

IDS Technical Specification

IDS Specifications

Display Size	24 Inch	21 Inch	17 Inch
Pixels	1920 x 1200	1600 x 1200	1280 x 1024
Aspect Ratio	16:10	4:3	5:4
*Brightness	400 cd/m ²	250 cd/m ²	380 cd/m ²
Backlight	CCFL (LED available Q4 2012)		
Color Palette	16.7 Million		
Control	Front panel buttons or GUI via USB		
Options	Resistive touch panel, or optically bonded AR shield. (Resistive Touch panel will reduce brightness by up to 20%)		
Mounting Features	VESA, Static or hinged mounts for 19" RETMA rack (hinged available for 17" and 24" models), or GCS quick-release mounting configuration		

Power

Power Consumption	101 W	66 W	44 W
AC Power Supply	100-240 VAC, .88 A, 50/60 Hz, 400 Hz	100-240 VAC, .57 A, 50/60 Hz, 400 Hz	100-240 VAC, .38 A, 50/60 Hz, 400 Hz

Interface

Standard	2 x DVI-D + 2 x HD15 + 1 USB, 2 x DVI-I + 1 USB
Touch Option	2 x DVI-I + 1 USB

Physical

Total Packaging Size	14.36" H x 22.01" W x 2.79" D	14.2" H x 18.45" W x 2.29" D	12.02" H x 14.68" W x 2.17" D
Total Weight	19.35 lbs.	18.4 lbs.	11 lbs.

Environmental

Operating Temp	0° to 40° C
**Extended Op Temp	-20° to +50° C ** (Monitor will power up at -20°C with reduced backlight brightness & life.)
Non-Op Temp	-40° to +70° C
Humidity	5% to 95% Non-condensing @ 40°C for 48 hours
Operating Altitude	Up to 10,000 ft.
Non-Op Altitude	Up to 40,000 ft.
Operating Vibration	DO-160 Section 8, Curve B
Operating Shock	MIL-STD-810G, 30 g's
Fungus	Non-Nutrients/Contaminants
EMC/EMI	MIL-STD-461E, RE101 Army Limits, RE102 (MIL-STD-461F Surface Ship Limits), RS101, RS103, 20v/m 2MHz to 200MHz, 50v/m 200MHz to 18GHz

Reliability

MTBF	Min 50,000 hrs. (Backlight and LCD Only)
MTTR	<30 minutes
Safety	UL 60950 (used as a design guideline)
ESD	IEC 61000-4-2 8kv contact, 15kv air
Quality/Workmanship	IPC/ISO 9001:2008 and applicable section of MIL-HDBK-454

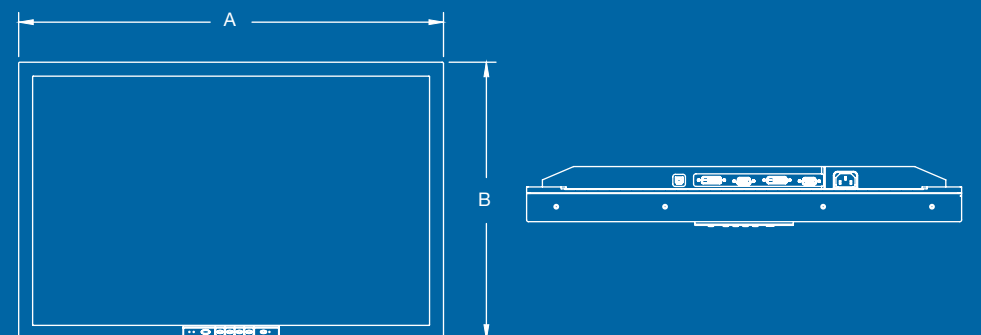
*Typical IDS Configuration - May vary between models

**Specifications are subject to change without notice. For more information contact your local Z Microsystems' Sales Representative.

Form Factors

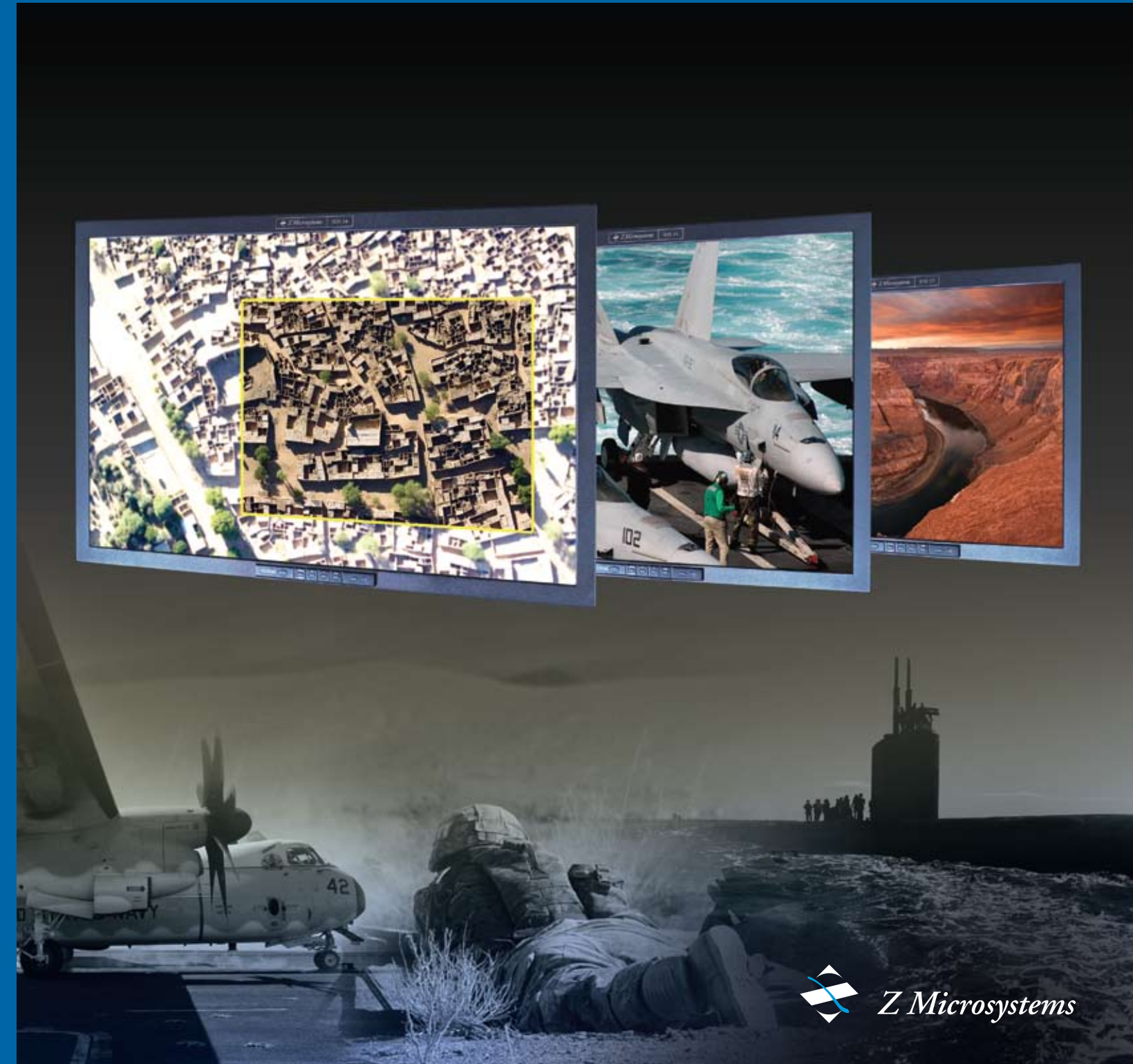
Dimension	24"	21"	17"
A - Width	22.01	18.45	14.68
B - Height	14.36	14.20	12.02
C - Depth	2.79	2.29	2.17

Vesa or Rack Mounting



INTELLIGENT DISPLAY SERIES

DESIGNED TO MEET THE NEEDS OF DEPLOYED MILITARY APPLICATIONS



Long Life Cycle

Mil Specs

AC or DC Power

Third Generation
Intelligent Electronics

Multiple Input: Scale,
Position, Blend

Real Time Enhanced Video Option

Touch Panel Option

Wide Aspect Ratio

IDS

DESIGNED TO MEET THE NEEDS OF DEPLOYED MILITARY APPLICATIONS

The thin, lightweight ID Series panels are available in 24", 21.3", and 17" sizes.

Each display can be VESA arm mounted, panel mounted, rack mounted, or attached to a specifically designed multi-display mounting frame.

Under the hood of each ID Series panel is Z Microsystems' third generation intelligent video processing engine. This video engine offers a number of impressive real-time image improving functions designed to enhance streaming video or still images. The ID Series also offers "SMARTtracker" on-board diagnostic system that continuously monitors the display's performance to provide early warning of potential faults or developing defects. All parameters can be set and quickly recalled to personal users preferences.

The ID Series system is meticulously engineered to give real-time ergonomic comfort with "lock-down" details for transportation and quick-display-release locks for rapid panel replacement.

Together with built-in real-time video enhancement and flexible mounting—all in rugged lightweight packaging—make the ID Series a "must-have" display solution for long-term fielded military applications.

CHOICES IN LCD'S

Solve the End-Of-Life Problem

Third generation electronics and choices in frame assemblies enable seamless integration of new LCD panels. No more vanishing vendor problems.

Mission Ready

Designed for Military Environments: Shock, Vibration, EMI, Temperature, Humidity qualified to MIL-SPECS.



REAL TIME ENHANCEMENT OPTIONS



CHOICES IN RACK MOUNTINGS

Single Rack Mount



Hinged Pair



Triple Play



HIGHLIGHTS

- 17", 21", & 24" active display area
- Resolution up to 1920 x 1200 pixels for 24", up to 1600 x 1200 pixels for 21", and up to 1280 x 1024 pixels for 17"
- Digital and analog video support
- USB Host Communications link
- Real-time enhanced video
- Soft Menu user-friendly on-screen GUIs
- Tough protective AR shield
- Standard optically bonded AR shield
- Optional optically bonded touch panel
- SMARTtracker logistics, prognostics, & environmental network tracking
- Rugged lightweight packaging
- Able to mount multiple displays
- Viewing angles are fully adjustable per 5th - 95th percentile MIL-STD ergonomics specifications
- Optional Quick-release mounting
- Applications include shipboard, airborne, & ground vehicles & ground control stations

OPEN ARCHITECTURE SUPPORT FOR THIRD PARTY ALGORITHMS

Today, Z Microsystems offers advanced algorithms for image enhancement including; Histogram Equalization, a globally adaptive contrast and saturation balance; and Convolution Kernel, a locally adaptive process with adjustable settings in a convenient interface.

By leveraging an intelligent open architecture, Z Micro's products are able to integrate and support our future algorithms, as well as those created by third parties. Other possible algorithms in development can include enhancements for: adaptive noise reduction, de-hazing, de-warping, de-blurring, rolling shutter mitigation, motion imagery stabilization, structure from motion, change and motion direction, and more.

