



# 20.1"

## Military Grade Console Display

### » Features & Benefits

- Model Name: R20L100-RKA2ML
- Certified with MIL-STD 810F/G
- Certified with MIL-STD 461E/F
- High Image Quality Resolution up to 1600 x 1200 pixels
- Wide View Angle Display for  $\pm 89$  degrees
- Anti-Corrosion Housing / Fanless
- Standard AR Glass
- EMI ITO Mesh Filter Glass built-in (optional)
- 5 Resistive Touch Sensor with EMI Mesh Coating (optional)
- Flush Rack / Rack Mount Mechanical Design
- Convenient On-Screen Display Controls
- AC Power input/ Isolation Power built-in
- Auto-Dimming & Dimming Controls
- Military Grade Power Connector Model JY27466
- Operating Temperature -20°C to 60°C

### » Technical Specifications

Display Specifications	
Model Name	R20L100-RKA2ML
Active Display Area	408.0(H) x 306.0(V) mm
Pixel Pitch	0.255(H) x 0.255 (V) mm
Brightness	300 cd/m <sup>2</sup> (typical)
Viewing Angle	-89~89 (H); -89~89(V)
Contrast Ratio	800:1
Response Time	14 ms (typical)
Display Colors	16.7 Million(8 bits/colors)
Synchronization Range	Horizontal: 31.5~80.0kHz Vertical: 60~75 Hz
Input Interface	15 pin D-Sub, 5 x BNCs, DVI-D, RS232
Recommended Resolution	1600 x 1200 @60Hz
Power Source	AC 100~240V, Universal $\pm 10\%$ DC 24V, $\pm 10\%$ (Optional)
Power Consumption	90W Typical, normal operation
Power Management	VESA DPMS Compliant
Plug & Play	VESA DDC 1/2B
Dimming Range	0~100 %
Light Sensor	Yes (default)
RS232 Remote Control	Optional
Glass	Yes (default) Standard Anti Reflective Glass
EMI ITO Glass	Optional, Transmittance 88%
Touch Screen	Optional, 5 Resistive Touch Screen
EMI Mesh Touch Screen	Optional, 5 Resistive Touch with EMI Mesh Filter
Optical bonding	MOQ required





### » Ordering Information

Part Number	Description
R20L100-RKA2ML/GS	Anti-Reflective Glass (Default)
R20L100-RKA2ML/ITO	ITO EMI shielding Glass *
R20L100-RKA2ML/ATR	ELO 5 wired Resistive Touch Sensor (RS232 Interface)
R20L100-RKA2ML/ATR-ITO	ELO 5 wired Resistive Touch with EMI Mesh Filter

\*To have MIL-STD-461E Compliance, it shall have EMI -ITO Glass or Touch with EMI Mesh Filter

### » Accessories

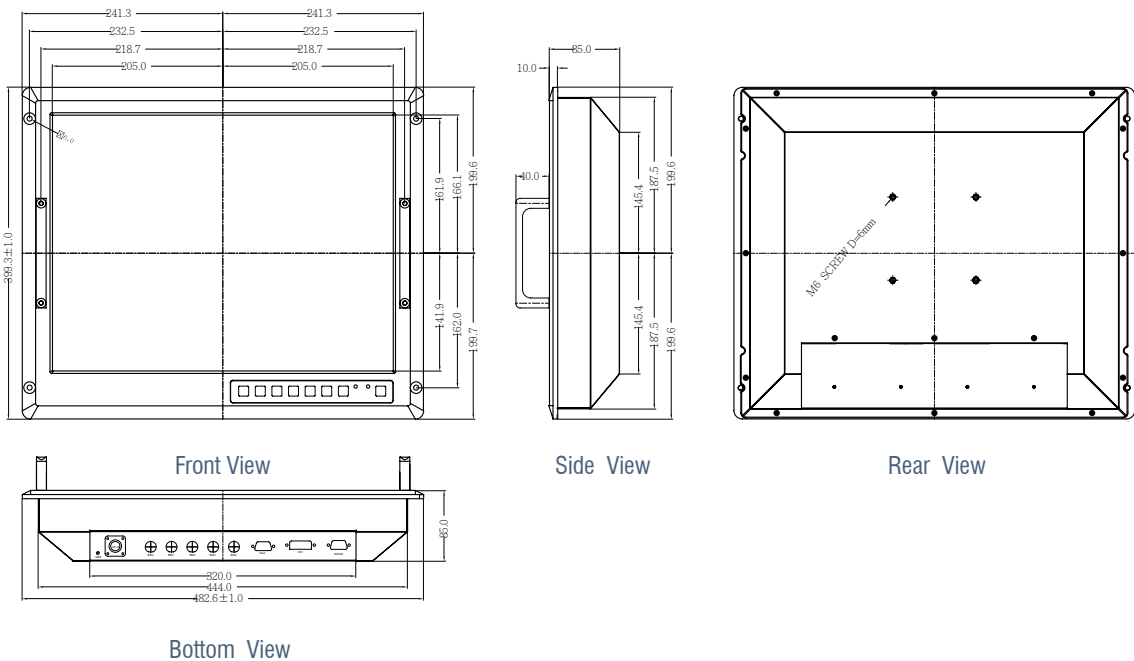
Part Number
1. Military Grade 3 Pin Power Connector (conn. Type JY27466) 2 Meter
 AC Power input
 DC Power input (Optional)
2. Military Display Quick Installation Guide (Paper)
3. Touch Driver CD (Optional)
4. DVI Shielding Cable 2 Meter
5. VGA Shielding Cable 2 Meter
6. 5 BNCs to VGA Shielding Cable 2 Meter
7. Touch RS232 Shielding Cable 2 Meter (Optional)
8. RS232 Remote Control Shielding Cable 2 Meter (Optional)

## » Military Grade EMC Compliance

EMC (MIL-STD 461E/F Compliance)					
EMC Test Spec	Type of Test	Frequency Range	Requirement	Default (V)	* Built-in EMI ITO Glass or Mesh Film Touch Sensor
CE101	Conducted Emissions	30Hz ~ 10kHz	30Hz ~ 1kHz :110 dB 1k-10k:110-90 dB	√	√
CE102	Conducted Emissions	30Hz ~ 10kHz	10kHz - 500KHz: 100-66dB ,500KHz~10MHz:66dB	√	√
CS101	Conducted Susceptibility	30Hz - 150kHz	(Above 28 Volts) 30Hz-5KHz:136dbμV, 5KHz~150k Hz:136-106.5 dB		√
CS106	Conducted Susceptibility	transients, power leads	(Vpeak = 400 V for 5.0 μsec, ±22%, V <sub>sag</sub> <= 120 V for <=20 μsec)		√
CS109	Conducted Susceptibility	60Hz - 100kHz	(60-100kHz : 120-60dBμA)		√
CS114	Conducted Susceptibility	10kHz ~200MHz	(10kHz~2MHz:49~89dbμA, 2MHz~30MHz:97dbμA, 30MHz~200MHz:97~89dbμA)		√
CS115	Conducted Susceptibility	Impulse Excitation	(5A/ 30nS, at a 30 Hz rate for one minute)		√
CS116	Conducted Susceptibility	10kHz - 100MHz	(Waveform: $e - (\pi f t) / Q \sin(2\pi f t)$ , $Q = \pi(N - 1)/\ln(IP/IN)$ , Peak current = 10A)		√
RE101	Radiated Emissions	30Hz - 100kHz	(30-100k :180-110 dBpT)	√	√
RE102	Radiated Emissions	10kHz - 18GHz	(2MHz~18G Hz: 44-89 dB)	√	√
RS101	Radiated Susceptibility	30Hz - 100kHz	(30Hz-100kHz :180-116 dBpt)		√
RS103	Radiated Susceptibility	2MHz - 40GHz	(2MHz-30MHz / 30MHz-1GHz / 1GHz-18GHz space :20V/m)		√

\*To have MIL-STD-461E Compliance, it shall have EMI -ITO Glass or Touch with EMI Mesh Filter

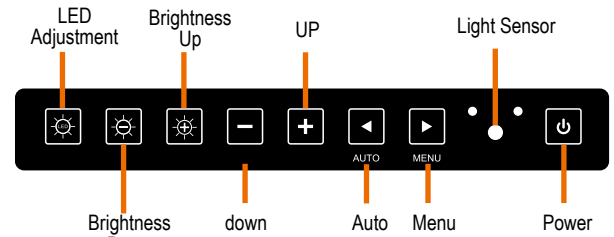
## » Mechanical Drawing



## » Military Grade Environmental Compliance

Environmentals (MIL-STD 810F/G Compliance)		
Temperature	Operating	-20°C to 60°C, MIL-STD 810G Method 501/502, Procedure II
	Storage	-40°C to 70°C, MIL-STD 810G Method 501/502, Procedure I
Temperature Shock	Operating	-20°C to 60°C, MIL-STD 810G Method 503.5, Procedure I-B
Humidity	Operating	20°C to 60°C, MIL-STD-810G Method 507.5
	Storage	33°C to 63°C, MIL-STD-810G Method 507.5
Altitude	Operating	0 to 15,000 ft above sea level Method 500.5 Procedure II
Shock	MIL-STD-810G, Method 516.6	
Vibration	MIL-STD-810G, Method 514.6 Procedure I	
Sand & Dust	MIL-STD-810G, Method 510.5 Procedure I	

## » Front On-Screen Display Control Functions



## » I/O Port Indications

