The Intel® Agilex™ FPGA family brings together the power of Intel’s 10 nm process technology, 3D heterogeneous system-in-package (SiP) integration with Intel’s proprietary Embedded Multi-Die Interconnect Bridge (EMIB), and an innovative chiplet-based architecture to deliver customized connectivity and acceleration for a variety of applications.

The new architecture allows the FPGA fabric to be combined with purpose-built tiles, such as transceivers, processor interfaces, optimized I/O, custom computing, Intel eASIC™ devices, and many other functions to create solutions that are uniquely optimized for each application.

From the edge through the network to the cloud, an explosion of data is driving the need for flexibility and agility in the products that process, move, and store data. Advances in analytics are compelling hardware systems to cope with evolving standards, support varying workloads, and integrate multiple functions.
### Intel® Agilex™ FPGA Series

#### F-SERIES
For wide range of applications
- Up to 58G transceivers
- PCIe® Gen4
- DDR4 SDRAM
- Quad-core Arm® Cortex*-A53 SoC option

#### I-SERIES
For high-performance processor interface and bandwidth-intensive applications
- Up to 112G transceivers
- PCIe Gen5
- DDR4 SDRAM
- Quad-core Arm Cortex-A53 SoC
- Compute Express Link (CXL) to Intel® Xeon® Scalable processor option

#### M-SERIES
For compute-intensive applications
- Up to 112G transceivers
- PCIe Gen5
- DDR5 and Intel Optane™ DC persistent memory support
- Quad-core Arm Cortex-A53 SoC
- Compute Express Link (CXL) to Intel Xeon Scalable processor option
- High Bandwidth Memory option

### Intel Agilex FPGAs – Key Attributes

<table>
<thead>
<tr>
<th>KEY ATTRIBUTES</th>
<th>Description</th>
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<tbody>
<tr>
<td>Compute Express Link (CXL)</td>
<td>First FPGA with a cache and memory coherent interconnect to Intel Xeon® scalable processors for high-speed, low-latency and efficient performance between CPU and FPGA.</td>
</tr>
<tr>
<td>Transceiver data rates</td>
<td>Support up to 112 Gbps data rates for data intensive applications and hardened media access control, physical coding sublayer (PCS), and forward error correction (FEC) up to 400 Gbps Ethernet (GbE) for networking applications.</td>
</tr>
<tr>
<td>Hardened PCIe PCI Express® (PCIe®) Gen5 support</td>
<td>2X higher bandwidth compared with PCIe Gen4 interface allows for higher data throughput.†</td>
</tr>
<tr>
<td>2nd generation Intel Hyperflex™ FPGA Architecture</td>
<td>Enables significant design optimization to deliver up to 40% higher performance, or up to 40% lower total power compared with Intel Stratix® 10 FPGAs.†</td>
</tr>
<tr>
<td>DSP innovation</td>
<td>Hardened BFLOAT16 and up to 40 tera floating point operations per second (TFLOPS)² of digital signal processing (DSP) performance (FP16) for higher performance/watt.</td>
</tr>
<tr>
<td>Advanced memory support</td>
<td>Industry’s only FPGA to support industry standard DDR5, high-bandwidth memory (HBM), and Intel Optane™ DC persistent memory support.</td>
</tr>
<tr>
<td>Intel eASIC™ devices</td>
<td>Structured ASIC solutions with reusable intellectual property (IP) cores provide a custom logic continuum to enable scaling while saving on cost and power.</td>
</tr>
</tbody>
</table>

### For More Information
- Intel Agilex FPGA homepage: [www.intel.com/agilex](http://www.intel.com/agilex)
- Compute Express Link: [www.computeexpresslink.org](http://www.computeexpresslink.org)
- Contact an Intel sales representative for inquiries

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† Tests measure performance of components on a particular test, in specific systems. Differences in hardware, software, or configuration will affect actual performance.

1 Compared to Intel Stratix® 10 FPGAs
2 With FP16 configuration
3 Based on current estimates

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