

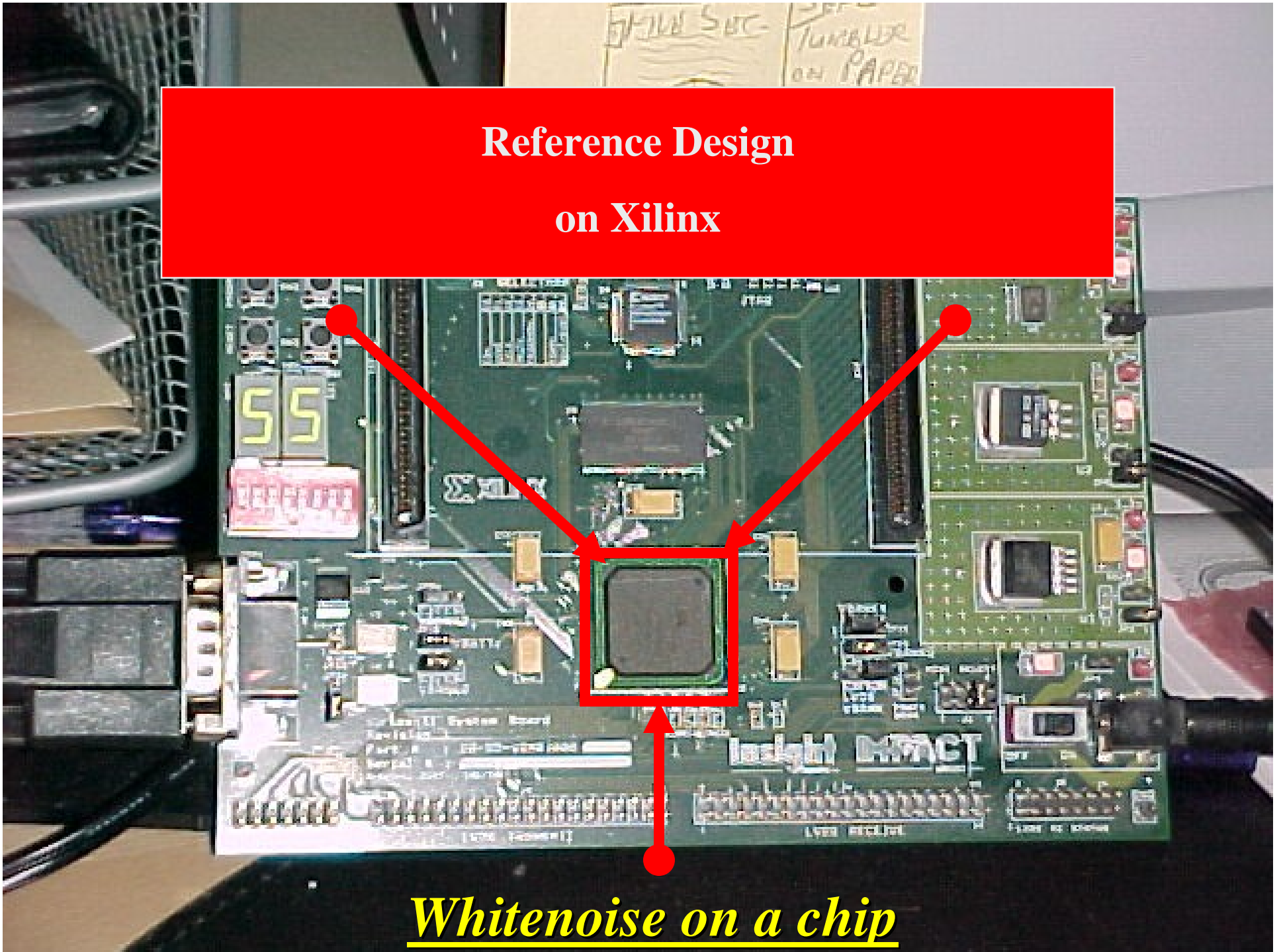


Securing the World's Information

Whitenoise in Hardware

July 2006

**Reference Design
on Xilinx**



Whitenoise on a chip

Whitenoise FPGA

- ◆ **Characteristics of FPGA Prototype**
 - Low cost
 - High Speed Encryption/Decryption
 - 1.28 + Gb/s
 - Channelized (2 independent channels)

- ◆ **More Powerful Chips = Higher Speed/More throughput**
 - Current Xilinx Chip \$5-\$10 (Volume) = 1.28Gb/s
 - Next Model Up ~\$80 = 12.8 Gb/s
 - ASIC Implementation in 3rd Party Electronics

- ◆ **Reference design on Xilinx FPGA**
 - Easy to test and verify the power and functionality of Whitenoise in hardware applications.

- ◆ 8 bits per clock cycle per channel
- ◆ 2 channels = 16 bits per clock cycle

H/W Target Application Examples

Communications Protection (without additional delay)

- Cellular Phones
 - Routers
 - Satellite Earth Stations
 - Wireless Networks
 - Video Conferencing
 - VoIP
 - Military/Government/Financial
Networking Equipment
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- DRM Protection examples
 - Content to mobile devices, Cell Phones, PC's (ex. Movielink)
 - Music Players (IPOD, etc.)
 - On-Line Game Boxes
 - Set-top Boxes (PPV)