



The VueSim 7104 is a highly configurable smart display, designed to simulate the performance of Electronic Flight Instrument Systems (EFIS), such as a Primary Flight Display (PFD) or Multi-Function Display (MFD).

The VueSim 7104 can be configured to receive and render the same cockpit data as a fully FAA-certified EFIS at a greatly reduced cost since it does not have to be FAA-certified (DO-178/DO-254/DO-160) for the simulation environment. It can easily be configured to process flight data from a variety of sources including ARINC 429 (e.g., ADAHARS, ADF IAS, NAVCOM), Ethernet, discrete I/O and/or other buses (e.g., ARINC 453, MIL-STD-1553), depending on the end user's requirements.

General Digital can tailor the VueSim 7104 to simulate virtually any PFD/MFD by configuring the unit with an assortment of standard or custom LCDs, ARM processors, Graphic Processing Units (GPUs), I/O expansion modules, bezel switches and rotary encoders.

The VueSim 7104 supports a variety of display options including sunlight readable, sunlight readable + NVIS (NVG), standard luminance, transfective, as well as an Extended Color Gamut (ECG) version that greatly enhances the colors.

Please feel welcome to consult a General Digital Sales Engineer for additional information, or visit our Web site: www.GDdisplaysystems.com.

QUICK LOOK

DISPLAY

- » 10.4" XGA (1024 x 768 pixels) Active Matrix TFT LCD Display
- » Wide Viewing Angle (Horizontal & Vertical)
- » 3000:1 Dimming Ratio
- » LED Backlit
- » Boost-style LED Controller
 - Optimized Uniformity Even After Individual LED Failure
 - Increased Reliability (Open and Closed Circuit Failures)
- » High Brightness and NVIS Compatible Available
 - Sunlight Readable (MIL-L-85762-A)
 - High/Standard Brightness
 - NVIS (MIL-L-3009)
 - Transfective
- » Extended Color Gamut Available

PROCESSOR

- » Dual Core or Quad Core ARM Processor
- » Removeable SD Card

STANDARD I/O

- » 10/100 Ethernet
- » DVI-D Out
- » ARINC 429
- » RS-232
- » USB 2.0 (Two Type A)
- » USB Maintenance (Type B)
- » Multi-Purpose Port (External Dimming, RS-232 & Discrete I/O)

EXPANSION

- » Three Internal Expansion Slots for **Optional Expansion Modules**, such as:
 - GPU
 - ARINC 429
 - Discrete I/O
 - Customer Specified

POWER

- » +9–36 VDC
- » 2W2 Connector
- » AC Power Available

MORE OPTIONS

- » Standard and Custom Expansion Modules
- » Various Overlays and Optical Coatings
- » Optical Bonding of Overlays to Both Front and Rear of LCD
- » Buttons, Switches, Additional Rotary Encoders
- » Custom Bezels
- » Cooling Fans
- » AC Power
- » Custom Software and Firmware

Designed and Manufactured in the U.S.A.

DISPLAY

	Size (Diag.)	Resolution (Pixels)	Number of Colors	Luminance [1]	Contrast	Sunlight Readable Contrast	Weber Display Class	NVIS Radiance	NVIS Color
DVS-10X-224	10.4"	1024 x 768	16.2 Million	500 Nits	1000:1	—	—	—	—
SVS-10X-9011	10.4"	1024 x 768	16.7 Million	800 Nits	900:1	—	—	—	—
SNVS-10X-9017 [2]	10.4"	1024 x 768	16.7 Million	1670 Nits	1050:1	18.40	6	1.53 nW/cm ² /sr	U: 0.35 V: 0.421
SVS-10X-9017 [2]	10.4"	1024 x 768	16.7 Million	1670 Nits	1050:1	18.40	6	—	—
SVS-10X-9018	10.4"	1024 x 768	16.7 Million	750 Nits	1188:1	9.21	5	—	—

1 The minimum luminance is controller dependent.

2 Display has been bonded with AR/ITO borosilicate glass.

	Response Time (Rise/Decay)	Horizontal Viewing Angle	Vertical Viewing Angle	Shock	Vibration	Notable Features
DVS-10X-224	14/11 ms	±88°	±88°	50 G, 11 ms, ½ Sine Wave	1.5 G (10–300 Hz)	
SVS-10X-9011	3/15 ms	±80°	±80°	50 G, 11 ms, ½ Sine Wave	2 G (5–100 Hz)	
SNVS-10X-9017	30 ms	±85°	±85°	220 G, 2 ms, ½ Sine Wave	1.5 G (10–300 Hz)	Dual Mode Daylight/NVIS, General Digital LED Rails, Uniformity >80% in Sunlight Readable & NVIS Modes
SVS-10X-9017	30 ms	±85°	±85°	220 G, 2 ms, ½ Sine Wave	1.5 G (10–300 Hz)	General Digital LED Rails
SVS-10X-9018	30 ms	±85°	±85°	220 G, 2 ms, ½ Sine Wave	1.5 G (10–300 Hz)	Extended Color Gamut, General Digital LED Rails

EXPANSION BOARDS (All Models)

Description	Description
ARINC 429 (24 inputs/8 outputs) [3]	64 Ground/Open or 28V Open Inputs/Outputs
GPU Expansion	Customer-Specific Communications

3 Standard configuration. Board can be configured to a maximum of 32 inputs and 32 outputs.

I/O CONNECTIONS (All Models)

ARINC 429	Ethernet	RS-232	DVI-D	Power (Default)	USB 2.0	USB Maintenance
DB 44-pin Plug	RJ45	DE 9-pin Socket	Dual Link 24+1	2W2	Type A (x2)	Type B

HMI (All Models)

Rotary Encoder	Inclinometer
Two (2) Standard to Control Heading and Brightness (Can be equipped with fewer or more as required)	One (1) Standard

POWER (All Models)

Mount Type	Input Voltage Range	Output Voltage	Power (Maximum)
Internal	+9–36 Volts DC	+12 VDC	30 Watts

MECHANICAL (All Models)

Dimensions (H x W x D)	Construction	Finish	Weight, Operating	Weight, Shipping
10.688" x 8.438" x 3.961"	Aluminum	Bezel: Black Matte Powder Coat Enclosure: Gold Iridite	~5 Pounds	~7 Pounds

ENVIRONMENTAL (All Models)

Temperature, Operating	Temperature, Storage	Humidity, Operating	Humidity, Storage
-25° C to 60° C	-40° C to 100° C [4]	10% to 90% RH Non-condensing	10% to 90% RH Non-condensing

4 The storage temperature range for DVS-10X-224 is -30° C to 80° C.

OPTIONS Ordered separately — Please inquire with a Sales Engineer to discuss your requirements

Description	Description
I/O Expansion Boards/GPUs	Cooling Fans
Custom Bezel Designs (Including Keypads, Buttons and Other Interfaces)	Touch Screens
Extended Color Gamut	AC Power Supply
	Multiple Display Sizes

DISPLAY OVERLAY STANDARD OPTIONS (Other Overlays Available — Please Inquire with a Sales Engineer)

gg	Description	gg	Description
01	Clear Float Glass, Antiglare Etch Two Sides, Not for Use with High Brightness Displays	19	GenClear™ Glass, Antireflective Coating Front Side, Optically Bonded to LCD

DISPLAY OVERLAY CUSTOM OPTIONS (Other Overlays Available — Please Inquire with a Sales Engineer)

Type	Description
Base Overlay Material	Soda-Lime Float Glass
	GenClear™ Float Glass
	Polycarbonate
	Acrylic
Surface Treatments	Antiglare (AG)
	Antireflective (AR)
	Antiglare/Antireflective (AR/AG)
Enhancements	ITO EMI Shield
	Mesh EMI Shield
	Contrast Filters
	Oleophobic Coatings
	IR Blocker

MODEL NUMBER CONFIGURATOR [5]

Model Style	Size & Resolution (aab)	Display (ccc)	Processor (ddd)	Keyboard/Pointer (ee)	Industrial Enclosure (ff)	Display Overlay (gg)	Power Supply (hij)
DVS-	10X-	224-	900-	00-	32-	##-	ID59
SVS-	10X-	9011-	900-	00-	32-	##-	ID59
SNVS-	10X-	9017-	900-	00-	32-	##-	ID59
SVS-	10X-	9017-	900-	00-	32-	##-	ID59
SVS-	10X-	9018-	900-	00-	32-	##-	ID59

5 The pound symbol (#) indicates customer-defined values.

ORDERING [6]

Model Number	Description
DVS-10X-224-900-00-32- gg -ID59	VueSim 7104, 10.4" XGA Flight Simulator Smart Display, Daylight Readable, Panel Mount
SVS-10X-9011-900-00-32- gg -ID59	VueSim 7104, 10.4" XGA Flight Simulator Smart Display, Sunlight Readable, Panel Mount
SNVS-10X-9017-900-00-32- gg -ID59	VueSim 7104, 10.4" XGA Flight Simulator Smart Display, Sunlight Readable, NVIS Compliant, Panel Mount
SVS-10X-9017-900-00-32- gg -ID59	VueSim 7104, 10.4" XGA Flight Simulator Smart Display, Sunlight Readable, Panel Mount
SVS-10X-9018-900-00-32- gg -ID59	VueSim 7104, 10.4" XGA Flight Simulator Smart Display, Sunlight Readable, Panel Mount

6 Bold Italicized letters refer to standard customer-defined configurations (see Model Number Configurator above).