

KS-SD Series

Q170



► Features

- Support Modular-Designed PPC
- Multiple Panel Sizes with Resistive/P-Capacitive Touch Screen
- Fanless Design
- Supports 12V / 9~36V Power Input
- IP65 Front Panel Protection
- Operating Temperature: -20 to 50°C



► System



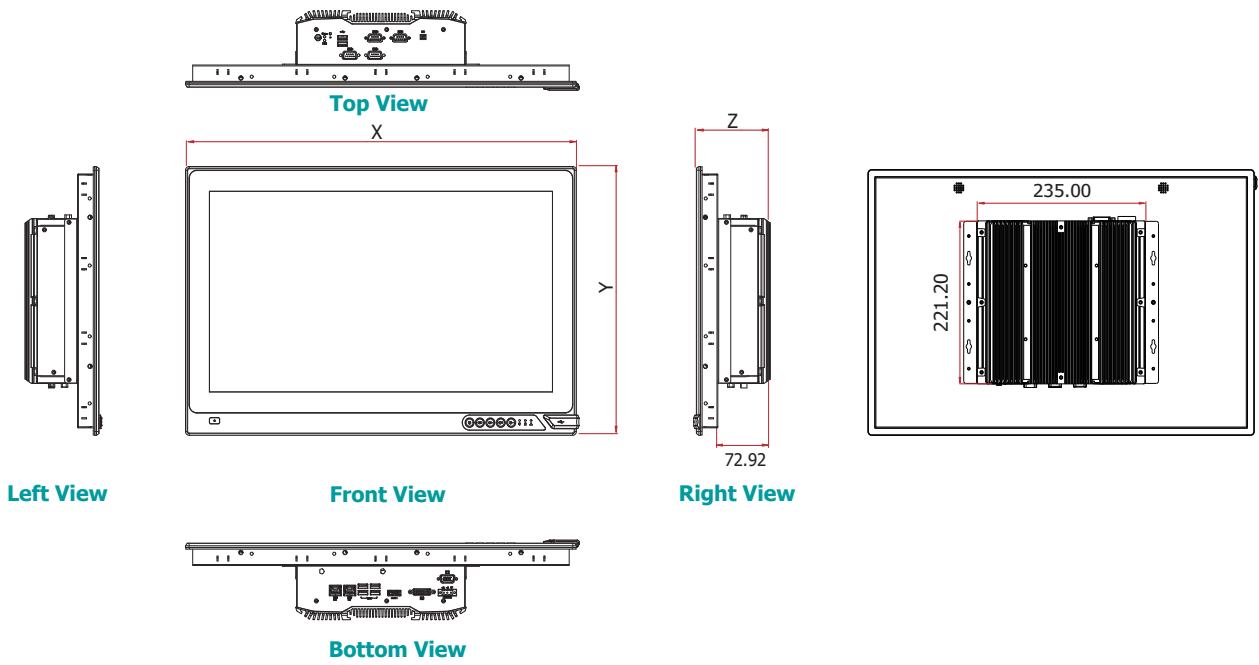
► Panel Specifications

Model Name		KS150-SD	KS190-SD	KS215-SD
Display & Touch Screen	Display Type	15" TFT LCD Panel	19" TFT LCD Panel	21.5" TFT LCD Panel
	Max. Resolution	1024 x 768	1280 x 1024	1920 x 1080
	Brightness (cd/m²)	300	350	250
	Touch Type	Projected Capacitive / 5-wire Resistive	Projected Capacitive / 5-wire Resistive	Projected Capacitive / 5-wire Resistive
	Backlight Lifetime (hours)	70,000	70,000	30,000
Front I/O	USB (Optional)	1 x USB 2.0		
	OSD (Optional)	Backlight On-Off / Brightness Up / Brightness Down / Audio Up / Audio Down		
	LED Indicators (Optional)	Power LED / HDD LED / Alarm LED		
Audio	Speaker (Optional)	TBD	TBD	TBD
Others	Auto Dimming (Optional)	Light Sensor		
Environment	Operating Temperature	-20 to 50°C		
	Storage Temperature	-30 to 70°C	-30 to 70°C	-30 to 70°C
	Relative Humidity	5 to 90% RH (non-condensing)		

System Specifications

SYSTEM	Processor	6th Generation Intel® Core™ Processors, LGA 1151 Socket Intel® Core™ i7-6700TE, Quad Core, 8M Cache, 2.4GHz (3.4GHz), 35W Intel® Core™ i5-6500TE, Quad Core, 6M Cache, 2.3GHz (3.3GHz), 35W Intel® Core™ i3-6100TE, Dual Core, 4M Cache, 2.7GHz, 35W	
	Chipset	Intel® Q170 Chipset	
	Memory	Two 260-pin SODIMM up to 32GB Dual Channel DDR4 1866/2133MHz	
	BIOS	Insyde SPI 128Mbit	
GRAPHICS	Controller	Intel® HD Gen 9 Graphics	
	Feature	OpenGL 5.0, DirectX 12, OpenCL 2.1 HW Decode: AVC/H.264, MPEG2, VC1/WMV9, JPEG/MJPEG, HEVC/H265, VP8, VP9 HW Encode: MPEG2, AVC/H264, JPEG, HEVC/H265, VP8, VP9	
	Display	1 x VGA 1 x DVI (DVI-D signal) 1 x HDMI/DP (DP available upon request)	VGA: resolution up to 1920x1200 @ 60Hz DVI: resolution up to 2560x1600 @ 60Hz HDMI: resolution up to 4096x2160 @ 24Hz or 2560x1600 @ 60Hz DP: resolution up to 4096x2304 @ 60Hz
	Triple Displays	VGA + DVI (DVI-D signal) + HDMI VGA + DVI (DVI-D signal) + DP	
STORAGE	Internal	1 x 2.5" SATA 3.0 Drive Bay	
EXPANSION	Interface	1 x Full-size Mini PCIe (PCIe/USB) 1 x Half-size Mini PCIe (USB/mSATA)	
	ETHERNET	Controller	1 x Intel® I211AT PCIe (10/100/1000Mbps) 1 x Intel® I219V with iAMT11.0 PCIe (10/100/1000Mbps) (only Core i7/i5 supports iAMT)
LED	Indicators	1 x Power LED 1 x HDD LED	
FRONT I/O	Serial	2 x RS-232/422/485 (DB-9) (RS-232 with power) 2 x RS-232/422/485 (DB-9)	
	Buttons	1 x Power Button 1 x Reset Button	
REAR I/O	Ethernet	2 x GbE (RJ-45)	
	USB	4 x USB 3.0 (type A)	
	Display	1 x DVI (DVI-D signal) 1 x HDMI/DP (DP available upon request)	
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds	
POWER	Type	9~36 VDC Input 12 VDC Input (available upon request)	
	Connector	3-pole Terminal Block	
OS SUPPORT		Windows 7 (32/64-bit) Windows 10 IoT LTSC RS1 Enterprise (64bit) Ubuntu 16.04	
MECHANISM	Construction	Aluminum + SGCC	
	IP Rating	IP65 Front Panel Protection	
	Mounting	Panel/VESA Mount	
	Dimensions (W x H x D)	235mm x 63.2mm x 221.2mm (W x H x D)	
	Weight	3.5 kg	
ENVIRONMENT	Operating Temperature	-20 to 50°C (SSD or mSATA-mini or CFast card, with 0.7m/s air flow)	
	Storage Temperature	-30 to 70°C	
	Relative Humidity	5 to 95% RH (non-condensing)	
STANDARDS AND CERTIFICATIONS	Shock	Half sine wave 3G, 11ms, 3 shock per axis	
	Vibration	IEC68-2-64	
	Certification	CE, FCC Class A, RoHS	

► Dimensions



	System Dimensions		
Display Type	X1	Y1	Z1
15" XGA LCD	387	320	102.32
19" SXGA LCD	467	400	102.32
21.5" FHD LCD	544.2	360.63	102.72

Optional Items

Optional Items	Part Number	Description
CPU	143-102402-500G	Intel® Core™ i7-6700TE, Quad Core, 8M Cache, 2.4GHz (3.4GHz);35W
	143-102303-500G	Intel® Core™ i5-6500TE, Quad Core, 6M Cache, 2.3GHz (3.3GHz);35W
	143-102701-500G	Intel® Core™ i3-6100TE, Dual Core, 4M Cache, 2.7GHz;35W
	143-102401-500G	Intel® Pentium® G4400TE, Dual Core, 3M Cache, 2.4GHz, 35W
Memory	138-540002-100G	4GB DDR4 SODIMM RAM
	138-580002-100G	8GB DDR4 SODIMM RAM
	138-5G0161-100G	16GB DDR4 SODIMM RAM
HDD/SSD	635-550092-050G	2.5" SATA HDD, 500GB, RoHS
	635-500100-200G	2.5" SATA HDD, 1TB, RoHS
	635-610002-110G	2.5" SATA SSD, 1TB MLC, RoHS
	635-605122-110G	2.5" SATA SSD, 512GB MLC, RoHS
	635-602562-120G	2.5" SATA SSD, 256GB MLC, RoHS
	635-601282-190G	2.5" SATA SSD, 128GB MLC, RoHS
	635-600642-150G	2.5" SATA SSD, 064GB MLC, RoHS
mSATA	638-712803-100G	mSATA Card, 128GB MLC, RoHS
	638-706405-110G	mSATA Card, 64GB MLC, RoHS
	638-703206-100G	mSATA Card, 32GB MLC, RoHS
	638-701605-130G	mSATA Card, 16GB MLC, RoHS
	638-700805-120G	mSATA Card, 8GB MLC, RoHS
	638-712803-100G	mSATA Card, 128GB MLC, RoHS (wide temperature)
	638-706405-110G	mSATA Card, 64GB MLC, RoHS (wide temperature)
	638-703206-100G	mSATA Card, 32GB MLC, RoHS (wide temperature)
Wi-Fi	761-110091-000G	Wi-Fi Kit, SparkLAN, WPEA-121N, w/IPX cable & antenna
	612-110050-300G	Wi-Fi module, SparkLAN, WPEA-252NI
Power Cord	785-PWRD	Power Cord, Standards (USA/EUR/CH), 1.8m, RoHS
Power Adapter	671-116001-000G	Power Adapter 160W , 19V/8.4A Level 5, RoHS
	671-116003-000G	Power Adapter 160W , 19V/8.4A Level 6, RoHS

785-XXX is a group number instead of a unique part number. Please contact your regional sales representative if you need more information.

Packing List

• 1 Single Box
• 1 3 pin Terminal Block Connector
• 2 Mini PCIe Screw
• 1 SATA Screw
• Panel Mount kit: 10pcs(KS150) / 12pcs(KS190) / 18pcs(KS215)