



# ISSI Terasic Solution for High-Performance Search

Integrated Silicon Solution, Inc. (ISSI) is a leading Fabless semiconductor company that designs DRAM, Asynchronous SRAM/High Speed Memory (QUAD, Synch SRAM, RLDRAM 2/3), Flash, Analog and Mixed-Signal products. ISSI provides a broad portfolio of high quality products coupled with long term support.

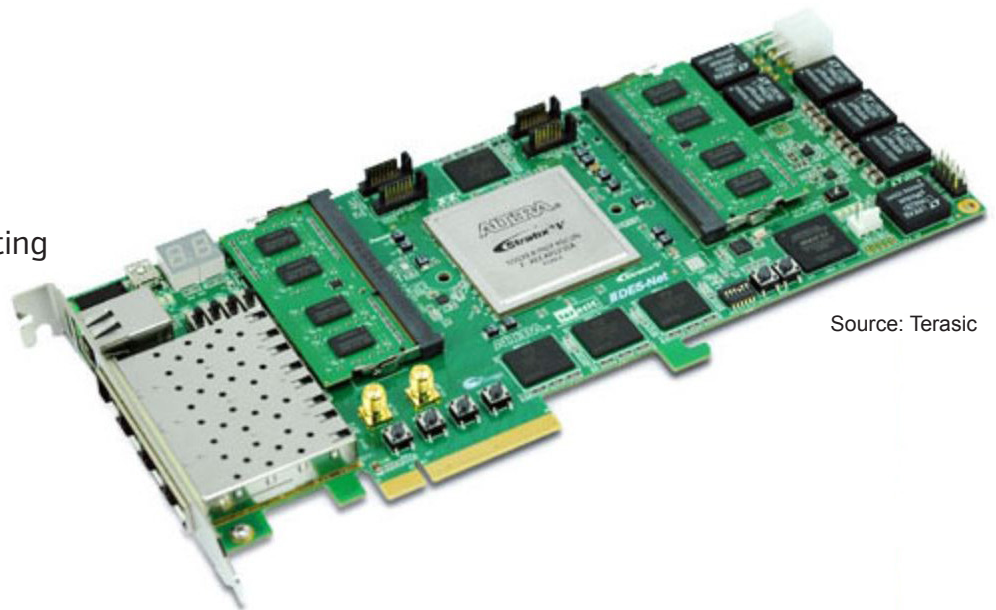
ISSI is pleased to introduce a reference design to showcase high performance, deterministic and ultra-low latency (less than 200ns) search solution using Field Programmable Gate Arrays (FPGAs) and ISSI memories. The reference design is implemented on a Terasic Altera Stratix V Reference Design board, full-height, 3/4-length

form-factor package, using ISSI [DDR3 DRAMs](#) or ISSI [QUAD SRAMs](#). The reference design is to demonstrate 100G IP Forwarding and OpenFlow Access Control List (ACL) and can be used by customers to validate the functionality and performance of the design in an actual FPGA.

If you are looking for flexible architecture and low-power, low-cost search solutions in applications such as network processing, low-latency trading, cloud computing, high-performance computing, data acquisition, and signal processing, then please contact us at [hsm@issi.com](mailto:hsm@issi.com) for more information.

## ► APPLICATIONS:

- Network processing
- Low-latency trading
- Cloud computing
- High-performance computing
- Data acquisition
- Signal processing



Source: Terasic

## Serving Major Market Segments with Quality and Long-Term Support



Automotive



Communications



Medical



Industrial

# Long-Term Support

## DRAM



**RLDRAM<sup>®2</sup>**  
**RLDRAM<sup>®3</sup>**

**SDRAM**  
SDR, DDR,  
DDR2, DDR3, DDR4

**Mobile**  
LP SDRAM,  
LPDDR, LPDDR2

**MCPs**  
LPDDR2 +  
Serial NOR Flash

**Legacy DRAM**  
3.3V and 5V, EDO/FP

## SRAM



**Legacy SRAMs**  
64Kb-8Mb, 5V

**High Speed/Low  
Power Async SRAM**  
Up to 16Mb

**Pseudo SRAMs/  
HyperRAM™**  
8Mb-128Mb

**High-Performance  
Sync / QUAD SRAMs**  
2Mb-72Mb

## FLASH



**Densities**  
256K - 256Mb

**Interface**  
Serial:  
SPI, Dual/Quad SPI,  
Multi- I/O SPI,  
DTR- SPI,  
QPI support  
Parallel:  
FWH/ISA/X29GL  
HyperFlash™

**Voltage**  
3V, 2.5V, 1.8V

## ANALOG



**Audio**  
Class AB, Class D,  
Class G Amplifiers

**FxLED**  
RGB LED Drivers

**HBLED**  
Linear & DC/DC  
LED Drivers

**Sensor**  
Touch, Proximity,  
Gesture

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Communications



Medical



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