

# SE59022 Specification

File Version: V1.1

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The file will be updated from time to time as a simple guide. Please scan the QR code above for detailed guide.

## 1 Product Introduction

SE5 is an edge AI computing box with high performance and low power consumption. Equipped with TPU chip BM1684, its INT8 computing power is up to 17.6 TOPS. It can process 16 channels HD video, and support 38 channels 1080p HD video hardware decoding and 2 channels encoding. As an edge device supporting wide temperature and multiple interfaces, SE5 can be applied in a variety of scenarios such as intelligent security, transportation, facial recognition, video structured analysis, etc.

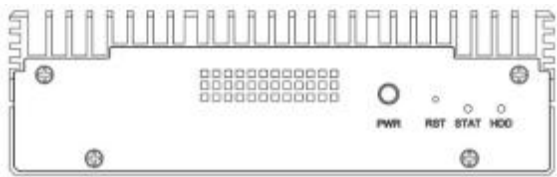
## 2 Product Specification

Specification		Description
Processor	TPU	BM1684 INT8 @17.6 TOPS / FP32 @2.2 TFLOPS
	CPU	8 core ARM A53 2.3GHz
Video/ JPEG Codec	Video Decoding	H.264/H.265 1080P @960FPS
	Video Encoding	1080P @50FPS
	JPEG Encoding	1080P 480 images/second
Memory	DDR	12GB
External Interface	Networking	10/100/1000Mbps *2
	Others	USB3.0 *2 / MicroSD *1 / HDMI *1 / RS-232 *1 / RS-485 *1 / I/O *4
	Optional	SATA / LTE wireless (depending on product model)
Physical Spec.	Size	188mm*148mm*44.5mm (width*depth*height)
	Weight	2.5kg
	Power	DC 12V / 5A adapter
	Typical Power Consumption	≤20W (depending on configuration)
Environment Spec.	Working Temp.	-20℃ ~ +60℃ (depending on configuration)

### 3 Hardware Specification

#### Front Panel

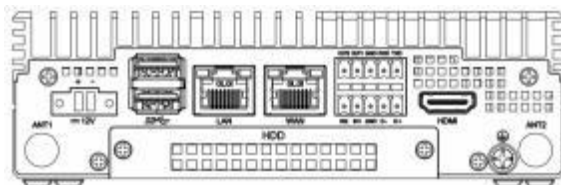
The illustration and description of SE5 front panel are as follows:






Silkscreen Printing	Name	Description
PWR	Power Signal/ Switch	<p>Power Signal:</p> <ul style="list-style-type: none"><li>Green (On) : Indicates the system is powered on;</li><li>Green (Blink): Indicates the system is powering off;</li><li>Off: Indicates system is powered off.</li></ul> <p>Power Switch:</p> <ul style="list-style-type: none"><li>When the system is powered on, press the button for <b>2 seconds</b>, the system will automatically start to power off;</li><li>When the system is powered on, press the button for <b>5 seconds</b>, the system will compulsorily start to power off;</li><li>When the system is powered off, press the button <b>once</b>, the system will automatically start to power on</li></ul>
RST	Restart	<ul style="list-style-type: none"><li>Press the button <b>once</b> to reset the whole system;</li><li>Press the button for <b>12 seconds</b> to start the file recovery system.</li></ul>
STAT	Status Signal	<p>Red (On) when powering on. Green (On) when loading to normal status. Description as follows:</p> <ul style="list-style-type: none"><li>Green (On): The system is in normal operation;</li><li>Red (On): The system is powering on or the equipment does not enter the system;</li><li>Red (Blink): System alarm.</li></ul> <p>If the equipment is upgrading, the description is as follows:</p> <ul style="list-style-type: none"><li>Red (On): system upgrading;</li><li>Green (Blink): successful upgrade;</li><li>Off (On to Off): failed upgrade.</li></ul>
HDD	Hard Disk Status LED	<ul style="list-style-type: none"><li>Green (On): Indicates locating the HDD</li><li>Green (Blink): Indicates accessing the HDD</li><li>N/A (Off): Indicates no HDD access or no HDD error</li></ul>

## Rear Panel

The illustration and description of SE5 rear panel are as follows:



Silkscreen Printing	Name	Description
	Power Interface	2 - PIN (self-locked) phoenix terminal power interface, anti-reverse plug, connected to the 2 - PIN terminal power supply equipped with the mainframe.
	USB Interface	USB3.0 Type-A, 2 USB interfaces.
LAN	LAN Interface	LAN gigabit interface.
WAN	WAN Interface	WAN gigabit interface.
HDD	Hard Disk	Users can install 2.5-inch SATA hard disk (height no more than 7 mm).
HDMI	HDMI Interface	Video output display, connected to the displayer through HDMI HD cable.
	Grounding Terminal	It is used for the grounding of the mainframe. The equipment is connected to the grounding point of the cabinet or workbench through the protective ground wire. M3 screw is required
TXD	RS232 Sending Signal	RS232 sending signal. Equipped with RXD signal.
RXD	RS232 Receiving Signal	RS232 receiving signal. Equipped with TXD signal.
D+	RS485 Positive Pole	RS485 positive pole. Equipped with D- signal.
D-	RS485 Negative Pole	RS485 negative pole. Equipped with D+ signal.
IN1	I/O1 Input	GPIO1 input. It can be used as alarm input.
OUT1	I/O1 Output	GPIO1 output. It can be used as alarm output.
IN2	I/O2 Input	GPIO2 input. It can be used as alarm input.
OUT2	I/O2 Output	GPIO2 output. It can be used as alarm output.
GND	Grounding Signal	Phoenix terminal grounding signal.
ANT1 / ANT2	Antenna Interface	(Optional) SMA Female interface. It can be externally connected to SMA rod antenna.

## 4 Installation

Please refer to *SE5 User Guidance* for SE5 installation. You can scan the product label or QR code on the first page of this file to get the guidance .

## 5 Packing List

Serial Number	Item	Quantity	Description
1	mainframe	1	AI Intelligent Computing Box SE5
2	wall bracket	1	Wall bracket, specification 140 * 95 * 13.8mm
3	wood screw	3	Wall accessories, specification GB951 3.5 × 30
4	expansion tube	3	Wall accessories, specification D6 * 30
5	power terminal	1	2-Pin ( self-locked) phoenix terminals
6	phoenix terminal	2	5-Pin phoenix terminal, single layer, pitch 3.5mm
7	cross screwdriver	1	For the disassembly and installation of maintenance window. D3.75*130mm
8	hard disk screw	4	For hard disk fixation, specification M3*5
9	product spec.	1	Product introduction, specification, hardware introduction, packing list, etc.
10	warranty card	1	User information, purchase information, maintenance records, warranty terms, etc.
11	quality certificate	1	Product quality certificate
12	power adapter	1	Non standard configuration, DC12 V/5 A, not included in SE5 mainframe package
13	adapter AC line	1	Non standard configuration, adapter AC line for 220V AC
14	SMA rod antenna	2	Non standard configuration, SMA rod antenna for LTE signal receiving and sending