



**DES**

Display Technology

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Ver.20190930

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## PART 01 | E-paper Display Application



# E-paper Display Application



## E-book

E-book is a handheld reader that digitizes the content of text, pictures, sounds, images, and the like, and a set of storage and display terminals that embed or download digital text, pictures, sounds, images, and the like.



## E-notebook

E-notebook is a kind of intelligent high-tech product that can replace traditional notebook and original handwriting. It is the latest fashion technology product and green product. It is mainly used for political and business people to use for mobile office and entertainment.



# E-paper Display Application



## Electronic Price Tag

An electronic display device that can replace the traditional paper price tag, is connected to the store database through the network, and displays the latest product information.



## Electronic Price Tag

It is an electronic display device with information transmission and reception function, and is mainly used in electronic labels for displaying price information in supermarkets, convenience stores, pharmacies, and the like.



## Electronic Price Tag

The shelf was incorporated into the computer program, freed from the manual replacement of price tags, and the price consistency between the checkout counter and the shelf was achieved.

# Application Scenario



Smart Home



Smart Card



E-nameplate



Smart Phone



Smart Bus



Gas Station



Wisdom House Number



Electronic Tag



E-notebook



Public Information



Smart Medical

# Application Scenario



E-paper Whiteboard



Building Decoration



Cafe Menu



Traffic Sign



Logistics Label



Luggage Tag



Gas Station Price Tag



Cinema Board



Phone Case



Exhibition Board



Billboard



Laptop Keyboard



Shelf Label



ESL Tag



Trunk

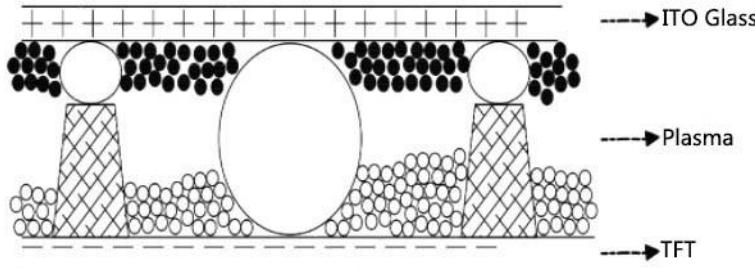
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## PART 02 | New Technology - DES

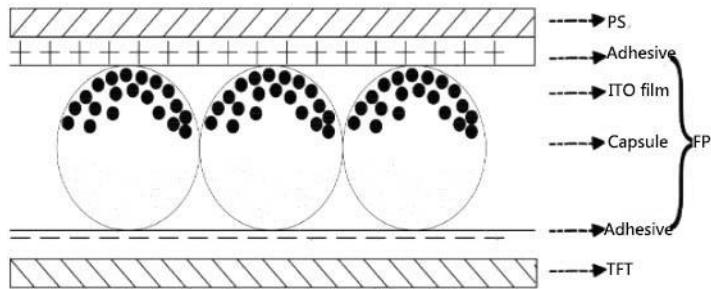
Display Electronic Slurry ( DES )



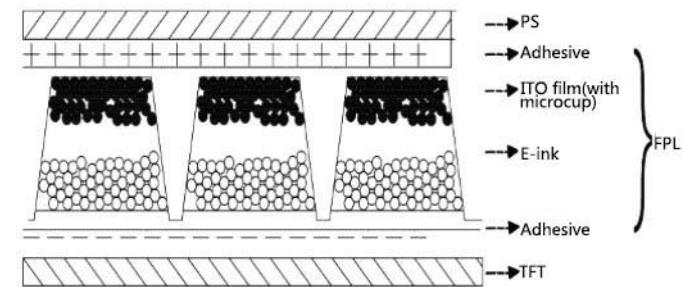
# Structure Diagram of New and Original Technology



Cofferdam



Micro-capsules



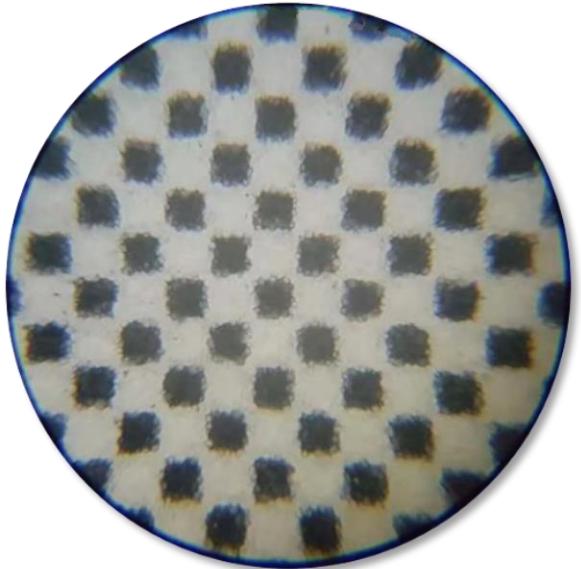
Micro-cup

## Display Electronic Slurry ( DES )

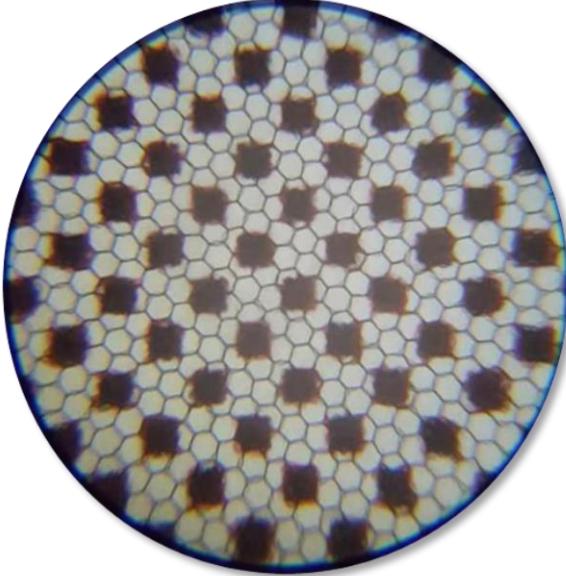
The DES display module adopts a new display structure which is completely different from the current micro-cup and micro-capsule structure. The structure forms a layer of cofferdam structure on the surface of the TFT by forming a cofferdam around the periphery of a single pixel electrode, and the bank covers the source and gate lines on the TFT. The patterned structure is characterized in that each pixel electrode is surrounded by a cofferdam, the microstructure is not visible on the front side, and the number of layers is reduced, thereby obtaining the higher definition and resolution display effect. In order to distinguish it from the traditional micro-cup and micro-capsule technology, we call it the new display electronic slurry (DES) technology.



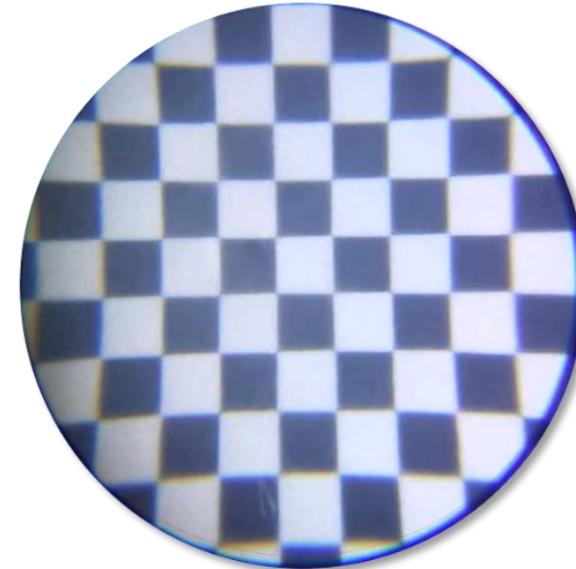
## Pixel Display Difference



**Micro-capsule Pixel Display**



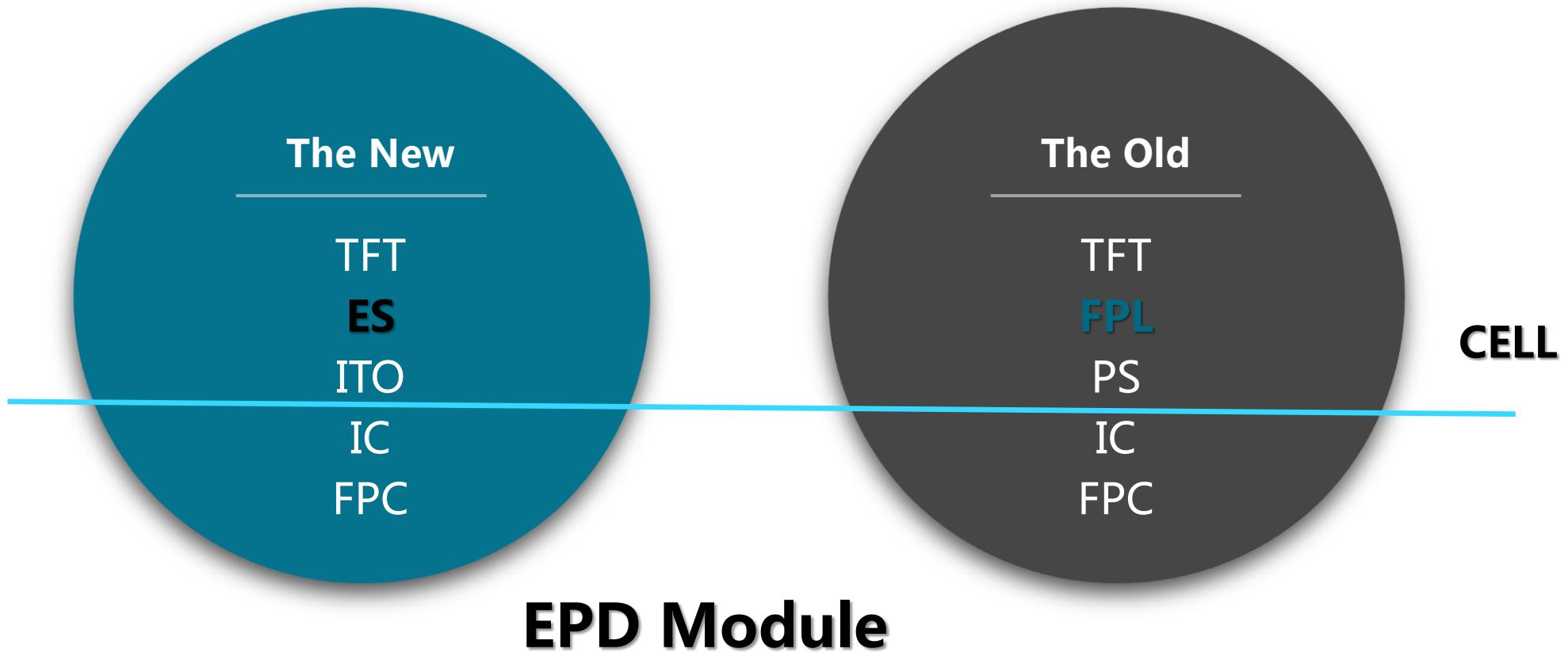
**Micro-cup pixel display**



**DES pixel display**



## Process Difference Between Original Technology and The DES

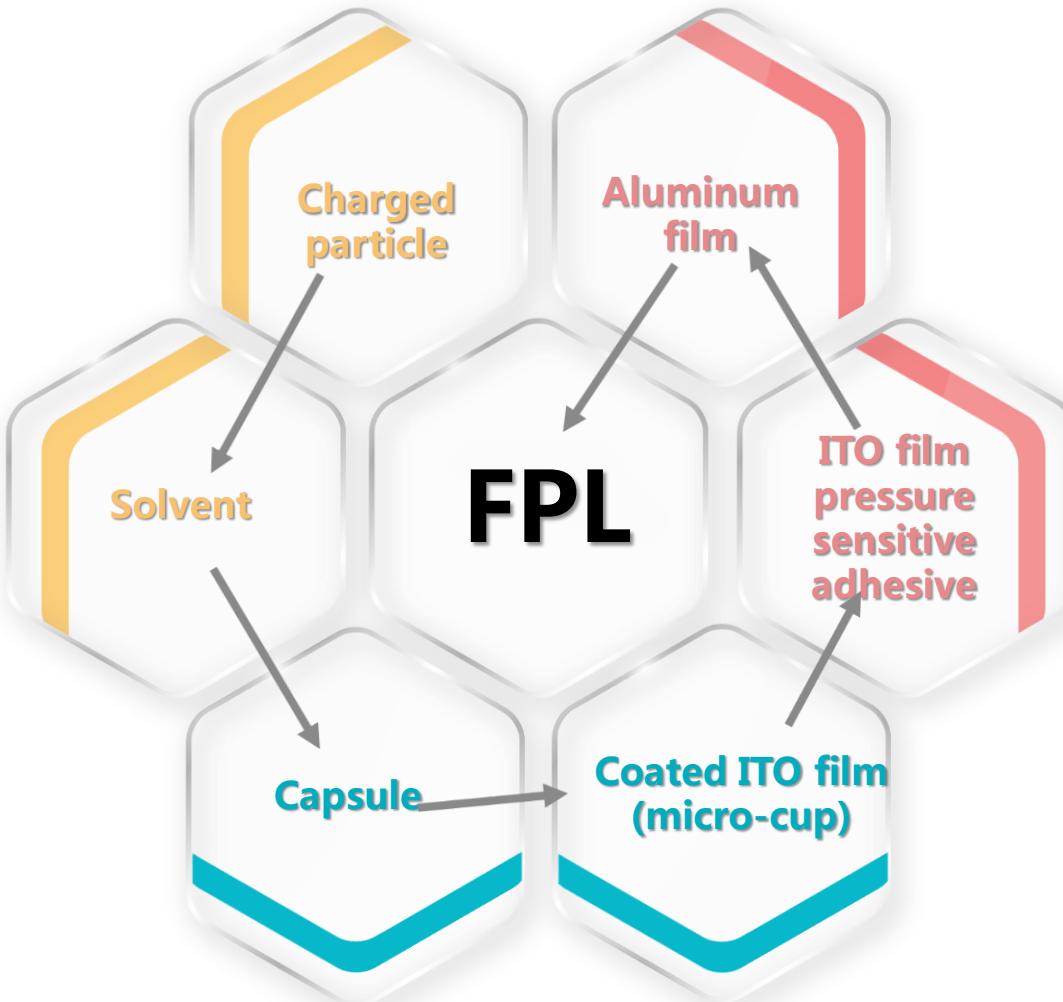


ES: Electronic Slurry

FPL: Front Plane Laminate

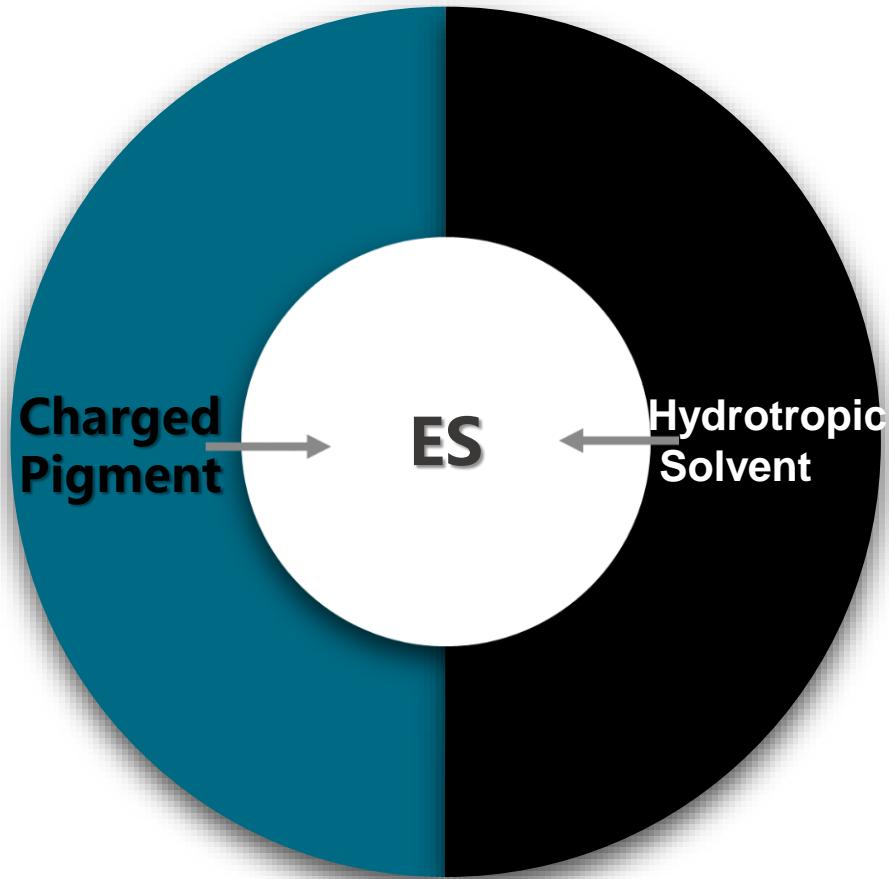


# E-ink Front Plane Laminate (FPL) Process





## Composition of ES (Electronic Slurry)



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**PART 03** | Performance Difference Between  
Original Technology and The DES



## Performance Difference Between EPD and DES



### Operating Temperature.

DES : -20°C~60°C

EPD : 0°C~50°C



### Working Humidity

DES : 0°C~80°C

EPD : 25°C~60°C



### Contrast

DES : >1 : 45

EPD-BW : <1 : 8

EPD-Tri-color : <1 : 25



### Resolution

DES : Max 600DPI

EPD : Max 300DPI



### Power consumption

DES : 1~3mA

EPD : 2~5mA

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**PART 04** | Cost Difference Between Original Technology and The DES



## Cost Difference



**Cost Reduction↓**

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## PART 05 | Full Range of The DES Displays



## BW Series



2.13 inch



2.15 inch



1.54 inch



2.9 inch



5.83 inch



打开手机  
扫一扫  
查看  
商品详情

价格监督电话: 12358



## BWR Series



2.13 inch



2.15 inch



5.83 inch



1.54 inch



2.9 inch



## BWY Series



2.13 inch



2.15 inch



5.83 inch



1.54 inch



2.9 inch



## BWO Series



2.13 inch



2.15 inch



5.83 inch



1.54 inch



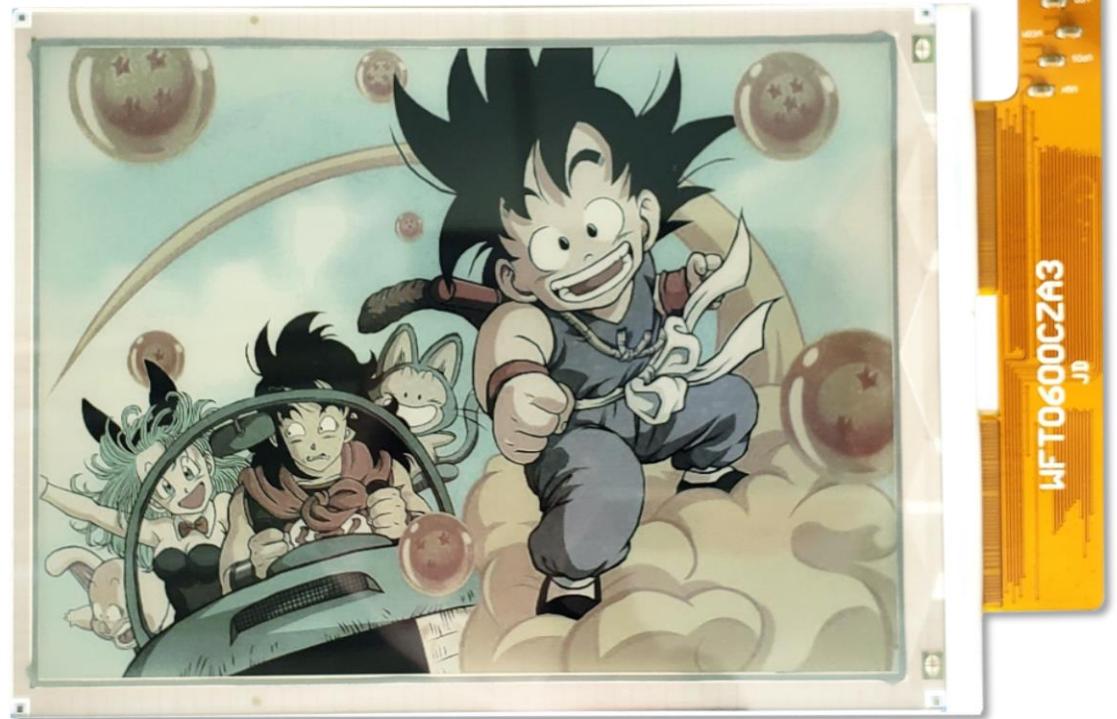
2.9 inch



## Full Color Series



**4.2 inch**



**6 inch**

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**PART 06** | Sample Comparison Between  
Original Technology and The DES



# Sample Comparison Between EPD and DES



EPD



DES



DES



EPD

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**PART 07 | More Application for DES  
in The Future**



## Other Exploitable Application



Pressure Gauge



Electric Meter



Instrumentation



Production Line Signate



Temperature and Humidity Board



Station Waiting Sign



Bank Counters



Queuing Machine





## Other Exploitable Application



## Smart Classroom





# DES

# Display Technology

Thanks For Watching

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