

# Product Specification

Product Name: PX30 Core board

ProducModel: DSOM-020R

## Revision History

Specification		Sect.	Update Description	By
Rev	Date			

## Approvals

Organization	Name	Title	Date

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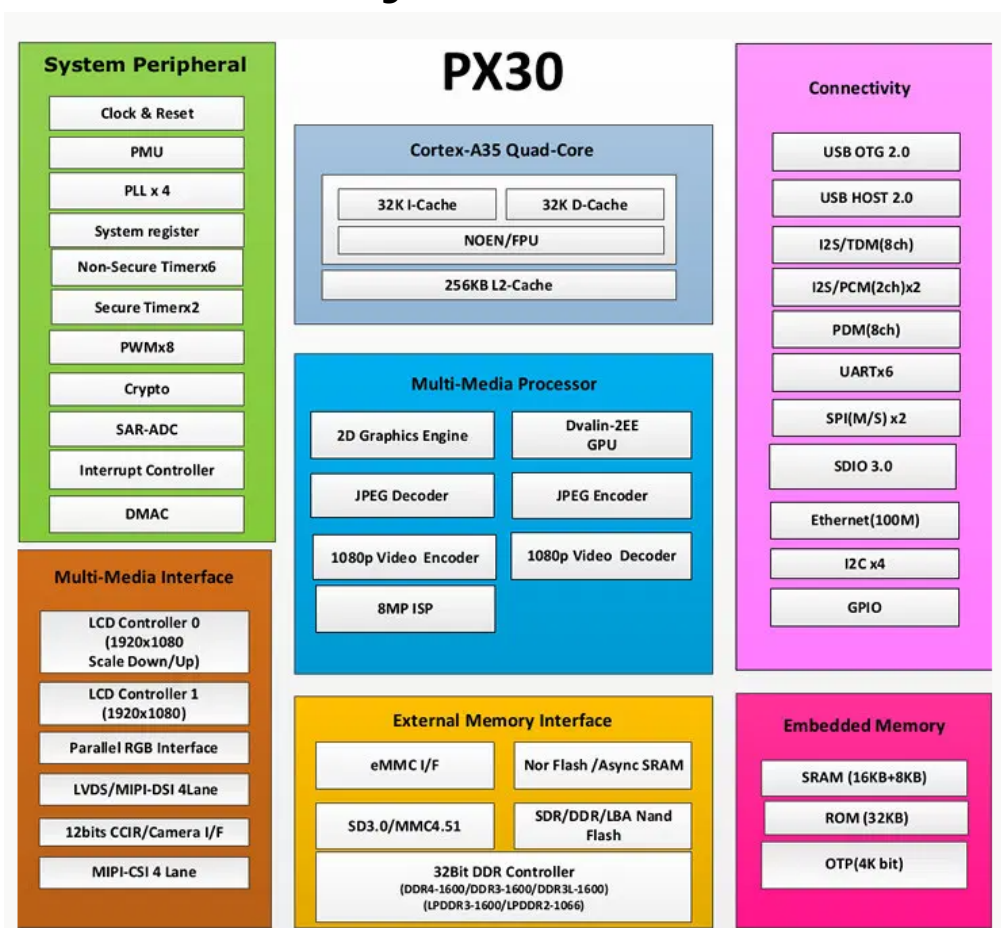
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## 1 Introduction

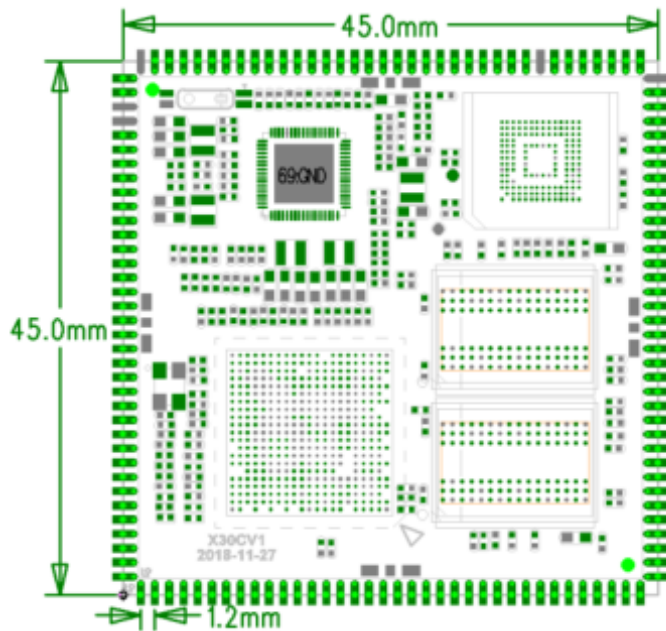
### 1.1 Purpose& Description

DSOM-020 PX30 Core Board adopts the PX30 processor, which is a ARM Cortex A-53, quad core. It can be paired with multiple types of DDR3 and DDR4 RAM. Moreover, the Rockchip processor offers an on-board MALI-G31 GPU and a multi-media processor expressly designed to encode and decode 1080P Video streams and high quality audio streams – perfect for commercial/industrial applications that will have customer and public facing software.

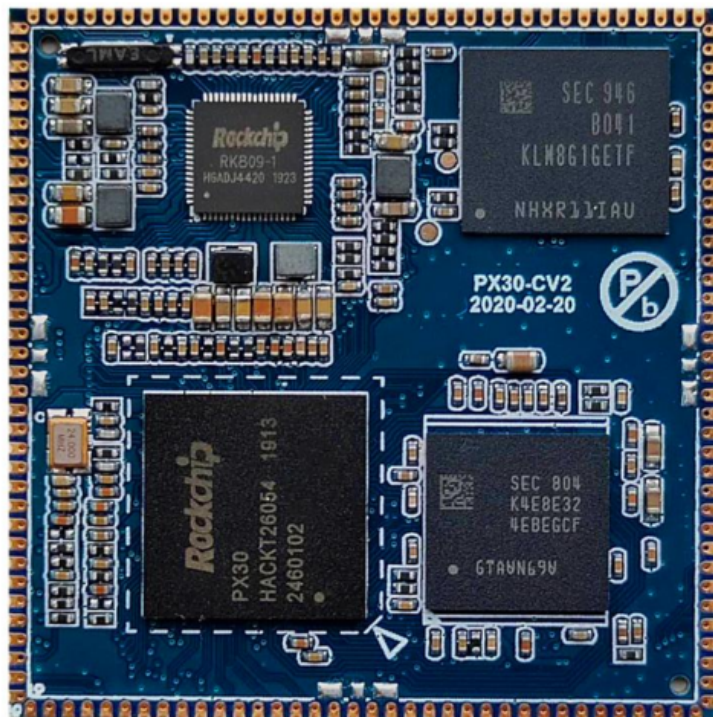
### 1.2 CPU Block Diagram



### 1.3 Layout and Dimension



### 1.4 Product Drawing



## 2 Hardware Specification

Hardware Index	
Size	Length 45mm x Width 45mm x Height 1.2mm
CPU	ROCKCHIP PX30 quad core A35 1.3GHz
GPU	Mali 450 G31GPU
RAM	DDR4 standard 1GB (2GB batch optional)
Memory	8GB (16GB/32GB/64GB batch optional)
Power management	RT809
Operating Voltage	5V 1A
support system	Android 9/Ubuntu/Linux/debian9
Operating temperature	-20 to +80 degrees
Life span	Continuous operating life is more than 5 years
Common Interface	
USB2.0	Three USB2.0
UART	6 serial ports
CVBS	Support CVBS output
I2S	One 8-channel I2S interface
SPI	1 way SPI
I2C	2-channel I2C
GPIO	Reusable GPIO up to 40
SDIO interface	1 SDIO interface wifi AP6212
Ethernet	The main chip integrates 100M Ethernet chip
System Upgrade	Support USB card local upgrade

### 3 Current Parameter Table

Item		Minimum	Typical	Maximun
Power Parameters	Voltage	4.5V	5V	5.5V
	Ripple	--	--	50mV
	Current	365mA	--	--
Power Supply Current	Start-up Current		360mA	
	Desktop quiescent current			
Power Supply current (Connect to the Display)				
Environment	Relative Humidity		65%	70%
	Working Temperature	-25°C	--	75°C
	Storage Temperature	-30°C	-0°C	90°C