Company Presentation

05th. April. 2019





Company Profile

- Overview
- ✤ History
- * Organization
- **Solution Provider**
- Business Management

Product Line-Up



Company Overview

Company Name	DISTECK Display Inc.	
Date Of Establish	Мау, 2007	
Representative	JD Park	
Registration No.	135-81-92090	
Principal Place of Business	3rd Fl. TaeKwang Bldg., Jeon-Pa-Ro 53, ManAn-Gu, Kyung-Ki Do, 14084 Republic of Korea	
Website	www.disteck.com	
Turn over	USD \$5,000,000 / 2017	

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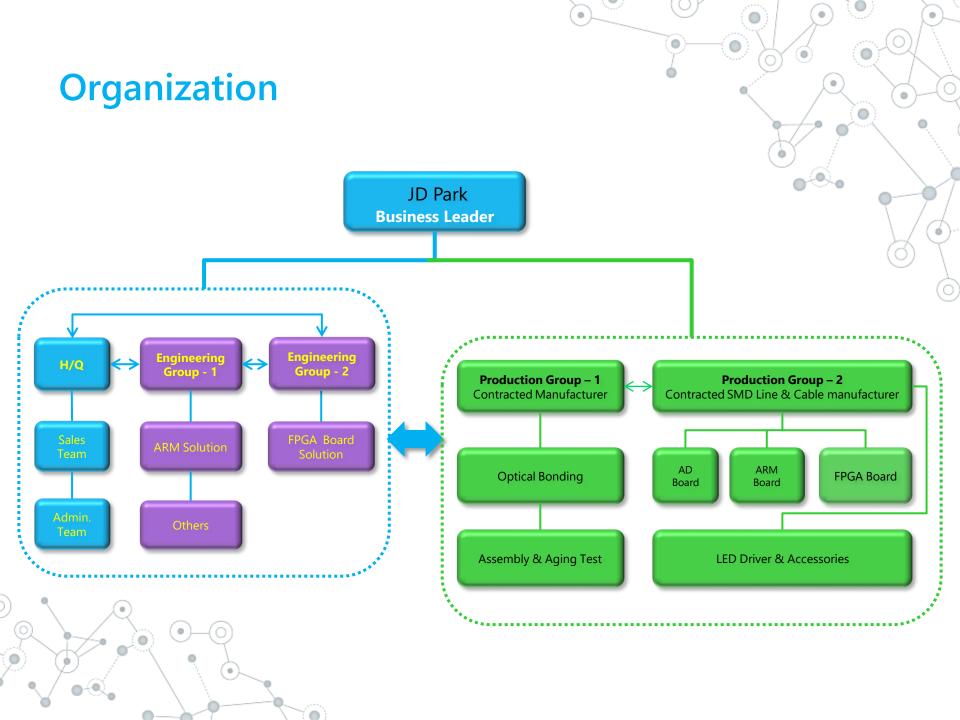


Company History

- > JAN 2007 Started business AD Board supply with Data Display / Germany
- NOV2008 Started business AD Board supply with MSC Gleichmann GmbH in Germany
- **DEC 2008** Started LED Driver Supply with Green C&C as a special partner
- NOV 2009 Started Open Frame Designing & Supply (Customized Display)
 (Designing, Assembly work, Optical Bonding work and Aging test)
- > APR 2010 Partnership agreement with Serial Image for the Broadcasting Monitor
- > JAN 2013 Appointed by Mikasa Japan (NLT distributer) as official distributer in Korea
- ▷ APR 2013 Starting the ARM board supply Japanese Tory Engineering 8.6k pcs
- ▷ MAR2014 Starting the ARM board supply Japanese Algo System Inc 7.3k pcs
- **MAY2014** Partnership agreement with CAN Display (CPT distributer in Korea)
- > JUN 2014 Partnership agreement with RSM (Sharp distributer in Korea)
- **DEC 2014** Appointed by DMC as a strategic Partnership agreement
- MAY2015 Renewal of ARM Solution

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JUN 2016 ~ Sept 2018 Renewal of Scaler Board Solution & Customized Display Line-Up (DID Signage, Broadcasting and Medical monitor)



Solution Provider

• Engineering:

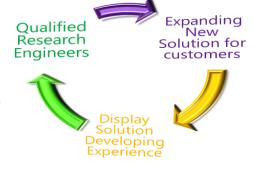
- ◆ At the beginning of the design cycle, provide expert resources for your application.
- Introduce the latest technology in Flat Panel Displays, Touch Screen technology, Board level products and LCD enhancements for various industrial projects, outdoor applications and harsh/rugged environments.
- Provide demonstration and evaluation units to customers for easy decision.
- Offer solutions and specify Bill Of Materials associated with the Display, which may include support technologies such as: LED Drivers, cabling, controllers, Open Frame Chassis.
- Work with your Engineering, Sales and Marketing teams in proof of concept and prototype stage.

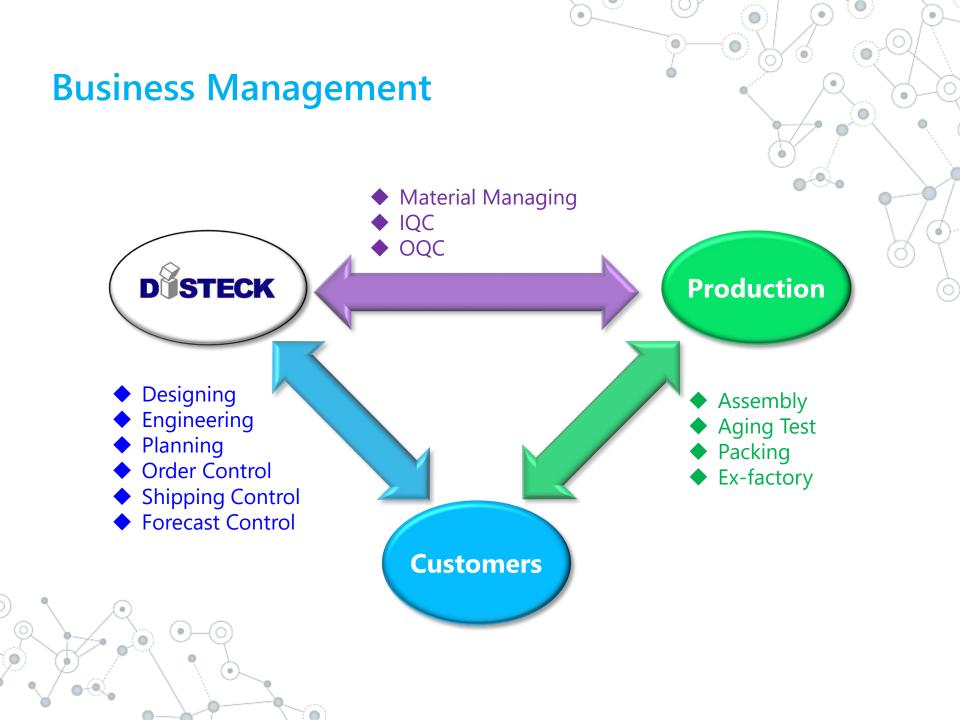
Production:

- Control and manage all inventory logistics including pipeline of all necessary components.
- BOM Management.
- Communicate any and all EOL or ECN's.
- Secure and maintain consistent supply of product providing a smooth transition to new components, if any.

Next Generation Products:

- Provide on going updates on new products.
- Introduce new technologies that may apply to customers application.
- Present Supplier road maps.
- Arrange for product demonstrations and facilitate access to evaluation units.





Product Line-Up

Cable Solutions

Customization

AD Board models

- Industrial Models (dip switch setting type)
- 4K-2k Supportable

LED Drivers

- Multi Supportable Model (one hardware for various LCD)
- Special Models for NLT., Mitsubishi, Sharp panels
- Customized Model

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ARM Board

- Cortex A9
- Cortex A17

TFT LCD Modules

- Samsung DID models
- LG PD & Industrial models
- NLT, Mitsubishi, Sharp models
- AUO, Innolux models
- Special Designed Automotive models

Open Frame

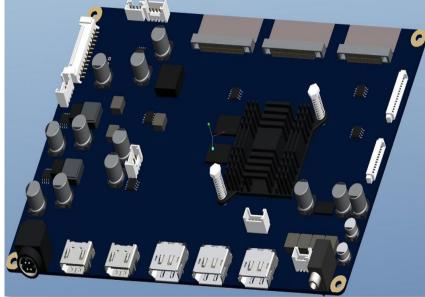
- Customized models
- Ruggedized monitors
- P-cap Integrated models
- Optically Bonded models
- Full Dimmable marine Monitors

P-Cap Touch

- ITO type
- Metal Mesh type
- Silver Nano týpe

Digital Signage

- Indoor type
- Outdoor type
- Semi Outdoor type
- Customized DID



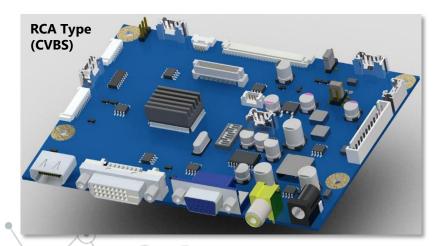


SATURN2

UHD High-End Application

- UHD(3840x2160, 4096x2160)
- 30-bit color and 4Ch LVDS, Vx1 interface,
- e-DP 8-lane(HBR) / 4-lane(HBR2) Interface
- HDMI connector/HDMI 2.0 /4K2K@60Hz 2Port
- DP connector/DP1.2/4K2K@60Hz 2Port
- ✤ HDCP 2.2 support
- PIP/ PBP(L/R, Top/Bottom)/4P(4Windows) Function
- VGA input support by an optional cable connection
- OSD/Display Rotation Function
- Over driver / Over scan Function
- PCM(Precise color management)
- Sharpness/Hue/Color Support
- Gamma Control
- Color Effect Function
- Response time Control
- Remote Control
- UART for RS232 Control
- DP MST (Multi Stream, up to FHD 4 EA) or Daisy chain Output.
- Speaker 20Wx 2ch
- PIP Sound Choice
- PCB Size: 200 x 130 x 1.6mm

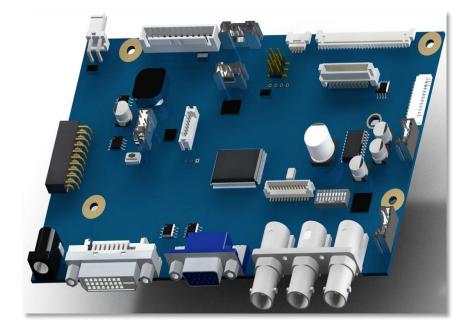




VENUS2

Broadcasting & Medical Application

- ✤ Analog RGB / DVI / HDMI / CVBS
- WUXGA resolution @ 60Hz
- ✤ 10-bit LVDS output, eDP, TTL output
- 10V Vcc supportable circuit by optional daughter board
- Multi language support
- VESA DDC 1/2B compliant
- Compatible with VESA DPMS power saving modes
- Multi-standard color system at CVBS (PAL / NTSC)
- Image Flip / Mirror supportable by AD board
- Serial Control (RS232C) ready
- ✤ Audio support (2W x 2W) by daughter board
- Power : 12V DC Power adaptor, SMPS (Optional select)
- Optional Power : 24V DC by Daughter Board
- ✤ PCB Size: 140 x 100 x 20 mm





VENUS2 PRO

Professional Grade Broadcasting & DICOM Medical Application

- Supporting Broadcast features with SDI daughter board
- DVI-D, Analog RGB, YPbPr, CVBS and 3G/HD/SD-SDI (Option)
- Supports all broadcast video formats
- WUXGA resolution @ 60Hz, compatible standard
- 10-bit data processing and 10-bit LVDS output
- Integrated Frame Buffer Memory increases reliability
- Various output option board available: eDP, MIPI DSI, Dual-to-Single Link, Left-Right Merging and FPC
- ✤ 3D Comb-Filter for CVBS Input
- 3D Noise Reduction reduces temporal noise effectively
- VESA DDC 1/2B compliant
- Compatible with VESA DPMS power saving modes
- Multi-standard color system at CVBS (PAL / NTSC)
- Image Flip / Mirror supportable by AD board
- Serial Control (RS232C) ready
- Audio support (2W x 2W speaker out)
- Power : 12V DC Power adaptor, SMPS (Optional select)
- Optional Power : 24V DC Daughter Board
- PCB Size: 155 x 100 x 20 mm



3G HD/SD-SDI

Professional Grade Broadcasting Application

- ✤ 3G HD/SD- SDI daughter board built in Broadcast features
 - > Wave Form
 - Vector Scope
 - Audio Level Meter
 - Marker
- ◆ PCB Size: 70 x 100 x 20 mm









IF103/IF123

Interface Board For Automotive 10.3" &12.3" LCD Module with BLU

- Digital Video Interface for Automotive 10.3" &12.3" LCD Modules
- 2 input types are available, Direct LVDS or HDMI via Scaler type.
- Support 8 bits direct Single-link LVDS Input mode (Cannot be used with HDMI type)
- Support 8 bits RGB 4:4:4 HDMI Input mode (Cannot be used with LVDS type)
- Integrated video scaler for flexible operation and OSD menu (HDMI type only)
- Integrated Backlight Controller with Analog and PWM dimming
- Integrated power management with single 12V input
- Integrated power supply for VGH/VGL/VCOM
- Integrated Gamma reference voltage supply
- Integrated EDID for HDMI mode.
- ✤ PCB Size: 198 x 75 mm

FPGA Board (Automotive) Line-Up







IF123

RS/DS Interface Board For Automotive 12.3" LCD Module with BLU

- Digital Video Interface for LG LA123WF1-SR01 and LA123WF1-SR02
- ✤ RS/DS support.
- ✤ 2 input types are available, LVDS or HDMI type.
- Support 8 bits direct Single-link LVDS Input mode
- Support 8 bits RGB 4:4:4 DVI Input mode
- Integrated Backlight Controller with Analog and PWM dimming
- Integrated power management with single 12V input
- Integrated power supply for VGH/VGL/VCOM
- Integrated Gamma reference voltage supply
- Integrated EDID for HDMI mode.
- ✤ PCB Size: 235 x 65mm





ORION3368

High-Performance Application

- RockChip RK33688 Octa-core
- 1GByte DDR3 Memory (Optional upto 4GByte)
- SGByte eMMC Memory (Optional upto 64GByte)
- 3840x2160 maximum display size.
- 1CH/2CH LVDS Interface for LCD 6bits, 8 bits
- ✤ 1lane/2lane eDP interface for LCD 1.62Gbps/2.7Gbps
- HDMI 1.4/v2.0 Support (4K2K support)
- MIPLDSLInterface
- ✤ 6-Port USB external 2port / internal 4port
- IEEE802.3 10/100/1000Mbps with Twisted-Pare
- IEEE802.11b/g/n WIFI with Bluetooth 4.0 (Optional IEEE802.11a/b/g/n/ac)
- MicroSD/SDHC 1 Slot(Max. 32GByte)
- ✤ UART : internal 1port
- External Speaker : 2W + 2W (8Ω), 2.9W + 2.9W(4Ω)
- Headset interface port(stereo headphone with MIC)
- MicroUSB OTG 1port
- Camera Interface : 1port MIPI CSI
- Keypad Interface : Back, Home, Volume+/-, PowerOn (Option board)
- ✤ G-Sensor
- ✤ IR Remote control interface
- I2C Interface for Touch(Option)
- ♦ Operating temperature: 0 to 50°C
- Power: 12V DC Power adaptor, SMPS (Optional select)
- PCB Size: 140 x 95 x 20 mm

LED DRIVER Line-Up





LED Driver Setting		-	
Port State : Close Port I Open Close	✓ Model Select		
	Panel List		~
	Channel Current set per Channel Maximum Voltage Setting		Send
Check Value	Channel Ch Current mA Voltage V		
Measure Value	Channel Ch Current mA Voltage V	Ge	et Model Inf

CVT120 & CVT230

Programmable LED Driver

Programmable LED Drivers can support various TFT LCD panels by setting value (no H/W change) per panel. And also, it can support analog dimming & PWM dimming also.

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- Temperature
 - Operating Temp. : -35 ~ 85 $^\circ \!\! C$ (Without Case)
 - Storage Temp. : -35 ~ 85 $^{\circ}$ C (Without Case)
- Analog Dimming & PWM Dimming
- PCB Size
 CVT120 : 60.0 x 40.0 x 6.8 mm
 CVT230 : 83.0 x 43.0 x 11.0 mm
- Output Requirements

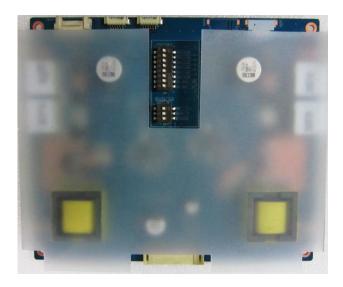
CVT120

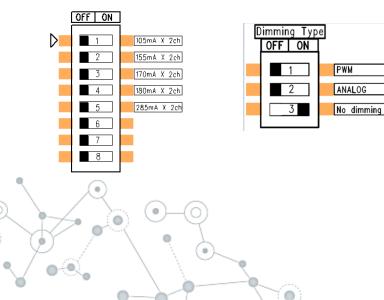
Output Voltage	Constant Current	rrent Channel	Maximum Wattage	Output Constant Current per channel (mA)			Total Output Constant Current (mA)		
Name	Region			Min.	Тур.	Max.	Min.	Тур.	Max.
OUTPUT	<u>15V</u> ~ <u>60V</u>	<u>1Ch</u> ~ <u>6Ch</u>	23W Under	10	-	630	30	-	630

CVT230

Output Voltage	Constant Current	Channel	Maximum	Output Constant Current per channel (mA)			Total Output Constant Current (mA)		
Name	Region		Wattage	Min.	Тур.	Max.	Min.	Тур.	Max.
OUTPUT	<u>15V ~ 60V</u>	<u>1Ch</u> ~6Ch	32W Under	50	-	1000	50	-	1000

LED DRIVER Line-Up

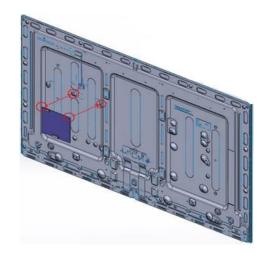




CVT456-MULTI2°

Multi LED Driver

- LED driver supporting LG Display 49", 55" & 65" PD models;
- > LD490EGE-FHM1
- LD550EGE-FHM1
- LD650EGE-FHM1
- LD490EUE-FHB1
- LD550EUE-FHB1
- LD650EUF-FHB1
- LC650EGE-FHM1
- LC430EGE-FHM1
- LC490EUE-FHM1
- Analog Dimming & PWM Dimming
- Direct installation on the rear surface of LCD panel
- Size: 152.5(W) X 130(L) Height: MAX. 14mm (From the top of P.C.B)



Digital Signage Line-Up



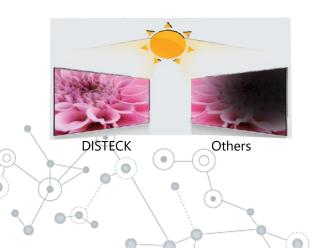
LED Backlight

LED back lighting is both more energy efficient and provides a much brighter image than traditional CCFL backlights.

Full Protection

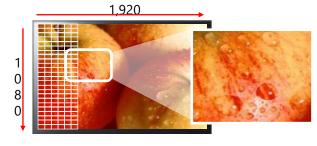
In order to protect the high-tech components and ensure a long life time, the housing is fully made of steel and 3.2T tempered glass (Optional).

No Blackening Defect



FHD 49"/55"/65" DID INDOOR DESIGNING SCREENS

Professional DID LED Panel



Wide Viewing Angle



IR Touch & PCAP Touch (Option)

Digital Signage Line-Up



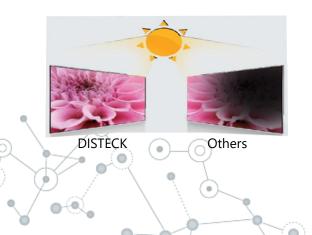
LED Backlight

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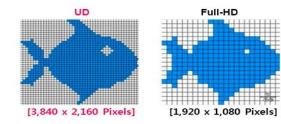
In order to protect the high-tech components and ensure a long life time, the housing is fully made of steel and 3.2T tempered glass (optional).

No Blackening Defect



UHD 49"/55"/65" DID INDOOR DESIGNING SCREENS

Ultra Definition = Full HD (x4)



Ultra definition provides more delicate and clear pictures.

Wide Viewing Angle



IR Touch & PCAP Touch (Option)



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