

PRODUCT DATA SHEET

10.4" XGA DUAL MODE (DAY & NVIS) ENHANCED LED BACKLIT DISPLAY SOLUTION

Sunlight Readability/MIL-STD-3009 NVIS White Operation/Very Wide Range Dimming

GENERAL DESCRIPTION

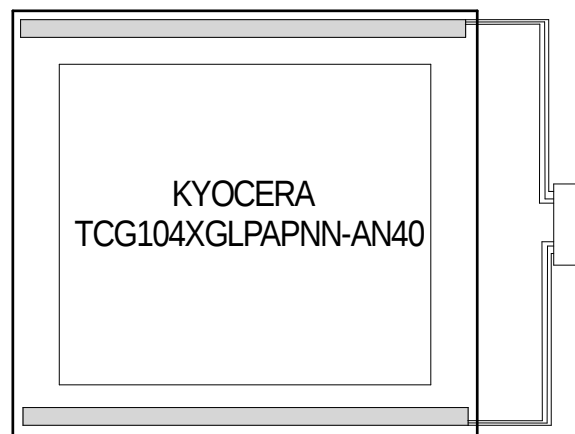
1/23/2026

The ACD-NVIS104-3172 consists of the Kyocera TCG104XGLPAPNN-AN40 10.4" XGA TFT display, modified with a high performance LED backlight capable of Day and NVIS White Operation.

Performance at given luminance levels

1200 cd/m² with 12.2 watts LED power (Day)
5.2 cd/m² with 1.9 watts LED power (NVIS)

The "NVIS White" enhancement portion of this display solution, is intended to be capable of compliance per MIL-STD-3009 for Electronic and electro-optical displays (multi-color), Type 1, Class A or Class B. Other post enhancements placed in front of the LCD glass, can have an affect on the final Luminance & Chromaticity results.



LCD PANEL HIGHLIGHTS

10.4" TFT Active Matrix Color
157.824mm(H) x 210.432mm(V) viewable area
230.0mm(W) x 180.2mm(H) x 10.5mm(D) physical size
XGA 1024 x 768 pixels, 16.7M colors
700:1 typical contrast ratio
Display Mode, Normally Black
Surface Treatment: Anti-Glare

For complete LCD specification (standard panel), refer to the datasheet Kyocera TCG104XGLPAPNN-AN40

LED BACKLIGHT FEATURES

Dual Edge Day and NVIS LED rails
Single connector allows simple interconnect with LED driver¹
Projected lifetime > 75,000 hours
Designed to be driven by constant current, selectable dual output LED backlight driver ¹

¹ For best power transfer and control, use ACI ID3 Dual Mode LED Driver ACI-3251.

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MAXIMUM RATINGS*

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Symbol	Parameter	Value	Unit
Top ¹	Operating temperature of display (center of panel surface)	-30 to +80	Deg-C
Tled	Operating temperature of LED edge light (light rail contact)	-30 to +95	Deg-C
Tstg ¹	Display storage temperature	-30 to +80	Deg-C
IfwdD	LED forward current (Day)	115	mA
IfwdN	LED forward current (NVIS)	18	mA

*Maximum Ratings are those values beyond which damage may occur

¹Per Manufacturer's Specification

PANEL/BACKLIGHT OPTICAL CHARACTERISTICS

Ifwd(Day) = 95mA per bank, 1 bank per rail, 2 rails per display, Ifwd(NVIS) = 15mA per bank, 1 bank per rail, 2 rails per display, LED rails: ACR-3173, Ta = +25 Deg-C moving air (36 CFM), LCD displaying full-white image, minimum 2 hour soak.

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Bpd	Panel Luminance (Day)		960	1200		cd/m ²
Bpn	Panel Luminance (NVIS)			5.2		cd/m ²
u'd	White u' coordinate (DAY)			0.201		-
v'd	White v' coordinate (DAY)			0.503		-
Rd	White radius error (DAY)				0.040	-
u'n	White u' coordinate (NVIS)			0.190		-
v'n	White v' coordinate (NVIS)			0.490		-
Rn	White radius error (NVIS)				0.040	-

LED EDGE-LIGHT ELECTRICAL CHARACTERISTICS

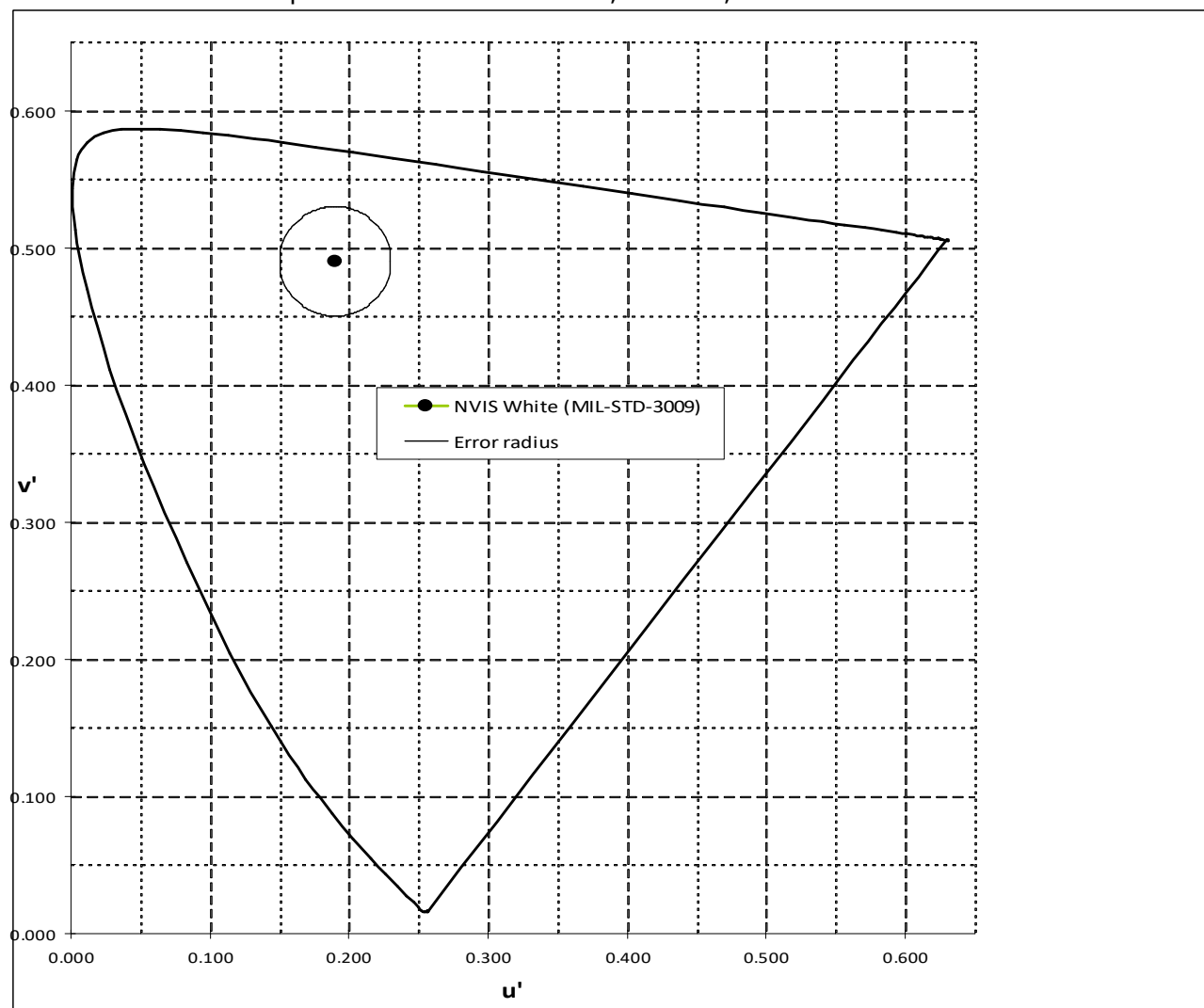
Ifwd(Day) = 95mA, Ifwd(NVIS) = 15mA, Top = +25Deg-C

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Vfwd	LED rail forward voltage drop (Day mode)		61	68	75	Vdc
Vfwd	LED rail forward voltage drop (NVIS)		58	64	70	Vdc

CIE 1976 UCS CHROMATICITY DIAGRAM

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NVIS WHITE coordinates per MIL-STD-3009: $u'=0.190$, $v'=0.490$, $r=0.04$

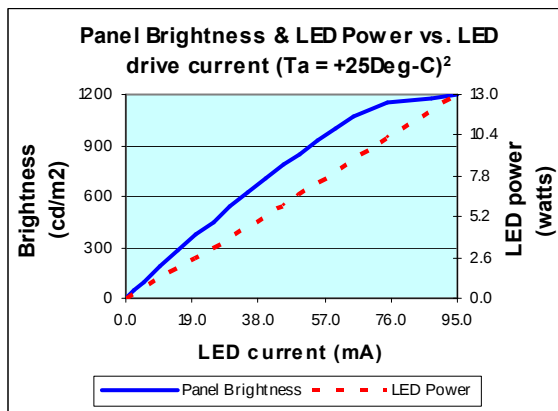


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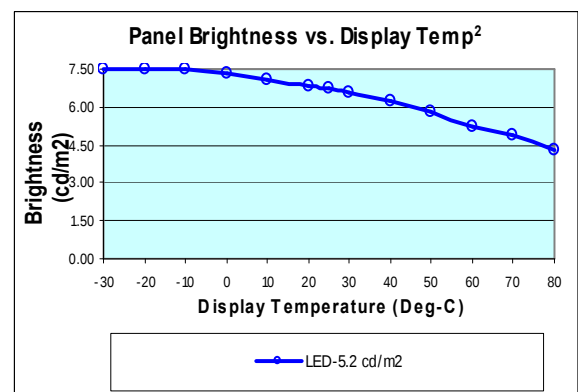
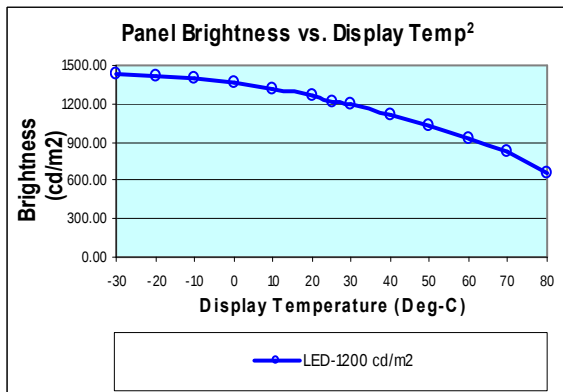
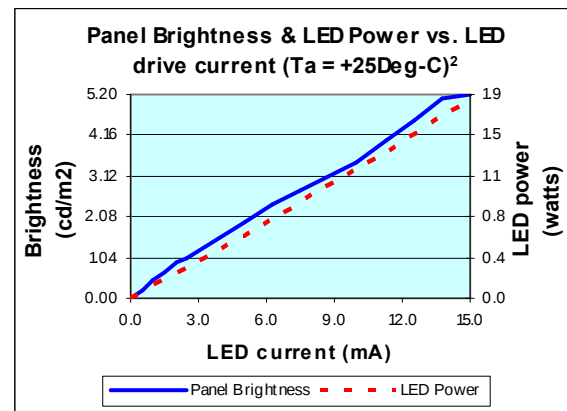
TYPICAL LCD/LED BACKLIGHT PERFORMANCE GRAPHS

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Day



NVIS



² Moving air (36.0 CFM)