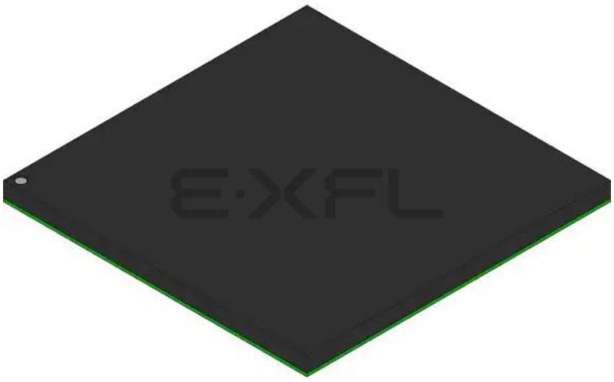

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Understanding Embedded - FPGAs (Field Programmable Gate Array)

Embedded - FPGAs, or Field Programmable Gate Arrays, are advanced integrated circuits that offer unparalleled flexibility and performance for digital systems. Unlike traditional fixed-function logic devices, FPGAs can be programmed and reprogrammed to execute a wide array of logical operations, enabling customized functionality tailored to specific applications. This reprogrammability allows developers to iterate designs quickly and implement complex functions without the need for custom hardware.

Applications of Embedded - FPGAs

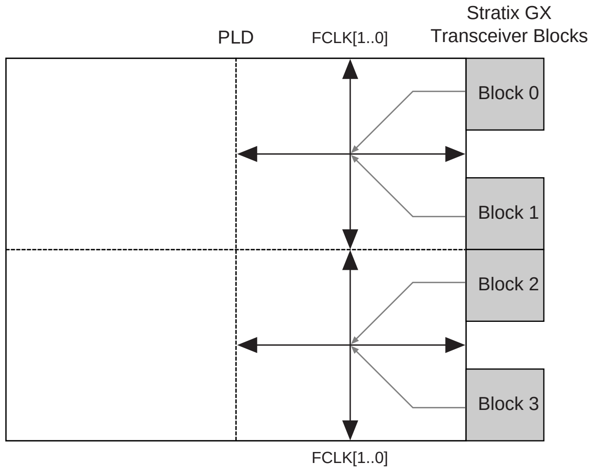
The versatility of Embedded - FPGAs makes them indispensable in numerous fields. In telecommunications.

Details	
Product Status	Active
Number of LABs/CLBs	-
Number of Logic Elements/Cells	-
Total RAM Bits	-
Number of I/O	455
Number of Gates	-
Voltage - Supply	1.425V ~ 1.575V
Mounting Type	Surface Mount
Operating Temperature	-40°C ~ 100°C (TJ)
Package / Case	672-BBGA, FCBGA
Supplier Device Package	672-FBGA (27x27)
Purchase URL	https://www.e-xfl.com/pro/item?MUrl=&PartUrl=ep1sgx25cf672i6n

Email: info@E-XFL.COM

Address: Room A, 16/F, Full Win Commercial Centre, 573 Nathan Road, Mongkok, Hong Kong

Figure 2–29. EP1SGX25 Receiver PLL Recovered Clock to Fast Regional Clock Connection



In the EP1SGX40 device, the receiver PLL recovered clocks from transceivers 0 and 1 drive `RCLK[1..0]` while transceivers 2, 3, and 4 drive `RCLK[7..6]`. The regional clocks feed logic in their associated regions.