AC133UT1

13.3" Advanced Color ePaper (E Ink ACeP™)

Finally the day has come: Advanced Color ePaper (ACeP™) samples are available.

The first full-color 13.3“ display with extended color gamut (based on E Ink’s ACeP™ technology) is constructed in such a way that all necessary color pigments are placed in the electrophoretic liquid in every single pixel of the display. The four basic colors (cyan, magenta, yellow and white) generate eight primary colors and allow production of over 32 000 colors.

The power consumption is still remaining extremely low, since the image buildup happens with the help of different voltages, which reorient the color pigments in the micro-capsules and then stay stable until the next image change.

Like its monochrome predecessor, the display has an 8-bit TTL interface. Since the algorithms of the color display are highly complex, a special EPD microcontroller is used to manage it. To facilitate an implementation of the display for users, E Ink has developed its own TCON driving board. The T1000 board is offered in combination with the display.

MECHANICAL SPECIFICATIONS

PARAMETER	SPECIFICATIONS	UNIT	REMARK
SCREEN SIZE	13.3	inch	
DISPLAY RESOLUTION	1600(H) × 1200(V)	Pixel	DPI: 150
ACTIVE AREA	270.4(H) × 202.8(V)	mm	
PIXEL PITCH	0.169(H) × 0.169(V)	mm	
PIXEL CONFIGURATION	Rectangle		
OUTLINE DIMENSION	285.8(W) × 213.65(H) × 0.97(D)	mm	w/o masking film
MODULE WEIGHT	110 ± 10	g	
DISPLAY OPERATING MODE	Reflective mode		
SURFACE TREATMENT	Anti-glare treatment for protective sheet		
OPERATING TEMP. RANGE	+15 .. +35	°C	
STORAGE TEMPERATURE	0 .. +50	°C	

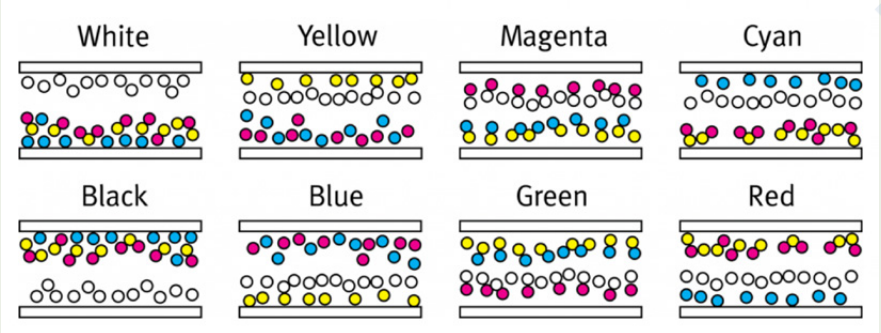
OPTICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	TYP.	UNIT	NOTE
R	Reflectance	White	35	%	Note 1
CR	Contrast Ratio	-	10		-
Gamut	Color Saturation	-	60K	dE^3	
T_{update_RS}	Update time	A→W→B	25	sec	Note 2

Note 1 : Luminance meter : Eye – One Pro Spectrophotometer

Note 2 : Pattern switch : Picture-A → White → Picture-B

HOW TO MAKE ACeP COLORS



- White pigments reflect light & hide unneeded color pigments
- Color pigments are coloring the reflected light