

CHDD-2000 family

Primary flight and mission displays with digital and analog inputs



A full line of primary flight and mission displays with digital and analog video inputs

The CHDD-2000 family is a brand-new range of advanced avionics video displays that take advantage of the accumulated experience with the successful analog CHDD-5.4/1 and digital CHDD-6.8/1 Cockpit Head Down Displays.

Photo US Air Force - Lance Cheung

Comprehensive product range

The CHDD-2000 family is available in different display orientations and with a variety of bezel options and interfaces. There is always a CHDD-2000 display that perfectly suits your avionics application, whether it is new or retrofit.

At present, the family includes the 5x4 inch CHDD-254 and the 6x8 inch CHDD-268. 8x10 inch and 12x9 inch versions will be added to the range soon.

ARINC 817 and ARINC 818 compatible

Truly innovative, the CHDD-2000 design anticipates for the latest ARINC 817 and ARINC 818 digital video standards.

Unique IR touch screen option

The cutting edge CHDD-268 display is available with a unique touch screen control function based on infrared LED-based technology. It transforms the display into a powerful and intuitive control interface, without degrading the optical features of the display in any way.

Highest level of certification

All CHDD-2000 displays are fully DO-178B (software) and DO-254 (hardware) certified up to level A. Because of this, they can be used as primary flight displays (in combination with an external symbol generator) in any type of aircraft.

Digital and analog video inputs

CHDD-2000 displays have the unique capability to accept both digital video (DVI) and most of the currently available analog video inputs (composite and/or RGB,...).

Excellent visual performance

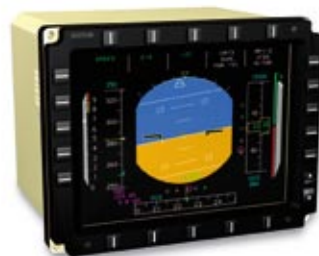
The CHDD-2000 units feature a high-grade sunlight-readable Active Matrix Liquid Crystal Display (AMLCD), providing exceptionally high brightness and excellent contrast, which are the hallmark of all Barco displays.

Advanced electronics allow for a very compact footprint (maximum 4.5" depth) and low power consumption.



Main features

- Various screen sizes (5x4 up to 12x9 inch)
- Resolutions from VGA up to XGA (depending on screen size)
- Various input options:
 - 2 Digital video inputs (DVI)
 - Possibility of various analog video inputs
- Unique LED backlight technology (for CHDD-268 and larger)
- Night vision compatibility
- Extra wide viewing angle
- Very compact design
- Extensive Built-In Testing (BIT)
- Software loadable through connector
- Various keyboard options
- External communication via RS-422
- Ambient luminance control
- Compatible with Barco MOSArt™ processing unit



CHDD-254 (5x4 inch)



CHDD-268 (6x8 inch)

Technical specifications

ELECTRO OPTICAL

Panel type:	AMLCD (Silicon TFT)
Panel resolution:	640 x 480 (VGA) to 1024 x 768 (XGA)
Screen specifications:	262,144 colors, 64 greyscales (253 w/dithering)
Brightness:	White surface luminance 250 fL, 856 cd/m ²
Contrast ratio:	>400:1 @ dark environment >7:1 @ 10,000 fc
Anti reflection:	Multilayer coating MIL-C-14806
NVG compatibility:	MIL-STD-3009 (optional)
Viewing angle:	
CHDD-254:	Horz: +/-60°, Vert: -15°/+45°
Other displays:	Horz: +/-80°, Vert: +/-80°

INTERFACES

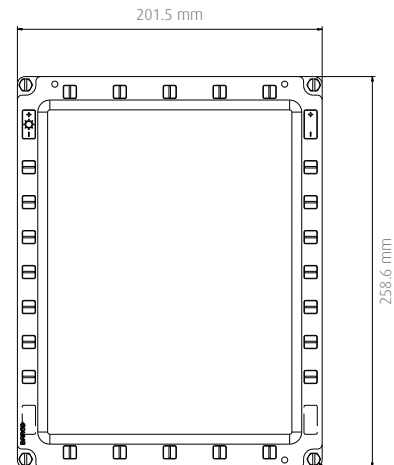
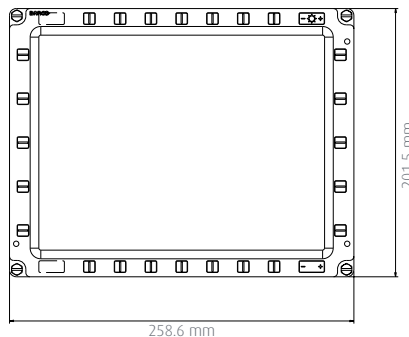
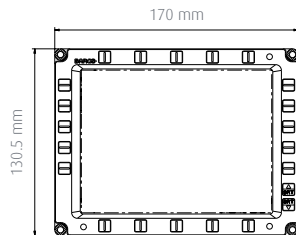
Inputs:	DVI digital video (maximum 2) Analog video (maximum 6, depending on format) RS170, NTSC, PAL, VGA to XGA RGB (SoG or +H,+V), STANAG 3350A, B & C, or customer defined
Output:	keyboard communication via RS-422

CONTROLS

Controls (front):	Brightness via rocker switch
Keys:	Special function keys, customer selectable softkeys Automatic Light Control via 2 sensors

OPTIONS

- Picture in Picture (PiP), scaling, rotating, image dithering capabilities for FLIR cameras
- ARINC 817/818 video input compatibility
- Composite video output
- IR Touch Screen (for CHDD-268 and larger)
- Bezel with rotary buttons and/or joystick
- For other custom options, please contact Barco



GENERAL DATA

Weight:	CHDD-254: 2.3 kg / 5.1 lbs CHDD-268: 3.8 kg / 8.4 lbs
Installation cut-out:	CHDD-254: 157.5x129x110 mm (WxHxD, without connectors) CHDD-268: 190x242.2x90 mm (WxHxD, without connectors)
Power supply:	28 Vdc, MIL-STD-704A
Power consumption:	CHDD-254: 45W (operating) CHDD-268: 70W (operating)
Extreme low temperature start:	CHDD-254: 85W (typ.) CHDD-268: 150W (typ.) Internal fans, cooling via cold wall Less than 0.5 Hours
Cooling:	
MTR:	IBIT, CBIT, PBIT
Software:	RTCA/DO-178B Lev A
Hardware:	RTCA/DO-254 Lev A

ENVIRONMENTAL

High temperature:	+55°C / +131°F (operational) +71°C / +160°F (30 mins)
Low temperature:	-40°C / -40°F (operational)
Warm-up time:	5 min.
Operational:	10 min. full specs
Humidity:	Up to 95% RH; 60°C condensing
Vibration:	DO-160E, cat R all curves MIL-STD-810E
Shock:	20 G - 11 ms half sine
Altitude:	50,000 ft (operational)
EMI/EMC:	DO-160E & 461D (optional)
MTBF (calculated):	15,000 hrs (AIC)



In search of continuous improvement

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Technical specifications are subject to change without prior notice

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