Date: 08/January/2018

Announcement Meltdown and Spectre attacks in Vortex86 CPUs

This announcement is to inform all of Vortex86 CPU users that Meltdown and Spectre attacks will not act on Vortex86 CPUs, which include Vortex86SX, Vortex86DX, Vortex86MX+, Vortex86DX2, Vortex86DX3 and Vortex86EX.

The Meltdown and Spectre attacks are based on :
- Cache attack. (Refer to https://en.wikipedia.org/wiki/Side-channel_attack -> Cache attack)
- Use pipeline OoO (Out of Order) to execute the non-authority orders or use miss prediction to leave the side effect on cache.

In Vortex86 CPUs,
- The CPU micro-architecture are In-Order execution, those non-execution instructions will not
  have side effect on cache.
- The Cache attacks use "clflush" instruction, it's not supported in Vortex86 CPUs.

Hereby, DMP confirm that both Meltdown and Spectre attacks won't affect the Vortex86 CPUs.

Regards,

DMP Electronics INC.