

BST4VSX55 Series Product Manual

Product Overview

BST4VSX55 is a high-performance military FPGA with tens of millions of gates .The core power supply voltage of this FPGA is 1.2V , the I/O power supply voltage is 1.5 ~ 3.3V , and the system clock frequency can reach up to 400Mz . It has 55,296 programmable logic units and 24576 slices ; the storage resources include 384 distributed RAMs and 320 embedded 18Kb BRAMs ; the clock resources include 32 BUFGs , 32 pairs of global clock input pins, 8 DCMs , and 4 PMCDs ; there are 512 embedded DSPs ; the maximum number of available I/Os is 640 , which can also be used as 320 pairs of differential I/Os , the number of package pins is 1148 , and the ESD resistance is 2000V .

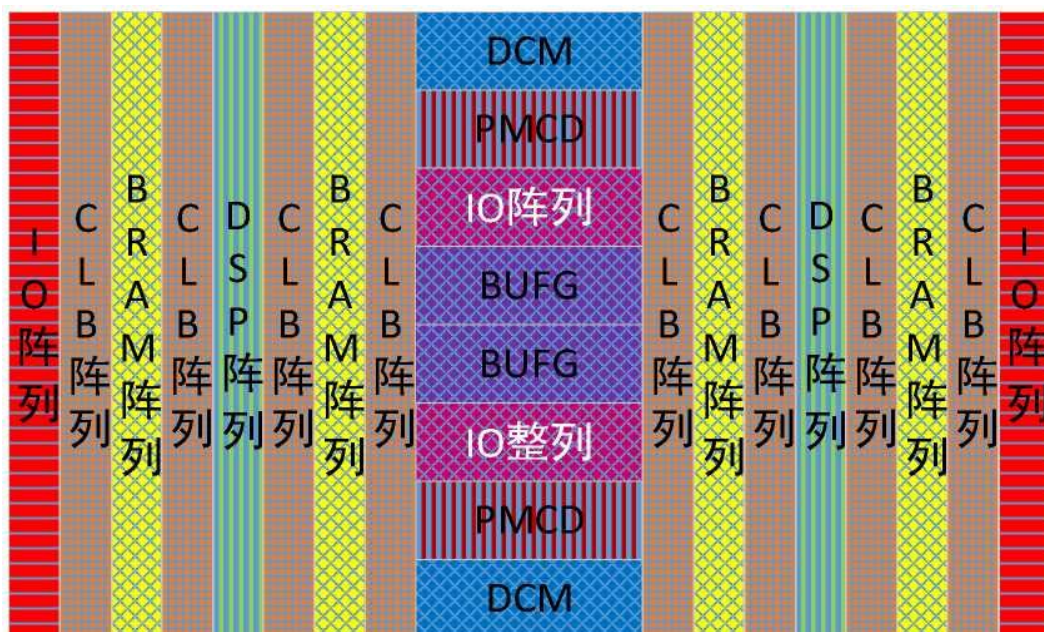
Its main parameters are as follows:

Table 1 BST4VSX55 main parameters

product	Configurable logic blocks CLB				Digital Signal Processing	Memory Block RAM		Digital Clock Manager	Phase-matched clock dividers	Input and output interface group total	Maximum number of user input and output interfaces
	Array RowX List	Logical Unit	Slicenumber	Maximum distribution()		Modules	maximum()				
BST4VXS55	128x48	55296	24576	384	512	320	5760	8	4	13	640

Functional Block

Overall architecture



The functional block diagram of BST4VSX55 is shown in the figure :

Figure 1 BST4VSX55 functional block diagram

Configurable logic blocks CLB

Ordering Information

Table 1 Ordering information

Product Model	Lead material	Package	Package Type	Dimensions (mm)	weight
BST4VSX55-10CF1148M	Sn10Pb90	CF-CCGA1148		35*35*8.5	W 29g
BST4VSX55-10FF1148	SAC305	FC-BGA1148	Non-hermetic packaging	35*35*3.11	< 11g
BST4VSX55-10FF1148N	Pb37Sn63				