

1 Product Description

1.1 Overview

A527 series features high-performance platform processors for ARM PC applications, such as 2-in-1 laptops, notebooks, virtual desktops, and open-source handheld game consoles. It integrates octa-core Cortex™-A55 CPU RISC-V, and G57 MC1 GPU to ensure rapid response and smooth running for daily application, such as on-line video, web browsing, 3D game, and so on. A527 series also supports DDR3/DDR3L/DDR4/LPDDR3/LPDDR4/LPDDR4X, eMMC, NAND, SPI NAND, high-speed interfaces (PCIe2.1 and USB3.1), multi video output interfaces (2xRGB/2xDual-LVDS/MIPI-DSI/eDP/HDMI), and video input interfaces (MIPI CSI). In addition, this chip family supports 4K@60fps H.265 decoder, 4K@25fps H.264 encoder, DI, AWonder system to provide users with outstanding experience. A527 series can be applied in the GMS tablets, the dual screen cash register and the large screen display market as well.

1.2 Device Differences

The A527 series is configured with different sets of features in different devices. The feature differences across different devices are shown in the following table.

Table 1-1 Device Feature Differences

Devices	Cortex™-A55 Speed Grade	Maximum Video Decoding Rate		Package
		H.265	VP9	
A527H000000H	2.0 GHz	4K@60fps	4K@60fps	17 mm x 17 mm, FCCSP 660 balls
A527M00X000H	1.8 GHz	4K@30fps	4K@30fps	17 mm x 17 mm, ED- FCCSP 660 balls
A527M000000H	1.8 GHz	4K@30fps	4K@30fps	17 mm x 17 mm, FCCSP 660 balls

NOTE

The terms “A527” and “A527 Series” are used in the following document to refer to the all devices listed in Table 1-1.

1.3 Block Diagram

The following figure shows the system block diagram of the A527.

Figure 1-1 System Block Diagram

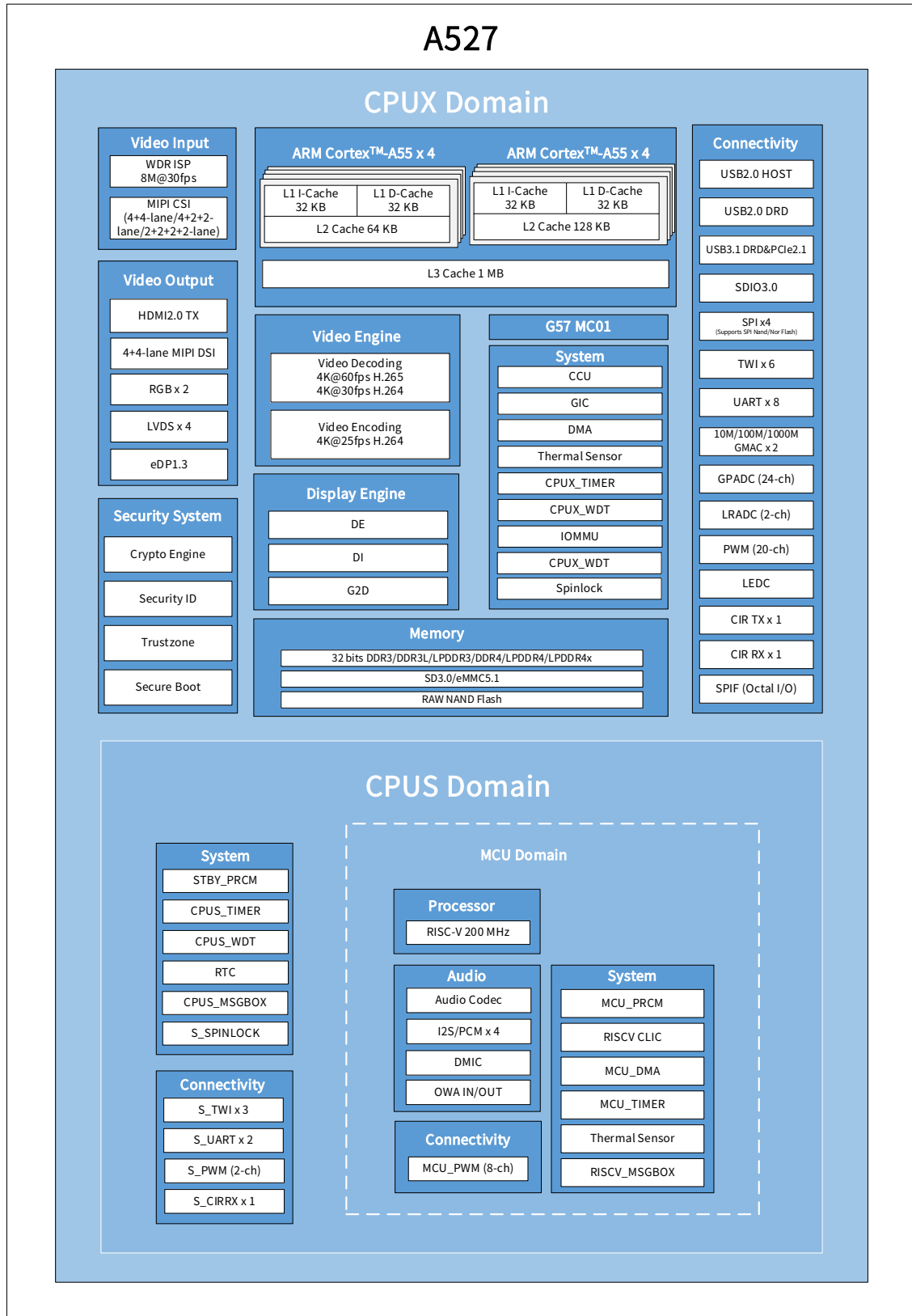


Figure 1-2 ARM PC Solution

