



author Denis Arefev <arefev@swemel.ru> 2025-03-21 13:52:32 +0300
committer Greg Kroah-Hartman <gregkh@linuxfoundation.org> 2025-04-25 10:43:57 +0200
commit 402964994e8ece29702383b234fabcf04791ff95 (patch)
tree 684b67ce57cbe9850f79955eabb3ed9ec7ebf377
parent c81299753466e2b3a8cd17c3e8213cdd5b7e2bdd (diff)
download linux-402964994e8ece29702383b234fabcf04791ff95.tar.gz

diff options

context: 3

space: include

mode: unified

drm/amd/pm: Prevent division by zero

commit 7d641c2b83275d3b0424127b2e0d2d0f7dd82aef upstream.

The user can set any speed value.
If speed is greater than UINT_MAX/8, division by zero is possible.

Found by Linux Verification Center (linuxtesting.org) with SVACE.

Fixes: b64625a303de ("drm/amd/pm: correct the address of Arcturus fan related registers")
Signed-off-by: Denis Arefev <arefev@swemel.ru>
Signed-off-by: Alex Deucher <alexander.deucher@amd.com>
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Diffstat

-rw-r--r-- drivers/gpu/drm/amd/pm/swsmu/smu11/arcturus_ppt.c 3

1 files changed, 3 insertions, 0 deletions

diff --git a/drivers/gpu/drm/amd/pm/swsmu/smu11/arcturus_ppt.c b/drivers/gpu/drm/amd/pm/swsmu/smu11/arcturus_ppt.c
index 9cd005131f5661..ff4447702b1258 100644

```
--- a/drivers/gpu/drm/amd/pm/swsmu/smu11/arcturus_ppt.c
+++ b/drivers/gpu/drm/amd/pm/swsmu/smu11/arcturus_ppt.c
@@ -1273,6 +1273,9 @@ static int arcturus_set_fan_speed_rpm(struct smu_context *smu,
     uint32_t crystal_clock_freq = 2500;
     uint32_t tach_period;

+    if (!speed || speed > UINT_MAX/8)
+        return -EINVAL;
+
     tach_period = 60 * crystal_clock_freq * 10000 / (8 * speed);
     WREG32_SOC15(THM, 0, mmCG_TACH_CTRL_ARCT,
                 REG_SET_FIELD(RREG32_SOC15(THM, 0, mmCG_TACH_CTRL_ARCT),
```