

Shenzhen CDTECH Electronics



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Professional Vehicle Displays Provider

Revolution in Industrial Displays

Connectivity to the World

www.cdtech-lcd.com

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About Us

CDTECH



Company Profile

01

Shenzhen CDTech Electronics established in 2011, is a national high-tech enterprise specializing in TFT LCDs, Touch Displays, HDMI Displays and other display products.

The factory covers an area of 5,000 square meters, including thousand-level dust-free workshop area of over 1000 square meters. CDTech has industry-leading automatic production and testing equipment which can provide customers with standard and customized display and touch total solutions. Our products are widely used in Industrial Control Equipment, Medical, Smart-Home, Automotive and Vehicle Displays, Instrumentation, and other Information Terminal applications. CDTech has obtained ISO9001, ISO14001, ISO13485, and IATF16949.

Committed to the "Zero-Defect" quality policy and our standards, CDTech strictly controls the quality of products and has establish strategic partnership with many established enterprises in Europe, Americas, Middle-East, Russia,

Japan and Taiwan relied on our products and quality services , winning high recognition by customers.

CDTech will continue to promote investment and innovation, improve quality, and strive to become the world's leading professional display manufacturer!



Global Sales Outlets

01



Development Path

More than Ten Years of Industry Experience





2011.9

SHENZHEN CDTECH ELECTRONICS was established and entered the LCD display with touch panel industry.

2014.7

Committed to "Zero Defect" quality policy, strengthened our own quality level, and established the "Aging Laboratory".

2014.8

Transformed into a manufacturing enterprise, and moved to a 1,280 square meter factory with 300 square meters of dust-free workshop.

2015.3

Obtained the "ISO9001 Certificate" for the first time.

2015.8

Won the title of "Shenzhen Software Enterprise" and "National High-tech Enterprise".

2016.7

Introduced the ERP system management.

2017.7

Successfully developed the technology of cutting LCD displays that can achieve mass-production, and obtained the utility model patent.

2019.2

Obtained the "ISO9001 certificate" through the continuous improvement of internal quality management system.

2019.9

Moved to a new factory of 5,000 square meters in Songgang, built a thousandlevel dust-free workshop of over 1,000 square meters, and equipped with industry-leading fully automatic production and testing equipment.

2019.12

Made a breakthrough in the field of automotive display, improved the quality system of automotive products, and obtained the "IATF16949 certificate".

2020.3

Added CTP production line and customized CTP.

2020.4

Made a breakthrough in the medical field, improved the quality system of medical products, obtained the "ISO13485 certificate" and obtained the "ISO14001 Certificate" for the first time .

2020.6

Added the OCA full bonding production line.

2021.6

Introduced the QR code management.

2022.5

Added the fully automatic backlight assembly equipment and upgraded the CTP assembly line.



Our Team

01



CDTECH



WHAT DO WE DO

LCD Display

Bar Type Display

CTP Display

Optical Bonded Display

Adapter Board

LCD Display



- P/N: S101HWX66HD-DC29
- Size:10.1" TFT LCD Module with CTP/HDMI
- Resolution:1280x800
- Brightness: 400/800nits
- Viewing Angle: Full Viewing Direction
- PCAP touch screen with Air / Optical bonding
- Plug and play HDMI interface & USB touch

Process Flow

- 01. Attach top/bottom- polarizer
- 02. LCD ITO microscope inspection & cleaning &Plasma cleaning
- 03. ACF Attach & IC pre-bonding & main bonding
- 04. ACF Attach & FPC pre-bonding & main bonding
- 05. AOI Inspection
- 06. Dispensing surface glue, line glue, silver paste
- 07. FOG Inspection
- 08. FOG Appearance Inspection
- 09. Attch fixed FPC bonding high temperature tape
- 10. Cleaning sensor
- 11. Sensor (front) ACF attachment
- 12. Clean FPC

02

- 13. Sensor FPC hot pressing (front)
- 14. Sensor (back) ACF attachment
- 15. Sensor FPC hot pressing (back)
- 16. CTP FOG Microscope Inspection
- 17. CTP FOG Inspection
- 18. CTP FOG dispensing line glue
- 19. Sensor paste SCA
- 20. TP FOG & cover lens bonding

- 21. SCA bonding
- 22. SCA defoaming
- 23. CTP appearance inspection, Paste the inner protective film
- 24. UV curing
- 25. Double side adhesive
- 26. Assemble BL
- 27. Assembled bezel
- 28. Solder BL
- 29. Solder pad and solder ball inspection
- 30. LCM testing
- 31. LCD & Touch screen assemble
- 32. HDMI board Assemble
- 33. Finished product LCM testing
- 34. Attach component tape, fixed FFC, attach label
- 35. Finished product CTP testing
- 36. Appearance inspection
- 37. OQC Inspection
- 38. Finished product packing

Highlights Special Statement

Customization options

LCD OD LCD AA FPC OD



- Resistive Touch Panel
- Capacitive Touch Panel

- High Brightness version option.
- HDMI / converter board version option.
- Support OCA/LOCA option.

- LCD Display Interface
- RGB MIPI HDMI LVDS SPI MCU

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Bar type Display





Process Flow

- 01. Attach top polarizer
- 02. LCD ITO microscope inspection & cleaning & Plasma cleaning
- 03. ACF Attach & IC pre-bonding & main bonding
- 04. ACF Attach & FPC pre-bonding & main bonding
- 05. AOI Inspection
- 06. Dispensing surface glue, line glue, silver paste
- 07. FOG Inspection.
- 08. FOG Appearance Inspection
- 09. FOG cutting
- 10. Attach bottom polarizer
- 11. After aging testing

02

- 12. FOG Microscope Inspection
- 13. Assembling the BL

- P/N:S088AWX22NB-DC08
- Size: 8.8 inch Bar type color TFT LCD with PCAP
- CTP Resolution: 1280x320
- LCD Interface: RGB 24bit
- Viewing Direction: IPS
- CTP interface: 12C
- Touch Point: support Mutil-Touch
- Luminance: 320/1000nits
- LCM (W x H x D) (mm): 229.66 x 67.50 x 5.65
- Active Area(mm): 216.95 x 54.24
 - 14. Assembled bezel
 - 15. Soldering BL
 - 16. Microscope Inspection Solder
 - pad and cleaning
 - 17. Stick pull tape, component tape
 - and fix FPC,attach label
 - 18. Functional testing
 - 19. Appearance Inspection
 - 20. OQC Inspection
 - 21. Finished product packing



Highlights Special Statement

- Customization options
 LCD OD LCD AA FPC OD
- Touch Screen Option

Resistive Touch Panel

Capacitive Touch Panel

- High Brightness version option.
- HDMI / converter board version option.
- Support OCA/LOCA option.



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CTP Display



• P/N: CTP-123GF19-AF V1.0

- Size: 12.3" CTP with Anti-Fingerprint
- Touch Structure: G+G
- Driver IC: GT9110
- CTP Interface: I2C
- Touch Count Max: 5 Points
- Surface treatment: Anti-Fingerprint
- Surface hardness: 6H
- Outline Dimension: 314.8x138.8x1.3mm



- 01. Sensor (back) ACF attachment 02. Sensor FPC hot pressing (front) 03. Clean FPC
- 04. Sensor (front) ACF attachment
- 05. Cleaning sensor
- 06. Sensor FPC hot pressing (back)
- 07. CTP FOG Microscope Inspection
- 08. CTP FOG Inspection
- 09. CTP FOG dispensing line glue
- 10. Sensor paste SCA

02

- 11. Cover glass bonded to the CTP FOG
- 12. CTP FOG Microscope Inspection
- 13. CTP FOG Inspection

- 17. SCA bonding
- 18. SCA defoaming
- 19. CTP appearance inspection, Paste
- the inner protective film
- 20. CTP Inspection



Highlights Special Statement

Can be selected based on the CTP driver IC						
Waterproof	Gesture	Active pen	Passive pen	Gloves	Multi Touch	Other



Optical Bonded Display



Process Flow

02

01. Attach top/bottom polarizer 02. LCD ITO microscope inspection & cleaning & plasma cleaning 03. ACF Attach & IC pre-bonding & main bonding 04. ACF Attach & FPC pre-bonding & main bonding 05. Dispensing surface glue, line glue, silver paste 06. FOG Inspection 07. FOG Appearance Inspection 08. Assembling the BL 09. Soldering BL 10. Solder pad and Solder ball Inspection 11. Functional testing 12. Wrap masking tape 13. High temperature adhesive Attachment & Pull Tab Attachment 14. LCM testing 15. Appearance inspection 16. Cleaning sensor 17. Sensor (front) ACF attachment 18. Clean FPC 19. Sensor FPC hot pressing (front) 20. Sensor (back) ACF attachment

- P/N:S070BWS45FP-FC58
- Size: 7.0" TFT-LCD Module with CTP
- Resolution: 1024x600
- LCD Interface: LVDS
- Viewing Direction: IPS
- CTP interface: I2C
- Driver IC: GT911
- Touch Structure: G+G
- Touch Count Max: 5 Points
- Bonding Type with LCM: OCA Optical Bonding
- Luminance: 1500 cd/m²
- LCM (W x H x D) (mm): 165.00 x 100.00 x 7.56
- Active Area(mm): 154.21 x 85.92
 - 21. Sensor FPC hot pressing (back) 22. CTP FOG Microscope Inspection 23. CTP FOG Inspection 24. CTP FOG dispensing line glue 25. sensor paste SCA 26. Cover glass bonded to the CTP FOG 27. SCA bonding 28. SCA defoaming 29. CTP appearance inspection, Paste the inner protective film 30. UV curing 31. CTP paste OCA 32. LCM and CTP bonding 33. OCA bonding 34. OCA defoaming 35. Finished product LCM testing 36. Finished product CTP testing 37. Appearance inspection 38. UV curing
 - 39. OQC Inspection
 - 40. Finished product packing



오전 11:16 일반 세탁 코스

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최근 세탁 고스

图/使用石

Highlights Special Statement

Features of Strong OCA Bonding



OCA bonding is considered robust characterized by anti-UV, moisture-proof and dust-proof. OCA bonding eliminates the likelihood of moisture or dust entering between the LCD and the glass, reducing the amount of reflecting layers, improving readability of LCD displays, providing UV protection when applying displays outdoors, and increasing the display's resilience against direct physical contact.

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Adapter Board



- P/N: S070SWV128ND-DR29
- Size: 7.0" TFT-LCD Module with RTP & Parallel board
- Resolution: 800x480
- LCD Interface: MCU
- Viewing Direction: 12 O'clock
- Luminance: 280 cd/m²
- LCM (W x H x D) (mm): 165.00 x 100.00 x 6.80
- Active Area(mm): 154.08 x 85.92

Process Flow

- 01. Attach top/bottom 02. LCD ITO microscope inspection & cleaning &Plasma cleaning
- 03. ACF Attach & IC pre-bonding & main bonding
- 04. ACF Attach & FPC pre-bonding & main bonding
- 05. AOI Inspection
- 06. Dispensing surface glue, line glue, silver paste
- 07. FOG Inspection
- 08. FOG Appearance Inspection
- 09. Assembled BL
- 10. Assembled bezel
- 11. Assembled RTP
- 12. Solder BL

02

Solder pad and solder ball inspection
 LCM testing
 RTP testing
 Assemble parallel board
 Finished product testing
 Attach the glue to fixed FPC, attach label
 Appearance inspection
 OQC Inspection
 Finished product packing



Highlights Special Statement

- Flexible support for custom parallel boards, interface adapter boards.
- Support custom Standard High Definition Multimedia Interface (HDMI)connector.
- Connections for 5V/12V power, EDID programming and PCAP/RTP.
- CDTech TFT displays can be connected using a simple interface board, such as RGB to LVDS interface, LVDS to EDP.

OUR MARKET COVERAGE

Improved Sales Performance

With stable product quality, rapid response mechanism, and global marketing network all over Europe, North America, Taiwan and other countries and regions, we have established good strategic cooperation with internationally renowned enterprises, won wide recognition and praise from customers, and achieved steady increase in sales performance.

2017-2022 Annual Sales







OUR APPLICIATION FIELD



Vehicle Display



Industrial Display



Intelligent Application



Medical Display

Vehicle Display

The full viewing angle, high brightness, wide temperature range, anti-glare and other highperformance characteristics of the vehicle TFT LCD display and its low cost advantages make it very popular in the automotive industry, such as used in instruments cluster, navigation, multi-functional monitors, and rear set entertainment and so on. What's more, CDTech's LCD automotive display provide excellent outdoor visibility by realizing an outstanding sensor of view with high brightness and ultra-high resolution. At the same time, it can also support flexible design customization, integrate touch panel for optical bonding and enhance the product's impact resistance capability and improved display performance, making its structure more complete in line with user needs.



7.0inch 800*480





6.8inch 800*480



Application field



Application field



Application field



Application field





Application field



Application field

Industrial Display

With the development of industry and technology, intelligence has become an important direction of industrial transformation, and industrial LCD displays are widely used in our daily life. CDTech provides 1.5" ~ 15.6" high-quality industrial LCD displays with longevity, high stability, high brightness, extreme temperatures operations, and touch & display integration. They are mainly used in industrial control, human-computer interface, instrument, elevator, and other applications. For special environments and extreme weather, our products can be designed with touchable by gloves, waterproof, anti-condensation, anti-shatter, anti-UV, etc.





2.8inch 240*320

7.0inch 800*1280



Intelligent Applicance Display

The regular aspect ratio of TFT LCD panels is 4:3 or 16:9, but for some smart home applications, such as refrigerators, air conditioners, ovens, fireplaces, speakers, coffee machines, etc. The bar type displays would be much better than the current mainstream 4:3 or 16:9 to display the products required information. CDTech's own bar type display cutting technology and the 2.9" ~ 12.3" bar LCD displays and options with touch panel can be widely used in these home appliances, and the bar type displays can also be designed according to the characteristics of different home appliances. It can support touch with gloves, antifingerprint, etc.









Application field









Application field Application field

• Various shapes • Universal Home Appliances Support glove touch First-class cutting technology • Various sizes Anti-fingerprint

Medical Display

04

Medical equipment will pay more attention to the safety of users and avoid secondary harm to patients, so CDTech can attach a layer of explosion-proof film on the surface of our products and also achieve anti-glare effect. Of course, it is not limited to this, we can also develop more derivative solutions on the standard LCD display according to customer requirements, such as custom backlight, FPC (LCD module or CTP), resistive touch panel (RTP) and projected capacitive touch panel (CTP) or anti-reflective (AR) / anti-glare (AG) / anti-fingerprint (AF) coating, or customized PCB board, etc.









10.1inch 1280*800

7.0inch 800*480





Application field Application field







Application field

Application field

- Longevity • Glove touch
 - High brightness

Water proof

- Anti glare Anti- interference



OUR ADVANTAGE





Supply Chain



Production Capacity



Management



Qualification

OEM/ODM

Support Customization

We support the customization of various materials, such as FPC(including the pin layout, size, position, etc.), BL, CTP(including the selection of CTP IC, cover glass, CTP FPC, etc.), RTP, adapter board, HDMI board, etc.

Faster Development

Fast development speed, the tooling time for common parts is generally 3~4 weeks, for more special requirements, the tooling time is generally 5~6 weeks. For material suppliers with quality and price advantages, we will also review and optimize our supply chain to provide customers with quality and market advantages of OEM / ODM products to reduce customers' time costs and procurement costs.

RigorousTest Process

24-hour ambient temperature ageing of semi-finished FOG for each product, which helps to identify in advance whether problems will occur when the screen is lit for a long time after completion of assembly, to analyse the causes of the problems and to discuss solutions.

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Strong Development Team

We have 10 R&D staff at present, and the R&D department is recruiting talented people and increase R&D efforts, so as to lay a more solid foundation and stronger strength for providing more and better OEM / ODM services.

Covering a Wide Range of Industries

Our customized products include but not limited to medical, automotive, home, industrial control, audio, catering and other industries, and we have certain understanding and experience in many industry markets, we can provide OEM / ODM solutions to meet the market requirements and diversification for different markets.



Process Flow





Supply Chain

Our Relationship with Supplier

OpenOpenOpenMutual ChoiceWin-WINStabilize

Mutual Choice

Strictly check the qualification and production capacity of suppliers, and select suppliers from various aspects such as service, cooperation and professionalism to ensure that the materials provided by suppliers meet our internal quality control system.

WIN-WIN

Cooperation with suppliers to achieve win-win cooperation, ensure the quality of product delivery, and collaborate to manage the design and working principle of products.

Stable Cooperation

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We maintain good communication with our supplys and establish a stable and reliable supply chain through cooperation. Therefore, we can avoid the situation that change suppliers temporarily and repetedly and unable to guarantee the prduct quality and supply.

Why do Suppliers Work with Us?

Support Customization

Professional R&D team and a sound quality assurance system

Advanced Equipment

Industry-leading fully automatic production equipment and automatic testing equipment

Integrated Solution

Focus on providing customers with display and touch total solutions

High Quality Product

Focus on providing customers with highquality and reliable products

Technical Services

Focus on providing pre-sales and aftersales technical support and services to customers



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Product Types

Production Capacity

Process Control and Process Capability

01. Polarizer Pasting02. COG and FOG bonding

03. Automatic Optical Inspection

04. Fully Automatic Glue Machine 05. Function Test 06. Aging Test

07. Backlight Assembly 08. Touch Panel Assembly 09. Finshed Product Inspection



Process 4 : Fully Automatic Glue

Highlights: The automatic glue machine is composed of three full-automatic machines. Before glue process, our products are all protected in the 100-level dust-free environments of the full-automatic machines, and try to avoid exposure in the air and contact with foreign particles.



Process 2: COG and FOG bonding

Highlights: The workshop is full of fully automatic machines, and we combine the machines to 2 large production lines. The standard capacity of each line is 800pcs per hour, which is 200K per month. So, our standard capacity of two lines is 400k per month.



Process 3: Automatic Optical Inspection

Each line is equipped with the AOI detection machine, which will 100% scan the bonding area. Some potential defects caused by bonding can be detected here.

For example, shortage of effective particles, and the existed foreign particles or bubbles under the FPC and the Driver IC, these adverse phenomena have certain hidden function dangers. Over time, there is a risk that the product may appear abnormal after a period of use by the customer.



Process 8:Touch Panel Acssembly

We have our own CTP line and bonding line to support air / OCA / LOCA bonding.



Process 9: Finished Product Inspection

Highlights: In the whole process of production, we will carry out one time AOI scanning and three times full function tests. After three times of function test, we will do the fully appearance test, and then the product will be delivered to OQC. And after OQC pass, and will be bagging.



Management

Intelligent Management System

With the ERP management system, we manage goods in and out in a scientific and rational manner, effectively control the use of materials, realising the principle of "first in, first out" of materials, for the purpose of reducing waste and delay of materials, improving management efficiency and ensuring visualisation and control from raw materials to delivery.

Warehouse keepers can scan orders through PDA, which can quickly realize the goods-in and goods-out and ensure the consistency of inventory and physical goods. This way effectively improve the accuracy of materials-in and materials-out and efficiency of warehouse management.

ୁ ବ୍ୟୁଙ୍ଗୁ Quality Assurance System

From each batch of raw materials to every production process, we have established a set of scientific and strict quality management system, and have passed ISO 9001, IATF16949, ISO14001, ISO13485, intellectual property rights and other system certifications.

Committed to the "Zero Defect" quality policy and adhered to the guidelines of quality control, we have exerted to provide our customers with reliable products and quality services!



Management Measures

Our core technology and service team has more than a decade of experience in the TFT LCD and touch screen industries. At the same time, each year, we continue to improve the cooperation between various departments to assist, from sales, R&D, production, quality, to purchasing, all require a rapid response to customer needs within the specified time frame.



Qualification

