

GXL:BL1:9ac50e:a1974b;FEAT:ADFC31AC;POC:3;RCY:0;EMMC:800;NAND:81;SD:0;READ:0;0.0
;CHK:0;

no sdio debug board detected

TE: 223497

BL2 Built : 14:59:36, Aug 9 2017.

gxl ge8c6a83 - xiaobo.gu@droid12

set vcck to 1120 mv

set vddee to 1000 mv

Board ID = 2

CPU clk: 1200MHz

DQS-corr enabled

DDR scramble enabled

DDR3 chl: Rank0+1 @ 768MHz - FAIL

DDR3 chl: Rank0 @ 768MHz - FAIL

DDR3 chl: Rank0 16bit @ 768MHz - PASS

Rank0: 1024MB(auto)-2T-11

DataBus test pass!

AddrBus test pass!

Load fip header from SD, src: 0x0000c200, des: 0x01400000, size: 0x00004000

New fip structure!

Load bl30 from SD, src: 0x00010200, des: 0x01100000, size: 0x0000d600

Load bl31 from SD, src: 0x00020200, des: 0x05100000, size: 0x0002c600

Load bl33 from SD, src: 0x00050200, des: 0x01000000, size: 0x000a0c00

NOTICE: BL3-1: v1.0(release):801e730

NOTICE: BL3-1: Built : 22:09:38, Aug 10 2017

[BL31]: GXL CPU setup!

mpu_config_enable:ok

[Image: gxl_v1.1.3244-a3237e2 2017-08-16 14:01:18 hong.guo@droid04]

OPS=0xa2

cd 87 3d 41 d9 27 0 2d f1 b5 6d d2 [0.846909 Inits done]

secure task start!

high task start!

low task start!

ERROR: Error initializing runtime service opteed_fast

<debug_uart>

U-Boot 2025.07 (Aug 14 2025 - 04:14:03 +0000) khadas-vim

Model: Khadas VIM

SoC: Amlogic Meson GXL (S905W) Revision 21:b (a2:2)

DRAM: 2 GiB (total 1 GiB)

Core: 178 devices, 28 uclasses, devicetree: separate

MMC: mmc@70000: 0, mmc@72000: 1, mmc@74000: 2

Loading Environment from nowhere... OK

In: serial

Out: serial

Err: serial

[BL31]: tee size: 0

[BL31]: tee size: 0

Net: eth0: ethernet@c9410000

Hit any key to stop autoboot: 0

Card did not respond to voltage select! : -110

switch to partitions #0, OK

mmc1 is current device

Scanning mmc 1:1...

Found /extlinux/extlinux.conf

Retrieving file: /extlinux/extlinux.conf

1: LibreELEC

Retrieving file: /KERNEL

append: boot=LABEL=LIBREELEC disk=LABEL=STORAGE quiet systemd.debug_shell=ttyAML
0 console=ttyAML0,115200n8 console=tty0

Retrieving file: /amlogic/meson-gxl-s905x-p212.dtb

Booting kernel from Legacy Image at 08080000 ...

Image Name:

Image Type: AArch64 Linux Kernel Image (lzo compressed)

Data Size: 13192986 Bytes = 12.6 MiB

Load Address: 01d80000

Entry Point: 01d80000

Verifying Checksum ... OK

Flattened Device Tree blob at 08008000

Booting using the fdt blob at 0x8008000

Working FDT set to 8008000

Uncompressing Kernel Image to 1d80000

Moving Image from 0x1d80000 to 0x1e00000, end=0x3ad0000

Loading Device Tree to 000000003cf48000, end 000000003cf54d90 ... OK

Working FDT set to 3cf48000

Starting kernel ...

[0.000000] OF: reserved mem: failed to allocate memory for node 'linux,cma':
size 896 MiB

[BL31]: tee size: 0

domain-0 init dvfs: 4

[0.320543] Unable to handle kernel NULL pointer dereference at virtual addre
ss 0000000000000008

[0.323783] Mem abort info:

[0.326519] ESR = 0x0000000096000004

[0.330235] EC = 0x25: DABT (current EL), IL = 32 bits

[0.335491] SET = 0, FnV = 0

[0.338498] EA = 0, S1PTW = 0

[0.341610] FSC = 0x04: level 0 translation fault

[0.346441] Data abort info:

[0.349287] ISV = 0, ISS = 0x00000004, ISS2 = 0x00000000

[0.354721] CM = 0, WnR = 0, TnD = 0, TagAccess = 0

[0.359723] GCS = 0, Overlay = 0, DirtyBit = 0, Xs = 0

[0.364984] [0000000000000008] user address but active_mm is swapper

[0.371284] Internal error: Oops: 0000000096000004 [#1] SMP

[0.376880] Modules linked in:

[0.379902] CPU: 3 UID: 0 PID: 12 Comm: kworker/u16:0 Not tainted 6.16.0-rc3
#1 VOLUNTARY

[0.388093] Hardware name: Amlogic Meson GXL (S905X) P212 Development Board (
DT)

[0.395426] Workqueue: events_unbound deferred_probe_work_func

[0.401203] pstate: 20000005 (nzCv daif -PAN -UAO -TCO -DIT -SSBS BTYPE=--)

[0.408102] pc : get_pfnblock_flags_mask+0x30/0x5c

[0.412845] lr : __free_frozen_pages+0x130/0x570

[0.417417] sp : ffff8000800833e0

[0.420694] x29: ffff8000800833e0 x28: 0000000000000000 x27: 0000000000000000

[0.427767] x26: 0000000000002cc0 x25: 0000000000000000 x24: ffff800080083568

[0.434839] x23: 0000000000000000 x22: fffffdfc0b4d280 x21: 0020000000000000

[0.441912] x20: 0000000000000000 x19: fffffdfc0b4d280 x18: 00000000ffffff

[0.448984] x17: 0000000000000003 x16: fffc22d448f8c30 x15: 00000000ffffff

[0.456057] x14: 0000000000000001 x13: 0000000000000368 x12: 0000000000000000

[0.463129] x11: 0000000000000005 x10: 0000000000000000 x9 : fffc22d453a1040

[0.470202] x8 : fffc22d453a1040 x7 : 000002000002d34a x6 : 0000000000000000

[0.477274] x5 : 0000000000040000 x4 : 0000000004000005 x3 : 0000000000000000

[0.484374] x2 : 0000000000000007 x1 : 000002000002d34a x0 : 0000000001ffff

[0.491420] Call trace:

[0.493837] get_pfnblock_flags_mask+0x30/0x5c (P)

[0.498580] __free_pages+0xac/0xbc

[0.502115] free_contig_range+0x9c/0x16c

[0.506082] alloc_contig_range_noprof+0x534/0x7bc

[0.510826] __cma_alloc+0x188/0x5b0

[0.514362] cma_alloc+0x1c/0x24

[0.517553] cma_alloc_aligned+0x3c/0x5c

[0.521435] dma_alloc_contiguous+0x2c/0x3c

[0.525575] __dma_direct_alloc_pages.isra.0+0xa4/0x2cc

[0.530749] dma_direct_alloc+0x104/0x39c

[0.534717] dma_alloc_attrs+0x7c/0xd4

[0.538426] snd_dma_dev_alloc+0x1c/0x24

[0.542307] __snd_dma_alloc_pages+0x2c/0x44

[0.546533] snd_dma_alloc_dir_pages+0x3c/0x78

[0.550932] do_alloc_pages+0x88/0x134

[0.554641] preallocate_pcm_pages+0x68/0xec

[0.558867] preallocate_pages+0x128/0x194

[0.562921] snd_pcm_set_managed_buffer_all+0x60/0xa4
[0.567923] aiu_fifo_pcm_new+0x74/0x8c
[0.571718] snd_soc_pcm_dai_new+0x48/0xc4
[0.575772] snd_soc_bind_card+0xa6c/0xaec
[0.579826] snd_soc_register_card+0x154/0x164
[0.584225] devm_snd_soc_register_card+0x48/0x98
[0.588882] meson_card_probe+0x23c/0x29c
[0.592849] platform_probe+0x64/0xc0
[0.596472] really_probe+0xbc/0x388
[0.600008] __driver_probe_device+0x78/0x154
[0.604321] driver_probe_device+0x38/0x108
[0.608461] __device_attach_driver+0xb0/0x144
[0.612860] bus_for_each_drv+0x7c/0xd4
[0.616654] __device_attach+0x98/0x1a4
[0.620450] device_initial_probe+0x10/0x18
[0.624590] bus_probe_device+0xa0/0xa4
[0.628384] deferred_probe_work_func+0x9c/0xe8
[0.632870] process_one_work+0x13c/0x2cc
[0.636837] worker_thread+0x288/0x43c
[0.640546] kthread+0xf4/0x1a8
[0.643651] ret_from_fork+0x10/0x20
[0.647194] Code: f8657863 f100007f 8b241064 9a831083 (f9400460)
[0.653230] ---[end trace 0000000000000000]---
[0.659757] Unable to handle kernel paging request at virtual address 007f000
004a91f88
[0.665673] Mem abort info:
[0.668404] ESR = 0x0000000096000004

[0.668618] Unable to handle kernel paging request at virtual address ffd00000192cc48

[0.668834] EC = 0x25: DABT (current EL), IL = 32 bits

[0.669270] Mem abort info:

[0.669707] SET = 0, FnV = 0

[0.670143] ESR = 0x0000000096000004

[0.670576] EA = 0, S1PTW = 0

[0.671009] EC = 0x25: DABT (current EL), IL = 32 bits

[0.671438] FSC = 0x04: level 0 translation fault

[0.671875] SET = 0, FnV = 0

[0.672320] Data abort info:

[0.672749] EA = 0, S1PTW = 0

[0.673183] ISV = 0, ISS = 0x00000004, ISS2 = 0x00000000

[0.673611] FSC = 0x04: level 0 translation fault

[0.674052] CM = 0, WnR = 0, TnD = 0, TagAccess = 0

[0.674493] Data abort info:

[0.674938] GCS = 0, Overlay = 0, DirtyBit = 0, Xs = 0

[0.675377] ISV = 0, ISS = 0x00000004, ISS2 = 0x00000000

[0.675380] CM = 0, WnR = 0, TnD = 0, TagAccess = 0

[0.675384] GCS = 0, Overlay = 0, DirtyBit = 0, Xs = 0

[0.675839] [007f000004a91f88] address between user and kernel address ranges

[0.676293] [ffdf00000192cc48] address between user and kernel address ranges

[0.676751] Internal error: Oops: 0000000096000004 [#2] SMP

[0.779383] Modules linked in:

[0.782406] CPU: 3 UID: 0 PID: 64 Comm: kworker/3:1 Tainted: G D
6.16.0-rc3 #1 VOLUNTARY

[0.791976] Tainted: [D]=DIE

[0.794821] Hardware name: Amlogic Meson GXL (S905X) P212 Development Board (DT)

[0.802155] Workqueue: events dbs_work_handler

[0.806551] pstate: 60000005 (nZCv daif -PAN -UAO -TCO -DIT -SSBS BTYPE=--)

[0.813450] pc : scpi_send_message+0xd8/0x25c

[0.817763] lr : scpi_send_message+0xcc/0x25c

[0.822075] sp : ffff8000802abad0

[0.825353] x29: ffff8000802abad0 x28: ffff000008832588 x27: ffffc22d454ab000

[0.832425] x26: ffff8000802abb5f x25: ffff8000802abb67 x24: ffff000004149e90

[0.839498] x23: ffff0000088325a8 x22: 0000000000000001 x21: 000000000000000f

[0.846570] x20: ffff000004149eb8 x19: ffff000008832528 x18: 0000000000000000

[0.853643] x17: 00000000ffffffff x16: ffff800080082b98 x15: ffff00003fdbfd00

[0.860715] x14: ffff000001316b40 x13: 0000000000000292 x12: 0000000000000264

[0.867788] x11: 0000000000000000 x10: 00000000000008f0 x9 : ffff8000802ab960

[0.874860] x8 : ffff00003fdb7b80 x7 : 8100000000000000 x6 : 0000000000000000

[0.881933] x5 : dead000000000122 x4 : 0000000000000000 x3 : 0000000000000000

[0.889005] x2 : ffff000001316ac0 x1 : ffff000001316ac0 x0 : ff7f000004a91f80

[0.896079] Call trace:

[0.898494] scpi_send_message+0xd8/0x25c (P)

[0.902806] scpi_dvfs_get_idx+0x38/0x68

[0.906687] scpi_dvfs_recalc_rate+0x20/0x50

[0.910913] clk_recalc+0x34/0x98

[0.914191] clk_change_rate+0x174/0x28c

[0.918072] clk_core_set_rate_nolock+0x1d0/0x290

[0.922729] clk_set_rate+0x34/0x144

[0.926265] scpi_cpufreq_set_target+0x34/0x70

[0.930664] __cpufreq_driver_target+0x1d0/0x344

[0.935235] od_dbs_update+0x13c/0x19c

[0.938944] dbs_work_handler+0x3c/0x74

[0.942739] process_one_work+0x13c/0x2cc

[0.946707] worker_thread+0x288/0x43c

[0.950416] kthread+0xf4/0x1a8

[0.953521] ret_from_fork+0x10/0x20

[0.957061] Code: 940bbd56 b4000af8 f9441f60 12001ab5 (39402000)

[0.963099] ---[end trace 0000000000000000]---

[0.967667] Internal error: Oops: 0000000096000004 [#3] SMP

[0.973273] Modules linked in:

[0.976294] CPU: 1 UID: 0 PID: 52 Comm: kworker/1:1 Tainted: G D
6.16.0-rc3 #1 VOLUNTARY

[0.985866] Tainted: [D]=DIE

[0.988711] Hardware name: Amlogic Meson GXL (S905X) P212 Development Board (DT)

[0.996043] Workqueue: events_freezable mmc_rescan

[1.000786] pstate: 000000c5 (nzcvc daIf -PAN -UAO -TCO -DIT -SSBS BTYPE=--)

[1.007685] pc : __irq_exit_rcu+0x1c/0x104

[1.011739] lr : __irq_exit_rcu+0x1c/0x104

[1.015793] sp : ffff80008023b8b0

[1.019070] x29: ffff80008023b8b0 x28: ffff00000192cc40 x27: 0000000000000000

[1.021970] -----[cut here]-----

[1.026142] x26: ffff0000013a8400 x25: 0000000000000005

[1.026626] WARNING: CPU: 3 PID: 0 at kernel/time/hrtimer.c:1089 enqueue_hrtimer.isra.0+0x48/0x54

[1.030713] x24: ffffc22d445cb930

[1.031190] Modules linked in:

[1.032158]

[1.032644]

[1.033118] x23: 0000000060000005

[1.033585] CPU: 3 UID: 0 PID: 0 Comm: swapper/3 Tainted: G D
6.16.0-rc3 #1 VOLUNTARY

[1.034042] x22: ffffc22d438a9368

[1.034507] Tainted: [D]=DIE

[1.035465] x21: ffff80008023ba60

[1.035949] Hardware name: Amlogic Meson GXL (S905X) P212 Development Board (DT)

[1.036428]

[1.036905] pstate: 800000c5 (Nzcv daIf -PAN -UAO -TCO -DIT -SSBS BTYPE=--)

[1.037405] x20: ffffc22d43810000

[1.037899] pc : enqueue_hrtimer.isra.0+0x48/0x54

[1.038415] x19: ffd000000192cc40

[1.038929] lr : __hrtimer_run_queues+0x200/0x21c

[1.039450] x18: 0000000000000000

[1.039967] sp : ffff80008001be70

[1.040491]

[1.041007] x29: ffff80008001be70

[1.041518] x17: ffff3dd2fae1a000

[1.042013] x28: ffff00003fdb0c0

[1.042515] x16: ffff800080008000

[1.042998] x27: ffff00003fdb080

[1.043472] x15: ffff00003fd93d00

[1.043944]

[1.044403]

[1.044847] x26: 00000000000000c0

[1.045274] x14: 0000000000000001

[1.045687] x25: 0000000000000000

[1.046108] x13: 00000000000003a1

[1.046525] x24: 00000000000000c0
[1.046932] x12: 000000000032e7b2
[1.047328]
[1.047715]
[1.048085] x23: 000000003ccbf9fb
[1.048435] x11: 0000000000000002
[1.048779] x22: ffff00003fdb080
[1.049127] x10: 0000000000000001
[1.049473] x21: ffff00003fdb080
[1.049824] x9 : 0000000000000262
[1.050174]
[1.050514]
[1.050840] x20: 0000000000000001
[1.051158] x8 : 0000000027bc8668
[1.051471] x19: ffff00003fdb618
[1.051791] x7 : 7fffffffffffffff
[1.052095] x18: 0000000093a8b9f6
[1.052389] x6 : 00000000029eb1fc
[1.052669]
[1.052939]
[1.053206] x17: ffff3dd2fae46000
[1.053463] x5 : 00ffffffffffffff
[1.053710] x16: ffff800080018000
[1.053960] x4 : 0000000000000015
[1.054210] x15: 00000000879162ae
[1.054458] x3 : 0000000000065d3b
[1.054705]

[1.054952]
[1.055196] x14: 0000000000000001
[1.055437] x2 : 00000000000019b7
[1.055673] x13: 00000000000001d3
[1.055918] x1 : ffff00003fd8a478
[1.056160] x12: 0000000002d7321b
[1.056406] x0 : 00000000000019b7
[1.056651]
[1.056899]
[1.057146] x11: 0000000000000263
[1.057392] Call trace:
[1.057633] x10: 00000000000008f0
[1.057884] __irq_exit_rcu+0x1c/0x104 (P)
[1.058132] x9 : 0000000000000001
[1.058389] irq_exit_rcu+0xc/0x14
[1.058649]
[1.058914] el1_interrupt+0x44/0x8c
[1.059178] x8 : 000000003ccbf69a
[1.059437] el1h_64_irq_handler+0x14/0x1c