NUC970 VPOST H/W Application Note

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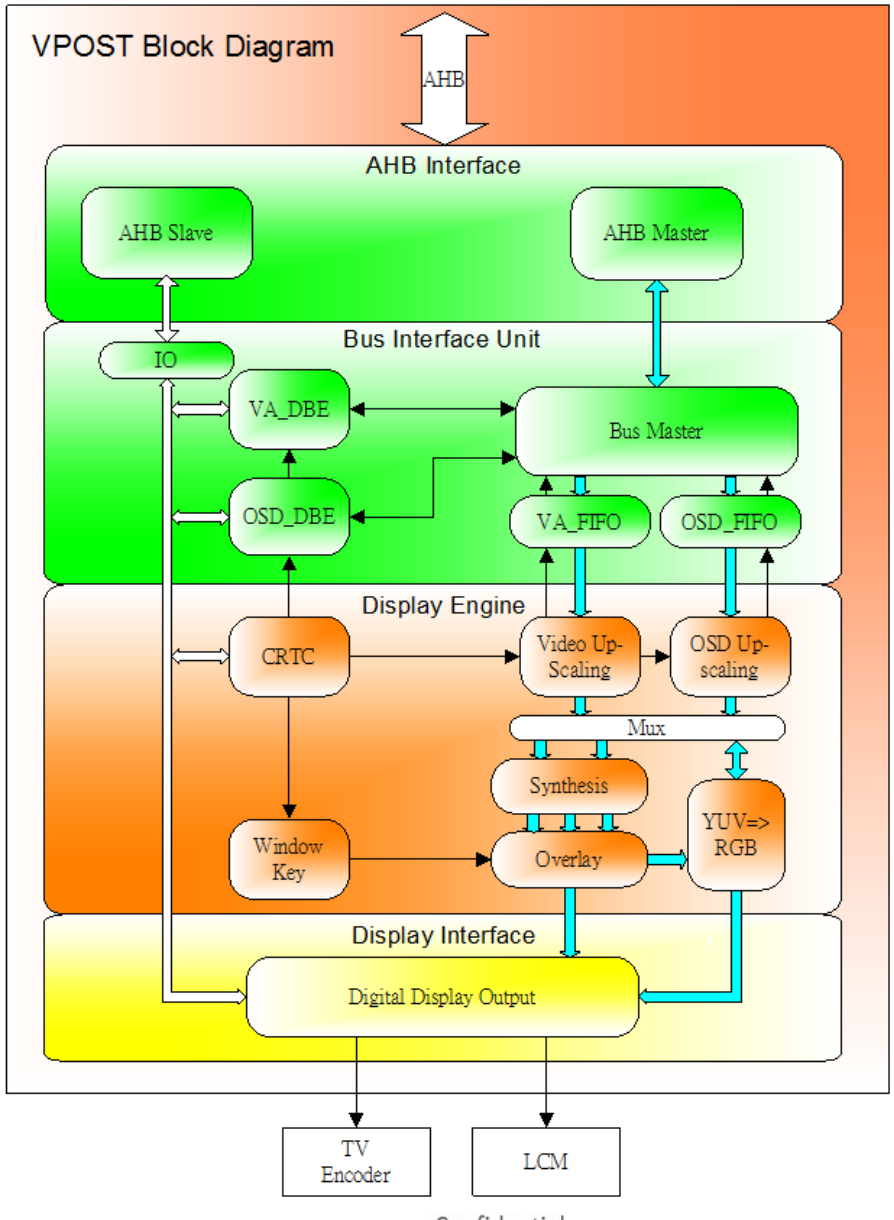
Nuvoton Technology Corp.

Display Interface Controller (VPOST)

- Input maximum size 1024 * 768
- The main purpose of VPOST Controller is used to display the video/image data to LCD
- The LCD controller supports both sync-type and MPU-type
- MPU supports the 8/9/16/18/24-bit data output to connect with 80/68 series MPU type LCM module

VPOST Controller Block Diagram



LCD interface
SYNC & MPU mapping table

Pad Name	VD [23:0]	HSYNC	VSYNC	VDEN	VOCLK
Sync mode	Video data bus(O)	HSYNC(O)	VSYNC(O)	Data enable(O)	Clock out (O)
MPU80	Video data bus(I/O)	Write (WR) (O)	Read (RD) (O)	MPU-LCD (RS) (O)	Chip select(CS) (O)
MPU68	Video data bus(I/O)	Enable (EN) (O)	Read/Write (RW) (O)	MPU-LCD (RS) (O)	Chip select(CS) (O)

5.30.5.4 *Display Pin Assignment*

Pad Name	VD [23:0]	HSYNC	VSYNC	VDEN	VICLK	VOCLK
Sync mode	Video data bus(O)	HSYNC(O)	VSYNC(O)	Data enable(O)	Clock in (I)	Clock out (O)
MPU80	Video data bus(I/O)	Write (WR) (O)	Read (RD) (O)	MPU-LCD (RS) (O)	Non used	Chip select(CS) (O)
MPU80+VSync	Video data bus(I/O)	Write (WR) (O)	Read (RD) (O)	MPU-LCD (RS) (O)	Vsync (O)	Chip select(CS) (O)
MPU80+FMARK	Video data bus(I/O)	Write (WR) (O)	Read (RD) (O)	MPU-LCD (RS) (O)	FMARK (I)	Chip select(CS) (O)
MPU68	Video data bus(I/O)	Enable (EN) (O)	Read/Write (RW) (O)	MPU-LCD (RS) (O)	Non used	Chip select(CS) (O)
MPU68+VSync	Video data bus(I/O)	Enable (EN) (O)	Read/Write (RW) (O)	MPU-LCD (RS) (O)	Vsync (O)	Chip select(CS) (O)
MPU68+FMARK	Video data bus(I/O)	Enable (EN) (O)	Read/Write (RW) (O)	MPU-LCD (RS) (O)	FMARK (I)	Chip select(CS) (O)

RGB 565/ RGB666/ RGB888 option for LCD