

NATURAL LIGHT TFT (NLT) TECHNOLOGY

NEC ELECTRONICS AMERICA

NEC LCD TECHNOLOGIES

Bright, clear displays in any ambient light environment

To address the growing need for displays viewable in a variety of ambient light environments, NEC LCD Technologies has developed two proprietary transfective LCD technologies: Super-Reflective NLT (SR-NLT) and Super-Transmissive NLT (ST-NLT)

SR-NLT Technology



Unaffected by changes in outdoor light environments to ensure natural color anytime!

SR-NLT technology allows users to change backlight modes (on/off) in response to changes in the outdoor light environment.

NEC LCD Technologies' SR-NLT technology gives customers a choice of two operating modes depending on the outdoor light environment: the transmissive mode, which uses the module's backlight as a light source, and the reflective mode, which employs ambient light as the light source. To change modes, just turn the backlight ON or OFF. Due to our proprietary optical design, this type of LCD features a high-level combination of transmissivity in the transmissive mode and reflectivity in the reflective mode – for maximum visibility under any and all outdoor light conditions. The reflective mode uses ambient light as the display's light source instead of the module backlight – thereby saving on battery life in mobile terminals and handsets.

ST-NLT Technology

ST-NLT technology assures bright, natural display viewing under any ambient light condition.

ST-NLT technology is another innovative technology incorporating NEC LCD Technologies' proprietary optical design. It boosts the efficiency of the backlight's light utilization and minimizes the surface reflection of ambient light. It is a transmissive LCD that produces high-contrast images even in bright outdoor light found on sunny afternoons. It features a wider color reproduction range than reflective LCDs, making it the ideal choice for bright, vibrant color displays. Our extensive lineup of ST-NLT products ranges in size from 5.5-inch QVGA to 15.0-inch XGA. Due to new advanced optical technology the ST-NLT LCDs are ideal for ATMs, measuring devices, vending machines and other industrial devices subject to use in bright sunlight.

www.am.necel.com/display

www.nec-lcd.com/en

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Environmental Initiatives

Our products are RoHS compliant.

Out of concern for the environment, NEC LCD Technologies began reducing the use of hazardous substances in our LCD modules prior to the RoHS Directive. We have eliminated the six substances targeted in the RoHS Directive as well as other substances we have identified as potentially hazardous, so that our products are RoHS-compliant.

Products featuring SR-NLT Technology

SIZE	RESOLUTION	PART NUMBER	ADDITIONAL ATTRIBUTES	AVAILABILITY
2.7-inch	QVGA	NL2432HC17-04A	140 cd/m ² , CR 150:1 (on), 35% reflection ratio	Now
		NL2432HC17-04B	120 cd/m ² , CR 150:1 (on), 35% reflection ratio, with touch	Now
3.5-inch	QVGA	NL2432HC22-40A	220 cd/m ² , CR 150:1 (on), LED, 15% reflection ratio	Now
		NL2432HC22-41B	200 cd/m ² , CR 150:1 (on), LED, 15% reflection ratio, with touch	Now
		NL2432HC22-42B	200 cd/m ² , CR 130:1 (on), LED, 15% reflection ratio, with touch, A/G	Now
		NL2432HC22-45A	100 cd/m ² , CR 150:1 (on), LED, 16% reflection ratio	Now
	VGA	NL4864HL11-01B	200 cd/m ² , CR 180:1 (on), LED, 7% reflection ratio, with touch, VIT	Now
		NL4864HL11-02A	220 cd/m ² , CR 180:1 (on), LED, 7% reflection ratio, with touch, VIT	Now

Products featuring ST-NLT Technology

SIZE	RESOLUTION	PART NUMBER	ADDITIONAL ATTRIBUTES	AVAILABILITY	
5.5-inch	QVGA	NL3224BC35-22	750 cd/m ² , CR 500:1, reverse scan	Now	
6.5-inch	VGA	NL6448BC20-20	650 cd/m ² , CR 600:1, reverse scan, wide viewing angle	Now	
		NL6448BC20-21C	800 cd/m ² , CR 600:1, LED, LVDS, reverse scan, wide viewing angle	Now	
	XGA	NL10276BC13-01C	650 cd/m ² , CR 500:1, LED, LVDS, reverse scan, wide viewing angle	Now	
7.0-inch	WVGA	NL8048BC19-02C	550 cd/m ² , CR 800:1, LED, LVDS, reverse scan, wide viewing angle	Now	
8.4-inch	VGA	NL6448BC26-09C	750 cd/m ² , CR 600:1, reverse scan, wide viewing angle	Now	
	SVGA	NL8060BC21-03	650 cd/m ² , CR 600:1, LVDS, reverse scan, wide viewing angle	Now	
10.4-inch	VGA	NL6448BC33-63C	450 cd/m ² , CR 600:1, LVDS, reverse scan, wide viewing angle	Now	
		NL6448BC33-64C	450 cd/m ² , CR 600:1, reverse scan, wide viewing angle	Now	
		NL6448BC33-70C	900 cd/m ² , CR 600:1, LED, reverse scan, wide viewing angle	Now	
	SVGA	NL8060BC26-30C	550 cd/m ² , CR 900:1, LVDS, wide viewing angle	Now	
12.1-inch	XGA	NL10276BC20-04C	300 cd/m ² , CR 300:1, LVDS, reverse scan	Now	
		SVGA	NL8060BC31-32	400 cd/m ² , CR 600:1, reverse scan	Now
			NL8060BC31-41C	550 cd/m ² , CR 600:1, LVDS, reverse scan, wide viewing angle	Now
	NL8060BC31-47C		900 cd/m ² , CR 600:1, LED, reverse scan, wide viewing angle	Samples 7/09; MP 8/09	
15.0-inch	XGA	NL10276BC24-13C	400 cd/m ² , CR 600:1, reverse scan	Now	
		NL10276BC30-18C	600 cd/m ² , CR 600:1, LVDS, reverse scan, wide viewing angle	Now	

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