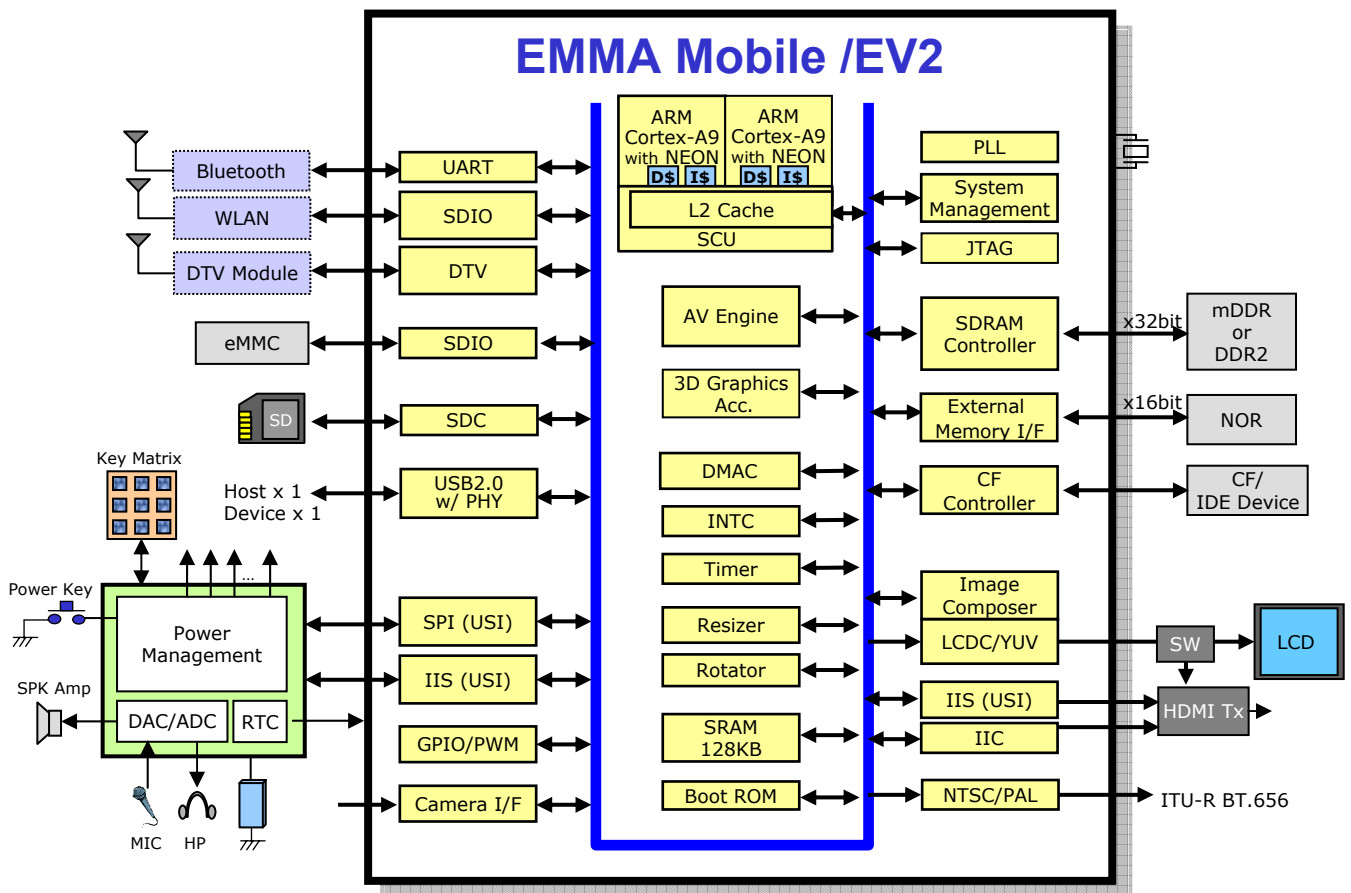


Low Power Multi-media Processor

EMMA Mobile™ EV2



EMMA Mobile/EV2 integrates high-performance multimedia engine for decoding various digital audio/video formats up to Full HD resolution, and EMMA Mobile/EV2 with dual core CPU and state-of-the-art 3D graphics engine



Features

- CortexA9™ with NEON™ (Media extension with dual processor core)
- Flexible A/V engine capable of decoding Full-HD (1080p) contents for MPEG4 and H.264 playbacks
- Supports built-in advanced interface with 3D graphics engine
- Proven power management techniques utilized in mobile phone SoCs to offer industry-leading low power consumption during multimedia playbacks
- Supports USB, IIC, SD (SDC) and various interfaces
- Supports both Mobile DDR SDRAM and DDR2 SDRAM, flexibly enabling system designers to develop low-power portable applications, or cost-effective non-portable devices

■ Function Overview

Item		Function
Processor /Memory	CPU	Cortex™ -A9 /NEON 533MHz I/D cache 32KByte, L2 cache 256KByte Dual core CPU (as 2CPU)
	AV Engine	H.264 decode: BP/MP/HP .up to Full HD (1920x1080) MPEG2 decode: MP .up to Full HD (1920x1080) MPEG4 decode: SP/ASP .up to HD (1280x720)
	3D/2D Graphics	14.7Mpolygon/sec 500Mpixel/sec Open-GL-ES2.0,Open-GL-ES1.x,Open-VG1.1
	SDRAM Controller	Mobile DDR-400 (x32bit, 200MHz) or DDR2-533 (x32bit, 266MHz)
	Flash MemoryI/F	eMMC, NOR
Image Processing Function	Image Resizer	Resize
	Rotator	YUV/RGB image rotation (90° /180° /270°)
	Image Composer	LCD Output Image Composition
Peripheral Interface	LCD I/F	RGB565/666/888 (Maximum Size : 4090× 4094)
	NTSC/PAL I/F	ITU-R BT.656
	Serial I/F	4-ch UART 2-ch IIC 6-ch Unified serial I/F : selectable to SPI or Audio I/F
	USB	USB2.0 Host x1/Device x1
	SD I/F	1-ch SD Memory Card Interface 3-ch SDIO interface
	Camera I/F	8bit parallel I/F
	DTV I/F	TS Serial
	Others	GPIO (interrupt capabilities configurable) , PWM

Package Information

393pin-FPBGA Package (16 mm × 16 mm , ball pitch 0.65 mm)
EMMA Mobile EV2 Order Name : μ PD77642BF1-GA9-A

All information included In this document Is current as of the date this documents. Such information, However, is subject to change without any prior notice.

This document may not be reproduced or duplicated, in any from .,in whole or in part, without prior written consent of Renesas Electronics co. Ltd.

“EMMA Mobile” is a registered trademark of Renesas Electronics co. Ltd in Japan, and the United States of America and other countries.

The company name and the product name, etc. described in are the trademarks or registered trademarks of each company in the text.

【Contact us】

<http://www.renesas.com/contact/>