

LED Backlight LCDs

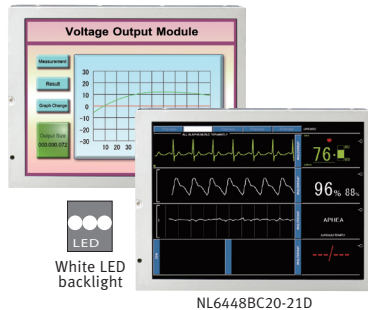


Thinking green? Consider LED LCDs

White LED backlights have been used in small (5-inch and smaller) consumer display products such as cell phones, portable media players and handheld global positioning systems for some time. As more efficient and more cost-effective white LEDs have become available, their use has spread to both small- and medium-size (up to about 15-inch) display products in a variety of applications, including test and measurement equipment, portable medical devices and other battery-powered products where power consumption must be minimized.

At a time when customers are moving away from cumbersome stationary display equipment toward products that are more portable and often battery-operated, the focus of designers has shifted to equipment that reduces power consumption, conserves energy, and allows for modularization while protecting the environment. In the context of these trends, LED-based LCDs offer distinct advantages over their CCFL counterparts.

6.5-inch LCD module equipped with white LED backlight system



- > Low voltage
- > Low EMI
- > No need for an inverter
- > Reduced power consumption
- > Reduced module thickness and weight
- > High reliability
- > Lower risk of damage due to shock and vibration
- > Mercury-free and therefore more environmentally friendly than CCFL products

LED Backlight LCDs

Size	Resolution	Part Number	Additional Attributes	Availability
Note: Details about our 3.5-inch to 4.3-inch LED displays are available in the Industrial Mobile Display flyer.				
5.7"	VGA	NL6448BC18-01	400 cd/m ² , CR 850:1, 6-bit digital RGB	Now
		NL6448BC18-01F	800 cd/m ² , CR 850:1, 6-bit digital RGB	
		NL6448BC18-06F	800 cd/m ² , CR 850:1, 6-bit digital RGB, portrait	Now
		NL6448BC18-07	280 cd/m ² , CR 850:1, 6-bit digital RGB	Now
6.5"	VGA	NL6448BC20-21C	800 cd/m ² , CR 600:1, ST-NLT, LVDS	Now
		NL6448BC20-21D	550 cd/m ² , CR 600:1, LVDS	

ENVIRONMENTAL INITIATIVES

Our products are RoHS compliant

Out of concern for the environment, NLT 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 now RoHS-compliant.

Renesas Electronics America Inc.
 2880 Scott Boulevard
 Santa Clara, CA 95050-2554
 1-408-588-6000
www.am.renesas.com/prod/displays

NLT Technologies, Ltd.
 1753 Shimonumabe, Nakahara-Ku
 Kawasaki, Kanagawa 211-8666, Japan
 044-435-1666
www.nlt-technologies.co.jp/en



NEC LCD Technologies, Ltd. *New name*
Same company
Same support



Technologies, Ltd.

As of July 1, 2011, NEC LCD Technologies, Ltd. is now known as NLT Technologies, Ltd.

Note:
 Renesas Electronics America Inc. is the exclusive representative of NLT Technologies in the Americas.

LED Backlight LCDs

Continued from front page

Size	Resolution	Part Number	Additional Attributes	Availability	
6.5"	VGA	NL6448BC20-30/30D	600 cd/m ² , CR 600:1, 6/8-bit LVDS	Now	
		NL6448BC20-30C	900 cd/m ² , CR 600:1, ST-NLT, 6/8-bit LVDS		
		NL6448BC20-30F	900 cd/m ² , CR 600:1, 6/8-bit LVDS		
		NL6448BC20-35/35D	600 cd/m ² , CR 800:1, 6-bit digital		
		NL6448BC20-35C	1000 cd/m ² , CR 800:1, ST-NLT, 6-bit digital		
	NL6448BC20-35F	1000 cd/m ² , CR 800:1, 6-bit digital			
	XGA	NL10276BC13-01	500 cd/m ² , CR 500:1, 6/8-bit digital RGB		
NL10276BC13-01C	650 cd/m ² , CR 500:1, ST-NLT, 6/8-bit digital RGB				
7.0"	WQVGA	NL8048BC19-02	400 cd/m ² , CR 1000:1, LVDS	Now	
		NL8048BC19-02C	550 cd/m ² , CR 800:1, ST-NLT, LVDS		
		NL8048BC19-03	400 cd/m ² , CR 1000:1, LVDS, portrait		
8.4"	VGA	NL6448BC26-20F	800 cd/m ² , CR 1000:1, 6-bit digital RGB, portrait	Now	
		NL6448BC26-22F	800 cd/m ² , CR 1000:1, 6-bit digital RGB		
		NL6448BC26-26/26D	450 cd/m ² , CR 800:1, 6-bit digital		
		NL6448BC26-26C	900 cd/m ² , CR 800:1, ST-NLT, 6-bit digital		
		NL6448BC26-26F	900 cd/m ² , CR 800:1, 6-bit digital		
	SVGA	NL8060BC21-11/11D	400 cd/m ² , CR 800:1, LVDS	Now	
	VGA	NL8060BC21-11C	800 cd/m ² , CR 800:1, ST-NLT		
8.9"	WSVGA	NL10260BC19-01D	300 cd/m ² , CR 700:1, LVDS, UA-SFT	Now	
9.0"	WVGA	NL8048BC24-09/09D	400 cd/m ² , CR 800:1, LVDS, UA-SFT	Now	
10.4"	VGA	NL6448BC33-70/70D	450 cd/m ² , CR 900:1, 6-bit digital RGB	Now	
		NL6448BC33-70C	900 cd/m ² , CR 900:1, ST-NLT, 6-bit digital RGB		
		NL6448BC33-70F	900 cd/m ² , CR 900:1, 6-bit digital RGB		
	SVGA	NL8060BC26-35/35D	400 cd/m ² , CR 900:1, LVDS		
		NL8060BC26-35C	800 cd/m ² , CR 900:1, ST-NLT, LVDS		
		NL8060BC26-35F	800 cd/m ² , CR 900:1, LVDS		
	XGA	NL10276BC20-10	175 cd/m ² , CR 150:1, SR-NLT, 35% RR, LVDS		Q4 CY2011
		NL10276BC20-12	150 cd/m ² , CR 400:1, LVDS		
		NL10276BC20-18/18D	400 cd/m ² , CR 900:1, LVDS		
		NL10276BC20-18C	750 cd/m ² , CR 900:1, ST-NLT		
NL10276BC20-18F	750 cd/m ² , CR 900:1, LVDS				
12.1"	SVGA	NL8060BC31-47/47D	450 cd/m ² , CR 900:1, LVDS	Now	
		NL8060BC31-50F	800 cd/m ² , CR 800:1, 6-bit digital RGB		
	XGA	NL10276BC24-19D	650 cd/m ² , CR 600:1, LVDS		
		NL10276BC24-21	450 cd/m ² , CR 900:1, LVDS		
WXGA	NL12880BC20-05/05D	400 cd/m ² , CR 900:1, LVDS			
15.0"	XGA	NL10276BC30-34D	400 cd/m ² , CR 600:1, LVDS, PSWG	Now	

Renesas Electronics America Inc. | 2880 Scott Boulevard, Santa Clara, CA 95050-2554 | Phone: 1 (408) 588-6000 | www.am.renesas.com

© 2011 Renesas Electronics America Inc. (REA). All rights reserved. All trademarks are the property of their respective owners. REA believes the information herein was accurate when given but assumes no risk as to its quality or use. All information is provided "as-is" without warranties of any kind, whether express, implied, statutory, or arising from course of dealing, usage, or trade practice, including without limitation as to merchantability, fitness for a particular purpose, or non-infringement. REA shall not be liable for any direct, indirect, special, consequential, incidental, or other damages whatsoever, arising from use of or reliance on the information herein, even if advised of the possibility of such damages. REA reserves the right, without notice, to discontinue products or make changes to the design or specifications of its products or other information herein. All contents are protected by U.S. and international copyright laws. Except as specifically permitted herein, no portion of this material may be reproduced in any form, or by any means, without prior written permission from Renesas Electronics America Inc. Visitors or users are not permitted to modify, distribute, publish, transmit or create derivative works of any of this material for any public or commercial purposes.

