

FT256: 256-lead Fine-pitch Thin Ball

Table 95: FT256 Package Pinout (Continued) **Grid Array****Pinout Table**

Bank	XC3S200 XC3S400 XC3S1000 Pin Name	FT256 Pin Number	Type	Signal Name
0	IO	A5	I/O	DATA_IO_ETH(7)
0	IO	A7	I/O	DATA_IO_ETH(6)
0	IO/VREF_0	A3	VREF	DATA_IO_ETH(5)
0	IO/VREF_0	D5	VREF	DATA_CNTR_ETH(7)
0	IO_L01N_0/VRP_0	B4	DCI	DATA_IO_ETH(4)
0	IO_L01P_0/VRN_0	A4	DCI	DATA_IO_ETH(0)
0	IO_L25N_0	C5	I/O	DATA_IO_ETH(3)
0	IO_L25P_0	B5	I/O	DATA_IO_ETH(1)
0	IO_L27N_0	E6	I/O	DATA_CNTR_ETH(6)
0	IO_L27P_0	D6	I/O	DATA_CNTR_ETH(3)
0	IO_L28N_0	C6	I/O	DATA_CNTR_ETH(5)
0	IO_L28P_0	B6	I/O	DATA_IO_ETH(2)
0	IO_L29N_0	E7	I/O	DATA_CNTR_ETH(4)
0	IO_L29P_0	D7	I/O	DATA_CNTR_ETH(2)
0	IO_L30N_0	C7	I/O	DATA_CNTR_ETH(0)
0	IO_L30P_0	B7	I/O	NC
0	IO_L31N_0	D8	I/O	ETH_RSTI
0	IO_L31P_0/VREF_0	C8	VREF	DATA_CNTR_ETH(1)
0	IO_L32N_0/GCLK7	B8	GCLK	NC
0	IO_L32P_0/GCLK6	A8	GCLK	CLK_25MHZ
0	VCCO_0	E8	VCCO	3.3V
0	VCCO_0	F7	VCCO	3.3V
0	VCCO_0	F8	VCCO	3.3V
1	IO	A9	I/O	DATA_STRB_USB(2)
1	IO	A12	I/O	DATA_STRB_USB(1)
1	IO	C10	I/O	DATA_STRB_USB(0)
1	IO/VREF_1	D12	VREF	NC
1	IO_L01N_1/VRP_1	A14	DCI	DATA_IO_USB(7)
1	IO_L01P_1/VRN_1	B14	DCI	DATA_IO_USB(4)
1	IO_L10N_1/VREF_1	A13	VREF	DATA_IO_USB(1)
1	IO_L10P_1	B13	I/O	DATA_IO_USB(6)
1	IO_L27N_1	B12	I/O	DATA_IO_USB(3)
1	IO_L27P_1	C12	I/O	DATA_IO_USB(0)
1	IO_L28N_1	D11	I/O	START_FBn
1	IO_L28P_1	E11	I/O	START_FBp
1	IO_L29N_1	B11	I/O	DATA_IO_USB(5)
1	IO_L29P_1	C11	I/O	DATA_IO_USB(2)
1	IO_L30N_1	D10	I/O	BCO_FBn
1	IO_L30P_1	E10	I/O	BCO_FBp
1	IO_L31N_1/VREF_1	A10	VREF	NC
1	IO_L31P_1	B10	I/O	NC
1	IO_L32N_1/GCLK5	C9	GCLK	NC
1	IO_L32P_1/GCLK4	D9	GCLK	NC
1	VCCO_1	E9	VCCO	3.3V
1	VCCO_1	F9	VCCO	3.3V
1	VCCO_1	F10	VCCO	3.3V
2	IO	G16	I/O	Command_VME[2]
2	IO_L01N_2/VRP_2	B16	DCI	LVL1_Accept_VME
2	IO_L01P_2/VRN_2	C16	DCI	FPGA_Addr_VME[0]
2	IO_L16N_2	C15	I/O	FPGA_Addr_VME[1]
2	IO_L16P_2	D14	I/O	FPGA_Addr_VME[2]
2	IO_L17N_2	D15	I/O	NC
2	IO_L17P_2/VREF_2	D16	VREF	TCK_VME
2	IO_L19N_2	E13	I/O	Command_VME[6]
2	IO_L19P_2	E14	I/O	TDO_VME
2	IO_L20N_2	E15	I/O	TDI_VME
2	IO_L20P_2	E16	I/O	Command_VME[7]
2	IO_L21N_2	F12	I/O	TMS_VME
2	IO_L21P_2	F13	I/O	TRST_VME

Bank	XC3S200 XC3S400 XC3S1000 Pin Name	FT256 Pin Number	Type	Signal Name
2	IO_L22N_2	F14	I/O	Command_VME[5]
2	IO_L22P_2	F15	I/O	FEM_Addr_VME[3]
2	IO_L23N_2/VREF_2	G12	VREF	FEM_Addr_VME[2]
2	IO_L23P_2	G13	I/O	FEM_Addr_VME[1]
2	IO_L24N_2	G14	I/O	FEM_Addr_VME[0]
2	IO_L24P_2	G15	I/O	SC_DI_VME
2	IO_L39N_2	H13	I/O	Command_VME[4]
2	IO_L39P_2	H14	I/O	Command_VME[3]
2	IO_L40N_2	H15	I/O	Command_VME[1]
2	IO_L40P_2/VREF_2	H16	VREF	Command_VME[0]
2	VCCO_2	G11	VCCO	3.3V
2	VCCO_2	H11	VCCO	3.3V
2	VCCO_2	H12	VCCO	3.3V
3	IO	K15	I/O	SC_CS_VME
3	IO_L01N_3/VRP_3	P16	DCI	Mode_Bits_VME[1]
3	IO_L01P_3/VRN_3	R16	DCI	Mode_Bits_VME[0]
3	IO_L16N_3	P15	I/O	Mode_Bits_VME[3]
3	IO_L16P_3	P14	I/O	Mode_Bits_VME[2]
3	IO_L17N_3	N16	I/O	Mode_Bits_VME[5]
3	IO_L17P_3/VREF_3	N15	VREF	Mode_Bits_VME[4]
3	IO_L19N_3	M14	I/O	Mode_Bits_VME[7]
3	IO_L19P_3	N14	I/O	Mode_Bits_VME[6]
3	IO_L20N_3	M16	I/O	Mode_Enable_VME
3	IO_L20P_3	M15	I/O	Addr_VME[1]
3	IO_L21N_3	L13	I/O	Addr_VME[0]
3	IO_L21P_3	M13	I/O	Addr_VME[3]
3	IO_L22N_3	L15	I/O	Addr_VME[2]
3	IO_L22P_3	L14	I/O	Addr_VME[5]
3	IO_L23N_3	K12	I/O	Addr_VME[4]
3	IO_L23P_3/VREF_3	L12	VREF	Addr_VME[7]
3	IO_L24N_3	K14	I/O	Addr_VME[6]
3	IO_L24P_3	K13	I/O	NC
3	IO_L39N_3	J14	I/O	SC_DO_VME
3	IO_L39P_3	J13	I/O	NC
3	IO_L40N_3/VREF_3	J16	VREF	ScLk_VME
3	IO_L40P_3	K16	I/O	NC
3	VCCO_3	J11	VCCO	3.3V
3	VCCO_3	J12	VCCO	3.3V
3	VCCO_3	K11	VCCO	3.3V
4	IO	T12	I/O	NC
4	IO	T14	I/O	NC
4	IO/VREF_4	N12	VREF	ERROR
4	IO/VREF_4	P13	VREF	NC
4	IO/VREF_4	T10	VREF	FULL
4	IO_L01N_4/VRP_4	R13	DCI	SC_LED[7]
4	IO_L01P_4/VRN_4	T13	DCI	SC_LED[6]
4	IO_L25N_4	P12	I/O	SC_LED[5]
4	IO_L25P_4	R12	I/O	SC_LED[4]
4	IO_L27N_4/DIN/D0	M11	DUAL	PROM_DO
4	IO_L27P_4/D1	N11	DUAL	NC
4	IO_L28N_4	P11	I/O	SC_LED[3]
4	IO_L28P_4	R11	I/O	SC_LED[2]
4	IO_L29N_4	M10	I/O	SC_LED[1]
4	IO_L29P_4	N10	I/O	SC_LED[0]
4	IO_L30N_4/D2	P10	DUAL	NC
4	IO_L30P_4/D3	R10	DUAL	NC
4	IO_L31N_4/INIT_B	N9	DUAL	PROM_RSTn
4	IO_L31P_4/DOUT/BUSY	P9	DUAL	NC
4	IO_L32N_4/GCLK1	R9	GCLK	EMPTY
4	IO_L32P_4/GCLK0	T9	GCLK	LOCKED
4	VCCO_4	L9	VCCO	3.3V
4	VCCO_4	L10	VCCO	3.3V
4	VCCO_4	M9	VCCO	3.3V

Bank	XC3S200 XC3S400 XC3S1000 Pin Name	FT256 Pin Number	Type	Signal Name
5	IO	N5	I/O	TEST_OUT(14)
5	IO	P7	I/O	TEST_OUT(15)
5	IO	T5	I/O	NC
5	IO/VREF_5	T8	VREF	NC
5	IO_L01N_5/RDWR_B	T3	DUAL	TEST_OUT(1)
5	IO_L01P_5/CS_B	R3	DUAL	TEST_OUT(13)
5	IO_L10N_5/VRP_5	T4	DCI	TEST_OUT(0)
5	IO_L10P_5/VRN_5	R4	DCI	TEST_OUT(11)
5	IO_L27N_5/VREF_5	R5	VREF	TEST_OUT(9)
5	IO_L27P_5	P5	I/O	TEST_OUT(12)
5	IO_L28N_5/D6	N6	DUAL	TEST_OUT(10)
5	IO_L28P_5/D7	M6	DUAL	TEST_OUT(8)
5	IO_L29N_5	R6	I/O	TEST_OUT(2)
5	IO_L29P_5/VREF_5	P6	VREF	TEST_OUT(7)
5	IO_L30N_5	N7	I/O	TEST_OUT(4)
5	IO_L30P_5	M7	I/O	TEST_OUT(6)
5	IO_L31N_5/D4	T7	DUAL	NC
5	IO_L31P_5/D5	R7	DUAL	TEST_OUT(3)
5	IO_L32N_5/GCLK3	P8	GCLK	TEST_OUT(5)
5	IO_L32P_5/GCLK2	N8	GCLK	BCO_CLKx4
5	VCCO_5	L7	VCCO	3.3V
5	VCCO_5	L8	VCCO	3.3V
5	VCCO_5	M8	VCCO	3.3V
6	IO	K1	I/O	USE_ETH
6	IO_L01N_6/VRP_6	R1	DCI	FEM_ADR_SW[3]
6	IO_L01P_6/VRN_6	P1	DCI	TDI_JTAG
6	IO_L16N_6	P2	I/O	FEM_ADR_SW[2]
6	IO_L16P_6	N3	I/O	FEM_ADR_SW[1]
6	IO_L17N_6	N2	I/O	TDO_JTAG
6	IO_L17P_6/VREF_6	N1	VREF	FEM_ADR_SW[0]
6	IO_L19N_6	M4	I/O	BCO_CLKOUTn
6	IO_L19P_6	M3	I/O	BCO_CLKOUTp
6	IO_L20N_6	M2	I/O	TMS_JTAG
6	IO_L20P_6	M1	I/O	BCO_CLK_VME
6	IO_L21N_6	L5	I/O	MAIN_RESET
6	IO_L21P_6	L4	I/O	BCO_CLK
6	IO_L22N_6	L3	I/O	TCK_JTAG
6	IO_L22P_6	L2	I/O	NC
6	IO_L23N_6	K5	I/O	NC
6	IO_L23P_6	K4	I/O	NC
6	IO_L24N_6/VREF_6	K3	VREF	FPGA_Addr_SW[2]
6	IO_L24P_6	K2	I/O	FPGA_Addr_SW[1]
6	IO_L39N_6	J4	I/O	START_n
6	IO_L39P_6	J3	I/O	START_p
6	IO_L40N_6	J2	I/O	TRST_JTAG
6	IO_L40P_6/VREF_6	J1	VREF	FPGA_Addr_SW[0]
6	VCCO_6	J5	VCCO	2.5V
6	VCCO_6	J6	VCCO	2.5V
6	VCCO_6	K6	VCCO	2.5V
7	IO	G2	I/O	GLINK_RSTn
7	IO_L01N_7/VRP_7	C1	DCI	Mode_Bits(1)
7	IO_L01P_7/VRN_7	B1	DCI	Mode_Bits(0)
7	IO_L16N_7	C2	I/O	Mode_Bits(3)
7	IO_L16P_7/VREF_7	C3	VREF	Mode_Bits(2)
7	IO_L17N_7	D1	I/O	Mode_Bits(5)
7	IO_L17P_7	D2	I/O	Mode_Bits(4)
7	IO_L19N_7/VREF_7	E3	VREF	Mode_Bits(7)
7	IO_L19P_7	D3	I/O	Mode_Bits(6)
7	IO_L20N_7	E1	I/O	NC
7	IO_L20P_7	E2	I/O	Mode_Enable
7	IO_L21N_7	F4	I/O	DAVn
7	IO_L21P_7	E4	I/O	CAVn
7	IO_L22N_7	F2	I/O	LVL1_Accept

Bank	XC3S200 XC3S400 XC3S1000 Pin Name	FT256 Pin Number	Type	Signal Name
7	IO_L22P_7	F3	I/O	LINKn
7	IO_L23N_7	G5	I/O	EN_DAT(1)
7	IO_L23P_7	F5	I/O	GLINK_ERR
7	IO_L24N_7	G3	I/O	EN_DAT(0)
7	IO_L24P_7	G4	I/O	FLAG
7	IO_L39N_7	H3	I/O	NC
7	IO_L39P_7	H4	I/O	USER_BIT(2)
7	IO_L40N_7/VREF_7	H1	VREF	USER_BIT(1)
7	IO_L40P_7	G1	I/O	USER_BIT(0)
7	VCCO_7	G6	VCCO	3.3V
7	VCCO_7	H5	VCCO	3.3V
7	VCCO_7	H6	VCCO	3.3V
N/A	GND	A1	GND	
N/A	GND	A16	GND	
N/A	GND	B2	GND	
N/A	GND	B9	GND	
N/A	GND	B15	GND	
N/A	GND	F6	GND	
N/A	GND	F11	GND	
N/A	GND	G7	GND	
N/A	GND	G8	GND	
N/A	GND	G9	GND	
N/A	GND	G10	GND	
N/A	GND	H2	GND	
N/A	GND	H7	GND	
N/A	GND	H8	GND	
N/A	GND	H9	GND	
N/A	GND	H10	GND	
N/A	GND	J7	GND	
N/A	GND	J8	GND	
N/A	GND	J9	GND	
N/A	GND	J10	GND	
N/A	GND	J15	GND	
N/A	GND	K7	GND	
N/A	GND	K8	GND	
N/A	GND	K9	GND	
N/A	GND	K10	GND	
N/A	GND	L6	GND	
N/A	GND	L11	GND	
N/A	GND	R2	GND	
N/A	GND	R8	GND	
N/A	GND	R15	GND	
N/A	GND	T1	GND	
N/A	GND	T16	GND	
N/A	VCCAUX	A6	VCCAUX	2.5V
N/A	VCCAUX	A11	VCCAUX	2.5V
N/A	VCCAUX	F1	VCCAUX	2.5V
N/A	VCCAUX	F16	VCCAUX	2.5V
N/A	VCCAUX	L1	VCCAUX	2.5V
N/A	VCCAUX	L16	VCCAUX	2.5V
N/A	VCCAUX	T6	VCCAUX	2.5V
N/A	VCCAUX	T11	VCCAUX	2.5V
N/A	VCCINT	D4	VCCINT	1.2V
N/A	VCCINT	D13	VCCINT	1.2V
N/A	VCCINT	E5	VCCINT	1.2V
N/A	VCCINT	E12	VCCINT	1.2V
N/A	VCCINT	M5	VCCINT	1.2V

Table 95: FT256 Package Pinout (Continued)

Bank	XC3S200 XC3S400 XC3S1000 Pin Name	FT256 Pin Number	Type	Signal Name
N/A	VCCINT	M12	VCCINT	1.2V
N/A	VCCINT	N4	VCCINT	1.2V
N/A	VCCINT	N13	VCCINT	1.2V
VCCAUX	CCLK	T15	CONFIG	PROM_CLK
VCCAUX	DONE	R14	CONFIG	PROM_CEn
VCCAUX	HSWAP_EN	C4	CONFIG	R to GND
VCCAUX	M0	P3	CONFIG	R to GND
VCCAUX	M1	T2	CONFIG	R to GND
VCCAUX	M2	P4	CONFIG	R to GND
VCCAUX	PROG_B	B3	CONFIG	PROM_CFn
VCCAUX	TCK	C14	JTAG	TCK_X
VCCAUX	TDI	A2	JTAG	TDI_X
VCCAUX	TDO	A15	JTAG	TDO_3
VCCAUX	TMS	C13	JTAG	TMS_X