



# 第四届全国大学生嵌入式芯片与系统设计竞赛 芯片设计赛道

## RTL Q/A 报告

作品名称 (必填): 基于智能计算的图像识别系统

队伍编号 (必填): 1377

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由于 lint 都没过，这里我们只进行了 spyglass 的 lint/adv\_lint 检查。后续工作还未完成。

ErrorAnalyzeBBox (4) : Reports black boxes in the design with Error severity.			
⚠	UnsynthesizedDU: Design Unit 'mem16384x16' (elaborated name 'mem16384x16') not synthesizable; SYNTH_5273 error(s) found during synthesis	../rtl/memory.v	70
⚠	UnsynthesizedDU: Design Unit 'mem256x32' (elaborated name 'mem256x32') not synthesizable; SYNTH_5273 error(s) found during synthesis	../rtl/picosoc.v	268
⚠	UnsynthesizedDU: Design Unit 'mem512x32' (elaborated name 'mem512x32') not synthesizable; SYNTH_5273 error(s) found during synthesis	../rtl/compute.v	509
⚠	UnsynthesizedDU: Design Unit 'mem512x64' (elaborated name 'mem512x64') not synthesizable; SYNTH_5273 error(s) found during synthesis	../rtl/compute.v	520

这里的问题是 spyglass 没有正确的吃进去 sram 的 lib 文件，我们只好使用 v 文件，sram 的行为级模型不可综合产生的 Error。

SYNTH_5273 (4) : Number of bits for net/variable exceeds the mthresh value			
⚠	mem16384x16 -> Number of bits (262144) for net/variable 'mem' is greater than mthresh value 4096. Set the 'mthresh' option to a value greater than the indicated number of bits	../rtl/mem16384x16.v	3763
⚠	mem512x64 -> Number of bits (32768) for net/variable 'mem' is greater than mthresh value 4096. Set the 'mthresh' option to a value greater than the indicated number of bits	../rtl/mem512x64.v	626
⚠	mem512x32 -> Number of bits (16384) for net/variable 'mem' is greater than mthresh value 4096. Set the 'mthresh' option to a value greater than the indicated number of bits	../rtl/mem512x32.v	529
⚠	mem256x32 -> Number of bits (8192) for net/variable 'mem' is greater than mthresh value 4096. Set the 'mthresh' option to a value greater than the indicated number of bits	../rtl/mem256x32.v	577

同样是上面的问题。

ERROR (1)	
⚠	W398 (1) : A case choice is covered more than once in a case statement
⚠	Case '3'b??1' covered more than once at '3'b01?'

这个是 PicoRV32 产生的 ERROR，我们选择保留原逻辑，不做改动。

其他问题均已解决，如下图。

