

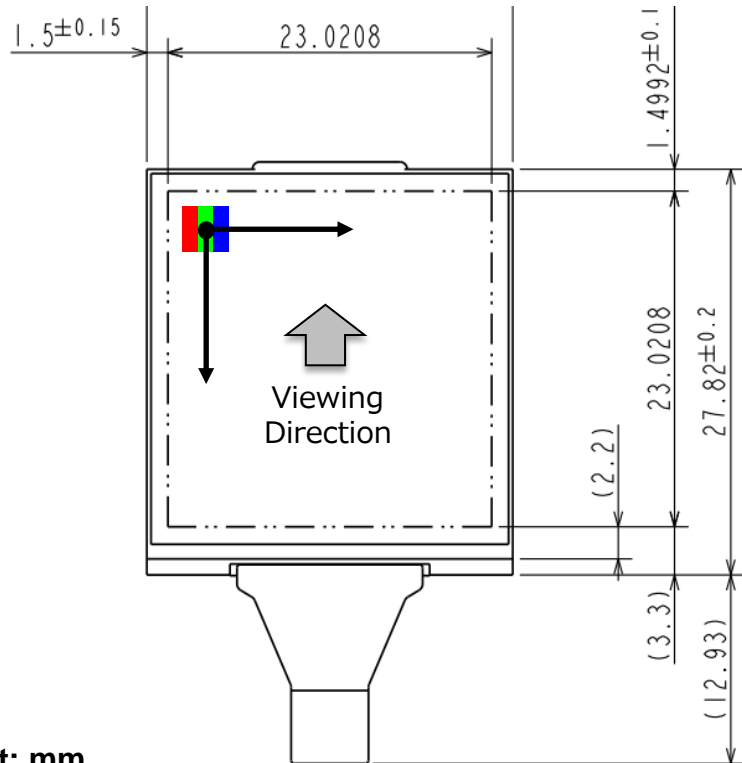
# 1.28" MIP Reflective Color LTPS TFT LCD

LPM013M126A

As of 2017.05.09

## Features:

- Ultra low power consumption
- 8 colors, SPI I/F
- Super high reflectance 26%
- Ultra slim & compact design



## MP now

		Spec
<b>General</b>	LCD type	ECB, Full Reflective
	Diagonal size	1.28"
	Resolution	176RGB(H) x 176(V)
	Active area	23.0208mm(H) x 23.0208mm(V)
	Pixel Pitch	43.6um(H) x 130.8um(V)
	PPI	194ppi
<b>Electrical</b>	Interface (Note-1)	SPI <b>Max refresh frequency 10Hz</b>
	Power Supply	VLCD=3.0V VDD=3.0V
	Power Consumption (Note-2)	Typ. 2μW @ Static Image Typ. 10μW @ 1fps Image Refresh Typ. (90μW) @ 10fps Image Refresh
<b>Optical</b>	Color gamut	Typ. 23% (NTSC ratio)
	Contrast ratio	Typ. 30:1
	Number of colors	8 color(R, G,B 1bit)
	Reflectance	Typ. 26%
<b>Mechanical</b>	Glass size	26.02mm(H) x 27.82mm(V) x 0.4mm(T)
	Module structure	LCD panel + FPC
	Module dimensions	26.02mm(H) x 27.82mm(V) x 0.844mm(D)
<b>Feature</b>	Feature	Memory In Pixel
<b>Schedule</b>	Sample	Available

Note-1: Room Temperature, 3V drive

Note-2: Room Temperature, White Image

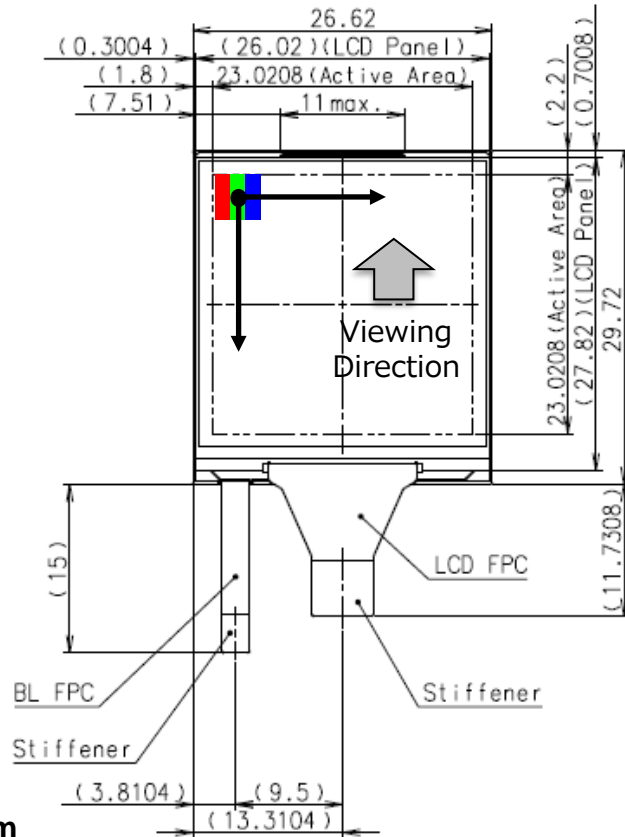
Unit: mm

# 1.28" MIP Reflective Color LTPS TFT LCD with Back Light LPM013M126C

As of 2017.05.09

## Features:

- Ultra low power consumption
- 8 colors, SPI I/F
- Super high reflectance 26%
- Ultra slim with Back Light



## MP now

		Spec
<b>General</b>	LCD type	ECB, Full Reflective
	Diagonal size	1.28"
	Resolution	176RGB(H) x 176(V)
	Active area	23.0208mm(H) x 23.0208mm(V)
	Pixel Pitch	43.6um(H) x 130.8um(V)
	PPI	194
<b>Electrical</b>	Interface (Note-1)	SPI <b>Max refresh frequency 10Hz</b>
	Power Supply	VLCD=3.0V VDD=3.0V
	Power Consumption (Note-2)	Typ. 2μW @ Static Image Typ. 10μW @ 1fps Image Refresh Typ. (90μW) @ 10fps Image Refresh
<b>Optical</b> @Reflective mode	Color gamut	Typ. 23% (NTSC ratio)
	Contrast ratio	Typ. 30:1
	Number of colors	8 color(R, G,B 1bit)
	Reflectance	Typ. 26%
<b>Mechanical</b>	Glass size	26.02mm(H) x 27.82mm(V) x 0.4mm(T)
	Module structure	LCD panel + FPC + BL Unit
	Module dimensions	26.62mm(H) x 29.72mm(V) x 1.45mm(D)
<b>Feature</b>	Feature	Memory In Pixel
<b>Schedule</b>	Sample	Available

Note-1: Room Temperature, 3V drive  
Note-2: Room Temperature, White Image

Unit: mm

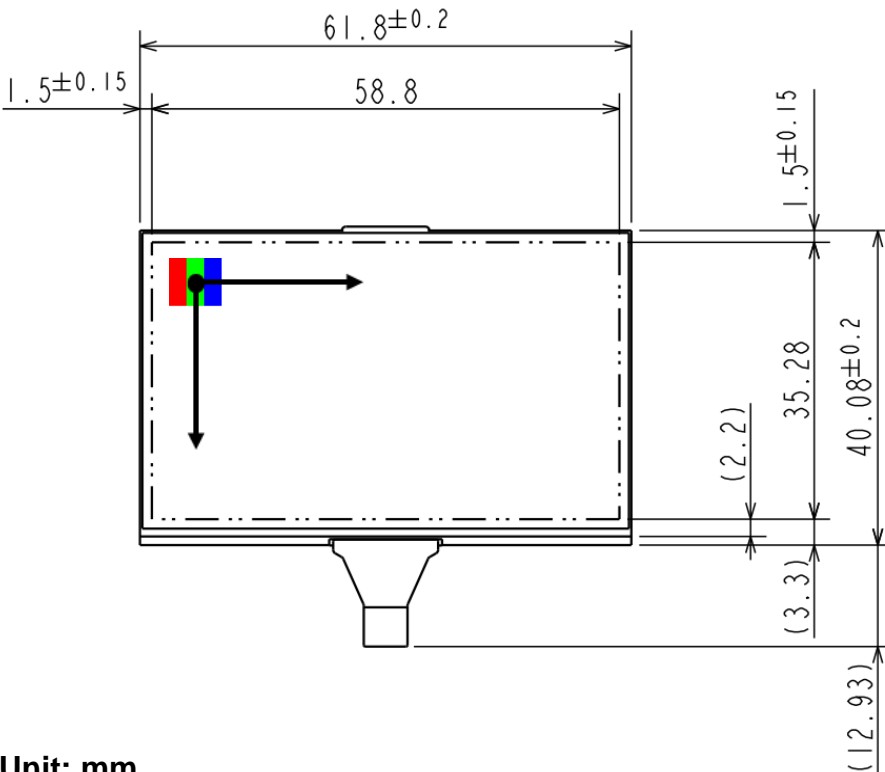
# 2.7" MIP Reflective Color LTPS TFT LCD

LPM027M128B

As of 2017.12.14

## Features:

- Ultra low power consumption
- 8 colors, SPI
- Super high reflectance 19%
- Ultra slim & compact design



## Sample Available

		Spec
<b>General</b>	LCD type	ECB, Full Reflective
	Diagonal size	2.70"
	Resolution	400RGBx240
	Active area	58.8mm(H) x 35.28mm(V)
	Pixel Pitch	49um(H) x 147um(V)
	PPI	172.8
<b>Electrical</b>	Interface (Note-1)	SPI <b>Max refresh frequency (6.5) Hz</b>
	Power Supply	VLCD=3V
	Power Consumption (Note-2)	Typ. 5μW @ MIP Static Image Typ. 30μW @MIP 1fps Image Refresh Typ. (180μW) @6.5fps Image Refresh
<b>Optical</b>	Color gamut	Typ. 23% (NTSC ratio)
	Contrast ratio	(Typ.40:1)
	Number of colors	8 (1bit)
	Reflectance	19%
<b>Mechanical</b>	Glass size	61.8mm(H) x 40.08mm(V) x 1.0mm(T)
	Module structure	LCD panel + FPC
	Module dimensions	61.8mm(H) x 40.08mm(V) x (1.4)mm(D)
<b>Feature</b>	Feature	Memory In Pixel
<b>Schedule</b>	Sample	Available

Note-1: Room Temperature, 3V drive  
Note-2: Room Temperature, White Image

Unit: mm

Spec is subject to change without prior notice.

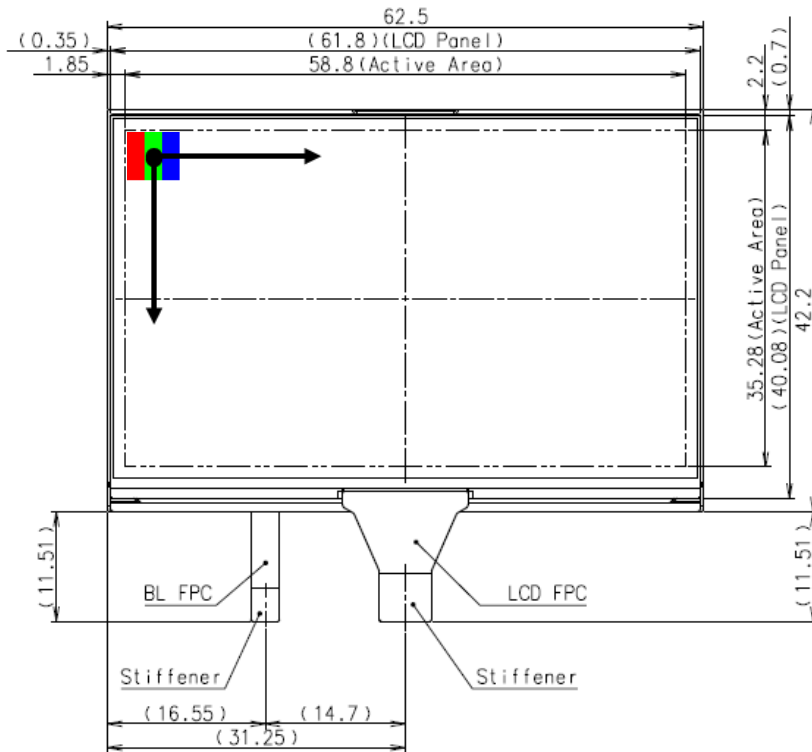
# 2.7" MIP Reflective Color LTPS TFT LCD with Back Light

LPM027M128C

As of 2017.05.10

## Features:

- Ultra low power consumption
- 8 colors, SPI I/F
- Super high reflectance 19%
- Ultra slim with Back Light



## MP now

		Spec
<b>General</b>	LCD type	ECB, Full Reflective
	Diagonal size	2.70"
	Resolution	400RGBx240
	Active area	58.8mm(H) x 35.28mm(V)
	Pixel Pitch	49um(H) x 147um(V)
	PPI	172.8
<b>Electrical</b>	Interface (Note-1)	SPI <b>Max refresh frequency (6.5) Hz</b>
	Power Supply	VLCD=3V
	Power Consumption (except BL) (Note-2)	Typ. 5μW @ Static Image Typ. 30μW @ 1fps Image Refresh Typ. (180μW) @ 6.5fps Image Refresh
<b>Optical</b> @ Reflective mode	Color gamut	Typ. 23% (NTSC ratio)
	Contrast ratio	Typ.40:1
	Number of colors	8 (1bit)
	Reflectance	19%
<b>Mechanical</b>	Glass size	61.8mm(H) x 40.08mm(V) x 1.0mm(T)
	Module structure	LCD panel + FPC + BL Unit
	Module dimensions	62.5mm(H) x 42.2mm(V) x 2.2mm(D)
<b>Feature</b>	Feature	Memory In Pixel
<b>Schedule</b>	Sample	Available

Note-1: Room Temperature, 3V drive  
Note-2: Room Temperature, White Image

Unit: mm

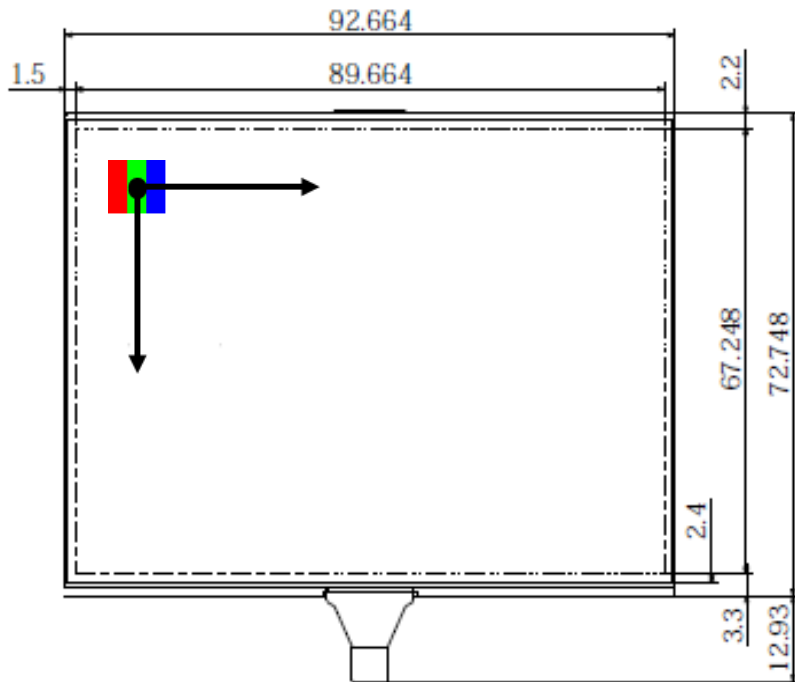
# 4.4" MIP Reflective Color LTPS TFT LCD

LPM044M141A

As of 2017.06.20

## Features:

- Ultra low power consumption
- 8 colors, SPI I/F
- Super high reflectance 18%
- Ultra slim & compact design



## MP now

		Spec
General	LCD type	ECB, Full Reflective
	Diagonal size	4.4"
	Resolution	640RGBx480
	Active area	89.664mm(H) x 67.248mm(V)
	Pixel Pitch	46.7um(H)(Ave.) x 140.1um(V)
	PPI	181.3
Electrical	Interface (Note-1)	SPI <b>Max refresh frequency (2) Hz</b>
	Power Supply	VLCD=3V
	Power Consumption (Note-2)	Typ. 14μW @ MIP Static Image Typ. 123μW @MIP 1fps Image Typ. (250μW) @MIP 2fps Image Refresh
Optical @Reflective mode	Color gamut	Typ. 23% (NTSC ratio)
	Contrast ratio	Typ.40:1
	Number of colors	8 (1bit)
	Reflectance	18%
Mechanical	Glass size	92.664mm(H) x 72.748mm(V) x 1.0mm(T)
	Module structure	LCD panel + FPC
	Module dimensions	92.664mm(H) x 72.748mm(V) x 1.39mm(D)
Feature	Feature	Memory In Pixel
Schedule	Sample	Available

Note-1: Room Temperature, 3V drive  
Note-2: Room Temperature, White Image

Unit: mm

Spec is subject to change without prior notice.

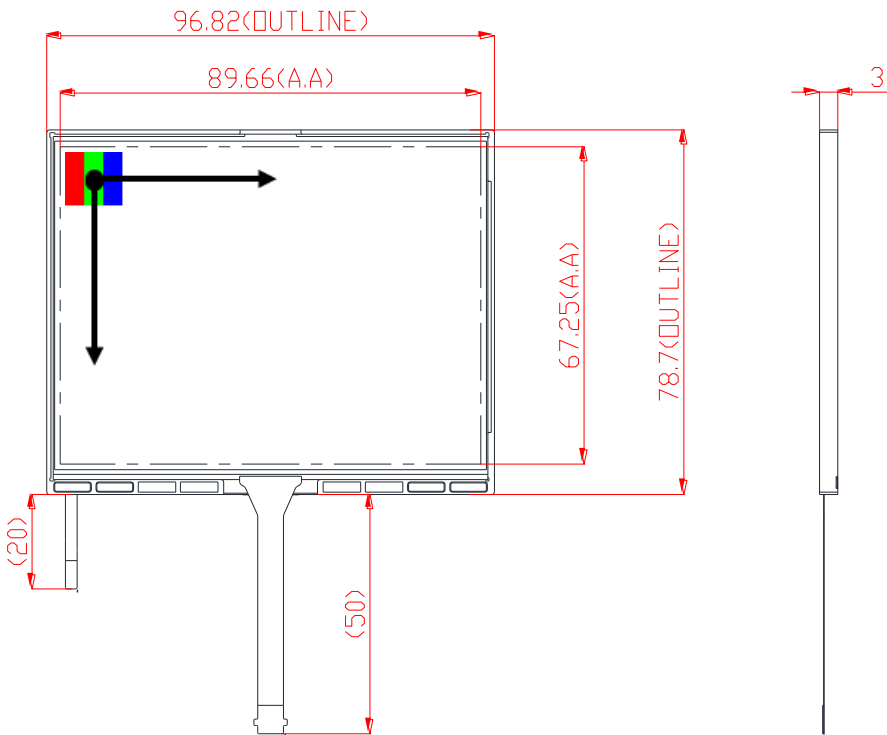
# 4.4" MIP Reflective Color LTPS TFT LCD with Back Light

TX11D200VM1AAA

As of 2018.02.13

## Features:

- Ultra low power consumption
- 8 colors, SPI I/F
- Super high reflectance 18%
- Slim & compact design



## MP now

		Spec
General	LCD type	ECB, Full Reflective
	Diagonal size	4.4"
	Resolution	640RGBx480
	Active area	89.664mm(H) x 67.248mm(V)
	Pixel Pitch	46.7um(H)(Ave.) x 140.1um(V)
	PPI	181.3
Electrical	Interface (Note-1)	SPI <b>Max refresh frequency (2) Hz</b>
	Power Supply	VLCD=3V
	Power Consumption (except B/L) (Note-2)	Typ. 14μW @ MIP Static Image Typ. 123μW @MIP 1fps Image Typ. (250μW) @MIP 2fps Image Refresh
Optical @Reflective mode	Color gamut	Typ. 23% (NTSC ratio)
	Contrast ratio	Typ.40:1
	Number of colors	8 (1bit)
	Reflectance	18%
Mechanical	Glass size	92.664mm(H) x 72.748mm(V) x 1.0mm(T)
	Module structure	LCD panel + FPC + BL
	Module dimensions	96.82mm(H) x 78.7mm(V) x 3mm(D)
Feature	Feature	Memory In Pixel
Top/Tst		-20~70/-30~80

Note-1: Room Temperature, 3V drive

Note-2: Room Temperature, White Image