

The Sharp Memory LCD Suite













Memory in every pixel allows for rich content on a small display – with ultra-low power consumption.



Memory LCD Advantages

Ultra-Low Power Consumption

- No data refresh for still images
- Reflective (may be backlit)

Excellent Display Quality

- High resolution/contrast/reflectivity
- Readable in any lighting condition
- Wide/symmetrical viewing angle

Thin Profile

Smaller finished products

Simple Interface/Connectivity

- 3-wire serial interface
- Single power supply
- Few peripherals

Fast Image Refresh Time

- Scrolling letters
- Image capability (no ghosting)

Resistance to Vibration

• Up to 1.5 G - 2 G



0.96-inch (diameter) Memory LCD

HR-TFT Octagonal Transflective Display

Part Number:	LS010B7DH05
Pixel Format:	192 × 192
Outline Dimensions (mm)	29.7 (W) × 30.5 (H) × 1.645 (D)
Active Area Diameter (mm)	Ø 24.384
Dot Pitch (mm)	0.127 × 0.127
Input Voltage	3 V
Interface Type	3 V Serial
Reflectance	16.4%
Power Consumption*	25 μW Static, 40 μW Dynamic
Connector	FPC
Operating Temp. Range	-20 to +70°C

1.03-inch (diagonal) Memory LCD

HR-TFT Square Transflective Display

Part Number	LS010B7DH04
Pixel Format	128 × 128
Outline Dimensions (mm)	22.12 × 25.82 × 0.745
Active Area Diameter (mm)	18.56 × 18.56
Dot Pitch (mm)	0.145 × 0.145
Input Voltage	3 V
Interface Type	3 V Serial
Reflectance	16%
Power Consumption*	15 μW Static, 45 μW Dynamic
Connector	FPC
Operating Temp. Range	-20 to +70°C

1.17-inch (diagonal) Memory LCD

HR-TFT Landscape Transflective Display

Part Number	LS012B7DD01
Pixel Format	184 × 38
Outline Dimensions (mm)	35.1 × 11.0 × 0.741
Active Area (mm)	29.072 × 6.004
Dot Pitch (mm)	0.158 × 0.158
Input Voltage	3 V
Interface Type	3 V Serial
Reflectance	15%
Power Consumption*	6 μW Static, 50 μW Dynamic
Connector	FPC
Operating Temp. Range	-20 to +70°

1.26-inch (diagonal) Memory LCD

HR-TFT Portrait Transflective Display

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Part Number	LS013B7DH05
Pixel Format	144 × 168
Outline Dimensions (mm)	24.68 × 30.0 × 0.745
Active Area (mm)	20.88 × 24.36
Dot Pitch (mm)	0.145 × 0.145
Input Voltage	3 V
Interface Type	3 V Serial
Reflectance	14.5%
Power Consumption*	25 μW Static, 35 μW Dynamic
Connector	FPC
Operating Temp. Range	-20 to +70°C

WEARABLE TECHNOLOGY | MOBILE PHONES | REMOTE CONTROLS

1.28-inch (diagonal) Memory LCD

HR-TFT Square Transflective Display

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Part Number	LS013B7DH03
Pixel Format	128 × 128
Outline Dimensions (mm)	26.6 × 30.3 × 0.741
Active Area (mm)	23.04 × 23.04
Dot Pitch (mm)	0.18 × 0.18
Input Voltage	3 V
Interface Type	3 V Serial
Reflectance	18%
Power Consumption*	12 μW Static, 50 μW Dynamic
Connector	FPC
Operating Temp. Range	-20 to +70°C

1.33-inch (diagonal) Color Memory LCD

8-Color Normally White HR-TFT Transflective Display

Part Number	LS013B7DH06
Pixel Format	128 × RGB × 128, 8-color
Outline Dimensions (mm)	26.82 × 31.3 × 0.745
Active Area (mm)	23.808 × 23.808
Dot Pitch (mm)	0.062 × 0.186
Input Voltage	5 V
Interface Type	3 V Serial
Reflectance	8.5%
Power Consumption*	25 μW Static, 60 μW Dynamic
Connector	FPC
Operating Temp. Range	-20 to +70°C
Contrast	24:1
NTSC	6%

1.33-inch (diagonal) Color Memory LCD

8-Color Normally Black HR-TFT Transflective Display

Part Number	LS013B7DH0X
Pixel Format	128 × RGB × 128, 8-color
Outline Dimensions (mm)	26.82 × 31.3 × 0.745
Active Area (mm)	23.808 × 23.808
Dot Pitch (mm)	0.062 × 0.186
Input Voltage	5 V
Interface Type	3 V Serial
Reflectance	18%
Power Consumption*	25 μW Static, 60 μW Dynamic
Connector	FPC
Operating Temp. Range	-20 to +70°C
Contrast	30:1
NTSC	22%

2.7-inch (diagonal) Memory LCD

HR-TFT Landscape Transflective Display

Part Number	LS027B7DH01A
Pixel Format	400 × 240
Outline Dimensions (mm)	62.8 × 42.82 × 1.64
Active Area (mm)	58.8 × 35.28
Dot Pitch (mm)	0.147 × 0.147
Input Voltage	5 V
Interface Type	3 V Serial
Reflectance	17.5%
Power Consumption*	50 μW Static, 175 μW Dynamic
Connector	FPC
Operating Temp. Range	-20 to +70°C

3.16-inch (diagonal) Memory LCD

HR-TFT Portrait Transflective Display

Part Number	LS032B7DD02
Pixel Format	336 × 536
Outline Dimensions (mm)	47.02 × 76.0 × 0.705
Active Area Diameter (mm)	46.672 × 68.072
Dot Pitch (mm)	0.127 × 0.127
Input Voltage	5 V
Interface Type	3 V Serial
Reflectance	TBD
Power Consumption*	40 μW Static, 250 μW Dynamic
Connector	FPC
Operating Temp. Range	-20 to +70°C

4.4-inch (diagonal) Memory LCD

HR-TFT Landscape Transflective Display

Part Number	LS044Q7DH01
Pixel Format	320 × 240
Outline Dimensions (mm)	94.8 × 75.2 × 1.64
Active Area (mm)	89.6 × 67.2
Dot Pitch (mm)	0.280 × 0.280
Input Voltage	5 V
Interface Type	3 V Serial
Reflectance	18%
Power Consumption*	100 μW Static, 600 μW Dynamic
Connector	FPC
Operating Temp. Range	-20 to +70°C

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