

1. General Specification

1.1 Physical Specifications

ELM014M829A is a 1.39 inch active matrix organic light emitting diode display (AMOLED) module.
The Active area of the AMOLED module has 454(H) x 454(V) pixels.
This product is the System on the Glass display with MCU interface.

No.	FACTOR	Specifications	UNIT
1	AMOLED structure	LTPS	-
2	Outward (W x H x D)	37.612(W)x37.915(H)x0.589(D)	mm
3	Weight	Approx. TBD	g
4	Screen size	35.412 (1.39 inch) diameter	mm
5	Number of pixels	454(H) x 454(V)	Dot
6	Interface	MCU	-
7	Dot pitch (Horizontal x Vertical)	0.078(H) x 0.078(V)	mm
8	Dot layout	RGB stripe	-
9	Number of colors	16.7M	-
10	Display mode	AMOLED normally black	-
11	Front Polarizer	Hard Coat type (*Pencil Hardness : 2H)	-

Note)

(*1-1) Excluding FPC and part of protruding. See attached drawing for details.

Brightness 350cd/m2 (normal mode)

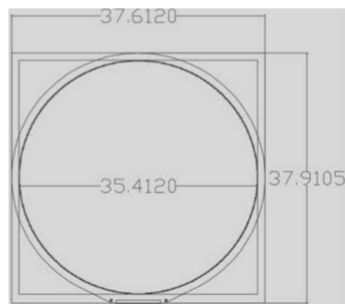
Refresh rate (Frame rate) 45Hz(normal)

15Hz ...IC normal mode+frame skip

5Hz ...IC normal mode+frame skip

TDDI NT38350

PMIC BV6801



5. OPTICAL SPECIFICATION

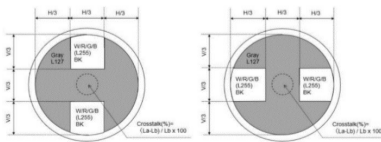
5.1 OPTICAL CHARACTERISTICS

* Ta=25°C

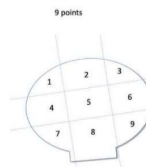
Item	Symbol	Temp. (°C)	Rating			Unit	Definition (Measurement setup)	Remark
			Min.	Typ.	Max.			
Luminance	L	25		350	-	cd/m2		normal mode
Contrast	CR	25	10000	-	-	-	1	
Response	tr	25	-	TBD	TBD	ms	2	Black → White
	td		-	TBD	TBD			White → Black
Color Coordinates	Rx	25	(0.664)	0.684	(0.704)	-	3	
	Ry		(0.296)	0.316	(0.336)			
	Gx		(0.198)	0.238	(0.278)			
	Gy		(0.686)	0.726	(0.766)			
	Bx		(0.125)	0.140	(0.155)			
	By		(0.035)	0.050	(0.065)			
	Wx		(0.290)	0.300	(0.310)			
Wy	(0.300)	0.310	(0.320)					
DCI-P3 ratio	-	25	-	110	-	%	4	area ratio
Viewing Angle (CR>1600)	θL	25	80	-	-	deg.	5	Horizontal
	θR		80	-	-			Vertical
	θT		80	-	-			
	θB		80	-	-			

* () : Reference value

Item	Symbol	Temp. (°C)	Rating			Unit	Definition (Measurement setup)	Remark
			Min.	Typ.	Max.			
Brightness uniformity		25	85	-	-	%		9point min/max*100% >85%
Life time(LT95)	W	-	1000	-	-	hrs		LT95 @350cd/m2
	R	-	2500	-	-	hrs		
	G	-	1000	-	-	hrs		
	B	-	500	-	-	hrs		
crosstalk		25	-	-	2	%		
Flicker (normal)		25	-30	-	-	dB		TBD after WS evaluation
Gamma		25	1.9	2.2	2.5	-		



Crosstalk pattern >



uniformity measurement position>

Confidential

MDL I/F Connection Image

