

BST 4000 Spectrum Parameter Product Brochure

Product Overview

The BST4000 series FPGA is a field programmable gate array with available gates ranging from 5,000 to 36,000. Regular, flexible programmable configurable logic blocks (CLBs) are interconnected and routed through efficient hierarchical multi-purpose routing resources. It has sufficient wiring resources to meet the most complex

The largest device has 1296 CLBs and 3168 registers.

Maximum user I/O is up to 288.

It has a JTAG port that complies with the IEEE 1149.1 standard boundary scan protocol and has multiple configuration modes.

Download configuration data to the internal storage unit to achieve user-customized functions and support online system programming.

You can rely on efficient and mature software to support all aspects of user design, including circuit diagram or behavioral level input input, floor planning, simulation, automatic place and route to create, download and read back of configuration data flow.

Scope of application

Can be widely used in various digital fields, such as: digital circuit design, microprocessor system, digital signal processing

It has advanced applications in general logic functions.

System programming and testing capabilities.

Product features

- SRAM memory: On-chip integrated high-speed RAM
- Large capacity trigger

- Flexible function generator
- Dedicated high-speed carry logic
- Broadside decoder
- Internal three-state bus
- Eight global low-skew clock and signal distribution networks
- System frequency exceeds 30MHz
- Compatible with IEEE1149.1 boundary scan protocol
- Programmable input pull-up/pull-down resistors
- 12mA sink current/each pin
- Unlimited reprogramming
- With readback function

Development system suitable for various common platforms

Table 1 BST4000 series FPGA

model	Maximum Logic Edit available Door (not included)	maximum RAM bits (excluding logic (Editor)	Typical available door range Surround (Logical and RAM)	CLB total	register total	Maximum users I/O	Package
BST4005E 5,000	5,000	6,272	3,000~9,000	196	616	112	CPGA156
BST4010E 10,00	10,000	12,800	7,000~20,000	400	1,120	160	CPGA191
BST4013E 13,00	13,000	18,432 10,0	10,000~30,000	576	1,536	192	CPGA223
BST4025E 25,00	25,000	32,768 15,0	15,000~45,000	1,024	2,560	256	CPGA299
BST4028EX 28,00	28,000	32,768 18,0	18,000~50,000	1,024	2,560	256	CPGA299
BST4036XL 36,00	36,000	41,472 22,0	22,000-65,000	1,296	3,168	288	CQFP240

Product ordering information

model	Package name Mod	el full name	Temperature range
BST4005E	PGA156	BST4005E-4PG156M	-55°C~125°C
BST4010E	PGA191	BST4010E-4PG191M	
BST4013E	PGA223	BST4013E-4PG223M	
BST4028EX BGA	23	BST4028EX-4PG299M	-55°C ~125°C