

BST14144CPLD

Product Brochure

Ver. 5.0

Product Overview

BST14144 is a high-density, high-performance complex programmable logic device (CPLD) based on the "product term" principle, with 3200 available gates; core power supply voltage is 3.3V/5V, I/O voltage is 3.3V/5V; the number of logic arrays (FB) is 8, with 144 trigger resources; operating temperature range is -55℃~+125℃, Pin-to-Pin maximum delay time: 10ns, maximum system frequency is 93.3MHz; ESD protection is not less than 4000V.

Table 1Basic product information

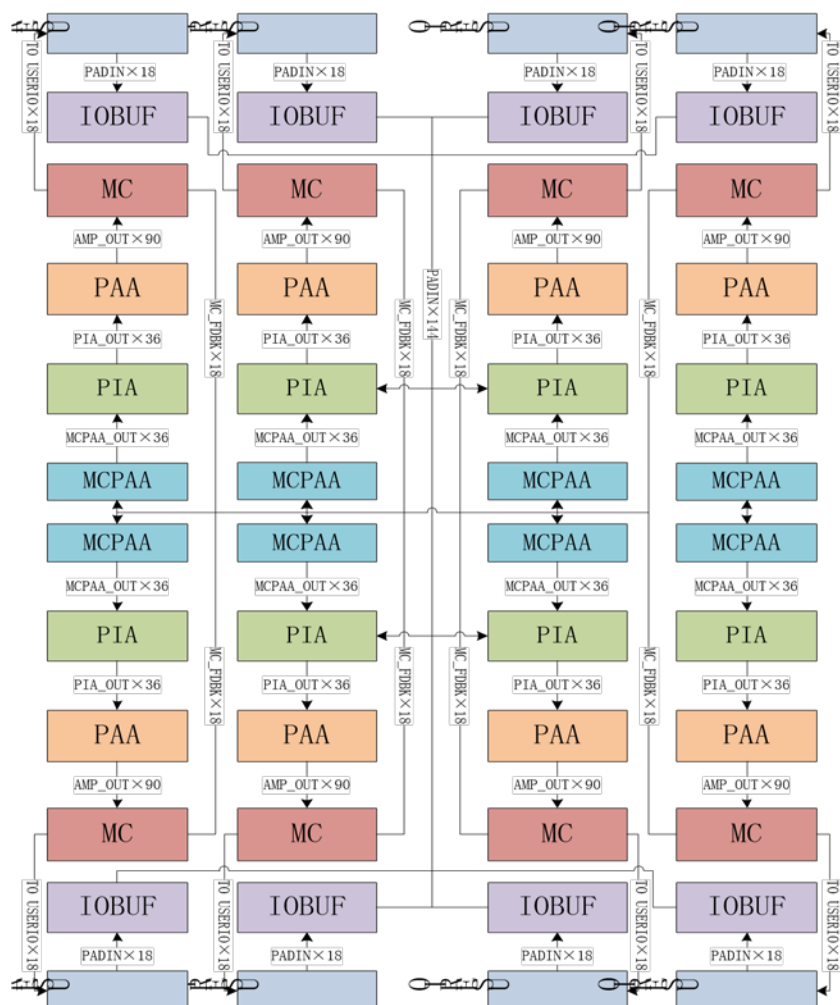
Product Model	BST14144-15MCQ CQFP100	BST14144MCQC Q FP160	BST14144-10MT QFP100N	BST14144-10MPQ FP100N
Detailed specification number	Q/BST20303-2017	Q/BST20303-2017	Q/BST20211-2015	Q/BST20259-2016
Package	CQFP100 (ceramic)	CQFP160	TQFP100 (Plastic)	PQFP100 (Plastic)
Quality Assurance Level	Comply with GJB597B-2012 B-level	Comply with GJB597B-2012 B-level	Comply with GJB7400-2011 N-level	Comply with GJB7400-2011 N-level
Available IO number	81	133	81	81
Macrocell	144			
Available doors	3200			

TPD(ns)	10
FCNT(MHz)	93.3

Product features

- 5V in-system programming capability based on IEEE Std.1149.1JTAG protocol;
- Compatible with Xilinx burning software IMPACT to perform JTAG operations on the chip;
- The core power supply voltage is 5V/3.3V, and the IO voltage is 5V/3.3V;
- Maximum pin delay of 10ns;
- The 16-bit counter frequency Fcnt (same FB) can reach up to 93.3Mhz;
- In the same FB, 90 Product Terms can drive any macro cell (MC);
- The power consumption mode of each macro cell can be independently programmed to reduce its power consumption by 20% or more;
- Each output can configure its slew rate;
- Support hot-swap;
- ESD protection is greater than or equal to 4000V;
- Macrocell registers can be programmed for independent clear, set, clock, and clock enable control;
- Programmable device encryption bits protect user designs;
- It has three invertible global clocks;
- Unconfigured pins can be configured to be grounded;

Functional Block Diagram



Picture1 BST14144Block Diagram

Ordering Information

model	Package Name	Packaging materials	Quality Grade	General Specifications	Detailed specification number	Product Status
BST14144-15MCQCQFP100	CQFP100	ceramics	B-level	GJB597B-2012	Q/BST20303-2017	Mass production
BST14144MCQCQFP160	CQFP160	ceramics	B-level	GJB597B-2012	Q/BST20303-2017	Mass production

BST14144-10MTQFP100N	TQFP100	plastic	N-level	GJB7400-2011	Q/BST20211-2015	Mass production
BST14144-10MPQFP100N	PQFP100	plastic	N-level	GJB7400-2011	Q/BST20259-2016	Mass production