

Specification for Colour AMOLED Display Module

5.68" AMOLED Display

Manufacturer	Truly (Huizhou) Smart Display Limited
Part n°	AM057RN90003V0
Ordering n°	
Customer Part n°	
Revision n°	0.8
Issue Date	2016-06-21

Customer's Approval

Company name	
Printed name	
Job title	
Signature	
Approval Stage:	<p>This product is approved for the following production stage: -</p> <ul style="list-style-type: none"> <input type="checkbox"/> Sample / Prototype <input type="checkbox"/> Pre-Series <input type="checkbox"/> Mass Production
Approval Date	

Supplied by Anders Electronics plc
 Manufactured by Truly (Huizhou) Smart Display Limited

■ FEATURES

- 1) Display color: 16.7M colors(24bits)
- 2) Display format: 5.68 Inch FHD 1080×1920
- 3) Interface: MIPI 4 lanes
- 4) Polarizer: Hard Coating Polarizer
- 5) Scan Direction : Only support from bottom to top

■ APPLICATION

SmartPhone; Industrial; Medical

■ GENERAL INFORMATION

Item	Contents	Unit
Display Mode	AMOLED	/
Module Outline (W×H×T)	73.14×132.76×0.543	mm
Glass Outline (W×H×T)	73.14×132.76×0.405	mm
Active area (W×H)	70.74×125.76	mm
Number of Dots	1080×2×1920	/
Diagonal Inch	5.68	inch
Pixel pitch (W×H)	65.5×65.5	um
Glass Thickness	0.2 (LTPS) 0.205 (Encap+Seal)	mm

■ ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Min	Max	Unit
Supply voltage (Display)	VCC	-0.3	5.1	V
	IOVCC	-0.3	5.1	V
	AVDD	-	6.5	V
	ELVDD	-	6.0	V
	ELVSS	-6.5	-	V
Operating temperature	T _{OP}	-20	60	°C
Storage temperature	T _{ST}	-30	70	°C
Humidity	RH	-	90	%RH

Note: Absolute maximum ratings means the product can withstand short-term, NOT more than 120 hours. If the product is a long time to withstand these conditions, the life time would be shorter.

■ ELECTRICAL CHARACTERISTICS

Parameter		Symbol	Condition	Min	Typ	Max	Unit
Supply voltage (Display)		VCC		2.5	3.3	4.8	V
		IOVCC		1.65	1.8	3.3	V
		AVDD		5.5	6.0	6.5	V
		ELVDD	-	-	4.6	-	V
		ELVSS	-	-	-2	-	-4
Input voltage	'H' level	V _{IH}	VDDI=1.65V~ 3.3V	0.8*IOVCC	-	IOVCC	V
	'L' level	V _{IL}		-0.3	-	0.2*IOVCC	V
Output voltage	'H' level	V _{OH}	I(OH)=-1mA	0.8*IOVCC	-	-	V
	'L' level	V _{OL}	I(OL)=+1mA	-0.3	-	0.2*IOVCC	V

■ ELECTRO-OPTICAL CHARACTERISTICS

Item	Symbol	Condition	Min	Typ	Max	Unit	Remark	Note
Response time	Tr+ Tf	$\theta=0^\circ$ $\varnothing=0^\circ$ Ta=25°C	-	-	0.5	ms	FIG1	1
Contrast ratio	Cr		10000	-	-	---	FIG2	2
Luminance uniformity	δ WHITE		75	-	-	%	FIG2	3
Surface Luminance	Lv		270	300	330	cd/m2	FIG2	4
Viewing angle range	θ	Up/Down/ Right/Left Cr \geq 10	88	-	-	deg		5
CIE (x, y) chromaticity CIE	Red x	$\theta=0^\circ$ $\varnothing=0^\circ$ Ta=25°C	0.637	0.667	0.697	-		6
	Red y		0.302	0.332	0.362	-		
	Green x		0.185	0.235	0.285	-		
	Green y		0.668	0.718	0.768	-		
	Blue x		0.100	0.140	0.180	-		
	Blue y		0.005	0.045	0.085	-		
	White x		0.275	0.295	0.315	-		
	White y		0.295	0.315	0.335	-		
NTSC ratio	-	-	85	100	-	%		CIE 1931
CrossTalk		25°C	-	-	3	%		7
Gamma		$\theta=0^\circ$ $\varnothing=0^\circ$ Ta=25°C V(Gray)= 44,68,100, 132,164,1 96,228,25 2,255	2.0	2.2	2.4	-		

EXTERNAL DIMENSIONS

