

Table 12: FF1517 — XC2VP50 and XC2VP70

Bank	Pin Description	Pin Number	No Connects	
			XC2VP50	XC2VP70
N/A	M2	AJ29		
N/A	TCK	E8		
N/A	TDI	L30		
N/A	TDO	L10		
N/A	TMS	F9		
N/A	PWRDWN_B	AP9		
N/A	HSWAP_EN	E32		
N/A	RSVD	D8		
N/A	VBATT	L11		
N/A	DXP	L29		
N/A	DXN	F31		
N/A	AVCCAUXTX2	B35		
N/A	VTTXPAD2	B36		
N/A	TXNPAD2	A36		
N/A	TXPPAD2	A35		
N/A	GND A2	C34		
N/A	RXPPAD2	A34		
N/A	RXNPAD2	A33		
N/A	VTRXPAD2	B34		
N/A	AVCCAUXRX2	B33		
N/A	AVCCAUXTX4	B31		
N/A	VTTXPAD4	B32		
N/A	TXNPAD4	A32		
N/A	TXPPAD4	A31		
N/A	GND A4	C31		
N/A	RXPPAD4	A30		
N/A	RXNPAD4	A29		
N/A	VTRXPAD4	B30		
N/A	AVCCAUXRX4	B29		
N/A	AVCCAUXTX5	B27		
N/A	VTTXPAD5	B28		
N/A	TXNPAD5	A28		
N/A	TXPPAD5	A27		
N/A	GND A5	C27		
N/A	RXPPAD5	A26		
N/A	RXNPAD5	A25		
N/A	VTRXPAD5	B26		
N/A	AVCCAUXRX5	B25		

Table 12: FF1517 — XC2VP50 and XC2VP70

Bank	Pin Description	Pin Number	No Connects	
			XC2VP50	XC2VP70
N/A	AVCCAUXTX6	B23		
N/A	VTTXPAD6	B24		
N/A	TXNPAD6	A24		
N/A	TXPPAD6	A23		
N/A	GND A6	C24		
N/A	RXPPAD6	A22		
N/A	RXNPAD6	A21		
N/A	VTRXPAD6	B22		
N/A	AVCCAUXRX6	B21		
N/A	AVCCAUXTX7	B18		
N/A	VTTXPAD7	B19		
N/A	TXNPAD7	A19		
N/A	TXPPAD7	A18		
N/A	GND A7	C16		
N/A	RXPPAD7	A17		
N/A	RXNPAD7	A16		
N/A	VTRXPAD7	B17		
N/A	AVCCAUXRX7	B16		
N/A	AVCCAUXTX8	B14		
N/A	VTTXPAD8	B15		
N/A	TXNPAD8	A15		
N/A	TXPPAD8	A14		
N/A	GND A8	C13		
N/A	RXPPAD8	A13		
N/A	RXNPAD8	A12		
N/A	VTRXPAD8	B13		
N/A	AVCCAUXRX8	B12		
N/A	AVCCAUXTX9	B10		
N/A	VTTXPAD9	B11		
N/A	TXNPAD9	A11		
N/A	TXPPAD9	A10		
N/A	GND A9	C9		
N/A	RXPPAD9	A9		
N/A	RXNPAD9	A8		
N/A	VTRXPAD9	B9		
N/A	AVCCAUXRX9	B8		
N/A	AVCCAUXTX11	B6		
N/A	VTTXPAD11	B7		

Table 12: FF1517 — XC2VP50 and XC2VP70

Bank	Pin Description	Pin Number	No Connects	
			XC2VP50	XC2VP70
N/A	TXNPAD11	A7		
N/A	TXPPAD11	A6		
N/A	GND A11	C6		
N/A	RXPPAD11	A5		
N/A	RXNPAD11	A4		
N/A	VTRXPAD11	B5		
N/A	AVCCAUXRX11	B4		
N/A	AVCCAUXRX14	AV4		
N/A	VTRXPAD14	AV5		
N/A	RXNPAD14	AW4		
N/A	RXPPAD14	AW5		
N/A	GND A14	AU6		
N/A	TXPPAD14	AW6		
N/A	TXNPAD14	AW7		
N/A	VTTXPAD14	AV7		
N/A	AVCCAUXTX14	AV6		
N/A	AVCCAUXRX16	AV8		
N/A	VTRXPAD16	AV9		
N/A	RXNPAD16	AW8		
N/A	RXPPAD16	AW9		
N/A	GND A16	AU9		
N/A	TXPPAD16	AW10		
N/A	TXNPAD16	AW11		
N/A	VTTXPAD16	AV11		
N/A	AVCCAUXTX16	AV10		
N/A	AVCCAUXRX17	AV12		
N/A	VTRXPAD17	AV13		
N/A	RXNPAD17	AW12		
N/A	RXPPAD17	AW13		
N/A	GND A17	AU13		
N/A	TXPPAD17	AW14		
N/A	TXNPAD17	AW15		
N/A	VTTXPAD17	AV15		
N/A	AVCCAUXTX17	AV14		
N/A	AVCCAUXRX18	AV16		
N/A	VTRXPAD18	AV17		
N/A	RXNPAD18	AW16		
N/A	RXPPAD18	AW17		

Table 12: FF1517 — XC2VP50 and XC2VP70

Bank	Pin Description	Pin Number	No Connects	
			XC2VP50	XC2VP70
N/A	GND A18	AU16		
N/A	TXPPAD18	AW18		
N/A	TXNPAD18	AW19		
N/A	VTTXPAD18	AV19		
N/A	AVCCAUXTX18	AV18		
N/A	AVCCAUXRX19	AV21		
N/A	VTRXPAD19	AV22		
N/A	RXNPAD19	AW21		
N/A	RXPPAD19	AW22		
N/A	GND A19	AU24		
N/A	TXPPAD19	AW23		
N/A	TXNPAD19	AW24		
N/A	VTTXPAD19	AV24		
N/A	AVCCAUXTX19	AV23		
N/A	AVCCAUXRX20	AV25		
N/A	VTRXPAD20	AV26		
N/A	RXNPAD20	AW25		
N/A	RXPPAD20	AW26		
N/A	GND A20	AU27		
N/A	TXPPAD20	AW27		
N/A	TXNPAD20	AW28		
N/A	VTTXPAD20	AV28		
N/A	AVCCAUXTX20	AV27		
N/A	AVCCAUXRX21	AV29		
N/A	VTRXPAD21	AV30		
N/A	RXNPAD21	AW29		
N/A	RXPPAD21	AW30		
N/A	GND A21	AU31		
N/A	TXPPAD21	AW31		
N/A	TXNPAD21	AW32		
N/A	VTTXPAD21	AV32		
N/A	AVCCAUXTX21	AV31		
N/A	AVCCAUXRX23	AV33		
N/A	VTRXPAD23	AV34		
N/A	RXNPAD23	AW33		
N/A	RXPPAD23	AW34		
N/A	GND A23	AU34		
N/A	TXPPAD23	AW35		

Table 12: FF1517 — XC2VP50 and XC2VP70

Bank	Pin Description	Pin Number	No Connects	
			XC2VP50	XC2VP70
N/A	TXNPAD23	AW36		
N/A	VTTXPAD23	AV36		
N/A	AVCCAUXTX23	AV35		
N/A	VCCINT	AH28		
N/A	VCCINT	M28		
N/A	VCCINT	AG27		
N/A	VCCINT	N27		
N/A	VCCINT	AF26		
N/A	VCCINT	P26		
N/A	VCCINT	AE25		
N/A	VCCINT	AD25		
N/A	VCCINT	AC25		
N/A	VCCINT	AB25		
N/A	VCCINT	AA25		
N/A	VCCINT	Y25		
N/A	VCCINT	W25		
N/A	VCCINT	V25		
N/A	VCCINT	U25		
N/A	VCCINT	T25		
N/A	VCCINT	R25		
N/A	VCCINT	AE24		
N/A	VCCINT	AD24		
N/A	VCCINT	T24		
N/A	VCCINT	R24		
N/A	VCCINT	AE23		
N/A	VCCINT	R23		
N/A	VCCINT	AE22		
N/A	VCCINT	R22		
N/A	VCCINT	AE21		
N/A	VCCINT	R21		
N/A	VCCINT	AE20		
N/A	VCCINT	R20		
N/A	VCCINT	AE19		
N/A	VCCINT	R19		
N/A	VCCINT	AE18		
N/A	VCCINT	R18		
N/A	VCCINT	AE17		

Table 12: FF1517 — XC2VP50 and XC2VP70

Bank	Pin Description	Pin Number	No Connects	
			XC2VP50	XC2VP70
N/A	VCCINT	R17		
N/A	VCCINT	AE16		
N/A	VCCINT	AD16		
N/A	VCCINT	T16		
N/A	VCCINT	R16		
N/A	VCCINT	AE15		
N/A	VCCINT	AD15		
N/A	VCCINT	AC15		
N/A	VCCINT	AB15		
N/A	VCCINT	AA15		
N/A	VCCINT	Y15		
N/A	VCCINT	W15		
N/A	VCCINT	V15		
N/A	VCCINT	U15		
N/A	VCCINT	T15		
N/A	VCCINT	R15		
N/A	VCCINT	AF14		
N/A	VCCINT	P14		
N/A	VCCINT	AG13		
N/A	VCCINT	N13		
N/A	VCCINT	AH12		
N/A	VCCINT	M12		
N/A	VCCAUX	AV39		
N/A	VCCAUX	AA39		
N/A	VCCAUX	Y39		
N/A	VCCAUX	W39		
N/A	VCCAUX	B39		
N/A	VCCAUX	AW38		
N/A	VCCAUX	Y38		
N/A	VCCAUX	A38		
N/A	VCCAUX	AR35		
N/A	VCCAUX	E35		
N/A	VCCAUX	AP34		
N/A	VCCAUX	F34		
N/A	VCCAUX	AW20		
N/A	VCCAUX	AV20		
N/A	VCCAUX	B20		
N/A	VCCAUX	A20		

Table 12: FF1517 — XC2VP50 and XC2VP70

Bank	Pin Description	Pin Number	No Connects	
			XC2VP50	XC2VP70
N/A	VCCAUX	AP6		
N/A	VCCAUX	F6		
N/A	VCCAUX	AR5		
N/A	VCCAUX	E5		
N/A	VCCAUX	AW2		
N/A	VCCAUX	Y2		
N/A	VCCAUX	A2		
N/A	VCCAUX	AV1		
N/A	VCCAUX	AA1		
N/A	VCCAUX	Y1		
N/A	VCCAUX	W1		
N/A	VCCAUX	B1		
N/A	GND	A3		
N/A	GND	AV2		
N/A	GND	AU2		
N/A	GND	AA2		
N/A	GND	W2		
N/A	GND	C2		
N/A	GND	B2		
N/A	GND	AU1		
N/A	GND	AM1		
N/A	GND	AH1		
N/A	GND	AD1		
N/A	GND	T1		
N/A	GND	M1		
N/A	GND	H1		
N/A	GND	C1		
N/A	GND	AD5		
N/A	GND	T5		
N/A	GND	M5		
N/A	GND	H5		
N/A	GND	AU4		
N/A	GND	AT4		
N/A	GND	D4		
N/A	GND	C4		
N/A	GND	AW3		
N/A	GND	AV3		

Table 12: FF1517 — XC2VP50 and XC2VP70

Bank	Pin Description	Pin Number	No Connects	
			XC2VP50	XC2VP70
N/A	GND	AU3		
N/A	GND	AT3		
N/A	GND	D3		
N/A	GND	C3		
N/A	GND	B3		
N/A	GND	AN12		
N/A	GND	G12		
N/A	GND	C12		
N/A	GND	Y10		
N/A	GND	AH9		
N/A	GND	AD9		
N/A	GND	T9		
N/A	GND	M9		
N/A	GND	AU8		
N/A	GND	AN8		
N/A	GND	G8		
N/A	GND	C8		
N/A	GND	Y6		
N/A	GND	AM5		
N/A	GND	AH5		
N/A	GND	T17		
N/A	GND	AT16		
N/A	GND	AN16		
N/A	GND	AJ16		
N/A	GND	AC16		
N/A	GND	AB16		
N/A	GND	AA16		
N/A	GND	Y16		
N/A	GND	W16		
N/A	GND	V16		
N/A	GND	U16		
N/A	GND	L16		
N/A	GND	G16		
N/A	GND	D16		
N/A	GND	AU12		
N/A	GND	AB18		
N/A	GND	AA18		
N/A	GND	Y18		

Table 12: FF1517 — XC2VP50 and XC2VP70

Bank	Pin Description	Pin Number	No Connects	
			XC2VP50	XC2VP70
N/A	GND	W18		
N/A	GND	V18		
N/A	GND	U18		
N/A	GND	T18		
N/A	GND	AD17		
N/A	GND	AC17		
N/A	GND	AB17		
N/A	GND	AA17		
N/A	GND	Y17		
N/A	GND	W17		
N/A	GND	V17		
N/A	GND	U17		
N/A	GND	P20		
N/A	GND	L20		
N/A	GND	G20		
N/A	GND	C20		
N/A	GND	AD19		
N/A	GND	AC19		
N/A	GND	AB19		
N/A	GND	AA19		
N/A	GND	Y19		
N/A	GND	W19		
N/A	GND	V19		
N/A	GND	U19		
N/A	GND	T19		
N/A	GND	AD18		
N/A	GND	AC18		
N/A	GND	U21		
N/A	GND	T21		
N/A	GND	AU20		
N/A	GND	AN20		
N/A	GND	AJ20		
N/A	GND	AF20		
N/A	GND	AD20		
N/A	GND	AC20		
N/A	GND	AB20		
N/A	GND	AA20		
N/A	GND	Y20		

Table 12: FF1517 — XC2VP50 and XC2VP70

Bank	Pin Description	Pin Number	No Connects	
			XC2VP50	XC2VP70
N/A	GND	W20		
N/A	GND	V20		
N/A	GND	U20		
N/A	GND	T20		
N/A	GND	AC22		
N/A	GND	AB22		
N/A	GND	AA22		
N/A	GND	Y22		
N/A	GND	W22		
N/A	GND	V22		
N/A	GND	U22		
N/A	GND	T22		
N/A	GND	AD21		
N/A	GND	AC21		
N/A	GND	AB21		
N/A	GND	AA21		
N/A	GND	Y21		
N/A	GND	W21		
N/A	GND	V21		
N/A	GND	B38		
N/A	GND	AW37		
N/A	GND	AV37		
N/A	GND	AU37		
N/A	GND	AT37		
N/A	GND	D37		
N/A	GND	C37		
N/A	GND	B37		
N/A	GND	A37		
N/A	GND	AU36		
N/A	GND	AT36		
N/A	GND	D36		
N/A	GND	C36		
N/A	GND	AM35		
N/A	GND	AH35		
N/A	GND	AD35		
N/A	GND	T35		
N/A	GND	M35		
N/A	GND	H35		

Table 12: FF1517 — XC2VP50 and XC2VP70

Bank	Pin Description	Pin Number	No Connects	
			XC2VP50	XC2VP70
N/A	GND	Y34		
N/A	GND	AU32		
N/A	GND	AN32		
N/A	GND	G32		
N/A	GND	C32		
N/A	GND	AH31		
N/A	GND	AD31		
N/A	GND	T31		
N/A	GND	M31		
N/A	GND	Y30		
N/A	GND	AU28		
N/A	GND	AN28		
N/A	GND	G28		
N/A	GND	C28		
N/A	GND	AT24		
N/A	GND	AN24		
N/A	GND	AJ24		
N/A	GND	AC24		
N/A	GND	AB24		
N/A	GND	AA24		
N/A	GND	Y24		
N/A	GND	W24		
N/A	GND	V24		
N/A	GND	U24		
N/A	GND	L24		
N/A	GND	G24		
N/A	GND	D24		
N/A	GND	AD23		
N/A	GND	AC23		
N/A	GND	AB23		
N/A	GND	AA23		
N/A	GND	Y23		
N/A	GND	W23		
N/A	GND	V23		
N/A	GND	U23		
N/A	GND	T23		
N/A	GND	AD22		
N/A	GND	AU39		

Table 12: FF1517 — XC2VP50 and XC2VP70

Bank	Pin Description	Pin Number	No Connects	
			XC2VP50	XC2VP70
N/A	GND	AM39		
N/A	GND	AH39		
N/A	GND	AD39		
N/A	GND	T39		
N/A	GND	M39		
N/A	GND	H39		
N/A	GND	C39		
N/A	GND	AV38		
N/A	GND	AU38		
N/A	GND	AA38		
N/A	GND	W38		
N/A	GND	C38		

Notes:

1. See [Table 4](#) for an explanation of the signals available on this pin.

FF1517 Flip-Chip Fine-Pitch BGA Package Specifications (1.00mm pitch)

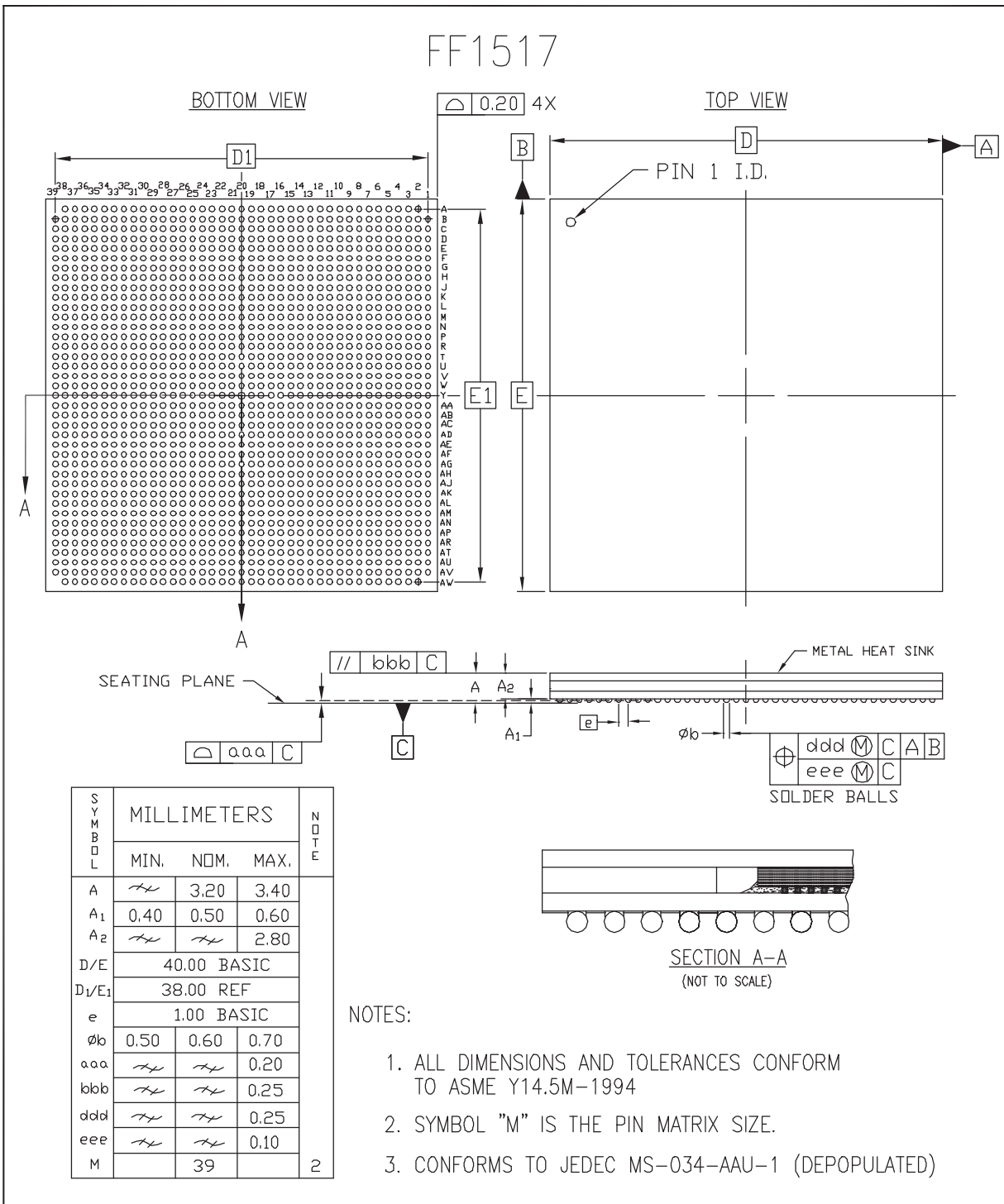


Figure 8: FF1517 Flip-Chip Fine-Pitch BGA Package Specifications

FF1704 Flip-Chip Fine-Pitch BGA Package

As shown in [Table 13](#), XC2VP70 and XC2VP100 Virtex-II Pro devices are available in the FF1704 flip-chip fine-pitch BGA package. Following this table are the [FF1704 Flip-Chip Fine-Pitch BGA Package Specifications \(1.00mm pitch\)](#).

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
0	IO_L01N_0/VRP_0		G34		
0	IO_L01P_0/VRN_0		H34		
0	IO_L02N_0		F34		
0	IO_L02P_0		E34		
0	IO_L03N_0		C34		
0	IO_L03P_0/VREF_0		D34		
0	IO_L05_0/No_Pair		K32		
0	IO_L06N_0		H33		
0	IO_L06P_0		J33		
0	IO_L07N_0		F33		
0	IO_L07P_0		G33		
0	IO_L08N_0		E33		
0	IO_L08P_0		D33		
0	IO_L09N_0		H32		
0	IO_L09P_0/VREF_0		J32		
0	IO_L19N_0		E32		
0	IO_L19P_0		F32		
0	IO_L20N_0		C33		
0	IO_L20P_0		C32		
0	IO_L21N_0		K31		
0	IO_L21P_0		L31		
0	IO_L25N_0		H31		
0	IO_L25P_0		J31		
0	IO_L26N_0		G31		
0	IO_L26P_0		F31		
0	IO_L27N_0		D31		
0	IO_L27P_0/VREF_0		E31		
0	IO_L28N_0		L30		
0	IO_L28P_0		M30		
0	IO_L29N_0		J30		
0	IO_L29P_0		K30		
0	IO_L30N_0		G30		
0	IO_L30P_0		H30		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
0	IO_L34N_0		E30		
0	IO_L34P_0		F30		
0	IO_L35N_0		D30		
0	IO_L35P_0		C30		
0	IO_L36N_0		M28		
0	IO_L36P_0/VREF_0		M29		
0	IO_L78N_0		K29	NC	
0	IO_L78P_0		L29	NC	
0	IO_L83_0/No_Pair		H29	NC	
0	IO_L84N_0		F29	NC	
0	IO_L84P_0		G29	NC	
0	IO_L85N_0		D29	NC	
0	IO_L85P_0		E29	NC	
0	IO_L86N_0		L28	NC	
0	IO_L86P_0		K28	NC	
0	IO_L87N_0		H28	NC	
0	IO_L87P_0/VREF_0		J28	NC	
0	IO_L37N_0		E28		
0	IO_L37P_0		F28		
0	IO_L38N_0		C29		
0	IO_L38P_0		C28		
0	IO_L39N_0		L27		
0	IO_L39P_0		M27		
0	IO_L43N_0		J27		
0	IO_L43P_0		K27		
0	IO_L44N_0		H27		
0	IO_L44P_0		G27		
0	IO_L45N_0		E27		
0	IO_L45P_0/VREF_0		F27		
0	IO_L46N_0		M25		
0	IO_L46P_0		M26		
0	IO_L47N_0		L26		
0	IO_L47P_0		K26		
0	IO_L48N_0		H26		
0	IO_L48P_0		J26		
0	IO_L49N_0		F26		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
0	IO_L49P_0		G26		
0	IO_L50_0/No_Pair		D27		
0	IO_L53_0/No_Pair		D26		
0	IO_L54N_0		K25		
0	IO_L54P_0		L25		
0	IO_L55N_0		G25		
0	IO_L55P_0		H25		
0	IO_L56N_0		E26		
0	IO_L56P_0		E25		
0	IO_L57N_0		C25		
0	IO_L57P_0/VREF_0		C26		
0	IO_L58N_0		L24		
0	IO_L58P_0		M24		
0	IO_L59N_0		J24		
0	IO_L59P_0		K24		
0	IO_L60N_0		G24		
0	IO_L60P_0		H24		
0	IO_L64N_0		E24		
0	IO_L64P_0		F24		
0	IO_L65N_0		D24		
0	IO_L65P_0		C24		
0	IO_L66N_0		M22		
0	IO_L66P_0/VREF_0		M23		
0	IO_L67N_0		K23		
0	IO_L67P_0		L23		
0	IO_L68N_0		J23		
0	IO_L68P_0		H23		
0	IO_L69N_0		E23		
0	IO_L69P_0/VREF_0		F23		
0	IO_L73N_0		C23		
0	IO_L73P_0		D23		
0	IO_L74N_0/GCLK7P		K22		
0	IO_L74P_0/GCLK6S		J22		
0	IO_L75N_0/GCLK5P	BREFCLKN	F22		
0	IO_L75P_0/GCLK4S	BREFCLKP	G22		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
1	IO_L75N_1/GCLK3P		G21		
1	IO_L75P_1/GCLK2S		F21		
1	IO_L74N_1/GCLK1P		J21		
1	IO_L74P_1/GCLK0S		K21		
1	IO_L73N_1		D20		
1	IO_L73P_1		C20		
1	IO_L69N_1/VREF_1		F20		
1	IO_L69P_1		E20		
1	IO_L68N_1		H20		
1	IO_L68P_1		J20		
1	IO_L67N_1		L20		
1	IO_L67P_1		K20		
1	IO_L66N_1/VREF_1		M20		
1	IO_L66P_1		M21		
1	IO_L65N_1		C19		
1	IO_L65P_1		D19		
1	IO_L64N_1		F19		
1	IO_L64P_1		E19		
1	IO_L60N_1		H19		
1	IO_L60P_1		G19		
1	IO_L59N_1		K19		
1	IO_L59P_1		J19		
1	IO_L58N_1		M19		
1	IO_L58P_1		L19		
1	IO_L57N_1/VREF_1		C17		
1	IO_L57P_1		C18		
1	IO_L56N_1		E18		
1	IO_L56P_1		E17		
1	IO_L55N_1		H18		
1	IO_L55P_1		G18		
1	IO_L54N_1		L18		
1	IO_L54P_1		K18		
1	IO_L53_1/No_Pair		D17		
1	IO_L50_1/No_Pair		D16		
1	IO_L49N_1		G17		
1	IO_L49P_1		F17		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
1	IO_L48N_1		J17		
1	IO_L48P_1		H17		
1	IO_L47N_1		K17		
1	IO_L47P_1		L17		
1	IO_L46N_1		M17		
1	IO_L46P_1		M18		
1	IO_L45N_1/VREF_1		F16		
1	IO_L45P_1		E16		
1	IO_L44N_1		G16		
1	IO_L44P_1		H16		
1	IO_L43N_1		K16		
1	IO_L43P_1		J16		
1	IO_L39N_1		M16		
1	IO_L39P_1		L16		
1	IO_L38N_1		C15		
1	IO_L38P_1		C14		
1	IO_L37N_1		F15		
1	IO_L37P_1		E15		
1	IO_L87N_1/VREF_1		J15	NC	
1	IO_L87P_1		H15	NC	
1	IO_L86N_1		K15	NC	
1	IO_L86P_1		L15	NC	
1	IO_L85N_1		E14	NC	
1	IO_L85P_1		D14	NC	
1	IO_L84N_1		G14	NC	
1	IO_L84P_1		F14	NC	
1	IO_L83_1/No_Pair		H14	NC	
1	IO_L78N_1		L14	NC	
1	IO_L78P_1		K14	NC	
1	IO_L36N_1/VREF_1		M14		
1	IO_L36P_1		M15		
1	IO_L35N_1		C13		
1	IO_L35P_1		D13		
1	IO_L34N_1		F13		
1	IO_L34P_1		E13		
1	IO_L30N_1		H13		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
1	IO_L30P_1		G13		
1	IO_L29N_1		K13		
1	IO_L29P_1		J13		
1	IO_L28N_1		M13		
1	IO_L28P_1		L13		
1	IO_L27N_1/VREF_1		E12		
1	IO_L27P_1		D12		
1	IO_L26N_1		F12		
1	IO_L26P_1		G12		
1	IO_L25N_1		J12		
1	IO_L25P_1		H12		
1	IO_L21N_1		L12		
1	IO_L21P_1		K12		
1	IO_L20N_1		C11		
1	IO_L20P_1		C10		
1	IO_L19N_1		F11		
1	IO_L19P_1		E11		
1	IO_L09N_1/VREF_1		J11		
1	IO_L09P_1		H11		
1	IO_L08N_1		D10		
1	IO_L08P_1		E10		
1	IO_L07N_1		G10		
1	IO_L07P_1		F10		
1	IO_L06N_1		J10		
1	IO_L06P_1		H10		
1	IO_L05_1/No_Pair		K11		
1	IO_L03N_1/VREF_1		D9		
1	IO_L03P_1		C9		
1	IO_L02N_1		E9		
1	IO_L02P_1		F9		
1	IO_L01N_1/VRP_1		H9		
1	IO_L01P_1/VRN_1		G9		
2	IO_L01N_2/VRP_2		C5		
2	IO_L01P_2/VRN_2		C6		
2	IO_L02N_2		E7		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
2	IO_L02P_2		D7		
2	IO_L03N_2		E6		
2	IO_L03P_2		D6		
2	IO_L04N_2/VREF_2		G6		
2	IO_L04P_2		F7		
2	IO_L05N_2		D3		
2	IO_L05P_2		E3		
2	IO_L06N_2		D1		
2	IO_L06P_2		D2		
2	IO_L73N_2		E1		
2	IO_L73P_2		E2		
2	IO_L74N_2		F4		
2	IO_L74P_2		F3		
2	IO_L75N_2		F1		
2	IO_L75P_2		F2		
2	IO_L76N_2/VREF_2		G3		
2	IO_L76P_2		G4		
2	IO_L77N_2		G2		
2	IO_L77P_2		G1		
2	IO_L78N_2		G5		
2	IO_L78P_2		H6		
2	IO_L79N_2		H4		
2	IO_L79P_2		H5		
2	IO_L80N_2		H3		
2	IO_L80P_2		H2		
2	IO_L81N_2		H7		
2	IO_L81P_2		J8		
2	IO_L82N_2/VREF_2		J6		
2	IO_L82P_2		J7		
2	IO_L83N_2		J5		
2	IO_L83P_2		J4		
2	IO_L84N_2		J1		
2	IO_L84P_2		J2		
2	IO_L07N_2		K9		
2	IO_L07P_2		L10		
2	IO_L08N_2		K6		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
2	IO_L08P_2		K5		
2	IO_L09N_2		K8		
2	IO_L09P_2		K7		
2	IO_L10N_2/VREF_2		K2		
2	IO_L10P_2		K1		
2	IO_L11N_2		L8		
2	IO_L11P_2		L9		
2	IO_L12N_2		L6		
2	IO_L12P_2		L7		
2	IO_L13N_2		K3		
2	IO_L13P_2		L3		
2	IO_L14N_2		L5		
2	IO_L14P_2		L4		
2	IO_L15N_2		L1		
2	IO_L15P_2		L2		
2	IO_L16N_2/VREF_2		M7		
2	IO_L16P_2		M8		
2	IO_L17N_2		M11		
2	IO_L17P_2		M12		
2	IO_L18N_2		M9		
2	IO_L18P_2		M10		
2	IO_L19N_2		M2		
2	IO_L19P_2		M3		
2	IO_L20N_2		M4		
2	IO_L20P_2		M5		
2	IO_L21N_2		N7		
2	IO_L21P_2		N8		
2	IO_L22N_2/VREF_2		N5		
2	IO_L22P_2		N6		
2	IO_L23N_2		N9		
2	IO_L23P_2		N10		
2	IO_L24N_2		N3		
2	IO_L24P_2		N4		
2	IO_L25N_2		N1		
2	IO_L25P_2		N2		
2	IO_L26N_2		N11		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
2	IO_L26P_2		N12		
2	IO_L27N_2		P9		
2	IO_L27P_2		P10		
2	IO_L28N_2/VREF_2		P7		
2	IO_L28P_2		P8		
2	IO_L29N_2		P11		
2	IO_L29P_2		P12		
2	IO_L30N_2		P5		
2	IO_L30P_2		P6		
2	IO_L31N_2		P1		
2	IO_L31P_2		P2		
2	IO_L32N_2		R9		
2	IO_L32P_2		R10		
2	IO_L33N_2		R5		
2	IO_L33P_2		R6		
2	IO_L34N_2/VREF_2		P3		
2	IO_L34P_2		R3		
2	IO_L35N_2		R1		
2	IO_L35P_2		R2		
2	IO_L36N_2		R11		
2	IO_L36P_2		R12		
2	IO_L37N_2		T6		
2	IO_L37P_2		T7		
2	IO_L38N_2		T8		
2	IO_L38P_2		R8		
2	IO_L39N_2		T4		
2	IO_L39P_2		T5		
2	IO_L40N_2/VREF_2		T2		
2	IO_L40P_2		T3		
2	IO_L41N_2		T10		
2	IO_L41P_2		T11		
2	IO_L42N_2		U7		
2	IO_L42P_2		U8		
2	IO_L43N_2		U5		
2	IO_L43P_2		U6		
2	IO_L44N_2		U9		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
2	IO_L44P_2		U10		
2	IO_L45N_2		U3		
2	IO_L45P_2		U4		
2	IO_L46N_2/VREF_2		U1		
2	IO_L46P_2		U2		
2	IO_L47N_2		T12		
2	IO_L47P_2		U12		
2	IO_L48N_2		V10		
2	IO_L48P_2		V11		
2	IO_L49N_2		V7		
2	IO_L49P_2		V8		
2	IO_L50N_2		U11		
2	IO_L50P_2		V12		
2	IO_L51N_2		V4		
2	IO_L51P_2		V5		
2	IO_L52N_2/VREF_2		V1		
2	IO_L52P_2		V2		
2	IO_L53N_2		W9		
2	IO_L53P_2		W10		
2	IO_L54N_2		W7		
2	IO_L54P_2		W8		
2	IO_L55N_2		W5		
2	IO_L55P_2		W6		
2	IO_L56N_2		W11		
2	IO_L56P_2		W12		
2	IO_L57N_2		W3		
2	IO_L57P_2		W4		
2	IO_L58N_2/VREF_2		W1		
2	IO_L58P_2		W2		
2	IO_L59N_2		Y9		
2	IO_L59P_2		Y10		
2	IO_L60N_2		Y6		
2	IO_L60P_2		Y7		
2	IO_L85N_2		Y3		
2	IO_L85P_2		Y4		
2	IO_L86N_2		Y11		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
2	IO_L86P_2		Y12		
2	IO_L87N_2		AA9		
2	IO_L87P_2		AA10		
2	IO_L88N_2/VREF_2		AA6		
2	IO_L88P_2		AA7		
2	IO_L89N_2		AA12		
2	IO_L89P_2		AB12		
2	IO_L90N_2		AA3		
2	IO_L90P_2		AA4		
3	IO_L90N_3		AB3		
3	IO_L90P_3		AB4		
3	IO_L89N_3		AB6		
3	IO_L89P_3		AB7		
3	IO_L88N_3		AB9		
3	IO_L88P_3		AB10		
3	IO_L87N_3/VREF_3		AC3		
3	IO_L87P_3		AC4		
3	IO_L86N_3		AC11		
3	IO_L86P_3		AC12		
3	IO_L85N_3		AC6		
3	IO_L85P_3		AC7		
3	IO_L60N_3		AC9		
3	IO_L60P_3		AC10		
3	IO_L59N_3		AD9		
3	IO_L59P_3		AD10		
3	IO_L58N_3		AD1		
3	IO_L58P_3		AD2		
3	IO_L57N_3/VREF_3		AD3		
3	IO_L57P_3		AD4		
3	IO_L56N_3		AD11		
3	IO_L56P_3		AD12		
3	IO_L55N_3		AD5		
3	IO_L55P_3		AD6		
3	IO_L54N_3		AD7		
3	IO_L54P_3		AD8		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
3	IO_L53N_3		AE10		
3	IO_L53P_3		AE11		
3	IO_L52N_3		AE1		
3	IO_L52P_3		AE2		
3	IO_L51N_3/VREF_3		AE4		
3	IO_L51P_3		AE5		
3	IO_L50N_3		AF11		
3	IO_L50P_3		AE12		
3	IO_L49N_3		AE7		
3	IO_L49P_3		AE8		
3	IO_L48N_3		AF1		
3	IO_L48P_3		AF2		
3	IO_L47N_3		AG12		
3	IO_L47P_3		AF12		
3	IO_L46N_3		AF3		
3	IO_L46P_3		AF4		
3	IO_L45N_3/VREF_3		AF5		
3	IO_L45P_3		AF6		
3	IO_L44N_3		AF7		
3	IO_L44P_3		AF8		
3	IO_L43N_3		AF9		
3	IO_L43P_3		AF10		
3	IO_L42N_3		AG2		
3	IO_L42P_3		AG3		
3	IO_L41N_3		AG10		
3	IO_L41P_3		AG11		
3	IO_L40N_3		AG4		
3	IO_L40P_3		AG5		
3	IO_L39N_3/VREF_3		AG6		
3	IO_L39P_3		AG7		
3	IO_L38N_3		AG8		
3	IO_L38P_3		AH8		
3	IO_L37N_3		AH1		
3	IO_L37P_3		AH2		
3	IO_L36N_3		AH3		
3	IO_L36P_3		AJ3		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
3	IO_L35N_3		AH11		
3	IO_L35P_3		AH12		
3	IO_L34N_3		AH5		
3	IO_L34P_3		AH6		
3	IO_L33N_3/VREF_3		AH9		
3	IO_L33P_3		AH10		
3	IO_L32N_3		AJ11		
3	IO_L32P_3		AJ12		
3	IO_L31N_3		AJ1		
3	IO_L31P_3		AJ2		
3	IO_L30N_3		AJ5		
3	IO_L30P_3		AJ6		
3	IO_L29N_3		AJ9		
3	IO_L29P_3		AJ10		
3	IO_L28N_3		AJ7		
3	IO_L28P_3		AJ8		
3	IO_L27N_3/VREF_3		AK1		
3	IO_L27P_3		AK2		
3	IO_L26N_3		AK11		
3	IO_L26P_3		AK12		
3	IO_L25N_3		AK3		
3	IO_L25P_3		AK4		
3	IO_L24N_3		AK5		
3	IO_L24P_3		AK6		
3	IO_L23N_3		AK9		
3	IO_L23P_3		AK10		
3	IO_L22N_3		AK7		
3	IO_L22P_3		AK8		
3	IO_L21N_3/VREF_3		AL2		
3	IO_L21P_3		AL3		
3	IO_L20N_3		AL11		
3	IO_L20P_3		AL12		
3	IO_L19N_3		AL4		
3	IO_L19P_3		AL5		
3	IO_L18N_3		AL7		
3	IO_L18P_3		AL8		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
3	IO_L17N_3		AL9		
3	IO_L17P_3		AL10		
3	IO_L16N_3		AM1		
3	IO_L16P_3		AM2		
3	IO_L15N_3/VREF_3		AM3		
3	IO_L15P_3		AN3		
3	IO_L14N_3		AM8		
3	IO_L14P_3		AM9		
3	IO_L13N_3		AM4		
3	IO_L13P_3		AM5		
3	IO_L12N_3		AM6		
3	IO_L12P_3		AM7		
3	IO_L11N_3		AN9		
3	IO_L11P_3		AM10		
3	IO_L10N_3		AN1		
3	IO_L10P_3		AN2		
3	IO_L09N_3/VREF_3		AN5		
3	IO_L09P_3		AN6		
3	IO_L08N_3		AN7		
3	IO_L08P_3		AN8		
3	IO_L07N_3		AP1		
3	IO_L07P_3		AP2		
3	IO_L84N_3		AP4		
3	IO_L84P_3		AP5		
3	IO_L83N_3		AR7		
3	IO_L83P_3		AP8		
3	IO_L82N_3		AP6		
3	IO_L82P_3		AP7		
3	IO_L81N_3/VREF_3		AR2		
3	IO_L81P_3		AR3		
3	IO_L80N_3		AT5		
3	IO_L80P_3		AR6		
3	IO_L79N_3		AR4		
3	IO_L79P_3		AR5		
3	IO_L78N_3		AT1		
3	IO_L78P_3		AT2		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
3	IO_L77N_3		AT3		
3	IO_L77P_3		AT4		
3	IO_L76N_3		AU1		
3	IO_L76P_3		AU2		
3	IO_L75N_3/VREF_3		AU3		
3	IO_L75P_3		AU4		
3	IO_L74N_3		AV3		
3	IO_L74P_3		AW3		
3	IO_L73N_3		AV1		
3	IO_L73P_3		AV2		
3	IO_L06N_3		AW1		
3	IO_L06P_3		AW2		
3	IO_L05N_3		AT8		
3	IO_L05P_3		AU8		
3	IO_L04N_3		AT6		
3	IO_L04P_3		AU7		
3	IO_L03N_3/VREF_3		AY5		
3	IO_L03P_3		AY6		
3	IO_L02N_3		AV7		
3	IO_L02P_3		AW7		
3	IO_L01N_3/VRP_3		AV6		
3	IO_L01P_3/VRN_3		AW6		
4	IO_L01N_4/BUSY/DOOUT ⁽¹⁾		AT9		
4	IO_L01P_4/INIT_B		AR9		
4	IO_L02N_4/D0/DIN ⁽¹⁾		AU9		
4	IO_L02P_4/D1		AV9		
4	IO_L03N_4/D2		AY9		
4	IO_L03P_4/D3		AW9		
4	IO_L05_4/No_Pair		AN11		
4	IO_L06N_4/VRP_4		AR10		
4	IO_L06P_4/VRN_4		AP10		
4	IO_L07N_4		AU10		
4	IO_L07P_4/VREF_4		AT10		
4	IO_L08N_4		AV10		
4	IO_L08P_4		AW10		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
4	IO_L09N_4		AR11		
4	IO_L09P_4/VREF_4		AP11		
4	IO_L19N_4		AV11		
4	IO_L19P_4		AU11		
4	IO_L20N_4		AY10		
4	IO_L20P_4		AY11		
4	IO_L21N_4		AN12		
4	IO_L21P_4		AM12		
4	IO_L25N_4		AR12		
4	IO_L25P_4		AP12		
4	IO_L26N_4		AT12		
4	IO_L26P_4		AU12		
4	IO_L27N_4		AW12		
4	IO_L27P_4/VREF_4		AV12		
4	IO_L28N_4		AM13		
4	IO_L28P_4		AL13		
4	IO_L29N_4		AP13		
4	IO_L29P_4		AN13		
4	IO_L30N_4		AT13		
4	IO_L30P_4		AR13		
4	IO_L34N_4		AV13		
4	IO_L34P_4		AU13		
4	IO_L35N_4		AW13		
4	IO_L35P_4		AY13		
4	IO_L36N_4		AL15		
4	IO_L36P_4/VREF_4		AL14		
4	IO_L78N_4		AN14	NC	
4	IO_L78P_4		AM14	NC	
4	IO_L83_4/No_Pair		AR14	NC	
4	IO_L84N_4		AU14	NC	
4	IO_L84P_4		AT14	NC	
4	IO_L85N_4		AW14	NC	
4	IO_L85P_4		AV14	NC	
4	IO_L86N_4		AM15	NC	
4	IO_L86P_4		AN15	NC	
4	IO_L87N_4		AR15	NC	

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
4	IO_L87P_4/VREF_4		AP15	NC	
4	IO_L37N_4		AV15		
4	IO_L37P_4		AU15		
4	IO_L38N_4		AY14		
4	IO_L38P_4		AY15		
4	IO_L39N_4		AM16		
4	IO_L39P_4		AL16		
4	IO_L43N_4		AP16		
4	IO_L43P_4		AN16		
4	IO_L44N_4		AR16		
4	IO_L44P_4		AT16		
4	IO_L45N_4		AV16		
4	IO_L45P_4/VREF_4		AU16		
4	IO_L46N_4		AL18		
4	IO_L46P_4		AL17		
4	IO_L47N_4		AM17		
4	IO_L47P_4		AN17		
4	IO_L48N_4		AR17		
4	IO_L48P_4		AP17		
4	IO_L49N_4		AU17		
4	IO_L49P_4		AT17		
4	IO_L50_4/No_Pair		AW16		
4	IO_L53_4/No_Pair		AW17		
4	IO_L54N_4		AN18		
4	IO_L54P_4		AM18		
4	IO_L55N_4		AT18		
4	IO_L55P_4		AR18		
4	IO_L56N_4		AV17		
4	IO_L56P_4		AV18		
4	IO_L57N_4		AY18		
4	IO_L57P_4/VREF_4		AY17		
4	IO_L58N_4		AM19		
4	IO_L58P_4		AL19		
4	IO_L59N_4		AP19		
4	IO_L59P_4		AN19		
4	IO_L60N_4		AT19		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
4	IO_L60P_4		AR19		
4	IO_L64N_4		AV19		
4	IO_L64P_4		AU19		
4	IO_L65N_4		AW19		
4	IO_L65P_4		AY19		
4	IO_L66N_4		AL21		
4	IO_L66P_4/VREF_4		AL20		
4	IO_L67N_4		AN20		
4	IO_L67P_4		AM20		
4	IO_L68N_4		AP20		
4	IO_L68P_4		AR20		
4	IO_L69N_4		AV20		
4	IO_L69P_4/VREF_4		AU20		
4	IO_L73N_4		AY20		
4	IO_L73P_4		AW20		
4	IO_L74N_4/GCLK3S		AN21		
4	IO_L74P_4/GCLK2P		AP21		
4	IO_L75N_4/GCLK1S		AU21		
4	IO_L75P_4/GCLK0P		AT21		
5	IO_L75N_5/GCLK7S	BREFCLKN	AT22		
5	IO_L75P_5/GCLK6P	BREFCLKP	AU22		
5	IO_L74N_5/GCLK5S		AP22		
5	IO_L74P_5/GCLK4P		AN22		
5	IO_L73N_5		AW23		
5	IO_L73P_5		AY23		
5	IO_L69N_5/VREF_5		AU23		
5	IO_L69P_5		AV23		
5	IO_L68N_5		AR23		
5	IO_L68P_5		AP23		
5	IO_L67N_5		AM23		
5	IO_L67P_5		AN23		
5	IO_L66N_5/VREF_5		AL23		
5	IO_L66P_5		AL22		
5	IO_L65N_5		AY24		
5	IO_L65P_5		AW24		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
5	IO_L64N_5		AU24		
5	IO_L64P_5		AV24		
5	IO_L60N_5		AR24		
5	IO_L60P_5		AT24		
5	IO_L59N_5		AN24		
5	IO_L59P_5		AP24		
5	IO_L58N_5		AL24		
5	IO_L58P_5		AM24		
5	IO_L57N_5/VREF_5		AY26		
5	IO_L57P_5		AY25		
5	IO_L56N_5		AV25		
5	IO_L56P_5		AV26		
5	IO_L55N_5		AR25		
5	IO_L55P_5		AT25		
5	IO_L54N_5		AM25		
5	IO_L54P_5		AN25		
5	IO_L53_5/No_Pair		AW26		
5	IO_L50_5/No_Pair		AW27		
5	IO_L49N_5		AT26		
5	IO_L49P_5		AU26		
5	IO_L48N_5		AP26		
5	IO_L48P_5		AR26		
5	IO_L47N_5		AN26		
5	IO_L47P_5		AM26		
5	IO_L46N_5		AL26		
5	IO_L46P_5		AL25		
5	IO_L45N_5/VREF_5		AU27		
5	IO_L45P_5		AV27		
5	IO_L44N_5		AT27		
5	IO_L44P_5		AR27		
5	IO_L43N_5		AN27		
5	IO_L43P_5		AP27		
5	IO_L39N_5		AL27		
5	IO_L39P_5		AM27		
5	IO_L38N_5		AY28		
5	IO_L38P_5		AY29		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
5	IO_L37N_5		AU28		
5	IO_L37P_5		AV28		
5	IO_L87N_5/VREF_5		AP28	NC	
5	IO_L87P_5		AR28	NC	
5	IO_L86N_5		AN28	NC	
5	IO_L86P_5		AM28	NC	
5	IO_L85N_5		AV29	NC	
5	IO_L85P_5		AW29	NC	
5	IO_L84N_5		AT29	NC	
5	IO_L84P_5		AU29	NC	
5	IO_L83_5/No_Pair		AR29	NC	
5	IO_L78N_5		AM29	NC	
5	IO_L78P_5		AN29	NC	
5	IO_L36N_5/VREF_5		AL29		
5	IO_L36P_5		AL28		
5	IO_L35N_5		AY30		
5	IO_L35P_5		AW30		
5	IO_L34N_5		AU30		
5	IO_L34P_5		AV30		
5	IO_L30N_5		AR30		
5	IO_L30P_5		AT30		
5	IO_L29N_5		AN30		
5	IO_L29P_5		AP30		
5	IO_L28N_5		AL30		
5	IO_L28P_5		AM30		
5	IO_L27N_5/VREF_5		AV31		
5	IO_L27P_5		AW31		
5	IO_L26N_5		AU31		
5	IO_L26P_5		AT31		
5	IO_L25N_5		AP31		
5	IO_L25P_5		AR31		
5	IO_L21N_5		AM31		
5	IO_L21P_5		AN31		
5	IO_L20N_5		AY32		
5	IO_L20P_5		AY33		
5	IO_L19N_5		AU32		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
5	IO_L19P_5		AV32		
5	IO_L09N_5/VREF_5		AP32		
5	IO_L09P_5		AR32		
5	IO_L08N_5		AW33		
5	IO_L08P_5		AV33		
5	IO_L07N_5/VREF_5		AT33		
5	IO_L07P_5		AU33		
5	IO_L06N_5/VRP_5		AP33		
5	IO_L06P_5/VRN_5		AR33		
5	IO_L05_5/No_Pair		AN32		
5	IO_L03N_5/D4		AW34		
5	IO_L03P_5/D5		AY34		
5	IO_L02N_5/D6		AV34		
5	IO_L02P_5/D7		AU34		
5	IO_L01N_5/RDWR_B		AR34		
5	IO_L01P_5/CS_B		AT34		
6	IO_L01P_6/VRN_6		AW37		
6	IO_L01N_6/VRP_6		AV37		
6	IO_L02P_6		AW36		
6	IO_L02N_6		AV36		
6	IO_L03P_6		AY37		
6	IO_L03N_6/VREF_6		AY38		
6	IO_L04P_6		AU36		
6	IO_L04N_6		AT37		
6	IO_L05P_6		AU35		
6	IO_L05N_6		AT35		
6	IO_L06P_6		AW41		
6	IO_L06N_6		AW42		
6	IO_L73P_6		AV41		
6	IO_L73N_6		AV42		
6	IO_L74P_6		AW40		
6	IO_L74N_6		AV40		
6	IO_L75P_6		AU39		
6	IO_L75N_6/VREF_6		AU40		
6	IO_L76P_6		AU41		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
6	IO_L76N_6		AU42		
6	IO_L77P_6		AT39		
6	IO_L77N_6		AT40		
6	IO_L78P_6		AT41		
6	IO_L78N_6		AT42		
6	IO_L79P_6		AR38		
6	IO_L79N_6		AR39		
6	IO_L80P_6		AR37		
6	IO_L80N_6		AT38		
6	IO_L81P_6		AR40		
6	IO_L81N_6/VREF_6		AR41		
6	IO_L82P_6		AP36		
6	IO_L82N_6		AP37		
6	IO_L83P_6		AP35		
6	IO_L83N_6		AR36		
6	IO_L84P_6		AP38		
6	IO_L84N_6		AP39		
6	IO_L07P_6		AP41		
6	IO_L07N_6		AP42		
6	IO_L08P_6		AN35		
6	IO_L08N_6		AN36		
6	IO_L09P_6		AN37		
6	IO_L09N_6/VREF_6		AN38		
6	IO_L10P_6		AN41		
6	IO_L10N_6		AN42		
6	IO_L11P_6		AM33		
6	IO_L11N_6		AN34		
6	IO_L12P_6		AM36		
6	IO_L12N_6		AM37		
6	IO_L13P_6		AM38		
6	IO_L13N_6		AM39		
6	IO_L14P_6		AM34		
6	IO_L14N_6		AM35		
6	IO_L15P_6		AN40		
6	IO_L15N_6/VREF_6		AM40		
6	IO_L16P_6		AM41		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
6	IO_L16N_6		AM42		
6	IO_L17P_6		AL33		
6	IO_L17N_6		AL34		
6	IO_L18P_6		AL35		
6	IO_L18N_6		AL36		
6	IO_L19P_6		AL38		
6	IO_L19N_6		AL39		
6	IO_L20P_6		AL31		
6	IO_L20N_6		AL32		
6	IO_L21P_6		AL40		
6	IO_L21N_6/VREF_6		AL41		
6	IO_L22P_6		AK35		
6	IO_L22N_6		AK36		
6	IO_L23P_6		AK33		
6	IO_L23N_6		AK34		
6	IO_L24P_6		AK37		
6	IO_L24N_6		AK38		
6	IO_L25P_6		AK39		
6	IO_L25N_6		AK40		
6	IO_L26P_6		AK31		
6	IO_L26N_6		AK32		
6	IO_L27P_6		AK41		
6	IO_L27N_6/VREF_6		AK42		
6	IO_L28P_6		AJ35		
6	IO_L28N_6		AJ36		
6	IO_L29P_6		AJ33		
6	IO_L29N_6		AJ34		
6	IO_L30P_6		AJ37		
6	IO_L30N_6		AJ38		
6	IO_L31P_6		AJ41		
6	IO_L31N_6		AJ42		
6	IO_L32P_6		AJ31		
6	IO_L32N_6		AJ32		
6	IO_L33P_6		AH33		
6	IO_L33N_6/VREF_6		AH34		
6	IO_L34P_6		AH37		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
6	IO_L34N_6		AH38		
6	IO_L35P_6		AH31		
6	IO_L35N_6		AH32		
6	IO_L36P_6		AJ40		
6	IO_L36N_6		AH40		
6	IO_L37P_6		AH41		
6	IO_L37N_6		AH42		
6	IO_L38P_6		AH35		
6	IO_L38N_6		AG35		
6	IO_L39P_6		AG36		
6	IO_L39N_6/VREF_6		AG37		
6	IO_L40P_6		AG38		
6	IO_L40N_6		AG39		
6	IO_L41P_6		AG32		
6	IO_L41N_6		AG33		
6	IO_L42P_6		AG40		
6	IO_L42N_6		AG41		
6	IO_L43P_6		AF33		
6	IO_L43N_6		AF34		
6	IO_L44P_6		AF35		
6	IO_L44N_6		AF36		
6	IO_L45P_6		AF37		
6	IO_L45N_6/VREF_6		AF38		
6	IO_L46P_6		AF39		
6	IO_L46N_6		AF40		
6	IO_L47P_6		AF31		
6	IO_L47N_6		AG31		
6	IO_L48P_6		AF41		
6	IO_L48N_6		AF42		
6	IO_L49P_6		AE35		
6	IO_L49N_6		AE36		
6	IO_L50P_6		AE31		
6	IO_L50N_6		AF32		
6	IO_L51P_6		AE38		
6	IO_L51N_6/VREF_6		AE39		
6	IO_L52P_6		AE41		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
6	IO_L52N_6		AE42		
6	IO_L53P_6		AE32		
6	IO_L53N_6		AE33		
6	IO_L54P_6		AD35		
6	IO_L54N_6		AD36		
6	IO_L55P_6		AD37		
6	IO_L55N_6		AD38		
6	IO_L56P_6		AD31		
6	IO_L56N_6		AD32		
6	IO_L57P_6		AD39		
6	IO_L57N_6/VREF_6		AD40		
6	IO_L58P_6		AD41		
6	IO_L58N_6		AD42		
6	IO_L59P_6		AD33		
6	IO_L59N_6		AD34		
6	IO_L60P_6		AC33		
6	IO_L60N_6		AC34		
6	IO_L85P_6		AC36		
6	IO_L85N_6		AC37		
6	IO_L86P_6		AC31		
6	IO_L86N_6		AC32		
6	IO_L87P_6		AC39		
6	IO_L87N_6/VREF_6		AC40		
6	IO_L88P_6		AB33		
6	IO_L88N_6		AB34		
6	IO_L89P_6		AB36		
6	IO_L89N_6		AB37		
6	IO_L90P_6		AB39		
6	IO_L90N_6		AB40		
7	IO_L90P_7		AA39		
7	IO_L90N_7		AA40		
7	IO_L89P_7		AB31		
7	IO_L89N_7		AA31		
7	IO_L88P_7		AA36		
7	IO_L88N_7/VREF_7		AA37		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
7	IO_L87P_7		AA33		
7	IO_L87N_7		AA34		
7	IO_L86P_7		Y31		
7	IO_L86N_7		Y32		
7	IO_L85P_7		Y39		
7	IO_L85N_7		Y40		
7	IO_L60P_7		Y36		
7	IO_L60N_7		Y37		
7	IO_L59P_7		Y33		
7	IO_L59N_7		Y34		
7	IO_L58P_7		W41		
7	IO_L58N_7/VREF_7		W42		
7	IO_L57P_7		W39		
7	IO_L57N_7		W40		
7	IO_L56P_7		W31		
7	IO_L56N_7		W32		
7	IO_L55P_7		W37		
7	IO_L55N_7		W38		
7	IO_L54P_7		W35		
7	IO_L54N_7		W36		
7	IO_L53P_7		W33		
7	IO_L53N_7		W34		
7	IO_L52P_7		V41		
7	IO_L52N_7/VREF_7		V42		
7	IO_L51P_7		V38		
7	IO_L51N_7		V39		
7	IO_L50P_7		V31		
7	IO_L50N_7		U32		
7	IO_L49P_7		V35		
7	IO_L49N_7		V36		
7	IO_L48P_7		V32		
7	IO_L48N_7		V33		
7	IO_L47P_7		U31		
7	IO_L47N_7		T31		
7	IO_L46P_7		U41		
7	IO_L46N_7/VREF_7		U42		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
7	IO_L45P_7		U39		
7	IO_L45N_7		U40		
7	IO_L44P_7		U33		
7	IO_L44N_7		U34		
7	IO_L43P_7		U37		
7	IO_L43N_7		U38		
7	IO_L42P_7		U35		
7	IO_L42N_7		U36		
7	IO_L41P_7		T32		
7	IO_L41N_7		T33		
7	IO_L40P_7		T40		
7	IO_L40N_7/VREF_7		T41		
7	IO_L39P_7		T38		
7	IO_L39N_7		T39		
7	IO_L38P_7		R35		
7	IO_L38N_7		T35		
7	IO_L37P_7		T36		
7	IO_L37N_7		T37		
7	IO_L36P_7		R31		
7	IO_L36N_7		R32		
7	IO_L35P_7		R41		
7	IO_L35N_7		R42		
7	IO_L34P_7		R40		
7	IO_L34N_7/VREF_7		P40		
7	IO_L33P_7		R37		
7	IO_L33N_7		R38		
7	IO_L32P_7		R33		
7	IO_L32N_7		R34		
7	IO_L31P_7		P41		
7	IO_L31N_7		P42		
7	IO_L30P_7		P37		
7	IO_L30N_7		P38		
7	IO_L29P_7		P31		
7	IO_L29N_7		P32		
7	IO_L28P_7		P35		
7	IO_L28N_7/VREF_7		P36		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
7	IO_L27P_7		P33		
7	IO_L27N_7		P34		
7	IO_L26P_7		N31		
7	IO_L26N_7		N32		
7	IO_L25P_7		N41		
7	IO_L25N_7		N42		
7	IO_L24P_7		N39		
7	IO_L24N_7		N40		
7	IO_L23P_7		N33		
7	IO_L23N_7		N34		
7	IO_L22P_7		N37		
7	IO_L22N_7/VREF_7		N38		
7	IO_L21P_7		N35		
7	IO_L21N_7		N36		
7	IO_L20P_7		M38		
7	IO_L20N_7		M39		
7	IO_L19P_7		M40		
7	IO_L19N_7		M41		
7	IO_L18P_7		M33		
7	IO_L18N_7		M34		
7	IO_L17P_7		M31		
7	IO_L17N_7		M32		
7	IO_L16P_7		M35		
7	IO_L16N_7/VREF_7		M36		
7	IO_L15P_7		L41		
7	IO_L15N_7		L42		
7	IO_L14P_7		L39		
7	IO_L14N_7		L38		
7	IO_L13P_7		L40		
7	IO_L13N_7		K40		
7	IO_L12P_7		L36		
7	IO_L12N_7		L37		
7	IO_L11P_7		L34		
7	IO_L11N_7		L35		
7	IO_L10P_7		K42		
7	IO_L10N_7/VREF_7		K41		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
7	IO_L09P_7		K36		
7	IO_L09N_7		K35		
7	IO_L08P_7		K38		
7	IO_L08N_7		K37		
7	IO_L07P_7		L33		
7	IO_L07N_7		K34		
7	IO_L84P_7		J41		
7	IO_L84N_7		J42		
7	IO_L83P_7		J39		
7	IO_L83N_7		J38		
7	IO_L82P_7		J36		
7	IO_L82N_7/VREF_7		J37		
7	IO_L81P_7		J35		
7	IO_L81N_7		H36		
7	IO_L80P_7		H41		
7	IO_L80N_7		H40		
7	IO_L79P_7		H38		
7	IO_L79N_7		H39		
7	IO_L78P_7		H37		
7	IO_L78N_7		G38		
7	IO_L77P_7		G42		
7	IO_L77N_7		G41		
7	IO_L76P_7		G39		
7	IO_L76N_7/VREF_7		G40		
7	IO_L75P_7		F41		
7	IO_L75N_7		F42		
7	IO_L74P_7		F40		
7	IO_L74N_7		F39		
7	IO_L73P_7		E41		
7	IO_L73N_7		E42		
7	IO_L06P_7		D41		
7	IO_L06N_7		D42		
7	IO_L05P_7		E40		
7	IO_L05N_7		D40		
7	IO_L04P_7		F36		
7	IO_L04N_7/VREF_7		G37		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
7	IO_L03P_7		D37		
7	IO_L03N_7		E37		
7	IO_L02P_7		D36		
7	IO_L02N_7		E36		
7	IO_L01P_7/VRN_7		C37		
7	IO_L01N_7/VRP_7		C38		
0	VCCO_0		D25		
0	VCCO_0		G23		
0	VCCO_0		G28		
0	VCCO_0		G32		
0	VCCO_0		J25		
0	VCCO_0		J29		
0	VCCO_0		P22		
0	VCCO_0		P23		
0	VCCO_0		P24		
0	VCCO_0		P25		
0	VCCO_0		P26		
0	VCCO_0		R22		
0	VCCO_0		R23		
0	VCCO_0		R24		
0	VCCO_0		R25		
1	VCCO_1		R21		
1	VCCO_1		R20		
1	VCCO_1		R19		
1	VCCO_1		R18		
1	VCCO_1		P21		
1	VCCO_1		P20		
1	VCCO_1		P19		
1	VCCO_1		P18		
1	VCCO_1		P17		
1	VCCO_1		J18		
1	VCCO_1		J14		
1	VCCO_1		G20		
1	VCCO_1		G15		
1	VCCO_1		G11		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
1	VCCO_1		D18		
2	VCCO_2		AA15		
2	VCCO_2		AA14		
2	VCCO_2		Y15		
2	VCCO_2		Y14		
2	VCCO_2		Y8		
2	VCCO_2		Y5		
2	VCCO_2		W15		
2	VCCO_2		W14		
2	VCCO_2		V15		
2	VCCO_2		V14		
2	VCCO_2		V3		
2	VCCO_2		U15		
2	VCCO_2		U14		
2	VCCO_2		T15		
2	VCCO_2		T14		
2	VCCO_2		R14		
2	VCCO_2		T9		
2	VCCO_2		P4		
2	VCCO_2		M6		
2	VCCO_2		J3		
2	VCCO_2		F5		
3	VCCO_3		AU5		
3	VCCO_3		AP3		
3	VCCO_3		AL6		
3	VCCO_3		AJ4		
3	VCCO_3		AH14		
3	VCCO_3		AG15		
3	VCCO_3		AG14		
3	VCCO_3		AG9		
3	VCCO_3		AF15		
3	VCCO_3		AF14		
3	VCCO_3		AE15		
3	VCCO_3		AE14		
3	VCCO_3		AE3		
3	VCCO_3		AD15		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
3	VCCO_3		AD14		
3	VCCO_3		AC15		
3	VCCO_3		AC14		
3	VCCO_3		AC8		
3	VCCO_3		AC5		
3	VCCO_3		AB15		
3	VCCO_3		AB14		
4	VCCO_4		AW18		
4	VCCO_4		AT20		
4	VCCO_4		AT15		
4	VCCO_4		AT11		
4	VCCO_4		AP18		
4	VCCO_4		AP14		
4	VCCO_4		AJ21		
4	VCCO_4		AJ20		
4	VCCO_4		AJ19		
4	VCCO_4		AJ18		
4	VCCO_4		AJ17		
4	VCCO_4		AH21		
4	VCCO_4		AH20		
4	VCCO_4		AH19		
4	VCCO_4		AH18		
5	VCCO_5		AW25		
5	VCCO_5		AT32		
5	VCCO_5		AT28		
5	VCCO_5		AT23		
5	VCCO_5		AP29		
5	VCCO_5		AP25		
5	VCCO_5		AJ26		
5	VCCO_5		AJ25		
5	VCCO_5		AJ24		
5	VCCO_5		AJ23		
5	VCCO_5		AJ22		
5	VCCO_5		AH25		
5	VCCO_5		AH24		
5	VCCO_5		AH23		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
5	VCCO_5		AH22		
6	VCCO_6		AU38		
6	VCCO_6		AP40		
6	VCCO_6		AL37		
6	VCCO_6		AJ39		
6	VCCO_6		AH29		
6	VCCO_6		AG34		
6	VCCO_6		AG29		
6	VCCO_6		AG28		
6	VCCO_6		AF29		
6	VCCO_6		AF28		
6	VCCO_6		AE40		
6	VCCO_6		AE29		
6	VCCO_6		AE28		
6	VCCO_6		AD29		
6	VCCO_6		AD28		
6	VCCO_6		AC38		
6	VCCO_6		AC35		
6	VCCO_6		AC29		
6	VCCO_6		AC28		
6	VCCO_6		AB29		
6	VCCO_6		AB28		
7	VCCO_7		AA29		
7	VCCO_7		AA28		
7	VCCO_7		Y38		
7	VCCO_7		Y35		
7	VCCO_7		Y29		
7	VCCO_7		Y28		
7	VCCO_7		W29		
7	VCCO_7		W28		
7	VCCO_7		V40		
7	VCCO_7		V29		
7	VCCO_7		V28		
7	VCCO_7		U29		
7	VCCO_7		U28		
7	VCCO_7		T34		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
7	VCCO_7		T29		
7	VCCO_7		T28		
7	VCCO_7		R29		
7	VCCO_7		P39		
7	VCCO_7		M37		
7	VCCO_7		J40		
7	VCCO_7		F38		
N/A	CCLK		AY7		
N/A	PROG_B		G35		
N/A	DONE		AW8		
N/A	M0		AV35		
N/A	M1		AY36		
N/A	M2		AW35		
N/A	TCK		G8		
N/A	TDI		C36		
N/A	TDO		C7		
N/A	TMS		F8		
N/A	PWRDWN_B		AV8		
N/A	HSWAP_EN		F35		
N/A	RSVD		D8		
N/A	VBATT		E8		
N/A	DXP		E35		
N/A	DXN		D35		
N/A	AVCCAUXTX2		B40		
N/A	VTTXPAD2		B41		
N/A	TXNPAD2		A41		
N/A	TXPPAD2		A40		
N/A	GND A2		C39		
N/A	RXPPAD2		A39		
N/A	RXNPAD2		A38		
N/A	VTRXPAD2		B39		
N/A	AVCCAUXRX2		B38		
N/A	AVCCAUXTX3		B36		
N/A	VTTXPAD3		B37		
N/A	TXNPAD3		A37		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
N/A	TXPPAD3		A36		
N/A	GND A3		C35		
N/A	RXPPAD3		A35		
N/A	RXNPAD3		A34		
N/A	VTRXPAD3		B35		
N/A	AVCCAUXRX3		B34		
N/A	AVCCAUXTX4		B32		
N/A	VTTXPAD4		B33		
N/A	TXNPAD4		A33		
N/A	TXPPAD4		A32		
N/A	GND A4		C31		
N/A	RXPPAD4		A31		
N/A	RXNPAD4		A30		
N/A	VTRXPAD4		B31		
N/A	AVCCAUXRX4		B30		
N/A	AVCCAUXTX5		B28		
N/A	VTTXPAD5		B29		
N/A	TXNPAD5		A29		
N/A	TXPPAD5		A28		
N/A	GND A5		C27		
N/A	RXPPAD5		A27		
N/A	RXNPAD5		A26		
N/A	VTRXPAD5		B27		
N/A	AVCCAUXRX5		B26		
N/A	AVCCAUXTX6		B24		
N/A	VTTXPAD6		B25		
N/A	TXNPAD6		A25		
N/A	TXPPAD6		A24		
N/A	GND A6		C22		
N/A	RXPPAD6		A23		
N/A	RXNPAD6		A22		
N/A	VTRXPAD6		B23		
N/A	AVCCAUXRX6		B22		
N/A	AVCCAUXTX7		B20		
N/A	VTTXPAD7		B21		
N/A	TXNPAD7		A21		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
N/A	TXPPAD7		A20		
N/A	GND A7		C21		
N/A	RXPPAD7		A19		
N/A	RXNPAD7		A18		
N/A	VTRXPAD7		B19		
N/A	AVCCAUXRX7		B18		
N/A	AVCCAUXTX8		B16		
N/A	VTTXPAD8		B17		
N/A	TXNPAD8		A17		
N/A	TXPPAD8		A16		
N/A	GND A8		C16		
N/A	RXPPAD8		A15		
N/A	RXNPAD8		A14		
N/A	VTRXPAD8		B15		
N/A	AVCCAUXRX8		B14		
N/A	AVCCAUXTX9		B12		
N/A	VTTXPAD9		B13		
N/A	TXNPAD9		A13		
N/A	TXPPAD9		A12		
N/A	GND A9		C12		
N/A	RXPPAD9		A11		
N/A	RXNPAD9		A10		
N/A	VTRXPAD9		B11		
N/A	AVCCAUXRX9		B10		
N/A	AVCCAUXTX10		B8		
N/A	VTTXPAD10		B9		
N/A	TXNPAD10		A9		
N/A	TXPPAD10		A8		
N/A	GND A10		C8		
N/A	RXPPAD10		A7		
N/A	RXNPAD10		A6		
N/A	VTRXPAD10		B7		
N/A	AVCCAUXRX10		B6		
N/A	AVCCAUXTX11		B4		
N/A	VTTXPAD11		B5		
N/A	TXNPAD11		A5		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
N/A	TXPPAD11		A4		
N/A	GNDA11		C4		
N/A	RXPPAD11		A3		
N/A	RXNPAD11		A2		
N/A	VTRXPAD11		B3		
N/A	AVCCAUXRX11		B2		
N/A	AVCCAUXRX14		BA2		
N/A	VTRXPAD14		BA3		
N/A	RXNPAD14		BB2		
N/A	RXPPAD14		BB3		
N/A	GNDA14		AY4		
N/A	TXPPAD14		BB4		
N/A	TXNPAD14		BB5		
N/A	VTTXPAD14		BA5		
N/A	AVCCAUXTX14		BA4		
N/A	AVCCAUXRX15		BA6		
N/A	VTRXPAD15		BA7		
N/A	RXNPAD15		BB6		
N/A	RXPPAD15		BB7		
N/A	GNDA15		AY8		
N/A	TXPPAD15		BB8		
N/A	TXNPAD15		BB9		
N/A	VTTXPAD15		BA9		
N/A	AVCCAUXTX15		BA8		
N/A	AVCCAUXRX16		BA10		
N/A	VTRXPAD16		BA11		
N/A	RXNPAD16		BB10		
N/A	RXPPAD16		BB11		
N/A	GNDA16		AY12		
N/A	TXPPAD16		BB12		
N/A	TXNPAD16		BB13		
N/A	VTTXPAD16		BA13		
N/A	AVCCAUXTX16		BA12		
N/A	AVCCAUXRX17		BA14		
N/A	VTRXPAD17		BA15		
N/A	RXNPAD17		BB14		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
N/A	RXPPAD17		BB15		
N/A	GNDA17		AY16		
N/A	TXPPAD17		BB16		
N/A	TXNPAD17		BB17		
N/A	VTTXPAD17		BA17		
N/A	AVCCAUXTX17		BA16		
N/A	AVCCAUXRX18		BA18		
N/A	VTRXPAD18		BA19		
N/A	RXNPAD18		BB18		
N/A	RXPPAD18		BB19		
N/A	GNDA18		AY21		
N/A	TXPPAD18		BB20		
N/A	TXNPAD18		BB21		
N/A	VTTXPAD18		BA21		
N/A	AVCCAUXTX18		BA20		
N/A	AVCCAUXRX19		BA22		
N/A	VTRXPAD19		BA23		
N/A	RXNPAD19		BB22		
N/A	RXPPAD19		BB23		
N/A	GNDA19		AY22		
N/A	TXPPAD19		BB24		
N/A	TXNPAD19		BB25		
N/A	VTTXPAD19		BA25		
N/A	AVCCAUXTX19		BA24		
N/A	AVCCAUXRX20		BA26		
N/A	VTRXPAD20		BA27		
N/A	RXNPAD20		BB26		
N/A	RXPPAD20		BB27		
N/A	GNDA20		AY27		
N/A	TXPPAD20		BB28		
N/A	TXNPAD20		BB29		
N/A	VTTXPAD20		BA29		
N/A	AVCCAUXTX20		BA28		
N/A	AVCCAUXRX21		BA30		
N/A	VTRXPAD21		BA31		
N/A	RXNPAD21		BB30		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
N/A	RXPPAD21		BB31		
N/A	GNDA21		AY31		
N/A	TXPPAD21		BB32		
N/A	TXNPAD21		BB33		
N/A	VTTXPAD21		BA33		
N/A	AVCCAUXTX21		BA32		
N/A	AVCCAUXRX22		BA34		
N/A	VTRXPAD22		BA35		
N/A	RXNPAD22		BB34		
N/A	RXPPAD22		BB35		
N/A	GNDA22		AY35		
N/A	TXPPAD22		BB36		
N/A	TXNPAD22		BB37		
N/A	VTTXPAD22		BA37		
N/A	AVCCAUXTX22		BA36		
N/A	AVCCAUXRX23		BA38		
N/A	VTRXPAD23		BA39		
N/A	RXNPAD23		BB38		
N/A	RXPPAD23		BB39		
N/A	GNDA23		AY39		
N/A	TXPPAD23		BB40		
N/A	TXNPAD23		BB41		
N/A	VTTXPAD23		BA41		
N/A	AVCCAUXTX23		BA40		
N/A	VCCINT		AB27		
N/A	VCCINT		AB16		
N/A	VCCINT		AC27		
N/A	VCCINT		AC16		
N/A	VCCINT		AD27		
N/A	VCCINT		AD16		
N/A	VCCINT		AE27		
N/A	VCCINT		AE16		
N/A	VCCINT		AF27		
N/A	VCCINT		AF26		
N/A	VCCINT		AF17		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
N/A	VCCINT		AF16		
N/A	VCCINT		AG27		
N/A	VCCINT		AG26		
N/A	VCCINT		AG25		
N/A	VCCINT		AG24		
N/A	VCCINT		AG23		
N/A	VCCINT		AG22		
N/A	VCCINT		AG21		
N/A	VCCINT		AG20		
N/A	VCCINT		AG19		
N/A	VCCINT		AG18		
N/A	VCCINT		AG17		
N/A	VCCINT		AG16		
N/A	VCCINT		AH28		
N/A	VCCINT		AH27		
N/A	VCCINT		AH26		
N/A	VCCINT		AH17		
N/A	VCCINT		AH16		
N/A	VCCINT		AH15		
N/A	VCCINT		AJ29		
N/A	VCCINT		AJ28		
N/A	VCCINT		AJ27		
N/A	VCCINT		AJ16		
N/A	VCCINT		AJ15		
N/A	VCCINT		AJ14		
N/A	VCCINT		AK30		
N/A	VCCINT		AK13		
N/A	VCCINT		AA27		
N/A	VCCINT		AA16		
N/A	VCCINT		Y27		
N/A	VCCINT		Y16		
N/A	VCCINT		W27		
N/A	VCCINT		W16		
N/A	VCCINT		V27		
N/A	VCCINT		V16		
N/A	VCCINT		U27		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
N/A	VCCINT		U26		
N/A	VCCINT		U17		
N/A	VCCINT		U16		
N/A	VCCINT		T27		
N/A	VCCINT		T26		
N/A	VCCINT		T25		
N/A	VCCINT		T24		
N/A	VCCINT		T23		
N/A	VCCINT		T22		
N/A	VCCINT		T21		
N/A	VCCINT		T20		
N/A	VCCINT		T19		
N/A	VCCINT		T18		
N/A	VCCINT		T17		
N/A	VCCINT		T16		
N/A	VCCINT		R28		
N/A	VCCINT		R27		
N/A	VCCINT		R26		
N/A	VCCINT		R17		
N/A	VCCINT		R16		
N/A	VCCINT		R15		
N/A	VCCINT		P29		
N/A	VCCINT		P28		
N/A	VCCINT		P27		
N/A	VCCINT		P16		
N/A	VCCINT		P15		
N/A	VCCINT		P14		
N/A	VCCINT		N30		
N/A	VCCINT		N13		
N/A	VCCAUX		AB42		
N/A	VCCAUX		AB41		
N/A	VCCAUX		AB2		
N/A	VCCAUX		AB1		
N/A	VCCAUX		AC42		
N/A	VCCAUX		AC1		
N/A	VCCAUX		AM32		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
N/A	VCCAUX		AM11		
N/A	VCCAUX		AN33		
N/A	VCCAUX		AN10		
N/A	VCCAUX		AV39		
N/A	VCCAUX		AV4		
N/A	VCCAUX		AW38		
N/A	VCCAUX		AW22		
N/A	VCCAUX		AW21		
N/A	VCCAUX		AW5		
N/A	VCCAUX		AA42		
N/A	VCCAUX		AA41		
N/A	VCCAUX		AA2		
N/A	VCCAUX		AA1		
N/A	VCCAUX		Y42		
N/A	VCCAUX		Y1		
N/A	VCCAUX		L32		
N/A	VCCAUX		L11		
N/A	VCCAUX		K33		
N/A	VCCAUX		K10		
N/A	VCCAUX		E39		
N/A	VCCAUX		E4		
N/A	VCCAUX		D38		
N/A	VCCAUX		D22		
N/A	VCCAUX		D21		
N/A	VCCAUX		D5		
N/A	GND		AB38		
N/A	GND		AB35		
N/A	GND		AB32		
N/A	GND		AB26		
N/A	GND		AB25		
N/A	GND		AB24		
N/A	GND		AB23		
N/A	GND		AB22		
N/A	GND		AB21		
N/A	GND		AB20		
N/A	GND		AB19		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
N/A	GND		AB18		
N/A	GND		AB17		
N/A	GND		AB11		
N/A	GND		AB8		
N/A	GND		AB5		
N/A	GND		AC41		
N/A	GND		AC26		
N/A	GND		AC25		
N/A	GND		AC24		
N/A	GND		AC23		
N/A	GND		AC22		
N/A	GND		AC21		
N/A	GND		AC20		
N/A	GND		AC19		
N/A	GND		AC18		
N/A	GND		AC17		
N/A	GND		AC2		
N/A	GND		AD26		
N/A	GND		AD25		
N/A	GND		AD24		
N/A	GND		AD23		
N/A	GND		AD22		
N/A	GND		AD21		
N/A	GND		AD20		
N/A	GND		AD19		
N/A	GND		AD18		
N/A	GND		AD17		
N/A	GND		AE37		
N/A	GND		AE34		
N/A	GND		AE26		
N/A	GND		AE25		
N/A	GND		AE24		
N/A	GND		AE23		
N/A	GND		AE22		
N/A	GND		AE21		
N/A	GND		AE20		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
N/A	GND		AE19		
N/A	GND		AE18		
N/A	GND		AE17		
N/A	GND		AE9		
N/A	GND		AE6		
N/A	GND		AF25		
N/A	GND		AF24		
N/A	GND		AF23		
N/A	GND		AF22		
N/A	GND		AF21		
N/A	GND		AF20		
N/A	GND		AF19		
N/A	GND		AF18		
N/A	GND		AG42		
N/A	GND		AG1		
N/A	GND		AH39		
N/A	GND		AH36		
N/A	GND		AH7		
N/A	GND		AH4		
N/A	GND		AL42		
N/A	GND		AL1		
N/A	GND		AM22		
N/A	GND		AM21		
N/A	GND		AN39		
N/A	GND		AN4		
N/A	GND		AP34		
N/A	GND		AP9		
N/A	GND		AR42		
N/A	GND		AR35		
N/A	GND		AR22		
N/A	GND		AR21		
N/A	GND		AR8		
N/A	GND		AR1		
N/A	GND		AT36		
N/A	GND		AT7		
N/A	GND		AU37		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
N/A	GND		AU25		
N/A	GND		AU18		
N/A	GND		AU6		
N/A	GND		AV38		
N/A	GND		AV22		
N/A	GND		AV21		
N/A	GND		AV5		
N/A	GND		AW39		
N/A	GND		AW32		
N/A	GND		AW28		
N/A	GND		AW15		
N/A	GND		AW11		
N/A	GND		AW4		
N/A	GND		AY42		
N/A	GND		AY41		
N/A	GND		AY40		
N/A	GND		AY3		
N/A	GND		AY2		
N/A	GND		AY1		
N/A	GND		BA42		
N/A	GND		BA1		
N/A	GND		AA38		
N/A	GND		AA35		
N/A	GND		AA32		
N/A	GND		AA26		
N/A	GND		AA25		
N/A	GND		AA24		
N/A	GND		AA23		
N/A	GND		AA22		
N/A	GND		AA21		
N/A	GND		AA20		
N/A	GND		AA19		
N/A	GND		AA18		
N/A	GND		AA17		
N/A	GND		AA11		
N/A	GND		AA8		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
N/A	GND		AA5		
N/A	GND		Y41		
N/A	GND		Y26		
N/A	GND		Y25		
N/A	GND		Y24		
N/A	GND		Y23		
N/A	GND		Y22		
N/A	GND		Y21		
N/A	GND		Y20		
N/A	GND		Y19		
N/A	GND		Y18		
N/A	GND		Y17		
N/A	GND		Y2		
N/A	GND		W26		
N/A	GND		W25		
N/A	GND		W24		
N/A	GND		W23		
N/A	GND		W22		
N/A	GND		W21		
N/A	GND		W20		
N/A	GND		W19		
N/A	GND		W18		
N/A	GND		W17		
N/A	GND		V37		
N/A	GND		V34		
N/A	GND		V26		
N/A	GND		V25		
N/A	GND		V24		
N/A	GND		V23		
N/A	GND		V22		
N/A	GND		V21		
N/A	GND		V20		
N/A	GND		V19		
N/A	GND		V18		
N/A	GND		V17		
N/A	GND		V9		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
N/A	GND		V6		
N/A	GND		U25		
N/A	GND		U24		
N/A	GND		U23		
N/A	GND		U22		
N/A	GND		U21		
N/A	GND		U20		
N/A	GND		U19		
N/A	GND		U18		
N/A	GND		T42		
N/A	GND		T1		
N/A	GND		R39		
N/A	GND		R36		
N/A	GND		R7		
N/A	GND		R4		
N/A	GND		M42		
N/A	GND		M1		
N/A	GND		L22		
N/A	GND		L21		
N/A	GND		K39		
N/A	GND		K4		
N/A	GND		J34		
N/A	GND		J9		
N/A	GND		H42		
N/A	GND		H35		
N/A	GND		H22		
N/A	GND		H21		
N/A	GND		H8		
N/A	GND		H1		
N/A	GND		G36		
N/A	GND		G7		
N/A	GND		F37		
N/A	GND		F25		
N/A	GND		F18		
N/A	GND		F6		
N/A	GND		E38		

Table 13: FF1704 — XC2VP70, XC2VPX70, and XC2VP100

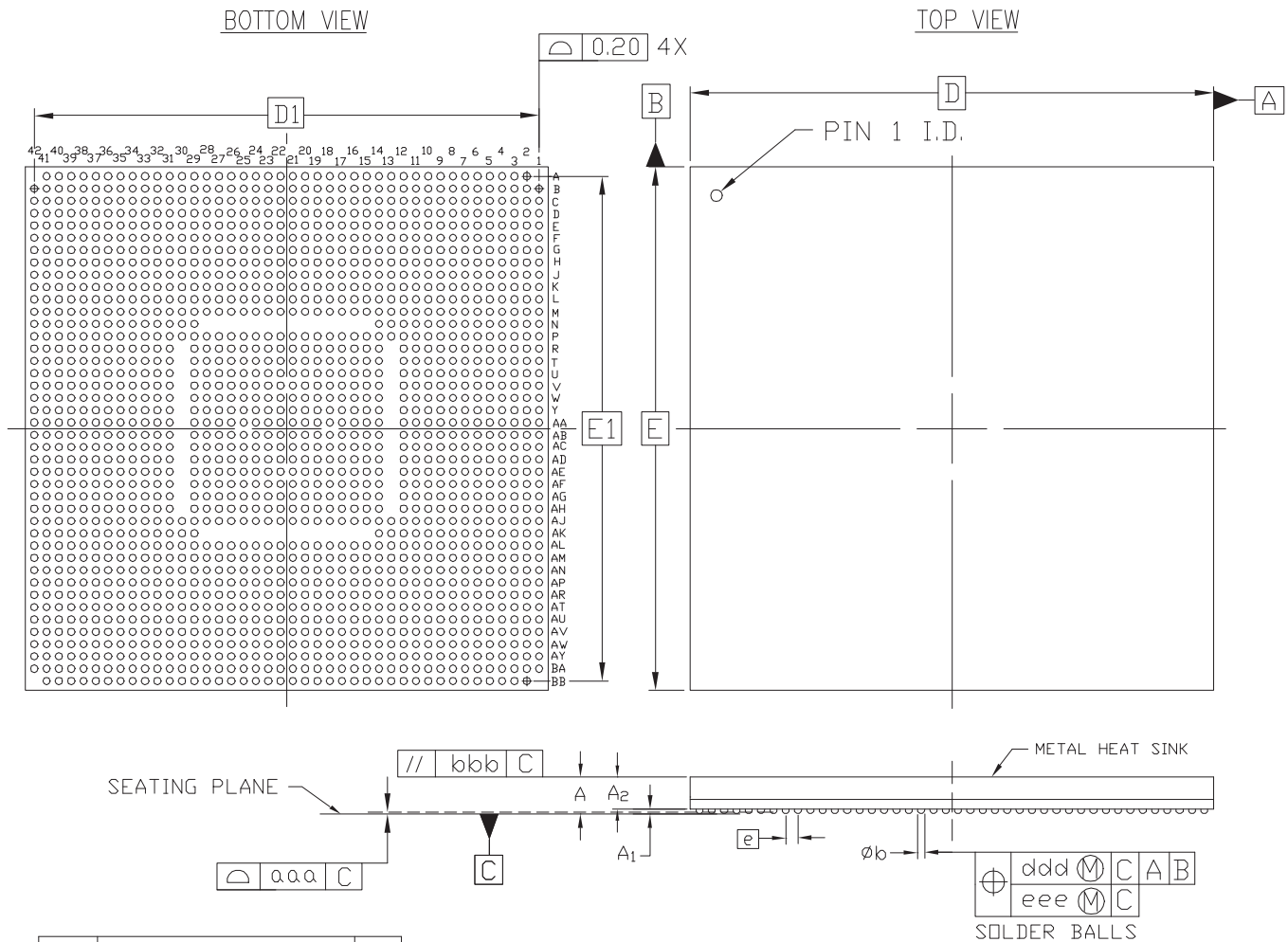
Bank	Pin Description		Pin Number	No Connects	
	Virtex-II Pro Devices	XC2VPX70 (if Different)		XC2VP70, XC2VPX70	XC2VP100
N/A	GND		E22		
N/A	GND		E21		
N/A	GND		E5		
N/A	GND		D39		
N/A	GND		D32		
N/A	GND		D28		
N/A	GND		D15		
N/A	GND		D11		
N/A	GND		D4		
N/A	GND		C42		
N/A	GND		C41		
N/A	GND		C40		
N/A	GND		C3		
N/A	GND		C2		
N/A	GND		C1		
N/A	GND		B42		
N/A	GND		B1		
N/A	GND		N14		
N/A	GND		N29		
N/A	GND		AK14		
N/A	GND		AK29		
N/A	GND		P13		
N/A	GND		P30		
N/A	GND		AJ13		
N/A	GND		AJ30		

Notes:

1. See [Table 4](#) for an explanation of the signals available on this pin.

FF1704 Flip-Chip Fine-Pitch BGA Package Specifications (1.00mm pitch)

FF1704



SYMBOL	MILLIMETERS			NOTE
	MIN.	NOM.	MAX.	
A		3.20	3.45	2
A ₁	0.40	0.50	0.60	
A ₂			2.85	
D/E	42.50 BASIC			
D ₁ /E ₁	41.00 REF			
e	1.00 BASIC			
øb	0.50	0.60	0.70	
aaa			0.20	
bbb			0.25	
ddd			0.25	
eee			0.10	
M		42		

NOTES:

1. ALL DIMENSIONS AND TOLERANCES CONFORM TO ASME Y14.5M-1994
2. SYMBOL "M" IS THE PIN MATRIX SIZE.
3. CONFORMS TO JEDEC MS-034-AAV-1 (DEPOPULATED)

Figure 9: FF1704 Flip-Chip Fine-Pitch BGA Package Specifications

FF1696 Flip-Chip Fine-Pitch BGA Package

As shown in [Table 14](#), XC2VP100 Virtex-II Pro devices are available in the FF1696 flip-chip fine-pitch BGA package. Following this table are the **FF1696 Flip-Chip Fine-Pitch BGA Package Specifications (1.00mm pitch)**.

Table 14: **FF1696 — XC2VP100**

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
0	IO_L01N_0/VRP_0	E33	
0	IO_L01P_0/VRN_0	F33	
0	IO_L02N_0	K32	
0	IO_L02P_0	L32	
0	IO_L03N_0	C32	
0	IO_L03P_0/VREF_0	C33	
0	IO_L05_0/No_Pair	G33	
0	IO_L06N_0	A33	
0	IO_L06P_0	B33	
0	IO_L07N_0	F32	
0	IO_L07P_0	G32	
0	IO_L08N_0	H32	
0	IO_L08P_0	J32	
0	IO_L09N_0	D32	
0	IO_L09P_0/VREF_0	E32	
0	IO_L19N_0	A32	
0	IO_L19P_0	B32	
0	IO_L20N_0	K31	
0	IO_L20P_0	L31	
0	IO_L21N_0	H30	
0	IO_L21P_0	G31	
0	IO_L25N_0	E31	
0	IO_L25P_0	F31	
0	IO_L26N_0	H31	
0	IO_L26P_0	J31	
0	IO_L27N_0	D30	
0	IO_L27P_0/VREF_0	D31	
0	IO_L28N_0	B31	
0	IO_L28P_0	C31	
0	IO_L29N_0	K30	
0	IO_L29P_0	L30	
0	IO_L30N_0	F30	
0	IO_L30P_0	G30	
0	IO_L34N_0	B30	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
0	IO_L34P_0	C30	
0	IO_L35N_0	L29	
0	IO_L35P_0	M29	
0	IO_L36N_0	H28	
0	IO_L36P_0/VREF_0	G29	
0	IO_L76N_0	E29	
0	IO_L76P_0	F29	
0	IO_L77N_0	J29	
0	IO_L77P_0	K29	
0	IO_L78N_0	D28	
0	IO_L78P_0	C29	
0	IO_L79N_0	A29	
0	IO_L79P_0	B29	
0	IO_L80_0/No_Pair	L28	
0	IO_L83_0/No_Pair	M28	
0	IO_L84N_0	G27	
0	IO_L84P_0	G28	
0	IO_L85N_0	E28	
0	IO_L85P_0	F28	
0	IO_L86N_0	J28	
0	IO_L86P_0	K28	
0	IO_L87N_0	C27	
0	IO_L87P_0/VREF_0	C28	
0	IO_L37N_0	A28	
0	IO_L37P_0	B28	
0	IO_L38N_0	L27	
0	IO_L38P_0	M27	
0	IO_L39N_0	H26	
0	IO_L39P_0	H27	
0	IO_L43N_0	E27	
0	IO_L43P_0	F27	
0	IO_L44N_0	J27	
0	IO_L44P_0	K27	
0	IO_L45N_0	D26	
0	IO_L45P_0/VREF_0	D27	
0	IO_L10N_0	A27	NC
0	IO_L10P_0	B27	NC

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
0	IO_L11N_0	M25	NC
0	IO_L11P_0	M26	NC
0	IO_L12N_0	F26	NC
0	IO_L12P_0	G26	NC
0	IO_L18N_0	B26	NC
0	IO_L18P_0/VREF_0	C26	NC
0	IO_L46N_0	G24	
0	IO_L46P_0	G25	
0	IO_L47N_0	K26	
0	IO_L47P_0	L26	
0	IO_L48N_0	E25	
0	IO_L48P_0	F25	
0	IO_L49N_0	C24	
0	IO_L49P_0	C25	
0	IO_L50_0/No_Pair	L24	
0	IO_L53_0/No_Pair	L25	
0	IO_L54N_0	A25	
0	IO_L54P_0	B25	
0	IO_L55N_0	H23	
0	IO_L55P_0	H24	
0	IO_L56N_0	J25	
0	IO_L56P_0	K25	
0	IO_L57N_0	E24	
0	IO_L57P_0/VREF_0	F24	
0	IO_L58N_0	D23	
0	IO_L58P_0	D24	
0	IO_L59N_0	J24	
0	IO_L59P_0	K24	
0	IO_L60N_0	A24	
0	IO_L60P_0	B24	
0	IO_L64N_0	F23	
0	IO_L64P_0	G23	
0	IO_L65N_0	M22	
0	IO_L65P_0	M23	
0	IO_L66N_0	B23	
0	IO_L66P_0/VREF_0	C23	
0	IO_L67N_0	H22	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
0	IO_L67P_0	J22	
0	IO_L68N_0	K23	
0	IO_L68P_0	L23	
0	IO_L69N_0	F22	
0	IO_L69P_0/VREF_0	G22	
0	IO_L73N_0	D22	
0	IO_L73P_0	E22	
0	IO_L74N_0/GCLK7P	K22	
0	IO_L74P_0/GCLK6S	L22	
0	IO_L75N_0/GCLK5P	B22	
0	IO_L75P_0/GCLK4S	C22	
1	IO_L75N_1/GCLK3P	C21	
1	IO_L75P_1/GCLK2S	B21	
1	IO_L74N_1/GCLK1P	L21	
1	IO_L74P_1/GCLK0S	K21	
1	IO_L73N_1	E21	
1	IO_L73P_1	D21	
1	IO_L69N_1/VREF_1	G21	
1	IO_L69P_1	F21	
1	IO_L68N_1	L20	
1	IO_L68P_1	K20	
1	IO_L67N_1	J21	
1	IO_L67P_1	H21	
1	IO_L66N_1/VREF_1	C20	
1	IO_L66P_1	B20	
1	IO_L65N_1	M20	
1	IO_L65P_1	M21	
1	IO_L64N_1	G20	
1	IO_L64P_1	F20	
1	IO_L60N_1	B19	
1	IO_L60P_1	A19	
1	IO_L59N_1	K19	
1	IO_L59P_1	J19	
1	IO_L58N_1	D19	
1	IO_L58P_1	D20	
1	IO_L57N_1/VREF_1	F19	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
1	IO_L57P_1	E19	
1	IO_L56N_1	K18	
1	IO_L56P_1	J18	
1	IO_L55N_1	H19	
1	IO_L55P_1	H20	
1	IO_L54N_1	B18	
1	IO_L54P_1	A18	
1	IO_L53_1/No_Pair	L18	
1	IO_L50_1/No_Pair	L19	
1	IO_L49N_1	C18	
1	IO_L49P_1	C19	
1	IO_L48N_1	F18	
1	IO_L48P_1	E18	
1	IO_L47N_1	L17	
1	IO_L47P_1	K17	
1	IO_L46N_1	G18	
1	IO_L46P_1	G19	
1	IO_L18N_1/VREF_1	C17	NC
1	IO_L18P_1	B17	NC
1	IO_L12N_1	G17	NC
1	IO_L12P_1	F17	NC
1	IO_L11N_1	M17	NC
1	IO_L11P_1	M18	NC
1	IO_L10N_1	B16	NC
1	IO_L10P_1	A16	NC
1	IO_L45N_1/VREF_1	D16	
1	IO_L45P_1	D17	
1	IO_L44N_1	K16	
1	IO_L44P_1	J16	
1	IO_L43N_1	F16	
1	IO_L43P_1	E16	
1	IO_L39N_1	H16	
1	IO_L39P_1	H17	
1	IO_L38N_1	M16	
1	IO_L38P_1	L16	
1	IO_L37N_1	B15	
1	IO_L37P_1	A15	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
1	IO_L87N_1/VREF_1	C15	
1	IO_L87P_1	C16	
1	IO_L86N_1	K15	
1	IO_L86P_1	J15	
1	IO_L85N_1	F15	
1	IO_L85P_1	E15	
1	IO_L84N_1	G15	
1	IO_L84P_1	G16	
1	IO_L83_1/No_Pair	M15	
1	IO_L80_1/No_Pair	L15	
1	IO_L79N_1	B14	
1	IO_L79P_1	A14	
1	IO_L78N_1	C14	
1	IO_L78P_1	D15	
1	IO_L77N_1	K14	
1	IO_L77P_1	J14	
1	IO_L76N_1	F14	
1	IO_L76P_1	E14	
1	IO_L36N_1/VREF_1	G14	
1	IO_L36P_1	H15	
1	IO_L35N_1	M14	
1	IO_L35P_1	L14	
1	IO_L34N_1	C13	
1	IO_L34P_1	B13	
1	IO_L30N_1	G13	
1	IO_L30P_1	F13	
1	IO_L29N_1	L13	
1	IO_L29P_1	K13	
1	IO_L28N_1	C12	
1	IO_L28P_1	B12	
1	IO_L27N_1/VREF_1	D12	
1	IO_L27P_1	D13	
1	IO_L26N_1	J12	
1	IO_L26P_1	H12	
1	IO_L25N_1	F12	
1	IO_L25P_1	E12	
1	IO_L21N_1	G12	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
1	IO_L21P_1	H13	
1	IO_L20N_1	L12	
1	IO_L20P_1	K12	
1	IO_L19N_1	B11	
1	IO_L19P_1	A11	
1	IO_L09N_1/VREF_1	E11	
1	IO_L09P_1	D11	
1	IO_L08N_1	J11	
1	IO_L08P_1	H11	
1	IO_L07N_1	G11	
1	IO_L07P_1	F11	
1	IO_L06N_1	B10	
1	IO_L06P_1	A10	
1	IO_L05_1/No_Pair	G10	
1	IO_L03N_1/VREF_1	C10	
1	IO_L03P_1	C11	
1	IO_L02N_1	L11	
1	IO_L02P_1	K11	
1	IO_L01N_1/VRP_1	F10	
1	IO_L01P_1/VRN_1	E10	
2	IO_L01N_2/VRP_2	B8	
2	IO_L01P_2/VRN_2	A8	
2	IO_L02N_2	C9	
2	IO_L02P_2	B9	
2	IO_L03N_2	B7	
2	IO_L03P_2	A7	
2	IO_L04N_2/VREF_2	B6	
2	IO_L04P_2	A6	
2	IO_L05N_2	D8	
2	IO_L05P_2	D9	
2	IO_L06N_2	B4	
2	IO_L06P_2	A4	
2	IO_L73N_2	C7	
2	IO_L73P_2	C8	
2	IO_L74N_2	G9	
2	IO_L74P_2	F9	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
2	IO_L75N_2	C5	
2	IO_L75P_2	B5	
2	IO_L76N_2/VREF_2	D7	
2	IO_L76P_2	C6	
2	IO_L77N_2	H8	
2	IO_L77P_2	H9	
2	IO_L78N_2	C3	
2	IO_L78P_2	C4	
2	IO_L79N_2	D1	
2	IO_L79P_2	D2	
2	IO_L80N_2	J8	
2	IO_L80P_2	K9	
2	IO_L81N_2	E6	
2	IO_L81P_2	D5	
2	IO_L82N_2/VREF_2	E4	
2	IO_L82P_2	D4	
2	IO_L83N_2	L8	
2	IO_L83P_2	L9	
2	IO_L84N_2	E3	
2	IO_L84P_2	D3	
2	IO_L61N_2	F8	
2	IO_L61P_2	E8	
2	IO_L62N_2	M8	
2	IO_L62P_2	M9	
2	IO_L63N_2	F7	
2	IO_L63P_2	E7	
2	IO_L64N_2/VREF_2	F3	
2	IO_L64P_2	E2	
2	IO_L65N_2	N12	
2	IO_L65P_2	P12	
2	IO_L66N_2	F1	
2	IO_L66P_2	F2	
2	IO_L67N_2	G7	
2	IO_L67P_2	G8	
2	IO_L68N_2	N10	
2	IO_L68P_2	N11	
2	IO_L69N_2	G6	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
2	IO_L69P_2	F6	
2	IO_L70N_2/VREF_2	G5	
2	IO_L70P_2	F5	
2	IO_L71N_2	P10	
2	IO_L71P_2	P11	
2	IO_L72N_2	G3	
2	IO_L72P_2	G4	
2	IO_L07N_2	G1	
2	IO_L07P_2	G2	
2	IO_L08N_2	N8	
2	IO_L08P_2	P9	
2	IO_L09N_2	H6	
2	IO_L09P_2	H7	
2	IO_L10N_2/VREF_2	H4	
2	IO_L10P_2	H5	
2	IO_L11N_2	R12	
2	IO_L11P_2	T12	
2	IO_L12N_2	H2	
2	IO_L12P_2	H3	
2	IO_L13N_2	J6	
2	IO_L13P_2	J7	
2	IO_L14N_2	R10	
2	IO_L14P_2	R11	
2	IO_L15N_2	J3	
2	IO_L15P_2	J4	
2	IO_L16N_2/VREF_2	J2	
2	IO_L16P_2	H1	
2	IO_L17N_2	R8	
2	IO_L17P_2	R9	
2	IO_L18N_2	K5	
2	IO_L18P_2	K6	
2	IO_L19N_2	K1	
2	IO_L19P_2	K2	
2	IO_L20N_2	T10	
2	IO_L20P_2	T11	
2	IO_L21N_2	L7	
2	IO_L21P_2	K7	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
2	IO_L22N_2/VREF_2	L4	
2	IO_L22P_2	L5	
2	IO_L23N_2	T8	
2	IO_L23P_2	T9	
2	IO_L24N_2	L3	
2	IO_L24P_2	K3	
2	IO_L25N_2	L1	
2	IO_L25P_2	L2	
2	IO_L26N_2	U12	
2	IO_L26P_2	V12	
2	IO_L27N_2	M7	
2	IO_L27P_2	L6	
2	IO_L28N_2/VREF_2	M5	
2	IO_L28P_2	M6	
2	IO_L29N_2	U10	
2	IO_L29P_2	U11	
2	IO_L30N_2	M3	
2	IO_L30P_2	M4	
2	IO_L31N_2	N6	
2	IO_L31P_2	N7	
2	IO_L32N_2	U7	
2	IO_L32P_2	U8	
2	IO_L33N_2	N3	
2	IO_L33P_2	N4	
2	IO_L34N_2/VREF_2	N2	
2	IO_L34P_2	M2	
2	IO_L35N_2	V10	
2	IO_L35P_2	V11	
2	IO_L36N_2	P6	
2	IO_L36P_2	P7	
2	IO_L37N_2	P1	
2	IO_L37P_2	P2	
2	IO_L38N_2	V8	
2	IO_L38P_2	V9	
2	IO_L39N_2	R6	
2	IO_L39P_2	P5	
2	IO_L40N_2/VREF_2	R4	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
2	IO_L40P_2	R5	
2	IO_L41N_2	V6	
2	IO_L41P_2	V7	
2	IO_L42N_2	R3	
2	IO_L42P_2	P3	
2	IO_L43N_2	R1	
2	IO_L43P_2	R2	
2	IO_L44N_2	W10	
2	IO_L44P_2	W11	
2	IO_L45N_2	T7	
2	IO_L45P_2	R7	
2	IO_L46N_2/VREF_2	T4	
2	IO_L46P_2	T5	
2	IO_L47N_2	W9	
2	IO_L47P_2	Y10	
2	IO_L48N_2	T1	
2	IO_L48P_2	T2	
2	IO_L49N_2	U6	
2	IO_L49P_2	T6	
2	IO_L50N_2	W7	
2	IO_L50P_2	Y8	
2	IO_L51N_2	U4	
2	IO_L51P_2	T3	
2	IO_L52N_2/VREF_2	U2	
2	IO_L52P_2	U3	
2	IO_L53N_2	Y11	
2	IO_L53P_2	Y12	
2	IO_L54N_2	V4	
2	IO_L54P_2	V5	
2	IO_L55N_2	V1	
2	IO_L55P_2	V2	
2	IO_L56N_2	Y6	
2	IO_L56P_2	Y7	
2	IO_L57N_2	W5	
2	IO_L57P_2	W6	
2	IO_L58N_2/VREF_2	W3	
2	IO_L58P_2	V3	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
2	IO_L59N_2	AA11	
2	IO_L59P_2	AA12	
2	IO_L60N_2	W1	
2	IO_L60P_2	W2	
2	IO_L85N_2	Y2	
2	IO_L85P_2	Y3	
2	IO_L86N_2	AA9	
2	IO_L86P_2	AA10	
2	IO_L87N_2	AA5	
2	IO_L87P_2	AA6	
2	IO_L88N_2/VREF_2	AA4	
2	IO_L88P_2	Y4	
2	IO_L89N_2	AA7	
2	IO_L89P_2	AA8	
2	IO_L90N_2	AA2	
2	IO_L90P_2	AA3	
3	IO_L90N_3	AB5	
3	IO_L90P_3	AB6	
3	IO_L89N_3	AB11	
3	IO_L89P_3	AB12	
3	IO_L88N_3	AB2	
3	IO_L88P_3	AB3	
3	IO_L87N_3/VREF_3	AB4	
3	IO_L87P_3	AC4	
3	IO_L86N_3	AB9	
3	IO_L86P_3	AB10	
3	IO_L85N_3	AC2	
3	IO_L85P_3	AC3	
3	IO_L60N_3	AD5	
3	IO_L60P_3	AD6	
3	IO_L59N_3	AB7	
3	IO_L59P_3	AB8	
3	IO_L58N_3	AD1	
3	IO_L58P_3	AD2	
3	IO_L57N_3/VREF_3	AE4	
3	IO_L57P_3	AE5	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
3	IO_L56N_3	AC11	
3	IO_L56P_3	AC12	
3	IO_L55N_3	AD3	
3	IO_L55P_3	AE3	
3	IO_L54N_3	AE1	
3	IO_L54P_3	AE2	
3	IO_L53N_3	AC6	
3	IO_L53P_3	AC7	
3	IO_L52N_3	AF2	
3	IO_L52P_3	AF3	
3	IO_L51N_3/VREF_3	AF6	
3	IO_L51P_3	AG6	
3	IO_L50N_3	AD10	
3	IO_L50P_3	AD11	
3	IO_L49N_3	AG4	
3	IO_L49P_3	AG5	
3	IO_L48N_3	AF4	
3	IO_L48P_3	AG3	
3	IO_L47N_3	AC10	
3	IO_L47P_3	AD9	
3	IO_L46N_3	AG1	
3	IO_L46P_3	AG2	
3	IO_L45N_3/VREF_3	AG7	
3	IO_L45P_3	AH7	
3	IO_L44N_3	AC8	
3	IO_L44P_3	AD7	
3	IO_L43N_3	AH4	
3	IO_L43P_3	AH5	
3	IO_L42N_3	AH1	
3	IO_L42P_3	AH2	
3	IO_L41N_3	AE10	
3	IO_L41P_3	AE11	
3	IO_L40N_3	AJ6	
3	IO_L40P_3	AJ7	
3	IO_L39N_3/VREF_3	AH6	
3	IO_L39P_3	AJ5	
3	IO_L38N_3	AE8	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
3	IO_L38P_3	AE9	
3	IO_L37N_3	AH3	
3	IO_L37P_3	AJ3	
3	IO_L36N_3	AJ1	
3	IO_L36P_3	AJ2	
3	IO_L35N_3	AE6	
3	IO_L35P_3	AE7	
3	IO_L34N_3	AK6	
3	IO_L34P_3	AK7	
3	IO_L33N_3/VREF_3	AK3	
3	IO_L33P_3	AK4	
3	IO_L32N_3	AE12	
3	IO_L32P_3	AF12	
3	IO_L31N_3	AL5	
3	IO_L31P_3	AL6	
3	IO_L30N_3	AL3	
3	IO_L30P_3	AL4	
3	IO_L29N_3	AF10	
3	IO_L29P_3	AF11	
3	IO_L28N_3	AK2	
3	IO_L28P_3	AL2	
3	IO_L27N_3/VREF_3	AL7	
3	IO_L27P_3	AM6	
3	IO_L26N_3	AF7	
3	IO_L26P_3	AF8	
3	IO_L25N_3	AM4	
3	IO_L25P_3	AM5	
3	IO_L24N_3	AM1	
3	IO_L24P_3	AM2	
3	IO_L23N_3	AG10	
3	IO_L23P_3	AG11	
3	IO_L22N_3	AM7	
3	IO_L22P_3	AN7	
3	IO_L21N_3/VREF_3	AN5	
3	IO_L21P_3	AN6	
3	IO_L20N_3	AG8	
3	IO_L20P_3	AG9	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
3	IO_L19N_3	AM3	
3	IO_L19P_3	AN3	
3	IO_L18N_3	AN1	
3	IO_L18P_3	AN2	
3	IO_L17N_3	AG12	
3	IO_L17P_3	AH12	
3	IO_L16N_3	AP6	
3	IO_L16P_3	AP7	
3	IO_L15N_3/VREF_3	AP3	
3	IO_L15P_3	AP4	
3	IO_L14N_3	AH10	
3	IO_L14P_3	AH11	
3	IO_L13N_3	AR6	
3	IO_L13P_3	AR7	
3	IO_L12N_3	AR4	
3	IO_L12P_3	AR5	
3	IO_L11N_3	AH8	
3	IO_L11P_3	AH9	
3	IO_L10N_3	AR2	
3	IO_L10P_3	AR3	
3	IO_L09N_3/VREF_3	AP2	
3	IO_L09P_3	AR1	
3	IO_L08N_3	AJ10	
3	IO_L08P_3	AJ11	
3	IO_L07N_3	AT7	
3	IO_L07P_3	AT8	
3	IO_L72N_3	AT3	
3	IO_L72P_3	AT4	
3	IO_L71N_3	AJ12	
3	IO_L71P_3	AK12	
3	IO_L70N_3	AT1	
3	IO_L70P_3	AT2	
3	IO_L69N_3/VREF_3	AT6	
3	IO_L69P_3	AU6	
3	IO_L68N_3	AK10	
3	IO_L68P_3	AK11	
3	IO_L67N_3	AT5	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
3	IO_L67P_3	AU5	
3	IO_L66N_3	AU1	
3	IO_L66P_3	AU2	
3	IO_L65N_3	AJ9	
3	IO_L65P_3	AK8	
3	IO_L64N_3	AU8	
3	IO_L64P_3	AV8	
3	IO_L63N_3/VREF_3	AU7	
3	IO_L63P_3	AV7	
3	IO_L62N_3	AL8	
3	IO_L62P_3	AL9	
3	IO_L61N_3	AU3	
3	IO_L61P_3	AV2	
3	IO_L84N_3	AV6	
3	IO_L84P_3	AW5	
3	IO_L83N_3	AM8	
3	IO_L83P_3	AM9	
3	IO_L82N_3	AV4	
3	IO_L82P_3	AW4	
3	IO_L81N_3/VREF_3	AV3	
3	IO_L81P_3	AW3	
3	IO_L80N_3	AN9	
3	IO_L80P_3	AP8	
3	IO_L79N_3	AW1	
3	IO_L79P_3	AW2	
3	IO_L78N_3	AY7	
3	IO_L78P_3	AY8	
3	IO_L77N_3	AR8	
3	IO_L77P_3	AR9	
3	IO_L76N_3	AW7	
3	IO_L76P_3	AY6	
3	IO_L75N_3/VREF_3	AY3	
3	IO_L75P_3	AY4	
3	IO_L74N_3	AT9	
3	IO_L74P_3	AU9	
3	IO_L73N_3	AY5	
3	IO_L73P_3	BA5	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
3	IO_L06N_3	BA8	
3	IO_L06P_3	BB8	
3	IO_L05N_3	AW8	
3	IO_L05P_3	AW9	
3	IO_L04N_3	BA7	
3	IO_L04P_3	BB7	
3	IO_L03N_3/VREF_3	BA6	
3	IO_L03P_3	BB6	
3	IO_L02N_3	AY9	
3	IO_L02P_3	BA9	
3	IO_L01N_3/VRP_3	BA4	
3	IO_L01P_3/VRN_3	BB4	
4	IO_L01N_4/BUSY/DOUT ⁽¹⁾	AL11	
4	IO_L01P_4/INIT_B	AL12	
4	IO_L02N_4/D0/DIN ⁽¹⁾	AV10	
4	IO_L02P_4/D1	AU10	
4	IO_L03N_4/D2	AN11	
4	IO_L03P_4/D3	AM11	
4	IO_L05_4/No_Pair	AT10	
4	IO_L06N_4/VRP_4	AY11	
4	IO_L06P_4/VRN_4	AY10	
4	IO_L07N_4	BB10	
4	IO_L07P_4/VREF_4	BA10	
4	IO_L08N_4	AU11	
4	IO_L08P_4	AT11	
4	IO_L09N_4	AR11	
4	IO_L09P_4/VREF_4	AP11	
4	IO_L19N_4	AW11	
4	IO_L19P_4	AV11	
4	IO_L20N_4	BB11	
4	IO_L20P_4	BA11	
4	IO_L21N_4	AN12	
4	IO_L21P_4	AM12	
4	IO_L25N_4	AR13	
4	IO_L25P_4	AT12	
4	IO_L26N_4	AV12	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
4	IO_L26P_4	AU12	
4	IO_L27N_4	AR12	
4	IO_L27P_4/VREF_4	AP12	
4	IO_L28N_4	AW13	
4	IO_L28P_4	AW12	
4	IO_L29N_4	BA12	
4	IO_L29P_4	AY12	
4	IO_L30N_4	AN13	
4	IO_L30P_4	AM13	
4	IO_L34N_4	AU13	
4	IO_L34P_4	AT13	
4	IO_L35N_4	BA13	
4	IO_L35P_4	AY13	
4	IO_L36N_4	AM14	
4	IO_L36P_4/VREF_4	AL14	
4	IO_L76N_4	AR15	
4	IO_L76P_4	AT14	
4	IO_L77N_4	AV14	
4	IO_L77P_4	AU14	
4	IO_L78N_4	AP14	
4	IO_L78P_4	AN14	
4	IO_L79N_4	AW15	
4	IO_L79P_4	AY14	
4	IO_L80_4/No_Pair	BB14	
4	IO_L83_4/No_Pair	BA14	
4	IO_L84N_4	AM15	
4	IO_L84P_4	AL15	
4	IO_L85N_4	AT16	
4	IO_L85P_4	AT15	
4	IO_L86N_4	AV15	
4	IO_L86P_4	AU15	
4	IO_L87N_4	AP15	
4	IO_L87P_4/VREF_4	AN15	
4	IO_L37N_4	AY16	
4	IO_L37P_4	AY15	
4	IO_L38N_4	BB15	
4	IO_L38P_4	BA15	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
4	IO_L39N_4	AM16	
4	IO_L39P_4	AL16	
4	IO_L43N_4	AR17	
4	IO_L43P_4	AR16	
4	IO_L44N_4	AV16	
4	IO_L44P_4	AU16	
4	IO_L45N_4	AP16	
4	IO_L45P_4/VREF_4	AN16	
4	IO_L10N_4	AW17	NC
4	IO_L10P_4	AW16	NC
4	IO_L11N_4	BB16	NC
4	IO_L11P_4	BA16	NC
4	IO_L12N_4	AL18	NC
4	IO_L12P_4	AL17	NC
4	IO_L16N_4	AU17	NC
4	IO_L16P_4	AT17	NC
4	IO_L18N_4	BA17	NC
4	IO_L18P_4/VREF_4	AY17	NC
4	IO_L46N_4	AT19	
4	IO_L46P_4	AT18	
4	IO_L47N_4	AN17	
4	IO_L47P_4	AM17	
4	IO_L48N_4	AV18	
4	IO_L48P_4	AU18	
4	IO_L49N_4	AY19	
4	IO_L49P_4	AY18	
4	IO_L50_4/No_Pair	AM19	
4	IO_L53_4/No_Pair	AM18	
4	IO_L54N_4	BB18	
4	IO_L54P_4	BA18	
4	IO_L55N_4	AR20	
4	IO_L55P_4	AR19	
4	IO_L56N_4	AP18	
4	IO_L56P_4	AN18	
4	IO_L57N_4	AV19	
4	IO_L57P_4/VREF_4	AU19	
4	IO_L58N_4	AW20	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
4	IO_L58P_4	AW19	
4	IO_L59N_4	AP19	
4	IO_L59P_4	AN19	
4	IO_L60N_4	BB19	
4	IO_L60P_4	BA19	
4	IO_L64N_4	AU20	
4	IO_L64P_4	AT20	
4	IO_L65N_4	AL21	
4	IO_L65P_4	AL20	
4	IO_L66N_4	BA20	
4	IO_L66P_4/VREF_4	AY20	
4	IO_L67N_4	AR21	
4	IO_L67P_4	AP21	
4	IO_L68N_4	AN20	
4	IO_L68P_4	AM20	
4	IO_L69N_4	AU21	
4	IO_L69P_4/VREF_4	AT21	
4	IO_L73N_4	AW21	
4	IO_L73P_4	AV21	
4	IO_L74N_4/GCLK3S	AN21	
4	IO_L74P_4/GCLK2P	AM21	
4	IO_L75N_4/GCLK1S	BA21	
4	IO_L75P_4/GCLK0P	AY21	
5	IO_L75N_5/GCLK7S	AY22	
5	IO_L75P_5/GCLK6P	BA22	
5	IO_L74N_5/GCLK5S	AM22	
5	IO_L74P_5/GCLK4P	AN22	
5	IO_L73N_5	AV22	
5	IO_L73P_5	AW22	
5	IO_L69N_5/VREF_5	AT22	
5	IO_L69P_5	AU22	
5	IO_L68N_5	AM23	
5	IO_L68P_5	AN23	
5	IO_L67N_5	AP22	
5	IO_L67P_5	AR22	
5	IO_L66N_5/VREF_5	AY23	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
5	IO_L66P_5	BA23	
5	IO_L65N_5	AL23	
5	IO_L65P_5	AL22	
5	IO_L64N_5	AT23	
5	IO_L64P_5	AU23	
5	IO_L60N_5	BA24	
5	IO_L60P_5	BB24	
5	IO_L59N_5	AN24	
5	IO_L59P_5	AP24	
5	IO_L58N_5	AW24	
5	IO_L58P_5	AW23	
5	IO_L57N_5/VREF_5	AU24	
5	IO_L57P_5	AV24	
5	IO_L56N_5	AN25	
5	IO_L56P_5	AP25	
5	IO_L55N_5	AR24	
5	IO_L55P_5	AR23	
5	IO_L54N_5	BA25	
5	IO_L54P_5	BB25	
5	IO_L53_5/No_Pair	AM25	
5	IO_L50_5/No_Pair	AM24	
5	IO_L49N_5	AY25	
5	IO_L49P_5	AY24	
5	IO_L48N_5	AU25	
5	IO_L48P_5	AV25	
5	IO_L47N_5	AM26	
5	IO_L47P_5	AN26	
5	IO_L46N_5	AT25	
5	IO_L46P_5	AT24	
5	IO_L18N_5/VREF_5	AY26	NC
5	IO_L18P_5	BA26	NC
5	IO_L16N_5	AT26	NC
5	IO_L16P_5	AU26	NC
5	IO_L12N_5	AL26	NC
5	IO_L12P_5	AL25	NC
5	IO_L11N_5	BA27	NC
5	IO_L11P_5	BB27	NC

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
5	IO_L10N_5	AW27	NC
5	IO_L10P_5	AW26	NC
5	IO_L45N_5/VREF_5	AN27	
5	IO_L45P_5	AP27	
5	IO_L44N_5	AU27	
5	IO_L44P_5	AV27	
5	IO_L43N_5	AR27	
5	IO_L43P_5	AR26	
5	IO_L39N_5	AL27	
5	IO_L39P_5	AM27	
5	IO_L38N_5	BA28	
5	IO_L38P_5	BB28	
5	IO_L37N_5	AY28	
5	IO_L37P_5	AY27	
5	IO_L87N_5/VREF_5	AN28	
5	IO_L87P_5	AP28	
5	IO_L86N_5	AU28	
5	IO_L86P_5	AV28	
5	IO_L85N_5	AT28	
5	IO_L85P_5	AT27	
5	IO_L84N_5	AL28	
5	IO_L84P_5	AM28	
5	IO_L83_5/No_Pair	BA29	
5	IO_L80_5/No_Pair	BB29	
5	IO_L79N_5	AY29	
5	IO_L79P_5	AW28	
5	IO_L78N_5	AN29	
5	IO_L78P_5	AP29	
5	IO_L77N_5	AU29	
5	IO_L77P_5	AV29	
5	IO_L76N_5	AT29	
5	IO_L76P_5	AR28	
5	IO_L36N_5/VREF_5	AL29	
5	IO_L36P_5	AM29	
5	IO_L35N_5	AY30	
5	IO_L35P_5	BA30	
5	IO_L34N_5	AT30	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
5	IO_L34P_5	AU30	
5	IO_L30N_5	AM30	
5	IO_L30P_5	AN30	
5	IO_L29N_5	AY31	
5	IO_L29P_5	BA31	
5	IO_L28N_5	AW31	
5	IO_L28P_5	AW30	
5	IO_L27N_5/VREF_5	AP31	
5	IO_L27P_5	AR31	
5	IO_L26N_5	AU31	
5	IO_L26P_5	AV31	
5	IO_L25N_5	AT31	
5	IO_L25P_5	AR30	
5	IO_L21N_5	AM31	
5	IO_L21P_5	AN31	
5	IO_L20N_5	BA32	
5	IO_L20P_5	BB32	
5	IO_L19N_5	AV32	
5	IO_L19P_5	AW32	
5	IO_L09N_5/VREF_5	AP32	
5	IO_L09P_5	AR32	
5	IO_L08N_5	AT32	
5	IO_L08P_5	AU32	
5	IO_L07N_5/VREF_5	BA33	
5	IO_L07P_5	BB33	
5	IO_L06N_5/VRP_5	AY33	
5	IO_L06P_5/VRN_5	AY32	
5	IO_L05_5/No_Pair	AT33	
5	IO_L03N_5/D4	AM32	
5	IO_L03P_5/D5	AN32	
5	IO_L02N_5/D6	AU33	
5	IO_L02P_5/D7	AV33	
5	IO_L01N_5/RDWR_B	AL31	
5	IO_L01P_5/CS_B	AL32	
6	IO_L01P_6/VRN_6	BB39	
6	IO_L01N_6/VRP_6	BA39	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
6	IO_L02P_6	BA34	
6	IO_L02N_6	AY34	
6	IO_L03P_6	BB37	
6	IO_L03N_6/VREF_6	BA37	
6	IO_L04P_6	BB36	
6	IO_L04N_6	BA36	
6	IO_L05P_6	AW34	
6	IO_L05N_6	AW35	
6	IO_L06P_6	BB35	
6	IO_L06N_6	BA35	
6	IO_L73P_6	BA38	
6	IO_L73N_6	AY38	
6	IO_L74P_6	AU34	
6	IO_L74N_6	AT34	
6	IO_L75P_6	AY39	
6	IO_L75N_6/VREF_6	AY40	
6	IO_L76P_6	AY37	
6	IO_L76N_6	AW36	
6	IO_L77P_6	AR34	
6	IO_L77N_6	AR35	
6	IO_L78P_6	AY35	
6	IO_L78N_6	AY36	
6	IO_L79P_6	AW41	
6	IO_L79N_6	AW42	
6	IO_L80P_6	AP35	
6	IO_L80N_6	AN34	
6	IO_L81P_6	AW40	
6	IO_L81N_6/VREF_6	AV40	
6	IO_L82P_6	AW39	
6	IO_L82N_6	AV39	
6	IO_L83P_6	AM34	
6	IO_L83N_6	AM35	
6	IO_L84P_6	AW38	
6	IO_L84N_6	AV37	
6	IO_L61P_6	AV41	
6	IO_L61N_6	AU40	
6	IO_L62P_6	AL34	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
6	IO_L62N_6	AL35	
6	IO_L63P_6	AV36	
6	IO_L63N_6/VREF_6	AU36	
6	IO_L64P_6	AV35	
6	IO_L64N_6	AU35	
6	IO_L65P_6	AK35	
6	IO_L65N_6	AJ34	
6	IO_L66P_6	AU41	
6	IO_L66N_6	AU42	
6	IO_L67P_6	AU38	
6	IO_L67N_6	AT38	
6	IO_L68P_6	AK32	
6	IO_L68N_6	AK33	
6	IO_L69P_6	AU37	
6	IO_L69N_6/VREF_6	AT37	
6	IO_L70P_6	AT41	
6	IO_L70N_6	AT42	
6	IO_L71P_6	AK31	
6	IO_L71N_6	AJ31	
6	IO_L72P_6	AT39	
6	IO_L72N_6	AT40	
6	IO_L07P_6	AT35	
6	IO_L07N_6	AT36	
6	IO_L08P_6	AJ32	
6	IO_L08N_6	AJ33	
6	IO_L09P_6	AR42	
6	IO_L09N_6/VREF_6	AP41	
6	IO_L10P_6	AR40	
6	IO_L10N_6	AR41	
6	IO_L11P_6	AH34	
6	IO_L11N_6	AH35	
6	IO_L12P_6	AR38	
6	IO_L12N_6	AR39	
6	IO_L13P_6	AR36	
6	IO_L13N_6	AR37	
6	IO_L14P_6	AH32	
6	IO_L14N_6	AH33	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
6	IO_L15P_6	AP39	
6	IO_L15N_6/VREF_6	AP40	
6	IO_L16P_6	AP36	
6	IO_L16N_6	AP37	
6	IO_L17P_6	AH31	
6	IO_L17N_6	AG31	
6	IO_L18P_6	AN41	
6	IO_L18N_6	AN42	
6	IO_L19P_6	AN40	
6	IO_L19N_6	AM40	
6	IO_L20P_6	AG34	
6	IO_L20N_6	AG35	
6	IO_L21P_6	AN37	
6	IO_L21N_6/VREF_6	AN38	
6	IO_L22P_6	AN36	
6	IO_L22N_6	AM36	
6	IO_L23P_6	AG32	
6	IO_L23N_6	AG33	
6	IO_L24P_6	AM41	
6	IO_L24N_6	AM42	
6	IO_L25P_6	AM38	
6	IO_L25N_6	AM39	
6	IO_L26P_6	AF35	
6	IO_L26N_6	AF36	
6	IO_L27P_6	AM37	
6	IO_L27N_6/VREF_6	AL36	
6	IO_L28P_6	AL41	
6	IO_L28N_6	AK41	
6	IO_L29P_6	AF32	
6	IO_L29N_6	AF33	
6	IO_L30P_6	AL39	
6	IO_L30N_6	AL40	
6	IO_L31P_6	AL37	
6	IO_L31N_6	AL38	
6	IO_L32P_6	AF31	
6	IO_L32N_6	AE31	
6	IO_L33P_6	AK39	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
6	IO_L33N_6/VREF_6	AK40	
6	IO_L34P_6	AK36	
6	IO_L34N_6	AK37	
6	IO_L35P_6	AE36	
6	IO_L35N_6	AE37	
6	IO_L36P_6	AJ41	
6	IO_L36N_6	AJ42	
6	IO_L37P_6	AJ40	
6	IO_L37N_6	AH40	
6	IO_L38P_6	AE34	
6	IO_L38N_6	AE35	
6	IO_L39P_6	AJ38	
6	IO_L39N_6/VREF_6	AH37	
6	IO_L40P_6	AJ36	
6	IO_L40N_6	AJ37	
6	IO_L41P_6	AE32	
6	IO_L41N_6	AE33	
6	IO_L42P_6	AH41	
6	IO_L42N_6	AH42	
6	IO_L43P_6	AH38	
6	IO_L43N_6	AH39	
6	IO_L44P_6	AD36	
6	IO_L44N_6	AC35	
6	IO_L45P_6	AH36	
6	IO_L45N_6/VREF_6	AG36	
6	IO_L46P_6	AG41	
6	IO_L46N_6	AG42	
6	IO_L47P_6	AD34	
6	IO_L47N_6	AC33	
6	IO_L48P_6	AG40	
6	IO_L48N_6	AF39	
6	IO_L49P_6	AG38	
6	IO_L49N_6	AG39	
6	IO_L50P_6	AD32	
6	IO_L50N_6	AD33	
6	IO_L51P_6	AG37	
6	IO_L51N_6/VREF_6	AF37	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
6	IO_L52P_6	AF40	
6	IO_L52N_6	AF41	
6	IO_L53P_6	AC36	
6	IO_L53N_6	AC37	
6	IO_L54P_6	AE41	
6	IO_L54N_6	AE42	
6	IO_L55P_6	AE40	
6	IO_L55N_6	AD40	
6	IO_L56P_6	AC31	
6	IO_L56N_6	AC32	
6	IO_L57P_6	AE38	
6	IO_L57N_6/VREF_6	AE39	
6	IO_L58P_6	AD41	
6	IO_L58N_6	AD42	
6	IO_L59P_6	AB35	
6	IO_L59N_6	AB36	
6	IO_L60P_6	AD37	
6	IO_L60N_6	AD38	
6	IO_L85P_6	AC40	
6	IO_L85N_6	AC41	
6	IO_L86P_6	AB33	
6	IO_L86N_6	AB34	
6	IO_L87P_6	AC39	
6	IO_L87N_6/VREF_6	AB39	
6	IO_L88P_6	AB40	
6	IO_L88N_6	AB41	
6	IO_L89P_6	AB31	
6	IO_L89N_6	AB32	
6	IO_L90P_6	AB37	
6	IO_L90N_6	AB38	
7	IO_L90P_7	AA40	
7	IO_L90N_7	AA41	
7	IO_L89P_7	AA35	
7	IO_L89N_7	AA36	
7	IO_L88P_7	Y39	
7	IO_L88N_7/VREF_7	AA39	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
7	IO_L87P_7	AA37	
7	IO_L87N_7	AA38	
7	IO_L86P_7	AA33	
7	IO_L86N_7	AA34	
7	IO_L85P_7	Y40	
7	IO_L85N_7	Y41	
7	IO_L60P_7	W41	
7	IO_L60N_7	W42	
7	IO_L59P_7	AA31	
7	IO_L59N_7	AA32	
7	IO_L58P_7	V40	
7	IO_L58N_7/VREF_7	W40	
7	IO_L57P_7	W37	
7	IO_L57N_7	W38	
7	IO_L56P_7	Y36	
7	IO_L56N_7	Y37	
7	IO_L55P_7	V41	
7	IO_L55N_7	V42	
7	IO_L54P_7	V38	
7	IO_L54N_7	V39	
7	IO_L53P_7	Y31	
7	IO_L53N_7	Y32	
7	IO_L52P_7	U40	
7	IO_L52N_7/VREF_7	U41	
7	IO_L51P_7	T40	
7	IO_L51N_7	U39	
7	IO_L50P_7	Y35	
7	IO_L50N_7	W36	
7	IO_L49P_7	T37	
7	IO_L49N_7	U37	
7	IO_L48P_7	T41	
7	IO_L48N_7	T42	
7	IO_L47P_7	Y33	
7	IO_L47N_7	W34	
7	IO_L46P_7	T38	
7	IO_L46N_7/VREF_7	T39	
7	IO_L45P_7	R36	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
7	IO_L45N_7	T36	
7	IO_L44P_7	W32	
7	IO_L44N_7	W33	
7	IO_L43P_7	R41	
7	IO_L43N_7	R42	
7	IO_L42P_7	P40	
7	IO_L42N_7	R40	
7	IO_L41P_7	V36	
7	IO_L41N_7	V37	
7	IO_L40P_7	R38	
7	IO_L40N_7/VREF_7	R39	
7	IO_L39P_7	P38	
7	IO_L39N_7	R37	
7	IO_L38P_7	V34	
7	IO_L38N_7	V35	
7	IO_L37P_7	P41	
7	IO_L37N_7	P42	
7	IO_L36P_7	P36	
7	IO_L36N_7	P37	
7	IO_L35P_7	V32	
7	IO_L35N_7	V33	
7	IO_L34P_7	M41	
7	IO_L34N_7/VREF_7	N41	
7	IO_L33P_7	N39	
7	IO_L33N_7	N40	
7	IO_L32P_7	U35	
7	IO_L32N_7	U36	
7	IO_L31P_7	N36	
7	IO_L31N_7	N37	
7	IO_L30P_7	M39	
7	IO_L30N_7	M40	
7	IO_L29P_7	U32	
7	IO_L29N_7	U33	
7	IO_L28P_7	M37	
7	IO_L28N_7/VREF_7	M38	
7	IO_L27P_7	L37	
7	IO_L27N_7	M36	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
7	IO_L26P_7	V31	
7	IO_L26N_7	U31	
7	IO_L25P_7	L41	
7	IO_L25N_7	L42	
7	IO_L24P_7	K40	
7	IO_L24N_7	L40	
7	IO_L23P_7	T34	
7	IO_L23N_7	T35	
7	IO_L22P_7	L38	
7	IO_L22N_7/VREF_7	L39	
7	IO_L21P_7	K36	
7	IO_L21N_7	L36	
7	IO_L20P_7	T32	
7	IO_L20N_7	T33	
7	IO_L19P_7	K41	
7	IO_L19N_7	K42	
7	IO_L18P_7	K37	
7	IO_L18N_7	K38	
7	IO_L17P_7	R34	
7	IO_L17N_7	R35	
7	IO_L16P_7	H42	
7	IO_L16N_7/VREF_7	J41	
7	IO_L15P_7	J39	
7	IO_L15N_7	J40	
7	IO_L14P_7	R32	
7	IO_L14N_7	R33	
7	IO_L13P_7	J36	
7	IO_L13N_7	J37	
7	IO_L12P_7	H40	
7	IO_L12N_7	H41	
7	IO_L11P_7	T31	
7	IO_L11N_7	R31	
7	IO_L10P_7	H38	
7	IO_L10N_7/VREF_7	H39	
7	IO_L09P_7	H36	
7	IO_L09N_7	H37	
7	IO_L08P_7	P34	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
7	IO_L08N_7	N35	
7	IO_L07P_7	G41	
7	IO_L07N_7	G42	
7	IO_L72P_7	G39	
7	IO_L72N_7	G40	
7	IO_L71P_7	P32	
7	IO_L71N_7	P33	
7	IO_L70P_7	F38	
7	IO_L70N_7/VREF_7	G38	
7	IO_L69P_7	F37	
7	IO_L69N_7	G37	
7	IO_L68P_7	N32	
7	IO_L68N_7	N33	
7	IO_L67P_7	G35	
7	IO_L67N_7	G36	
7	IO_L66P_7	F41	
7	IO_L66N_7	F42	
7	IO_L65P_7	P31	
7	IO_L65N_7	N31	
7	IO_L64P_7	E41	
7	IO_L64N_7/VREF_7	F40	
7	IO_L63P_7	E36	
7	IO_L63N_7	F36	
7	IO_L62P_7	M34	
7	IO_L62N_7	M35	
7	IO_L61P_7	E35	
7	IO_L61N_7	F35	
7	IO_L84P_7	D40	
7	IO_L84N_7	E40	
7	IO_L83P_7	L34	
7	IO_L83N_7	L35	
7	IO_L82P_7	D39	
7	IO_L82N_7/VREF_7	E39	
7	IO_L81P_7	D38	
7	IO_L81N_7	E37	
7	IO_L80P_7	K34	
7	IO_L80N_7	J35	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
7	IO_L79P_7	D41	
7	IO_L79N_7	D42	
7	IO_L78P_7	C39	
7	IO_L78N_7	C40	
7	IO_L77P_7	H34	
7	IO_L77N_7	H35	
7	IO_L76P_7	C37	
7	IO_L76N_7/VREF_7	D36	
7	IO_L75P_7	B38	
7	IO_L75N_7	C38	
7	IO_L74P_7	F34	
7	IO_L74N_7	G34	
7	IO_L73P_7	C35	
7	IO_L73N_7	C36	
7	IO_L06P_7	A39	
7	IO_L06N_7	B39	
7	IO_L05P_7	D34	
7	IO_L05N_7	D35	
7	IO_L04P_7	A37	
7	IO_L04N_7/VREF_7	B37	
7	IO_L03P_7	A36	
7	IO_L03N_7	B36	
7	IO_L02P_7	B34	
7	IO_L02N_7	C34	
7	IO_L01P_7/VRN_7	A35	
7	IO_L01N_7/VRP_7	B35	
7	VCCO_7	W39	
7	VCCO_7	P39	
7	VCCO_7	K39	
7	VCCO_7	F39	
7	VCCO_7	D37	
7	VCCO_7	W35	
7	VCCO_7	P35	
7	VCCO_7	K35	
7	VCCO_7	M33	
7	VCCO_7	H33	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
7	VCCO_7	AA29	
7	VCCO_7	Y29	
7	VCCO_7	W29	
7	VCCO_7	V29	
7	VCCO_7	U29	
7	VCCO_7	T29	
7	VCCO_7	R29	
7	VCCO_7	AA28	
7	VCCO_7	Y28	
7	VCCO_7	W28	
7	VCCO_7	V28	
7	VCCO_7	U28	
7	VCCO_7	T28	
6	VCCO_6	AU39	
6	VCCO_6	AN39	
6	VCCO_6	AJ39	
6	VCCO_6	AD39	
6	VCCO_6	AW37	
6	VCCO_6	AN35	
6	VCCO_6	AJ35	
6	VCCO_6	AD35	
6	VCCO_6	AR33	
6	VCCO_6	AL33	
6	VCCO_6	AH29	
6	VCCO_6	AG29	
6	VCCO_6	AF29	
6	VCCO_6	AE29	
6	VCCO_6	AD29	
6	VCCO_6	AC29	
6	VCCO_6	AB29	
6	VCCO_6	AG28	
6	VCCO_6	AF28	
6	VCCO_6	AE28	
6	VCCO_6	AD28	
6	VCCO_6	AC28	
6	VCCO_6	AB28	
5	VCCO_5	AW33	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
5	VCCO_5	AL30	
5	VCCO_5	AW29	
5	VCCO_5	AR29	
5	VCCO_5	AJ26	
5	VCCO_5	AW25	
5	VCCO_5	AR25	
5	VCCO_5	AJ25	
5	VCCO_5	AH25	
5	VCCO_5	AJ24	
5	VCCO_5	AH24	
5	VCCO_5	AJ23	
5	VCCO_5	AH23	
5	VCCO_5	AJ22	
5	VCCO_5	AH22	
4	VCCO_4	AJ21	
4	VCCO_4	AH21	
4	VCCO_4	AJ20	
4	VCCO_4	AH20	
4	VCCO_4	AJ19	
4	VCCO_4	AH19	
4	VCCO_4	AW18	
4	VCCO_4	AR18	
4	VCCO_4	AJ18	
4	VCCO_4	AH18	
4	VCCO_4	AJ17	
4	VCCO_4	AW14	
4	VCCO_4	AR14	
4	VCCO_4	AL13	
4	VCCO_4	AW10	
3	VCCO_3	AG15	
3	VCCO_3	AF15	
3	VCCO_3	AE15	
3	VCCO_3	AD15	
3	VCCO_3	AC15	
3	VCCO_3	AB15	
3	VCCO_3	AH14	
3	VCCO_3	AG14	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
3	VCCO_3	AF14	
3	VCCO_3	AE14	
3	VCCO_3	AD14	
3	VCCO_3	AC14	
3	VCCO_3	AB14	
3	VCCO_3	AR10	
3	VCCO_3	AL10	
3	VCCO_3	AN8	
3	VCCO_3	AJ8	
3	VCCO_3	AD8	
3	VCCO_3	AW6	
3	VCCO_3	AU4	
3	VCCO_3	AN4	
3	VCCO_3	AJ4	
3	VCCO_3	AD4	
2	VCCO_2	AA15	
2	VCCO_2	Y15	
2	VCCO_2	W15	
2	VCCO_2	V15	
2	VCCO_2	U15	
2	VCCO_2	T15	
2	VCCO_2	AA14	
2	VCCO_2	Y14	
2	VCCO_2	W14	
2	VCCO_2	V14	
2	VCCO_2	U14	
2	VCCO_2	T14	
2	VCCO_2	R14	
2	VCCO_2	M10	
2	VCCO_2	H10	
2	VCCO_2	W8	
2	VCCO_2	P8	
2	VCCO_2	K8	
2	VCCO_2	D6	
2	VCCO_2	W4	
2	VCCO_2	P4	
2	VCCO_2	K4	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
2	VCCO_2	F4	
1	VCCO_1	R21	
1	VCCO_1	P21	
1	VCCO_1	R20	
1	VCCO_1	P20	
1	VCCO_1	R19	
1	VCCO_1	P19	
1	VCCO_1	R18	
1	VCCO_1	P18	
1	VCCO_1	H18	
1	VCCO_1	D18	
1	VCCO_1	P17	
1	VCCO_1	H14	
1	VCCO_1	D14	
1	VCCO_1	M13	
1	VCCO_1	D10	
0	VCCO_0	D33	
0	VCCO_0	M30	
0	VCCO_0	H29	
0	VCCO_0	D29	
0	VCCO_0	P26	
0	VCCO_0	R25	
0	VCCO_0	P25	
0	VCCO_0	H25	
0	VCCO_0	D25	
0	VCCO_0	R24	
0	VCCO_0	P24	
0	VCCO_0	R23	
0	VCCO_0	P23	
0	VCCO_0	R22	
0	VCCO_0	P22	
N/A	CCLK	AM10	
N/A	PROG_B	J33	
N/A	DONE	AN10	
N/A	M0	AP33	
N/A	M1	AN33	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
N/A	M2	AM33	
N/A	TCK	K10	
N/A	TDI	M32	
N/A	TDO	M11	
N/A	TMS	L10	
N/A	PWRDWN_B	AP10	
N/A	HSWAP_EN	K33	
N/A	RSVD	J10	
N/A	VBATT	M12	
N/A	DXP	M31	
N/A	DXN	L33	
N/A	VCCINT	AK30	
N/A	VCCINT	N30	
N/A	VCCINT	AJ29	
N/A	VCCINT	P29	
N/A	VCCINT	AJ28	
N/A	VCCINT	AH28	
N/A	VCCINT	R28	
N/A	VCCINT	P28	
N/A	VCCINT	AJ27	
N/A	VCCINT	AH27	
N/A	VCCINT	AG27	
N/A	VCCINT	AF27	
N/A	VCCINT	AE27	
N/A	VCCINT	AD27	
N/A	VCCINT	AC27	
N/A	VCCINT	AB27	
N/A	VCCINT	AA27	
N/A	VCCINT	Y27	
N/A	VCCINT	W27	
N/A	VCCINT	V27	
N/A	VCCINT	U27	
N/A	VCCINT	T27	
N/A	VCCINT	R27	
N/A	VCCINT	P27	
N/A	VCCINT	AH26	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
N/A	VCCINT	AG26	
N/A	VCCINT	AF26	
N/A	VCCINT	U26	
N/A	VCCINT	T26	
N/A	VCCINT	R26	
N/A	VCCINT	AG25	
N/A	VCCINT	T25	
N/A	VCCINT	AG24	
N/A	VCCINT	T24	
N/A	VCCINT	AG23	
N/A	VCCINT	T23	
N/A	VCCINT	AG22	
N/A	VCCINT	T22	
N/A	VCCINT	AG21	
N/A	VCCINT	T21	
N/A	VCCINT	AG20	
N/A	VCCINT	T20	
N/A	VCCINT	AG19	
N/A	VCCINT	T19	
N/A	VCCINT	AG18	
N/A	VCCINT	T18	
N/A	VCCINT	AH17	
N/A	VCCINT	AG17	
N/A	VCCINT	AF17	
N/A	VCCINT	U17	
N/A	VCCINT	T17	
N/A	VCCINT	R17	
N/A	VCCINT	AJ16	
N/A	VCCINT	AH16	
N/A	VCCINT	AG16	
N/A	VCCINT	AF16	
N/A	VCCINT	AE16	
N/A	VCCINT	AD16	
N/A	VCCINT	AC16	
N/A	VCCINT	AB16	
N/A	VCCINT	AA16	
N/A	VCCINT	Y16	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
N/A	VCCINT	W16	
N/A	VCCINT	V16	
N/A	VCCINT	U16	
N/A	VCCINT	T16	
N/A	VCCINT	R16	
N/A	VCCINT	P16	
N/A	VCCINT	AJ15	
N/A	VCCINT	AH15	
N/A	VCCINT	R15	
N/A	VCCINT	P15	
N/A	VCCINT	AJ14	
N/A	VCCINT	P14	
N/A	VCCINT	AK13	
N/A	VCCINT	N13	
N/A	VCCAUX	BA42	
N/A	VCCAUX	AY42	
N/A	VCCAUX	AL42	
N/A	VCCAUX	AB42	
N/A	VCCAUX	AA42	
N/A	VCCAUX	M42	
N/A	VCCAUX	C42	
N/A	VCCAUX	B42	
N/A	VCCAUX	BB41	
N/A	VCCAUX	A41	
N/A	VCCAUX	BB40	
N/A	VCCAUX	A40	
N/A	VCCAUX	BB31	
N/A	VCCAUX	A31	
N/A	VCCAUX	BB22	
N/A	VCCAUX	A22	
N/A	VCCAUX	BB21	
N/A	VCCAUX	A21	
N/A	VCCAUX	BB12	
N/A	VCCAUX	A12	
N/A	VCCAUX	BB3	
N/A	VCCAUX	A3	
N/A	VCCAUX	BB2	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
N/A	VCCAUX	A2	
N/A	VCCAUX	BA1	
N/A	VCCAUX	AY1	
N/A	VCCAUX	AL1	
N/A	VCCAUX	AB1	
N/A	VCCAUX	AA1	
N/A	VCCAUX	M1	
N/A	VCCAUX	C1	
N/A	VCCAUX	B1	
N/A	GND	AV42	
N/A	GND	AP42	
N/A	GND	AK42	
N/A	GND	AF42	
N/A	GND	AC42	
N/A	GND	Y42	
N/A	GND	U42	
N/A	GND	N42	
N/A	GND	J42	
N/A	GND	E42	
N/A	GND	BA41	
N/A	GND	AY41	
N/A	GND	C41	
N/A	GND	B41	
N/A	GND	BA40	
N/A	GND	B40	
N/A	GND	BB38	
N/A	GND	AV38	
N/A	GND	AP38	
N/A	GND	AK38	
N/A	GND	AF38	
N/A	GND	AC38	
N/A	GND	Y38	
N/A	GND	U38	
N/A	GND	N38	
N/A	GND	J38	
N/A	GND	E38	
N/A	GND	A38	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
N/A	GND	BB34	
N/A	GND	AV34	
N/A	GND	AP34	
N/A	GND	AK34	
N/A	GND	AF34	
N/A	GND	AC34	
N/A	GND	Y34	
N/A	GND	U34	
N/A	GND	N34	
N/A	GND	J34	
N/A	GND	E34	
N/A	GND	A34	
N/A	GND	AD31	
N/A	GND	W31	
N/A	GND	BB30	
N/A	GND	AV30	
N/A	GND	AP30	
N/A	GND	J30	
N/A	GND	E30	
N/A	GND	A30	
N/A	GND	BB26	
N/A	GND	AV26	
N/A	GND	AP26	
N/A	GND	AE26	
N/A	GND	AD26	
N/A	GND	AC26	
N/A	GND	AB26	
N/A	GND	AA26	
N/A	GND	Y26	
N/A	GND	W26	
N/A	GND	V26	
N/A	GND	J26	
N/A	GND	E26	
N/A	GND	A26	
N/A	GND	AF25	
N/A	GND	AE25	
N/A	GND	AD25	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
N/A	GND	AC25	
N/A	GND	AB25	
N/A	GND	AA25	
N/A	GND	Y25	
N/A	GND	W25	
N/A	GND	V25	
N/A	GND	U25	
N/A	GND	AL24	
N/A	GND	AF24	
N/A	GND	AE24	
N/A	GND	AD24	
N/A	GND	AC24	
N/A	GND	AB24	
N/A	GND	AA24	
N/A	GND	Y24	
N/A	GND	W24	
N/A	GND	V24	
N/A	GND	U24	
N/A	GND	M24	
N/A	GND	BB23	
N/A	GND	AV23	
N/A	GND	AP23	
N/A	GND	AF23	
N/A	GND	AE23	
N/A	GND	AD23	
N/A	GND	AC23	
N/A	GND	AB23	
N/A	GND	AA23	
N/A	GND	Y23	
N/A	GND	W23	
N/A	GND	V23	
N/A	GND	U23	
N/A	GND	J23	
N/A	GND	E23	
N/A	GND	A23	
N/A	GND	AF22	
N/A	GND	AE22	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
N/A	GND	AD22	
N/A	GND	AC22	
N/A	GND	AB22	
N/A	GND	AA22	
N/A	GND	Y22	
N/A	GND	W22	
N/A	GND	V22	
N/A	GND	U22	
N/A	GND	AF21	
N/A	GND	AE21	
N/A	GND	AD21	
N/A	GND	AC21	
N/A	GND	AB21	
N/A	GND	AA21	
N/A	GND	Y21	
N/A	GND	W21	
N/A	GND	V21	
N/A	GND	U21	
N/A	GND	BB20	
N/A	GND	AV20	
N/A	GND	AP20	
N/A	GND	AF20	
N/A	GND	AE20	
N/A	GND	AD20	
N/A	GND	AC20	
N/A	GND	AB20	
N/A	GND	AA20	
N/A	GND	Y20	
N/A	GND	W20	
N/A	GND	V20	
N/A	GND	U20	
N/A	GND	J20	
N/A	GND	E20	
N/A	GND	A20	
N/A	GND	AL19	
N/A	GND	AF19	
N/A	GND	AE19	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
N/A	GND	AD19	
N/A	GND	AC19	
N/A	GND	AB19	
N/A	GND	AA19	
N/A	GND	Y19	
N/A	GND	W19	
N/A	GND	V19	
N/A	GND	U19	
N/A	GND	M19	
N/A	GND	AF18	
N/A	GND	AE18	
N/A	GND	AD18	
N/A	GND	AC18	
N/A	GND	AB18	
N/A	GND	AA18	
N/A	GND	Y18	
N/A	GND	W18	
N/A	GND	V18	
N/A	GND	U18	
N/A	GND	BB17	
N/A	GND	AV17	
N/A	GND	AP17	
N/A	GND	AE17	
N/A	GND	AD17	
N/A	GND	AC17	
N/A	GND	AB17	
N/A	GND	AA17	
N/A	GND	Y17	
N/A	GND	W17	
N/A	GND	V17	
N/A	GND	J17	
N/A	GND	E17	
N/A	GND	A17	
N/A	GND	BB13	
N/A	GND	AV13	
N/A	GND	AP13	
N/A	GND	J13	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
N/A	GND	E13	
N/A	GND	A13	
N/A	GND	AD12	
N/A	GND	W12	
N/A	GND	BB9	
N/A	GND	AV9	
N/A	GND	AP9	
N/A	GND	AK9	
N/A	GND	AF9	
N/A	GND	AC9	
N/A	GND	Y9	
N/A	GND	U9	
N/A	GND	N9	
N/A	GND	J9	
N/A	GND	E9	
N/A	GND	A9	
N/A	GND	BB5	
N/A	GND	AV5	
N/A	GND	AP5	
N/A	GND	AK5	
N/A	GND	AF5	
N/A	GND	AC5	
N/A	GND	Y5	
N/A	GND	U5	
N/A	GND	N5	
N/A	GND	J5	
N/A	GND	E5	
N/A	GND	A5	
N/A	GND	BA3	
N/A	GND	B3	
N/A	GND	BA2	
N/A	GND	AY2	
N/A	GND	C2	
N/A	GND	B2	
N/A	GND	AV1	
N/A	GND	AP1	
N/A	GND	AK1	

Table 14: FF1696 — XC2VP100

Bank	Pin Description	Pin Number	No Connects
			XC2VP100
N/A	GND	AF1	
N/A	GND	AC1	
N/A	GND	Y1	
N/A	GND	U1	
N/A	GND	N1	
N/A	GND	J1	
N/A	GND	E1	

Notes:

1. See [Table 4](#) for an explanation of the signals available on this pin.

FF1696 Flip-Chip Fine-Pitch BGA Package Specifications (1.00mm pitch)



Figure 10: FF1696 Flip-Chip Fine-Pitch BGA Package Specifications

Revision History

This section records the change history for this module of the data sheet.

Date	Version	Revision
01/31/02	1.0	Initial Xilinx release.
08/14/02	2.0	Added package and pinout information for new devices.
08/27/02	2.1	- Updated SelectIO-Ultra information in Table 4. (Table deleted in v2.3.) - Corrected direction for RXNPAD and TXPPAD in Table 4 (formerly Table 5).
09/27/02	2.2	Corrected Table 2 and Table 3 entries for XC2VP30, FF1152 package, maximum I/Os from 692 to 644.
11/20/02	2.3	Added Number of Differential Pairs data to Table 3 . Removed former Table 4.
12/03/02	2.4	Corrections in Table 4 : - Reclassified GCLKx (S/P) pins as Input/Output, since these pins can be used as normal I/Os if not used as clocks. - Added cautionary note to PWRDWN_B pin, indicating that this function is not supported.
01/20/03	2.5	Added and removed package/pinout information for existing devices: - In Table 1, added FG676 package information. - In Table 3, added FG676 package option for XC2VP20, XC2VP30, and XC2VP40. - In Table 12, removed FF1517 package option for XC2VP40. - Added FG676 package pinouts (Table 7) for XC2VP20, XC2VP30, and XC2VP40. - Added package diagram (Figure 3) for FG676 package.
05/19/03	2.5.1	- Added section BREFCLK Pin Definitions, page 5. - Added clarification to Table 4 and all device pinout tables regarding the dual-use nature of pins D0/DIN and BUSY/DOUT during configuration.
06/19/03	2.5.3	- Added notation of "open-drain" to TDO pin in Table 4. - The final GND pin in each of six pinout tables was inadvertently deleted in v2.5.1. This revision restores the deleted GND pins as follows: - Pin A1, Table 6, page 16 (FG456) - Pin AF26, Table 7, page 30 (FG676) - Pin AN34, Table 10, page 98 (FF1152) - Pin E1, Table 11, page 130 (FF1148) - Pin C38, Table 12, page 162 (FF1517) - Pin E1, Table 14, page 253 (FF1696)
08/25/03	2.5.5	Table 4: Deleted Note 2, obsolete. There is only one GNDA pin per MGT. Table 4: Deleted pins ALT_VRP and ALT_VRN. Not used in Virtex-II Pro FPGAs.
12/10/03	3.0	XC2VP2 through XC2VP70 speed grades -5, -6, and -7, and XC2VP100 speed grades -5 and -6, are released to Production status .
02/19/04	3.1	Table 4, signal descriptions column: - For signals TDI, TMS, and TCK, added: Pins are 3.3V-compatible. - For signals M2, M1, M0, added: Tie to 3.3V only with 100Ω series resistor. No toggling during or after configuration. - For signal TDO, added: No internal pull-up. External pull-up to 3.3V OK with resistor greater than 200Ω.
03/09/04	3.1.1	Recompiled for backward compatibility with Acrobat 4 and above. No content changes.
06/30/04	4.0	Merged in DS110-4 (Module 4 of Virtex-II Pro X data sheet). Added data on available Pb-free packages and updated package diagrams for affected devices.

Date	Version	Revision
11/17/04	4.1	Table 4: Added requirement to V_{BATT} to connect pin to V_{CCAUX} or GND if battery is not used.
03/01/05	4.2	Table 3: Corrected number of Differential I/O Pairs for XC2VP30-FF1152 from 340 to 316. Table 4: Changed Direction for User I/O pins (IO_LXXY_#) from “Input/Output” to “Input/Output/Bidirectional”.
06/20/05	4.3	<i>No changes in Module 4 for this revision.</i>
09/15/05	4.4	<i>No changes in Module 4 for this revision.</i>
10/10/05	4.5	<i>No changes in Module 4 for this revision.</i>
03/05/07	4.6	Figure 2, page 29: Corrected NOTE 3. Figure 7, page 161: Updated with drawing showing correct heat sink profile and detail.
11/05/07	4.7	Updated copyright notice and legal disclaimer.
06/21/11	5.0	Added <i>Product Not Recommended for New Designs</i> banner. Updated Figure 3, page 50 , with the newest FG676/FGG676 mechanical drawing.

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Virtex-II Pro Data Sheet

The Virtex-II Pro Data Sheet contains the following modules:

- Virtex-II Pro and Virtex-II Pro X Platform FPGAs: Introduction and Overview (Module 1)
- Virtex-II Pro and Virtex-II Pro X Platform FPGAs: Functional Description (Module 2)
- Virtex-II Pro and Virtex-II Pro X Platform FPGAs: DC and Switching Characteristics (Module 3)
- Virtex-II Pro and Virtex-II Pro X Platform FPGAs: Pinout Information (Module 4)