

CaMonEx - P160 Interface

Kamerasignale und Steuerleitungen

Name	Richtung vom FPGA	Pin / Stecker	FPGA Pin #
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Gemeinsame Enable Signale für alle LVDS Treiber			
CAM_EN	OUT	A36 / X5 - JX2	AA6
CAM_nEN	OUT	A39 / X5 - JX2	W5

Byte A der Digital-Kamera			
Cam_Byte_A(0)	IN	B2 / X5 - JX2	W18
Cam_Byte_A(1)	IN	B4 / X5 - JX2	W17
Cam_Byte_A(2)	IN	B6 / X5 - JX2	W16
Cam_Byte_A(3)	IN	B8 / X5 - JX2	W15
Cam_Byte_A(4)	IN	B10 / X5 - JX2	W14
Cam_Byte_A(5)	IN	B12 / X5 - JX2	AA20
Cam_Byte_A(6)	IN	B14 / X5 - JX2	AA18
Cam_Byte_A(7)	IN	B16 / X5 - JX2	AA17

Byte B der Digital-Kamera			
Cam_Byte_B(0)	IN	B22 / X5 - JX2	AB14
Cam_Byte_B(1)	IN	B24 / X5 - JX2	AB13
Cam_Byte_B(2)	IN	B26 / X5 - JX2	AB11
Cam_Byte_B(3)	IN	B28 / X5 - JX2	AA10
Cam_Byte_B(4)	IN	B30 / X5 - JX2	AA9
Cam_Byte_B(5)	IN	B32 / X5 - JX2	AA8
Cam_Byte_B(6)	IN	B34 / X5 - JX2	AB6
Cam_Byte_B(7)	IN	B36 / X5 - JX2	AB5

Synchronisationssignale der Digital-Kamera			
Cam_CLK	IN	B38 / X5 - JX2	AB4
Cam_LDV	IN	B40 / X5 - JX2	AB3
Cam_FD V	IN	A40 / X5 - JX2	AA4
Cam_EXP	IN	A37 / X5 - JX2	W6

Steuersignale zur 1. Digital-Kamera			
Cam_EXT_HD	OUT	A25 / X5 - JX2	W9
Cam_EVINIT	OUT	A26 / X5 - JX2	AA12
Cam_INTEG	OUT	A27 / X5 - JX2	Y8
Cam_LPULSE	OUT	A28 / X5 - JX2	AB10

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VGA Anschluß mit DAC Ansteuerung und Synchronisation

Steuereingänge des DAC			
DAC_M1	OUT	A33 / X4 - JX1	A4
DAC_M2	OUT	A31 / X4 - JX1	B5
DAC_CLK	OUT	A17 / X4 - JX1	C10
DAC_SYNC T	OUT	A15 / X4 - JX1	F12
DAC_nSYNC	OUT	A11 / X4 - JX1	E15
DAC_nBLANK	OUT	A9 / X4 - JX1	E16

Digitalfarbwert für Rot			
DAC_RPr(0)	OUT	B21 / X4 - JX1	B12
DAC_RPr(1)	OUT	B22 / X4 - JX1	C18
DAC_RPr(2)	OUT	B23 / X4 - JX1	D17
DAC_RPr(3)	OUT	B24 / X4 - JX1	C17
DAC_RPr(4)	OUT	B25 / X4 - JX1	D16
DAC_RPr(5)	OUT	B26 / X4 - JX1	C16
DAC_RPr(6)	OUT	B27 / X4 - JX1	D15
DAC_RPr(7)	OUT	B28 / X4 - JX1	C15
DAC_RPr(8)	OUT	B29 / X4 - JX1	D14
DAC_RPr(9)	OUT	B30 / X4 - JX1	C14

Digitalfarbwert für Grün			
DAC_GY(0)	OUT	B31 / X4 - JX1	D13
DAC_GY(1)	OUT	B32 / X4 - JX1	C13
DAC_GY(2)	OUT	B33 / X4 - JX1	E13
DAC_GY(3)	OUT	B34 / X4 - JX1	C12
DAC_GY(4)	OUT	B35 / X4 - JX1	D12
DAC_GY(5)	OUT	B36 / X4 - JX1	E12
DAC_GY(6)	OUT	B37 / X4 - JX1	C9
DAC_GY(7)	OUT	B38 / X4 - JX1	D9
DAC_GY(8)	OUT	B39 / X4 - JX1	C8
DAC_GY(9)	OUT	B40 / X4 - JX1	D8

Digitalfarbwert für Blau			
DAC_BPb(0)	OUT	B8 / X4 - JX1	B19
DAC_BPb(1)	OUT	B10 / X4 - JX1	B18
DAC_BPb(2)	OUT	B12 / X4 - JX1	B17
DAC_BPb(3)	OUT	B13 / X4 - JX1	A17
DAC_BPb(4)	OUT	B14 / X4 - JX1	A16
DAC_BPb(5)	OUT	B15 / X4 - JX1	B15
DAC_BPb(6)	OUT	B16 / X4 - JX1	A15
DAC_BPb(7)	OUT	B17 / X4 - JX1	B14
DAC_BPb(8)	OUT	B18 / X4 - JX1	A14
DAC_BPb(9)	OUT	B20 / X4 - JX1	A13

Synchronisationssignale des Monitors			
VGA_H_Sync	OUT	A31 / X4 - JX1	Y7
VGA_V_Sync	OUT	A32 / X4 - JX1	AB8

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Expansion Input / Output und LEDs

Enable und Richtung des A-Expansion-Bytes			
EXA_nEN	OUT	A14 / X5 - JX2	AA19
EXA_DIR	OUT	A13 / X5 - JX2	V11

A-Expansion-Byte			
EXA_Data(0)	IN/OUT	A15 / X5 - JX2	W11
EXA_Data(1)	IN/OUT	A16 / X5 - JX2	AB18
EXA_Data(2)	IN/OUT	A17 / X5 - JX2	V10
EXA_Data(3)	IN/OUT	A18 / X5 - JX2	AB17
EXA_Data(4)	IN/OUT	A20 / X5 - JX2	AA15
EXA_Data(5)	IN/OUT	A21 / X5 - JX2	W10
EXA_Data(6)	IN/OUT	A22 / X5 - JX2	AA14
EXA_Data(7)	IN/OUT	A23 / X5 - JX2	Y9

Enable und Richtung des B-Expansion-Bytes			
EXB_nEN	OUT	A1 / X5 - JX2	Y14
EXB_DIR	OUT	A2 / X5 - JX2	V14

B-Expansion-Byte			
EXB_Data(0)	IN/OUT	A3 / X5 - JX2	W13
EXB_Data(1)	IN/OUT	A4 / X5 - JX2	Y18
EXB_Data(2)	IN/OUT	A5 / X5 - JX2	Y13
EXB_Data(3)	IN/OUT	A6 / X5 - JX2	Y17
EXB_Data(4)	IN/OUT	A7 / X5 - JX2	V13
EXB_Data(5)	IN/OUT	A8 / X5 - JX2	Y16
EXB_Data(6)	IN/OUT	A9 / X5 - JX2	Y12
EXB_Data(7)	IN/OUT	A10 / X5 - JX2	Y15

Leuchtdioden			
LED1	OUT	A33 / X5 - JX2	W7
LED2	OUT	A34 / X5 - JX2	AA7

Spannungsversorgung CaMonEx - Karte

Spannung	Stecker CaMonEx	Stecker Memec	Pins
Vcc 5V	X4	JX1	A4 A16 A28 A40
GND	X4	JX1	A2 A6 A10 A14 A18 A22 A26 A30 A34 A38
3,3V	X4	JX1	A8 A20 A32
Vcc 5V	X5	JX2	B3 B15 B27 B39
GND	X5	JX2	B1 B5 B9 B13 B17 B21 B25 B29 B33 B37
3,3V	X5	JX2	B7 B19 B31