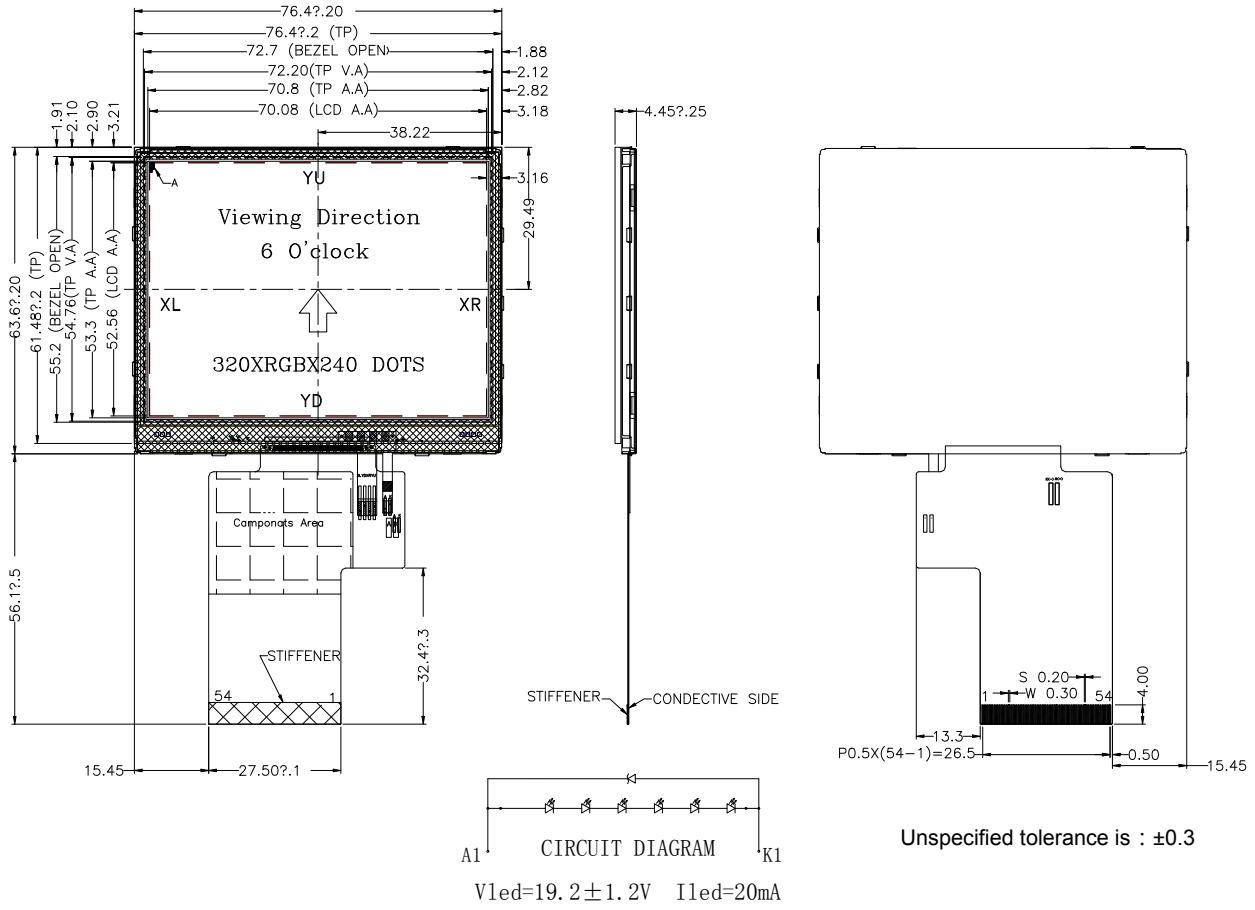
HGF03504 with RTP



Pin Connections

Pin	Symbol	I/O	Function
1	LED-K1	0V	Power supply for LED backlight cathode
2	LED-K2	0V	
3	LED-A2	19.2V	Power supply for LED backlight anode
4	LED-A1	19.2V	
5~7	NC	-	No connect
8	RESET	H/L	Reset signal
9	CS	H/L	Chip select pin of serial interface.Internal pull high.Leave it OPEN when not used.
10	SCK	H/L	Clock pin of serial interface.Internal pull high.Leave it OPEN when not used.
11	SDI	H/L	Data input pin in serial mode.Internal pull high.Leave it OPEN when not used.
12~19	B0~B7	H/L	Blue data
20~27	G0~G7	H/L	Green data
28~35	R0~R7	H/L	Red data
36	HSYNC	H/L	Horizontal sync signal
37	VSYNC	H/L	Vertical sync signal
38	DOTCLK	H/L	Pixel clock
39~40	NC	-	No connect
41	VDD	2.8V	Power supply voltage

42	VDDIO	2.8V	Power supply for I/O system
43	YU	-	Touch panel upper signal in Y axis
44	XL	-	Touch panel left signal in X axis
45	YD	-	Touch panel lower signal in Y axis
46	XR	-	Touch panel right signal in X axis
47~51	NC	-	No connect
52	ENABLE	H/L	Display enable pin
53~54	VSS	0V	Power ground

Basic Specifications

Item	Specifications
Size	3.5 inch
Resolution	320×3(RGB)×240
Color depth	262K
Viewing direction	6 o'clock
Operation temperature	-20 ℃ ~70 ℃
Storage temperature	-30 ℃ ~ 80 ℃
Driver IC	HX8238
Interface type	24-bits parallel RGB interface

DC Electrical Characteristics&Backlight Driving Conditions

Item	Symbol	Min.	Typ.	Max.	Unit
Power supply	V_{DD}	2.5	2.8	3.3	V
Supply current	I_{DD}	-	-	-	mA
Input signal voltage	V_{IH}	0.8 V_{DD}	-	V_{DD}	V
	V_{IL}	0	-	0.2 V_{DD}	V
Output signal voltage	V_{OH}	0.8 V_{DD}	-	V_{DD}	V
	V_{OL}	0	-	0.2 V_{DD}	V
Power supply for LED backlight	V_F	-	19.2	-	V
Current for LED backlight	I_F	-	20	-	mA
Operating life time for LED backlight	Ta=25℃and I_F =20mA	-	20000	-	Hrs

Optical Specifications

Item		Symbol	Condition	Min.	Typ.	Max.	Unit
View angles	VERT	θT	CR≧10 (Note)	60	70	-	Degree
		θB		50	60	-	
	HOR	θL		60	70	-	
		θR		60	70	-	
Contrast ratio		CR	θ=0°	200	350	-	-
Chromaticity	White	X	Backlight is on	0.25	0.30	0.35	
		Y		0.25	0.30	0.35	
Luminance		L	Ta=25℃and I_F =20mA	-	240	-	cd/m^2

Note: T:Top 12 o'clock; B:Bottom 6 o'clock; L:Left 9 o'clock; R:Right 3 o'clock