

ABSTRACT

(Figure 3)

METHOD AND APPARATUS FOR SNOOP STRETCHING

A protocol and related apparatus for snoop stretching in a computer system having at least one requesting agent for issuing bus transaction requests and at least one snooping agent for monitoring transaction requests and issuing bus signals onto an external bus. The bus transactions are timed by a bus clock signal having a plurality of cycles. To indicate snoop stretching, during a first cycle a first snooping agent asserts both a HIT# bus signal and a HITM# bus signal together to indicate that the first snooping agent must delay assertion of valid snoop results for a predetermined snoop period.

5 During a later cycle, to indicate the end of the snoop stretch, the first snooping agent deasserts the assertion of both the HIT# and HITM# signals together and asserts its valid snoop results. The HIT# and HITM# signals alone each represent valid snoop results. If the first snooping agent must continue delaying assertion of valid snoop results, then it reasserts both the HIT# and

10 HITM# bus signals together for the predetermined snoop period. If a second snooping agent is ready to assert its valid snoop results, it will do so while the first snooping agent causes a snoop stretch, and will reassert its valid snoop results up to and including the cycle that the first snooping agent deasserts it snoop stretch and asserts its own valid snoop results.