

# Model: ECHW5500HD-125VDC

Chassis Mount 55" LCD monitor, 1920 x 1080, LED 350 nits, VGA + HDMI + DVI input, with 125VDC input

**ECH Series:** Industrial Chassis Wall/Surface Mount Metal Housing LCD Monitor  
(Optional Integrated Touch Screen/PC/ DC Input/Front NEMA4x/Front Stainless steel bezel and more...)

## Feature Highlights:



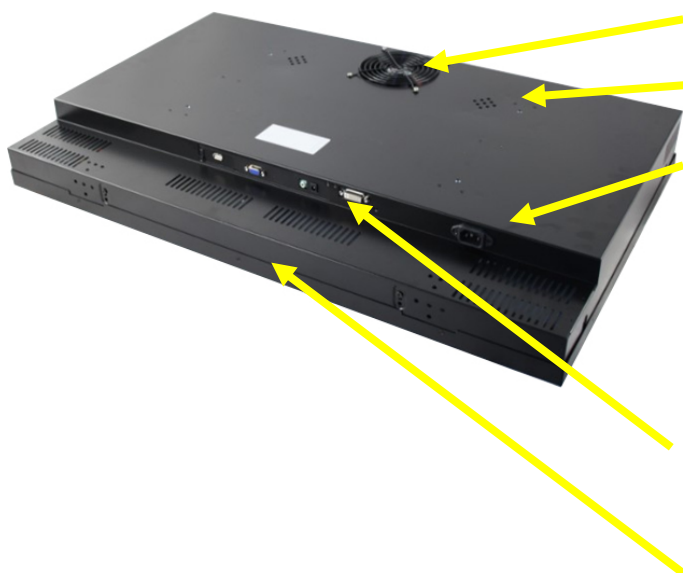
Metal Chassis/Housing for higher Impact protection.  
(Optional for Front AR Glass or Vandal Resistant glass)

Built-in speaker built-in speakers that allow the convenience Audio output.

Side OSD buttons can prevent unnecessary setting changes.

Above 24" LCD will include Front IR Sensor and Remote controller.

Auto Video Signal ON / OFF  
Auto Always Power On



Ultra low speed/Noise fan for extra cooling  
(24" LCD or above)

VESA Mounting Hole Pattern

Reliable built-in Power supply for 15" or above  
(Optional for 9-36V DC input)



Standard VGA Input  
(Optional for DVI, HDMI, AV, BNC, AV looping and SDI)

Optional for RS232 Remote Control Protocol: Command Code to set system

## Features:

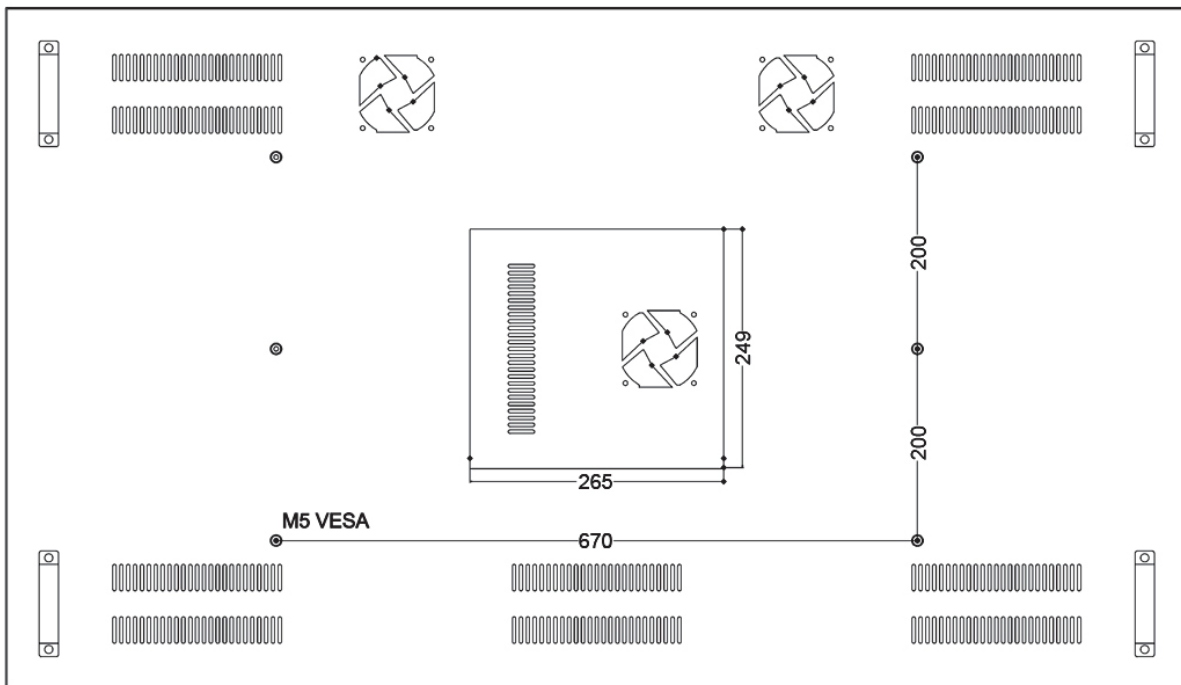
- Modularize mechanical design provides flexible product configuration and easy maintenance
- Optional build-in touch screen for interactive application
- Available with auto-brightness sensor offers application in day and night
- VGA connector with optional AV.SV.AV-Looping.
- Complete custom design/solution for OEM customers

## Specification:

<b>Panel</b>	Cell Type / Glass Surface	TFT LCD / Black Anti-Glare, low reflection coating	
	Aspect Ratio / Size	Wide / 55" viewable diagonal area	
	Active Area / Pixel Pitch	1209.6(H) x 680.4(V) mm / 0.63(H) x 0.63(V) mm	
	Native Resolution / Colors	1920(H) x 1080(V) / 16.7M	
	Brightness / Contrast	350 cd/m <sup>2</sup> (typ) / 3000 : 1	
	Response Time	< 8 ms (G-to-G)	
	Viewing Angle (typical)	H.178° (- 89o ~ + 89o) , V. 178o(- 89o ~ + 89o)	
	Light Source	LED backlight, Long life, 35,000 hrs (typ)	
<b>Input Sources</b>	PC System	Signal	Analog RGB (0.7/1.0 V <sub>p-p</sub> , 75 ohms)
		Sync	Separate Sync, Composite Sync, Sync On Green
		Frequency	F <sub>h</sub> : 30 - 82Khz , F <sub>v</sub> : 50 -75Hz
	Audio System	2W speaker x 2	
<b>Input Terminals</b>	1 x VGA, 1 x HDMI, 1 x DVI, 1 x PC Audio (Stereo Headphone Jack) , 1 x DC Power Plug		
<b>Convenient Features</b>	Auto Calibration , Back Light Adjustment , Plug&Play (VESA DDC/CI, DDC 2B)		
	OSD Multi-Languages , Wall Mount Ready (VESA Dimension - please refer to Drawing)		
<b>Power</b>	125VDC input with terminal block		
<b>Power Consumption</b>	Operation / Power Saving	160 watt , < 1 watt (Support DPMS)	
<b>Operating Condition</b>	Temperature / Humidity	0°C ~ 50°C (32°F ~ 122°F) , 10% ~ 90% (no condensation)	
<b>Storage Condition</b>	Temperature / Humidity	- 20°C ~ 60°C (- 4°F ~ 140°F) , 10% ~ 90% (no condensation)	
<b>Certification</b>	FCC , CE		
<b>Dimensions</b>	Physical	Please refer to Drawing	
	Carton	W x H x D = TBD	
<b>Weight</b>	N.W. / G.W.	43.5 Kgs / 46.5 Kgs	
<b>Container Loaded</b>	20ft / 40ft / 40ft HQ	TBD (Sets , By pallet)	

<b>Options</b>	Touch	Video/TV	Enhanced Panel	Others
	Resistive touch	SV + AV	Panel with LED backlight	Digital Signage(Stand alone)
	Capacitive touch	SV + AV + AV_Looping	High brightness panel	Networking Digital Signage
	SAW touch	SV + AV + TV	Wide Temperature	Motion Sensor
	Infrared touch		Sunlight Readable	Light Sensor
	Protected glass			Auto-Dimming

Mechanical Drawing:



1235x711.9x68mm WHD

## LCD Options:



### LED Backlight Options

Introducing LED backlight options for monitors for energy efficiency and a brighter screen.



### TouchScreen Options

Our LCD has a wide selection of touchscreen technology to choose which suits for you.

	Four-Wire Resistive	Five-Wire Resistive	Pen Touch	Capacitive	Surface Wave(Saw)	Infrared Touch (Ir)
<b>PRODUCT SIZE</b>	1.7" - 24"	10.4" - 24"	15" - 19"	12" - 24"	10.4" - 30"	10.4" - 42"
<b>TOUCH LIFE</b>	1 - 2 million touches	30 - 35million touches	100 million touches	100 million touches	50 million touches	Long-term reliability
<b>SCRATCH RESISTANCE</b>	Hard Coated	Hard Coated	Hard Coated (SiO <sup>2</sup> )	Hard Coated (SiO <sup>2</sup> )	Glass Overlay Moh's hardness rating of 7	Glass Overlay Moh's hardness rating of 7
<b>CONTAMINANT RESISTANCE</b>	Resists moisture, dirt, vinegar, ammonia based food products and cleansers	Resists moisture, dirt, vinegar, ammonia based food products and cleansers	Resists moisture, dirt, vinegar, ammonia based food products and cleansers	Resists moisture, dirt, vinegar, ammonia based food products and cleansers	Resists moisture, dirt, vinegar, ammonia based food products and cleansers	Resists moisture, dirt, vinegar, ammonia based food products and cleansers
<b>INPUT METHOD</b>	Finger, Gloved Hand, Stylus	Finger, Gloved Hand, Stylus	Stylus Pen	Finger	Finger, Gloved Hand, Soft pliable stylus	Finger, Gloved Hand, Stylus
<b>CONTROLLER</b>	USB, RS232	USB, RS232	USB, RS232	USB, RS232	USB, RS232	USB, RS232



### VIDEO Input Options:

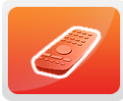
For Video inputs options:

DVI, DVI+HDMI, SVideo+AV, SVideo+AV+DVI, AV+Looping, DVI+AV+Looping, HD-SDI, BNC(PAL/NTSC)



### Optical Bonding Options

- Optical Bonding provides the best reduction of ambient light washout of any commercially available enhancement technology.
- Optical Bonding has a lower cost than most other competing technologies.
- Optical Bonding offers superior ruggedization, enhancing the display durability under vibration, shock and other environmental extremes.



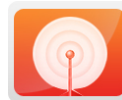
### RS-232 Remote Control Options

**Remote Control Protocol: Command Code to set system**



### 9-36V DC Input Options

iTech offers a selection of DC input from 9V to 36V



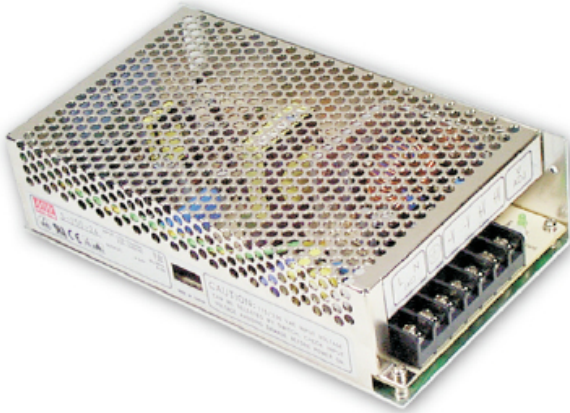
### Light Sensor and Motion Sensor Options

iTech LCD offers Light and Motion Sensor

### Privacy Filter

Front Glass Options:

- Anti Reflective AR Glass 3mm
- Anti Reflective AR Glass 6mm Vandal-Resistance
- Anti Reflective AR Glass 8mm Vandal-Resistance
- Anti Glare AG Glass 3mm



### Features:

- 2:1 wide input range
- Protections: Short circuit / Overload / Over voltage
- 1500VAC I/O isolation
- Built-in EMI filter, low ripple noise
- 100% full load burn-in test
- 24V and 48V input voltage design refer to LVD
- Low cost
- High reliability
- 2 years warranty

### Specification:

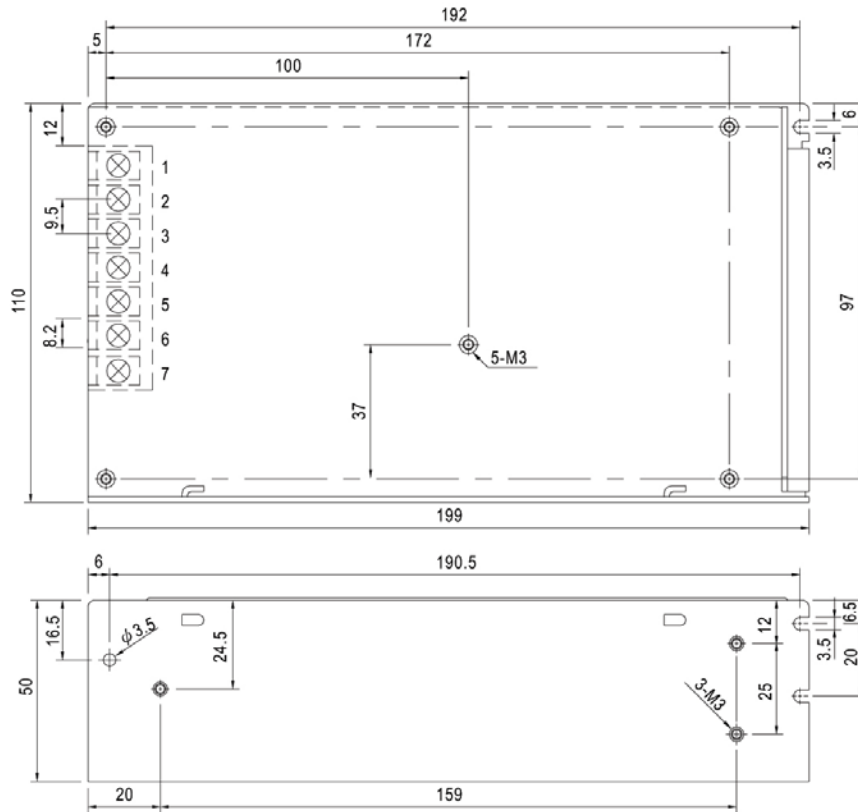
**CB** (for D type only) **CE**

MODEL	SD-150B-12	SD-150C-12	SD-150D-12	SD-150B-24	SD-150C-24	SD-150D-24
OUTPUT	DC VOLTAGE			24V		
	RATED CURRENT			6.3A		
	CURRENT RANGE			0 ~ 6.3A		
	RATED POWER			151.2W		
	RIPPLE & NOISE (max.) Note.2			150mVp-p		
	VOLTAGE ADJ. RANGE			23 ~ 30VDC		
	VOLTAGE TOLERANCE Note.3			±1.0%		
	LINE REGULATION			±0.3%		
	LOAD REGULATION			±0.3%		
	SETUP, RISE TIME			2s, 50ms(only D mode) at full load		
HOLD UP TIME (Typ.)			24ms(only D mode) at full load			
INPUT	VOLTAGE RANGE					
	B:19 ~ 36VDC		C:36 ~ 72VDC		D:72 ~ 144VDC or 85 ~ 132VAC	
	EFFICIENCY (Typ.)		77%		79%	
	75%		77%		77%	
PROTECTION	DC CURRENT (Typ.)					
	6.8A/24V		3.4A/48V		2.7A/96V	
	INRUSH CURRENT (Typ.)					
	D:22.5A/96VDC					
ENVIRONMENT	LEAKAGE CURRENT					
	<0.75mA / 120VAC (SD-150D)					
	105 ~ 135% rated output power					
SAFETY & EMC (Note 4)	OVERLOAD					
	Protection type : Hiccup mode, recovers automatically after fault condition is removed					
OTHERS	OVER VOLTAGE					
	16.8V ~ 20V/10% LOAD			31.5 ~ 37.5V/10% LOAD		
NOTE	Protection type : Hiccup mode, recovers automatically after fault condition is removed					
	WORKING TEMP.					
	-10 ~ +60 (Refer to output load derating curve)					
	WORKING HUMIDITY					
SAFETY & EMC (Note 4)	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY					
	-20 ~ +85 , 10 ~ 95% RH					
	TEMP. COEFFICIENT					
OTHERS	±0.03%/°C (0 - 50°C)					
	VIBRATION					
	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes					
	SAFETY STANDARDS					
OTHERS	IEC60950-1 CB approved by TUV (for D type only)					
	WITHSTAND VOLTAGE					
	I/P-O/P:1.5KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC					
	ISOLATION RESISTANCE					
NOTE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH					
	EMI CONDUCTION & RADIATION					
	Compliance to EN55022 (CISPR22) Class B					
	EMS IMMUNITY					
NOTE	Compliance to EN61000-4-2,3,4,6,8; ENV50204, light industry level, criteria A					
	MTBF					
	296.2K hrs min.(SD-150B)		289.9K hrs min.(SD-150C)		289K Hrs min.(SD-150D)	
	296.2K hrs min.(SD-150B) 289.9K hrs min.(SD-150C) 289K Hrs min.(SD-150D) MIL-HDBK-217F (25°C)					
NOTE	DIMENSION					
	199*110*50mm (L*W*H)					
NOTE	PACKING					
	0.86Kg; 16pcs/14.5Kg/0.95CUFT					

1. All parameters NOT specially mentioned are measured at 24,48,96VDC input, rated load and 25 of ambient temperature.  
 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.  
 3. Tolerance : includes set up tolerance, line regulation and load regulation.  
 4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

## Mechanical Specification

Case No. 906 Unit:mm



### Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1,2	INPUT ※	4,5	DC OUTPUT -V
3	FG $\perp$	6,7	DC OUTPUT +V

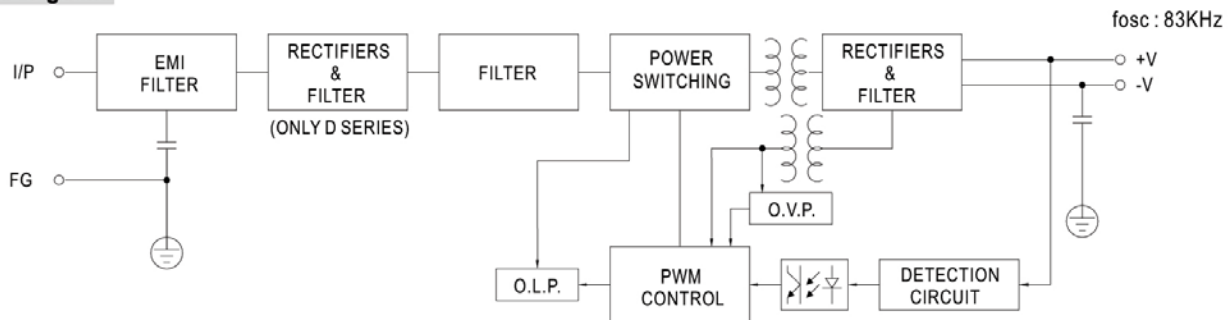
### ※ SD-150B,C

Pin No.	Assignment
1	DC INPUT V+
2	DC INPUT V-

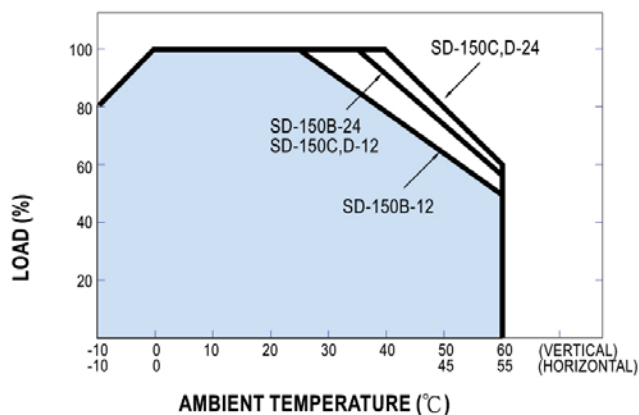
### ※ SD-150D

Pin No.	Assignment
1,2	AC/DC INPUT

## Block Diagram



## Derating Curve



## Static Characteristics (24V)

