

3. Optics & Electrical Characteristics

3.1 Optics Characteristics

Characteristics	Symbol	Conditions	Min	Typ	Max	Unit
Brightness (V _{CC} Supplied Externally)	L _{br}	With Polarizer (Note 3)	100	120	-	cd/m ²
<i>Brightness (V_{CC} Generated by Internal DC/DC)</i>	<i>L_{br}</i>	<i>With Polarizer (Note 4)</i>	<i>80</i>	<i>100</i>	<i>-</i>	<i>cd/m²</i>
C.I.E. (Blue)	(x) (y)	Without Polarizer	0.12 0.22	0.16 0.26	0.20 0.30	
Dark Room Contrast	CR		-	>2000:1	-	
View Angle			>160	-	-	degree

* Optical measurement taken at V_{DD} = 2.8V, V_{CC} = 9V & 7.25V.
Software configuration follows Section 4.4 Initialization.

3.2 DC Characteristics

Characteristics	Symbol	Conditions	Min	Typ	Max	Unit
Supply Voltage for Logic	V _{DD}	-	1.65	2.8	3.3	V
Supply Voltage for Display (Supplied Externally)	V _{CC}	Note 3	8.5	9	9.5	V
<i>Supply Voltage for DC/DC</i>	<i>V_{BAT}</i>	<i>Internal DC/DC Enable</i>	<i>3.5</i>	<i>-</i>	<i>4.2</i>	<i>V</i>
<i>Supply Voltage for Display (Generated by Internal DC/DC)</i>	<i>V_{CC}</i>	<i>Note 4</i>	<i>7</i>	<i>7.25</i>	<i>7.5</i>	<i>V</i>
High Level Input	V _{IH}	-	0.8×V _{DD}	-	V _{DD}	V
Low Level Input	V _{IL}	-	0	-	0.2×V _{DD}	V
High Level Output	V _{OH}	I _{OUT} = 100μA, 3.3MHz	0.9×V _{DD}	-	V _{DD}	V
Low Level Output	V _{OL}	I _{OUT} = 100μA, 3.3MHz	0	-	0.1×V _{DD}	V
Operating Current for V _{DD}	I _{DD}	-	-	180	300	μA
Operating Current for V _{CC} (V _{CC} Supplied Externally)	I _{CC}	Note 5	-	7.3	9.1	mA
		Note 6	-	12.3	15.4	mA
<i>Operating Current for V_{BAT} (V_{CC} Generated by Internal DC/DC)</i>	<i>I_{BAT}</i>	<i>Note 7</i>	<i>-</i>	<i>18.8</i>	<i>23.5</i>	<i>mA</i>
		<i>Note 8</i>	<i>-</i>	<i>25.6</i>	<i>32.0</i>	<i>mA</i>
Sleep Mode Current for V _{DD}	I _{DD, SLEEP}	-	-	1	5	μA
Sleep Mode Current for V _{CC}	I _{CC, SLEEP}	-	-	1	5	μA

Note 3 & 4: Brightness (L_{br}) and Supply Voltage for Display (V_{CC}) are subject to the change of the panel characteristics and the customer's request.

Note 5: V_{DD} = 2.8V, V_{CC} = 9V, 50% Display Area Turn on.

Note 6: V_{DD} = 2.8V, V_{CC} = 9V, 100% Display Area Turn on.

Note 7: V_{DD} = 2.8V, V_{CC} = 7.25V, 50% Display Area Turn on.

Note 8: V_{DD} = 2.8V, V_{CC} = 7.25V, 100% Display Area Turn on.