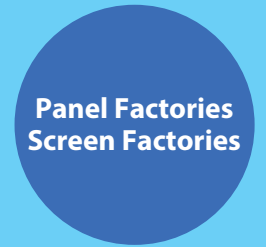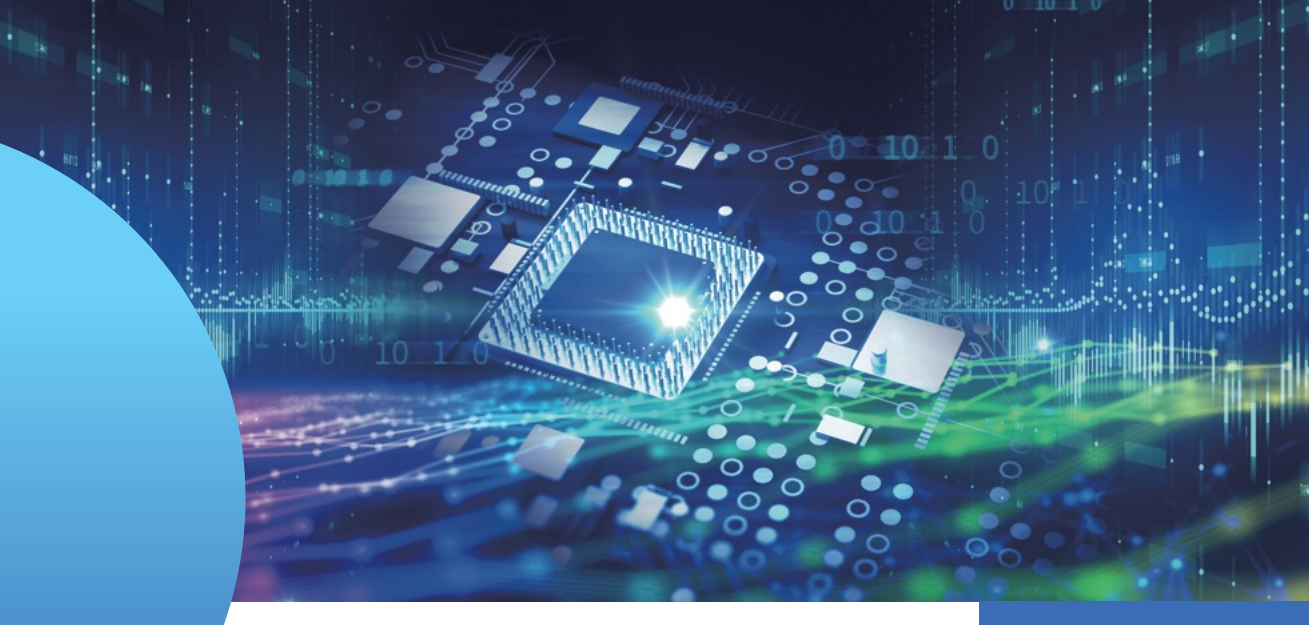
Product Solutions

Total display control solutions for the whole field

SOC
- SOC
- Timing control chip
- JLogic AI-SoC

LED Display & Backlight Chip
- Mini / Micro LED Driver Chips
- Light Driver integrated LED Driver chip
- High-current LED Driver chip chip
- LED Display PWM Driver Chips
- General LED Driver Chips
- LED Display Line Driver Chips
- LED Display Control Chips
- Mini LED Backlight Driver Chips

Large size Display Driver Chip
- Source display Driver Chip
- Gate display Driver Chip

Automotive chip
- Automotive Mini LED Backlight Driver Chip
- Automotive Mini LED Direct Display Driver Chip
- Automotive PMIC Power Management Chip
- Automotive TDDI display touch Chip
- Automotive protocol conversion Chips

Mobile Device Chip
- LCD small and medium size display Chip
- Fingerprint Chip
- Touch Chip

Total Display Control

LED

SI OLED

OLED

Silicon based OLED display chips
- Micro OLED(ADT)

Power Management Chip
- OLED PMIC Product Series LCD PMIC Product Series
- P-Gamma/DVCOM
- Product Series
- Level shifter product Series
- OP Product Series

OLED Display Driver Chip
- OLED Mobile Phone Display Driver Chip
- OLED Wearable Display Driver Chip

Products

LED display & backlight chip Solutions

- Mini / Micro LED Driver Chips
- Light driver integrated LED driver chip
- High-current LED   driver chip
- LED Display PWM Driver Chips
- General LED Driver Chips
- LED Display Line Driver Chips
- LED Display Control Chips
- Mini LED Backlight Driver Chips

Mini / Micro LED Driver Chips

Name	Product Introduction	Number of output channels	Built-in MOS	Channel output current	Scanning design	Refresh rate	Current accuracy	GCLK	Packaging
ICND2200	Mini / Micro LED Driver Chips	24	16PMOS	0.5-25mA	1-64 Scan	3840hz+	<±2%	PLL	QFN56
ICND2260	Mini / Micro LED display common cathode driver chip	120	48MOS	0.1-9.6mA	1-96 Scan	3840hz+	<±1%	PLL	BGA225
ICND2270		48	30NMOS	0.25-16mA	1-90 Scan	3840hz+	<±1%	PLL	QFN88

Light driver integrated LED driver chip

Name	Product Introduction	Output channels	Drive type	Channel output current	Scan	Refresh rate	Current accuracy	GCLK	Packaging
ICND3103	Light driver integrated LED constant current driver chip	3	Common Anode	5/12/ 20mA	/	/	±2.5%	/	/

High-current LED driver chip

Name	Product Introduction	Output channels	Channel output current	Scan	Refresh	Current accuracy	GCLK	Packaging
ICND8309	High current constant current output LED driver chip	16	2-90mA	1-32S	960HZ	±2%	OE	SSOP24/QFN24
ICND8392	High current constant current output LED driver chip	16	1-90mA	1-16S	7680Hz	±2%	gclk	SSOP24/QFN24/ TSSOP24/SOP24

LED Display PWM Driver Chips

Name	Product Introduction	Number of output channels	Drive type	Channel output current	Scanning design	Refresh ratet	Current accuracy (between channels)	GCLK	Packaging
ICND2150S	Constant current output LED driver chips	16	Common Anode	0.5-30mA	1-16 Scan	3840hz	<±2%	GCLK	SSOP24
ICND2159	Constant current output LED driver chips	16	Common Cathode	0.5-28mA	1-16 Scan	3840hz	<±1.5%	GCLK	SSOP24/QFN24
ICND2153	Constant current output LED driver chips	16	Common Anode	0.5-25mA	1-32 Scan	3840hz	<±2%	GCLK	SSOP24/QFN24
ICND2153S	Constant current output LED driver chips	16	Common Anode	0.5-30mA	1-32 Scan	3840hz	<±1.5%	PLL	SSOP24/QFN24
ICND2055S	High performance constant current output LED driver chip	16	Common Anode	0.5-35mA	1-32 Scan	3840hz+	<±1.5%	PLL	SSOP24/QFN24
ICND2165	High performance constant current output LED driver chip	16	Common Anode	0.5-25mA	1-64 Scan	3840hz+	<±1.5%	PLL	SSOP24/QFN24
ICND3065	High grey level constant current output LED common Anode driver chip	16	Common Anode	0.5-25mA	1-64 Scan	7680hz+	<±1.25%	PLL 200Mhz	SSOP24/QFN24
ICND3069	High grey level constant current output LED common cathode driver chip	16	Common Cathode	0.35-20mA	1-64 Scan	7680hz+	<±1.25%	PLL 200Mhz	SSOP24/QFN24

General LED Driver Chips

Name	Product Introduction	Output Channels	Output Current	Scan	Refresh Rate	Current Accuracy	Packaging
ICND2038S	Constant current output LED driver chips	16	0.5-45mA	1-32S	1920Hz	±2%	SSOP24/QFN24
ICND2046	Constant current output LED driver chips	16	0.5-45mA	1-32S	1920Hz	±2%	SSOP24
ICND2047	Constant current output LED driver chips	16	0.5-45mA	1-64S	3840Hz	±2%	SSOP24
ICND2049	Constant current output LED common cathode driver chips	16	0.5-25mA	1-32S	1920Hz	±2%	SSOP24

LED Display Line Driver Chips

Name	Product Introduction	output channels	Channel current	current impedance	Type of decoding	Eliminate ghosting	Lamp bead protection	Packaging
ICND2013	Constant current output LED driver chips	8	2.5A	100mΩ	138 Decoding	√	√	SSOP24/QFN24
ICND2018		8	2.5A	100mΩ	Serial Decoding	√	√	SOP16/QFN16
ICND3018		16	2A	130mΩ	Serial Decoding	√	√	SSOP16/QFN16
ICND3019		16	1.5A	130mΩ	Serial Decoding		√	SSOP16/QFN16

LED Display Control Chips

Name	Product Introduction	Interface	Data sets	Load Carring (Capacity)	Correction	Gamma	HDR	Packaging	Screen type
ICND6603	New LED commercial display control applications scheme, high degree of integration, image algorithm, Strong processing capacity, high-speed data interface,which can simplifies the control system and improves stability	HDMI1.4	40 Groups	960x540	Brightness Chroma	√	√	BGA224	2K

Name	Product Introduction	input interfaces	input load	output interface	Output load	SPR	HDR	Packaging	Screen type
ICND6620	4K video cutting processing, strong image algorithm processing ability, High-speed data interface	HDMI2.0 DP1.4	3840x2160 @60hz	HDMI	960x2160@60hz	√	√	BGA216	4K

Mini LED Backlight Driver Chips

Name	Product Introduction	Number of channels	Scanning design	Drive current	Channel withstand voltage	Refresh rate	Dimming levels	Current accuracy	Application terminals
ICND8603	High integration, high voltage withstand, high current, high zonal area dimming, low power consumption, accurate contrast ratio, HDR display picture quality. Effective brightness enhancement of LCD panels, colour gamut for high dynamic contrast ratio.	48	Up to 2 scan	30mA	55V	3840hz	14bit	±2%	TV
ICND8501		12	Up to 12 scan	80mA	30V	3840hz	14bit	±2%	NB/MNT

Products

**Large size
display driver chip
Solutions**

- Source Display Driver Chips
- Gate Display Driver

Source Display Driver Chips						
Name	**Resolution**	**Refresh rate**	**Colour depth**	**Packaging**	**Interface**	**Screen type**
ICNL9390S	4k/8K	120/60Hz	8bit	COF	CSPI/iSP	TV/MNT
ICNL9381S	4k/8K	120/60Hz	8bit	COF	CEDS	TV
ICNL9392	4k/8K	120/60Hz	8bit	COF	USI-T	TV
ICNL9391	4k/8K	120/60Hz	8bit	COF	CSP/iSP	TV
ICNL9383	FHD/4K	360Hz	8bit	COF	iSP	MNT
ICNL9351	4K/8K	120/60Hz	8bit	COF	EPI	TV
ICNL9381	UHD	60Hz	8bit	COF	CEDS	TV
ICNL9390	UHD	120/60Hz	8bit	COF	CSP/iSP	TV/MN
ICNL9382	4K/8K	288/120Hz	8bit	COF	CHPI	TV
ICNL9309	FHD	60Hz	8bit	COF	mini-LVDS	TV/MNT
ICNL9310	FHD/HD	60Hz	8bit	COF	mini-LVDS	TV/MNT
ICNL9312	FHD	60Hz	8bit	COF	mini-LVDS	TV
ICNL9305S	FHD	60Hz	8bit	COF	mini-LVDS	TV
ICNL9308S	FHD	60Hz	6bit	COF	mini-LVDS	MNT
ICNL9350	FHD	60Hz	6bit	COF	EPI	MNT
ICNL9336	FHD	60Hz	6bit	COG	mini-LVDS	NB
ICNL9337	FHD	60Hz	6bit	COG	iSP	NB
ICNL9638	WU	165Hz	8bit	COG	iSP	NB
ICNL9338	FHD	480Hz	8bit	COG	iSP	NB
ICNL9631	FHD	75Hz	8bit	TED	eDP1.2	NB

Gate Display Driver Chips						
Name	**Resolution**	**Refresh rate**	**Colour depth**	**Packaging**	**Interface**	**Screen type**
ICNL9522	FHD	60Hz	N/A	COF	N/A	TV
ICNL9510	FHD	60Hz	N/A	COF	N/A	TV
ICNL9513	FHD	60Hz	N/A	COF	N/A	MNT
ICNL9556	HD	60Hz	N/A	COG	N/A	NB

Products

Mobile device chip Solutions

- LCD Small and Medium Size Display Chips
- Fingerprint Chips
- Touch Chips

		LCD Small and Medium Sized Display Chips								
Name	Product Introduction	Resolution		Display refresh rate	Interface protocols	Application size(inch)	Colour depth	Features	Maximum speed	Package form	Application terminals
ICNL9911C		HD/HD+	720*1760	90Hz	MIPI/SPI	5"-7"	8bit	High refresh rate of 90Hz	950Mbps	COG	
ICNL9916	Support for display touch all-in-one TDDI technology	HD/HD+	720*1760	120Hz	MIPI/SPI	5"-7"	8bit	120Hz high refresh rate narrow bezel low power consumption	1.2Gbps	COG	High screen-to-body ratio LCD touch driver panels
ICNL9916C		HD/HD+	720*1760	120Hz	MIPI/SPI	5"-7"	8bit	120Hz high refresh rate with narrow bezel	1.2Gbps	COG	
ICNL9922C	Support LTPS display touch all-in-one TDDI technology	FHD/FHD+	1080*2520	120Hz/ 144Hz	MIPI/SPI	5"-7"	8bit	144Hz high refresh rate	1.3Gbps	COG/COF	LCD touch driver panels
ICNL9951R	Support for display touch all-in-one TDDI technology	WXGA+	800*1280*2	120Hz	MIPI/SPI	8"-12"	8bit	Supports 2 cascade/ high brush/ active pen	1.2Gbps	COG/COF	Tablet related products
ICNL9952		WXGA+	800*1280*2	120Hz/ 144Hz	MIPI/SPI	8"-13"	8bit	Supports 2 cascade/ high brush/ active pen/ narrow bezel technology	1.2Gbps	COG/COF	

Fingerprint Chips

Name	Product Introduction	Packaging	Shape	Sensing area	Aera Array	Communication methods	Supply voltage	Communication Electrical Level
ICNF7318	2.1mm side fingerprint	LGA	Rectangle	1.6mm*6.6mm	38*155@598dpi	SPI	2.8V~3.3V	1.8V
ICNF7319		LGA	Rectangle	1.6mm*8.0mm	38*188@598dpi	SPI	2.8V~3.3V	1.8V
ICNF6156	optical Under-Display fingerprint	COB	/	1.8mm*8.0mm	172*216@7.2um	SPI	2.8V~3.3V	1.8V/VDD
ICNF7339	Back fingerprint	LGA	Round Square	2.72mm*3.4mm	64*80@598dpi	SPI	2.8V~3.3V	1.8V/VDD
ICNF7332	industry fingerprint	LGA	Round Square	3.2mm*4.0mm	64*80@508dpi	SPI	2.8V~3.3V	1.8V/VDD
ICNF7352	industry fingerprint	LGA	Round Square	4.4mm*5.6mm	88*112@508dpi	SPI	2.8V~3.3V	1.8V/VDD

Touch Chips

Name	Product Introduction	Number of channels	Reporting rate	Interface protocols	Application dimensions	Support for TP types	Packaging	Application terminals
ICNT8952	LCD external touch chip, strong anti-interference and high cost effective	26TX*14RX	≤120Hz	I2C	2.0"- 8.0"	GFF/GG/LCD On-Cell	QFN52	Tablet, Security, Home appliance, Industrial control, Rear-mounted vehicle and other products
ICNT8962		17TX*30RX 16TX*31RX 15TX*32RX	≤120Hz	I2C	4.5"- 6.5"	GFF/GG/LCD On-Cell	QFN58	Mobile phones
ICNT8918	OLED wearable touch chip with high signal-to-noise ratio, low power consumption and flexible channel configuration	8TX*8RX 7TX*9RX 6TX*10RX 5TX*11RX 4TX*12RX	≤120Hz	I2C	≤2.2"	Add-on Rigid OLED On-Cell Flexible OLED AP1S	WLCSP	Wearable devices
ICNT9268	OLED mobile touch chip with high reporting rate and full functionality	21TX*42RX	≤480Hz	I2C/I3C/SPI	5.0"- 7.8"	Foldable Panel Flexible OLED Y-Octa Flexible OLED AP1S Rigid OLED On-Cell	BGA	Flexible screen phones, Folding phone products

Products

OLED

OLED display driver chip Solutions

- OLED Mobile Phone Display
  Driver Chips
- OLED Wearable Display Driver Chips

OLED Mobile Phone Display Driver Chips

Name	Product Introduction	Resolution	Refresh rate	LTPO/LTPS	RAM	Interface	Packaging
ICNA3512	Supports high refresh, low power, cascade, CUP Delivered in volume production	1280*2800 (FHD+)	FHD+ @144Hz	LTPO/LTPS	Dual RAM	MIPI-C phy/-D phy	COP
ICNA3511A	High refresh OLED mobile phone display driver chip	1280*2560/ 1200*2800 (FHD+)	FHD+ @120Hz	LTPS	Dual RAM	MIPI-C phy/-D phy	COP
ICNA3520	High refresh, low power consumption, cascade, CUP	1284*2800 (FHD+)	FHD+ @144Hz	LTPO/LTPS	Dual RAM	MIPI-C phy/-D phy	COP
ICNA3508A	High refresh and small size	1080*2520 (FHD+) 1280*2800(FHD+)	FHD+ @144Hz	LTPS	Single RAM	MIPI-D phy	COP
ICNA3508		1080*2520 (FHD+)	FHD+ @144Hz	LTPS	Single RAM	MIPI-D phy	COP

OLED Wearable Display Driver Chips

Name	Product Introduction	Resolution	Refresh rate	Features	Interface	Packaging	Application terminals
ICNA3310	OLED wearable watch/smart band display driver chip	480RGB*480	1~60Hz, step1Hz	Round/Notch、SCC	MIPI-D phy SPI/QSPI/MCU	COF	Watch wearable devices
ICNA3311		480RGB*480	1~60Hz, step1Hz	Round/Notch、SCC、CGM、PCD	MIPI-D phy SPI/QSPI/MCU	COF	Watch wearable devices
ICNA3306	OLED wearable smart band display driver chip	240RGB*360	1~60Hz, step1Hz	Round/Notch、SCC、CGM、PCD	MIPI-D phy SPI/QSPI/MCU	COG/COF	Wristband wearables
ICNA3320	OLED High-end TDDI wearable display driver chip	480RGB*480+	0.1~60Hz, step0.1Hz	LTPO/LTPS、Smart AOD	MIPI-D phy SPI/QSPI/MCU	COP/COF	Smart Home Watch wearable devices
ICNA3312	OLED High-end wearable display driver chip	480RGB*480+	0.1~60Hz, step0.1Hz	LTPO/LTPS、Smart AOD	MIPI-D phy SPI/QSPI/MCU	COP/COF	Smart Home Watch wearable devices

Products

Power Management Chip Solutions

- PMIC Product
    - LCD PMIC Product
    - OLED PMIC Product
- P-Gamma / DVCOM Product
- Level Shifter Product
- OP Product

PMIC — LCD PMIC Product Range

Name	Product Introduction	Input voltage range	AVDD output voltage range	Number of DVDD channels	HAVDD architecture	VGH/VGL architecture	Number of VCOM channels	Number of Gamma channels	Level shifter	Packaging	Application terminals
iML8209	LCD Mobile Bias PMU	2.5~4.8V	±4.5~6V	NA	NA	NA	NA	NA	NA	DFN12-2.4x1.5	LCD Mobile
ICN68116	LCD Tablet Bias PMU	2.7~5.5V	±4~6.5V	NA	NA	NA	NA	NA	NA	WCSP	LCD Tablet
iML7525		2.7~5.5V	±4~6.5V	NA	NA	NA	NA	NA	NA	DFN12-3x3	
iML8875	LCD NB/Tablet Bias PMU	2.5~5.5V	4.5~11V	1CH	OP	NA	1CH	NA	NA	TQFN20-4X4	LCD NB/Tablet
iML8882		2.5~5.5V	±4~6.5V	2CH	NA	CP/CP	1CH	NA	NA	WQFN28-3.5x5.5	
iML8884		2.5-5.5V	7~13.5V	3CH	OP	Bridge	1CH	2CH	NA	FCQFN28-3.5x3.5	LCD NB/Tablet
iML8999	LCD NB/Tablet Bias PMU 2in1 PMIC+P-Gamma	2.5~5.5V	7~13.5V	3CH	OP	Boost/CP	1CH	2CH	NA	FCQFN28-3.5x3.5	LCD NB/Tablet
iML8997	LCD NB/Tablet Bias PMU 3in1 PMIC+P-Gamma+ Level Shifter	2.8~6V	7.5~11.5V	3CH	OP	Bridge	1CH	2CH	8CH	QFN42-3.5x9	LCD NB/Tablet
iML8940	LCD TV/MNT Bias PMU	8~14V	13.5~18.4V	2CH	Buck	CP/CP	NA	NA	NA	TQFN40-6x6	LCD TV/MNT
iML8943		9~14V	13.69~19.02V	2CH	OP	VGH: Boost/CP VGL：Inverting/CP	NA	NA	NA	VQFN40-5x5	
iML8973B	LCD TV/MNT Bias PMU 2in1 PMIC+P-Gamma	8~18V	13.5~19.8V	1CH	Buck	CP/CP	1CH	10CH	NA	TQFN40-5x5	LCD TV/MNT
iML8982A		8.6~14.7V	11~18V	3CH	Buck	Boost/Inverting	1CH	4CH	NA	WQFN52-6x6	
iML8974A		8.6~14.7V	13.5~19.8V	3CH	Buck	Boost/Inverting	1CH	4CH	NA	WQFN52-6x6	
iML8947		8.6~14.7/ 4.3~6V	13.5~19.8V	1CH	Buck	VGH: Boost/CP VGL：Inverting/CP	2CH	14CH	NA	QFN4.5*6.5	
iML8978	LCD TV/MNT Bias PMU 3in1 PMIC+P-Gamma+ Level Shifter	8~14.7V	11~19.2V	3CH	Buck	CP/CP	3CH	14CH	NA	VQFN56-7x7	LCD TV/MNT
iML1946/A		8~18V	13~19.2V	3CH	Buck	Boost/Inverting	3CH	19CH	12CH	QFN82-12x8	
iML1976A		8~14.7V	13~19.2V	3CH	Buck	CP/CP	3CH	14CH	12CH	VQFN72-8x8	
iML8948		8~18V	13~19.2V	3CH	Buck	Boost/Inverting	3CH	14CH	19CH	QFN82-12x8	

PMIC

OLED PMIC Product Range

Name	Product Introduction	Application terminals	Input voltage range	ELVDD output voltage range	ELVSS output voltage range	Maximum load carrying capacity	AVDD output voltage range	AVDD load carrying capacity	VINT output voltage range	VINT load carrying capacity	Packaging
iML7522	AMOLED PMU	Wearable	2.9~5.5V	2.8~5.3V	-0.6~-5V	80mA	NA	NA	NA	NA	WLCSP-16
iML7524		Mobile	2.9~5V	4.6V	-1.4~-6V	600mA	6.9~7.9V	150mA	NA	NA	WLCSP-25
iML7526		Mobile	2.9~5V	4.6~5V	-1.4~-6V	650mA	5.5~7.9V	150mA	NA	NA	WLCSP-36
iML7531		Mobile/Tablet	2.9~4.6V	4.6~5V	-1.4~-6V	1000mA	5.5~7.9V	100mA	NA	NA	WQFN32-4x4
iML7533		NB	6V/8~21V	4~5.5V	-2~-6V	2000mA	5.5~7.6V	300mA	-2~-6V	50mA	QFN40-3.5x6.5
iML7537		NB	6V/8~21V	2.4~5.4V	-6~-12V	2000mA@ELVSS=-6V; 1000mA@ELVSS=-12V	5.5~7.6V	300mA	-2~-6V	50mA	QFN40-3.5x6.5

P-Gamma/DVCOM Product Range

Name	Product Introduction	AVDD working range	DVDD Working range	Number of Gamma channels	Gamma load carrying capacity	Number of VCOM channels	VCOM load carrying capacity	Communication protocols	Packaging	Application terminals
iML7924C	14CH 10Bit P-Gamma 1CH 7Bit P-VCOM	6.5~18V	2.9~3.6V	14CH	75mA	1CH	140mA	I2C	TQFN24-4x4	LCD NB/MNT/TV
iML7942	4CH 10Bit P-Gamma 1CH 10Bit P-VCOM	9~20V	2.7~3.6V	4CH	NA	1CH	NA	I2C	TQFN20-4x4	LCD NB/MNT/TV
iML7972B	7Bit 1CH P-VCOM	6~18V	2.6~3.6V	NA	NA	1CH	250mA	I2C	DFN8-3x3	LCD NB/MNT/TV

Level Shifter Product Range

Name	Product Introduction	VGH/VGL working range	DVDD working range	Clock Phase	Charge sharing	OCP	Rising Slew Rate	Falling Slew Rate	Communication protocols	Packaging
iML7263	14CH High voltage Level Shifter output	-20~35V	NA	8Phase	supporting	supporting	50V/us	50V/us	NA	QFN28-4X4
iML7264	8CH High voltage Level Shifter output	-15~40V	NA	4Phase	supporting	supporting	95V/us	95V/us	NA	QFN24-3x3
iML7278	13CH High voltage Level Shifter output	-15~40V	2.6~5.5V	8Phase	NA	supporting	60V/us	1000V/us	NA	QFN32-4x4
iML7282	14CH High voltage Level Shifter output	-20~45V	2.6~5.5V	8Phase	supporting	supporting	1000V/us	60V/us	I2C	QFN32-4x4
iML7272A/B	16CH High voltage Level Shifter output	-18~40V	2.6~5.5V	10Phase	NA	supporting		1000V/us	I2C	QFN32-4x4

OP Product Range

Name	Product Introduction	AVDD voltage range	Number of channels	Peak drive current	Static current / Per CH	Slew Rate	BW	ESD-HBM	Packaging
iML7811	Single channel operational amplifiers	5~20V	1CH	320mA	1.5mA	20V/us	40MHz	2KV	TDFN/MSOP
iML2211		5~20V	1CH	2000mA	5mA	40V/us	35MHz	4KV	TDFN/MSOP
iML2122	Dual channel operational amplifiers	5~20V	2CH	600mA	1.2mA	50V/us	30MHz	2KV	TDFN/MSOP
iML2228		4.5~19V	4CH	1300mA	3mA	45V/us	35MHz	4KV	TDFN/MSOP
iML2240	Four channel operational amplifiers	4.5~20V	4CH	600mA	1.6mA	30V/us	35MHz	4KV	TSSOP13
iML2240B		4.5~20V	4CH	1000mA	3mA				TSSOP14
iML2242		4.5~20V	4CH	1300mA	3mA	45V/us	35MHz	4KV	TSSOP14

Products

SI OLED

Si-based OLED display chips Solutions

- Micro OLED (ADT)

Name	Product Introduction	Micro OLED (ADT)						
		Zone AA dimensions	Resolution	PPI	Interface	Maximum frame rate	Maximum brightness	Maximum voltage
ICNU1210	0.5inch 1600RGB x 1200	0.5 inch	1600x1200	4,032	MIPI DPHY	120Hz	3,000nit	8V
ICNU1510	1.3inch 3552RGB x 3840	1.3 inch	3552x3840	4,032	MIPI DPHY+CPHY	90Hz	5,000nit	8V
ICNU1218	0.49inch 16000RGB x 1200	0.49 inch	1600x1200	4,032	MIPI DPHY	120Hz	3,000nit	8V
ICNU1221	0.49inch 1920RGB x 1080	0.49 inch	1920x1200	4,536	MIPI DPHY	120Hz	3,000nit	8V
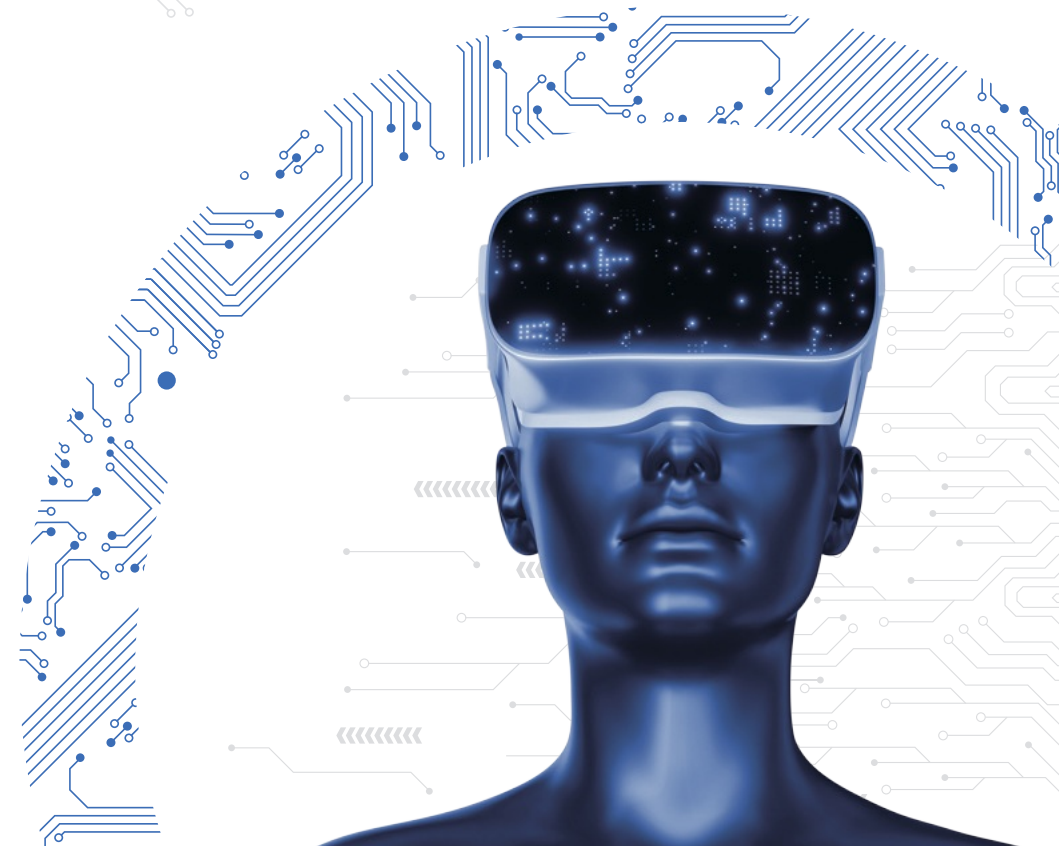
Products

Automotive Display Solution					
Name	**Introductions**	**Application**	**Features**	**Interfaces**	**Resolution**
ICNM7801Q	Automotive bridge Bridge chip with local dimming dynamic dimming algorithm and OSD menu	Central control screen Dashboard screen	The first domestic automotive bridge chip, self-developed local dimming algorithm	/	8K1K, two cascades can support 16K1K
ICNL9971	Automotive TDDI	Central control screen Dashboard screen	Domestic TDDI driver chips	Support A-SI/LTPS/IGZO LCD 3 chips cascade, LVDS interface TDDI chip AEC-Q100 Grade2	/
IML9880	Automotive PMIC	LCD screen power	High efficiency high load and high voltage specifications	support positive and negative voltage 15V high conversion efficiency and is used in LCD display Pass AEC-Q100 Grade2	/
ICND7001	Automotive LED driver	LED direct display and miniLED backlight driver chip	Domestic LED driver chips	Support 48 channel output used in headlights, flowing lights taillights and other applications 16bit dimming Pass AEC—Q100	/

Automotive chip

- Automotive Mini LED Backlight Driver Chip
- Automotive Mini LED Direct Display Driver Chip
- Automotive PMIC Power Management Chip
- Automotive TDDI display touch chip
- Automotive protocol conversion chips
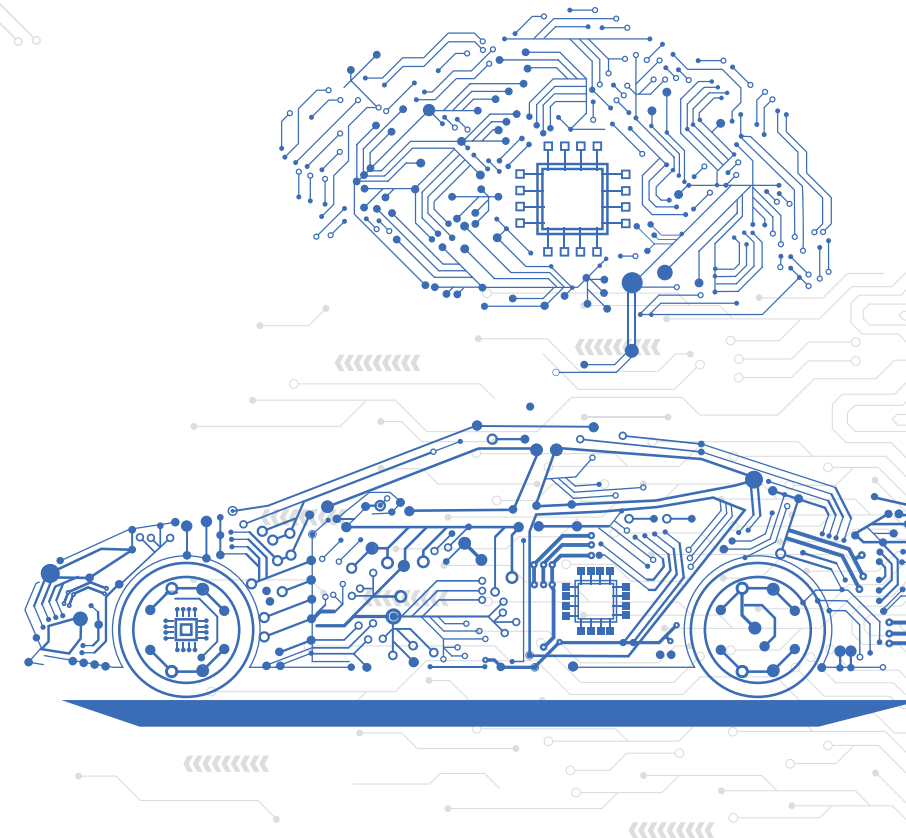
Products

SOC

- SOC
- Timing control chip
- JLogic AI-SoC

SOC

Name	Introduction	Application	Features	Interfaces	HDR	Converter	OD	Refreshrate	Resolution
ICNM8001	Monitor scaler IC for QHD panel	Destop monitor/ Portable monitor/ Industrial monitor Adapter	multi high-speed interfaces	input: HDMI 2.0/DP 1.4/ Audio output:LVDS eDP 1.4	HDR10	√	√	75Hz	QHD (2560*1440)
ICNM8501	Monitor scaler IC for 4K panel	Destop monitor/ Portable monitor/ Industrial monitor Adapter	multi high-speed interfaces	input: HDMI 2.0/DP 1.4/ Audio output:LVDS eDP 1.4	HDR10	√	√	3840*2160 @60Hz 1920*1080 @144~240Hz	4K (3840*2160)
ICNM7401	Monitor scaler IC for FHD panel	Destop monitor/ Portable monitor/ Industrial monitor Adapter	multi high-speed interfaces	input: HDMI 1.4/DP1.2/VGA output : LVDS	HDR10	√	√	100Hz	FHD (1920*1200)
ICNM7301	Converter IC HDMI to VGA	Adapter Cable	Video transfer/ Small area/ Low consumption	input: HDMI 1.4 output: VGA	/	/	/	60Hz	FHD (1920*1200)

Timing control chip

Name	Resolution	Refreshrate	Color depth	Packaging	Interfaces	Screen Types
ICNC65	1366*768	60Hz	6/8bit	QFN48	input:LVDS ouput:mini-LVDS	TV
ICNC66	1920*1200	100Hz	6/8bit	QFN68	input:LVDS ouput:mini-LVDS	TV
ICNC81	1920*1200	100Hz	6/8bit	TQFP64	input:LVDS ouput:mini-LVDS	MNT

JLogic AI-SoC

Name	Production	Resolution	Field	Internal operational unit	HD video Interfaces	AI algorithms
JLV2600	new generation of AI-PQ image quality enhancement processor	4K @144Hz 8K @ 60Hz	Smart display, machine vision, medical imaging equipment , edge computing, large-screen control, vehicle CMS, etc	Image Computing Unit: 1) Six-core NNE engine, 32T 2) Dual-core DSP engine 3) Video codec: H.264/H.265, 4K120fps	Video Input Interface: 1) MIPI_CSI 1~4 channels, 4K60Hz maximum 2) Dual DP1.4/eDP, 4K144/ 8K60Hz maximum 3) VBO-like interface, 16Lane, 4K144Hz maximum	1) AI-PQ image quality enhancement: AI-ISP, infinite scaling, Local Dimming, HDR, etc 2) AI detection and recognition: medical auxiliary diagnosis, defect detection, etc

Development History

2008
Sep. Established

2009
Oct. Launched mobile phone charger power supply chip ICN3030

2010
Jun. Launched LED driver chip ICN2024

2011
Apr. Launched the industry's advanced self-inductance plus mutual inductance touch chips ICN8201 and ICN8211

May. Passed ISO9001 quality management system certification

2008-2011

2012-2013

2012
Dec. LED driver chip project won "Beijing Science and Technology Award"

2013
Oct. ICN2024 driver chip was listed in the National Key New Product List

Nov. Touch chip ICN85 series were launched

2014
Sep. ICN85xx series won the "ACE Award for Outstanding Product of the Year".

Oct. Launched AMOLED driver chip ICN9605

Dec. Sales exceeded 100 million RMB

2015
Jun. The first domestic HD A-Si LCD driver chip ICN9706 was launched

Aug. Launched fingerprint identification chip ICNT71 series

Sep. ICND2026 driver chip successfully lit up the LED outdoor large screen of the military parade ceremony in Tiananmen Square

2014-2015

2016

2016
Jan. The first LFHD TPS LCD driver chip ICN9820 was launched in China

Apr. Launched the industry's advanced small area array fingerprint identification solution ICNT7152

Jun. Launched LED small pitch PWM constant current driver ICN2053

Jul. The first TDDI chip ICNL9920 was launched in China

Nov. Acquired iML, a US-based power management chip design company

Dec. LED display driver chips lead the world in terms of market share

2017
May. Launched the international advanced integrated P-Gamma single-chip TV display solution iML1998

Sep. Launched the industry's most advanced TDDI chip ICNL9911-supporting full screen, which was awarded the "China Patent Excellence Award"

2018
Feb. ICN2050 driver chip lit up CCTV Spring Festival Gala screen

Mar. Awarded "China Display Industry Chain Outstanding Contribution Award"

Jun. TDDI chips are first to be mass produced

Oct. Awarded "Postdoctoral Research Station"

Nov. The world's first LED flight simulator equipped with ICND2055 driver chip was unveiled at the Zhuhai Air Show , ICNF7332 supported China Mobile N5 launch

Dec. Awarded "The Fifth Beijing Invention Patent Award"

2017-2018

2019-2020

2019
Mar. The optical fingerprint solution under the large-area OLED screen won the "SID Best Innovative Display Component Award"

Jul. ICND2069+ICND2019 supports 8K Micro LED TV

Sep. 10 million ICND2055 driver chips successfully lit up Tiananmen Square parade screen for the 70th anniversary of the National Day

Dec. Awarded "Manufacturing Single Champion Demonstration Enterprise" by the Ministry of Industry and Information Technology of PRC

2020
Mar. Awarded "Second Prize of Technology by Beijing Municipal Science & Technology Commission"

Aug. 8K LCD driver chip won the "SID Best Innovative Display Component Gold Award"

TDDI chip won the "SID Best Display Component Product Silver Award"

Sep. First P2P TV driver chip ICNL9390 was researched and developed in China

2021
Jun. TDDI chip won the SID Gold Award for Best Display Module Product, Ultra High Resolution AMOLED Power Management Chip won the SID Gold Award for Best Innovative Display Application Technology

Jul. ICND2153 driver chip light up the giant screen for the 100th anniversary of the founding of the CPC Party

2022
Feb. ICND2153 and ICND2055 LED driver chips light up the LED stage of Bird's Nest in the Winter Olympics
Invested in Silang, Established JV Jilang

2023
Apr. LED/OLED/SoC/Local Dimming Display Driver IC Won ICDT 2023 "Best Innovative Display Component of the Year Award" LED display chip won the ISLE Exhibition Excellent Product Award and Rising Star Product Award

Aug. Awarded Gold Award for Display Materials Innovation on DIC 2023

2021-2023