20.1" RUGGED LCD MONITOR   DATA SHEET

DRD20U

LED type-Military Grade 20.1" Rugged LCD Monitor

Dizen Systems is model DRD20U display features a harsh-duty type 20.1" UXGA (1600 x 1200) resolution LCD and protection to IP65 standards IP rating which are designed to be placed in a variety of harsh environments requiring protection at the frontal bezel from the intrusion of dust, rain, splashing water or ice formation as well as reliable defenses against excessive shock, vibration and EMI/EMC interference.

With proven advanced optical display technology and rugged design engineering, Dizen Systems is innovative display concepts make the DRD20 the most trusted mission-critical displays for today's rugged vehicles, airborne applications, and ship board consoles.

Requirement for MIL-STD Approved

IP65 sealed
The front is sealed to IP65 rating for water and dust resistance.

Advanced Deep Dimming 1,000:1
Dizen Systems has developed a deep dimming solution for the Marine range which provides smooth consistent   dimming to 1,000:1(dim to dark to full brightness).

Optional Touchscreen Integration
Dizen Systems can offer a variety of touchscreen solutions for the military range with either serial or USB interface.

Certified & Approved
The military range is designed to comply with MIL-STD 810F and MIL-STD 461F. In the case of the 17" to 24" monitors some are already certified and approved to these standards.

Array of mounting options
Mounting options include head, chassis, desktop, Vehicle, panel mount and rack mounted displays

Inputs(C-38999 series type connector)
All monitors have VGA , DVI, S-Video,C-Video,RS-232,5xBNC
Input power: Free Voltage AC 90 – 264V. Free Voltage DC18-32V
                        Or DC28V

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DIZEN SYSTEMS

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Display Description		Mechanical Description	
TFT Characteristics		**Dimensions**	482(W) x 399(H) x 100 (D) mm
		Weight	12.0kg
LCD Type	20.1 AM TFT LCD		
Max Resolution	1,600 x 1,200 pixels (UXGA)		
Active Display Area	432 x 331.50 mm	**User Key Controls**	Front Fixed
Response Time	14ms	**Case Material**	Aluminum Sheet
Contrast Ratio	800:1 type	**Sealed Rate**	Front view IP65,Rear view IP22
Brightness	300cd/m^2 type, Option: 800 cd/m^2	**Meet to Environmental Requirement**	
Viewing Angle	178 ° / 178 °	**Temperature**	
Backlight Cycle	80,000 hours type	Operating/Storage	MIL-STD-810F:2003
Pixel Colors	16.7 million	**Safety**	
Input Signal	C-38999 type-HD-15, DVI-I, CVBS, S-Video,	IP rating	MIL-STD-810F:2003
Video Signal	RGB 0.7-1.0Vp-p ,75ohm	Shock/Vibration	MIL-STD-810F/MIL-STD-167-1A
Composite Video	PAL/NTSC & SECAM (Option: with PIP function)	**Electric & Circuits**	
Signal Sync.	Option:(Separate H&V or Composite or Sync-on – Green)	EMI/EMC	MIL-STD-461E
Sync. Range		**Other test**	
Horizontal scan	29.844 to 79.976kHz		
Vertical scan	56.250 to 75.030Hz		
Resolution Support		Rain	MIL-STD810F
VESA Support	640 x 480 VGA 800 x 600 SVGA 1024 x 768 XGA 1280 x 1024 SXGA 1600 x 1200 UXGA	Salt Fog Fungus	MIL-STD810F MIL-STD810F
Power Supply	Free AC Voltage: 90-264V AC Universal Free DC Votage:16-32V DC 5A or DC28V		
Power Consumption	54W (Max)@115VAC, 8watts sleep mode	**Part Number**	
Environmental		**Monitor**	DRD20U
Operating Temp.	-33°C to +63 °C, Option: MIL-STD 810F	**Pertinent**	
Storage Temp.	-46°C to +71 °C Option: MIL-STD 810F		
Operating Humidity	5% to 95% (non condensing) Otn:MIL-STD-810F	Resistive touch screen RS232	DRD20U-RT
Storage Humidity	5% to 95% (non condensing) Otn:MIL-STD-810F	Capacitive touch screen RS232	DRD20U-CT
Shock /Vibration	10g, 11msec ½ sine+/-1mm, 2 to 13Hz: 0.7g, 13 to 100Hz MIL-STD 810F,MIL-STD-167-1A	Resistive Touch screen USB	DRD20U-RTU
Estimated MIL-STD test. We do not recommend routine operation at extreme temperatures			