


Search...

SEARCH

LOGIN

EMBEDDED SYSTEMS (/S/TOPIC/0TO2E000000YKXCWAO...)

> PROCESSOR SYSTEM DESIGN AND... (/S/TOPIC/0TO2E000000YKXZWA...)

 [diverger \(/s/profile/0052E00000N3LrvQAF\)](/s/profile/0052E00000N3LrvQAF) (Member) asked a question.

[June 1, 2019 at 7:59 AM \(/s/question/0D52E00006hpmj5SAA/1gbps-wont-achieved-on-board-based-on-zynq-7020\)](/s/question/0D52E00006hpmj5SAA/1gbps-wont-achieved-on-board-based-on-zynq-7020)

### 1Gbps won't achieved on board based on Zynq 7020

I designed a board with Zynq 7020 and Marvell's 88E1512. I try to run the echo standalone Lwip example, but the speed always autonegotiated at 100Mbps:  
Start PHY autonegotiation  
Waiting for PHY to complete autonegotiation.  
autonegotiation complete  
link speed for phy address 0: 100  
I expected it will work at 1000bps. I wonder if I missed something in the Vivado or SDK configurations. Any suggestion?

PROCESSOR SYSTEM DESIGN AND AXI (/S/TOPIC/0TO2E000000YKXZWA4/)


 Like

 Answer

 [Share](#)

9 answers   522 views

#### Top Rated Answers

 [stephenm \(/s/profile/0052E00000N2nOZQAZ\)](/s/profile/0052E00000N2nOZQAZ) (AMD)


Edited by wcassell May 29, 2022 at 3:17 PM

**\*\*BEST SOLUTION\*\***


I created a wiki to read the phy registers over jtag. You may need to change the script to suit your setup. The script assumes you are using gem3 on zynq ultrascale.

<https://xilinx-wiki.atlassian.net/wiki/spaces/A/pages/69271643/PHY+Register+dump+over+JTAG> (<https://xilinx-wiki.atlassian.net/wiki/spaces/A/pages/69271643/PHY+Register+dump+over+JTAG>)

**Admin Note** – This thread was edited to update links as a result of our community migration. The original post date was 2019-06-02.

 Selected as Best   Like


#### All Answers

 [stephenm \(/s/profile/0052E00000N2nOZQAZ\)](/s/profile/0052E00000N2nOZQAZ) (AMD)

6 years ago

Can you check the GEM clocking in vivado is set to 1000M


Like   Reply   1 like

 [drjohnsmith \(/s/profile/0052E00000N2no4QAB\)](/s/profile/0052E00000N2no4QAB) (Member)

6 years ago

Something that has caught us out once,  
if the cable does not have all 4 pairs correct,  
the Ethernet drops back to 100 ,

Like   Reply

 [diverger \(/s/profile/0052E00000N3LrvQAF\)](/s/profile/0052E00000N3LrvQAF) (Member)

6 years ago

Yes, the cable is a standard cable with all 8 wires connected. And it's only about 2 meters long.

Like   Reply



