



Xbox 360 E Teardown

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INTRODUCTION

Playtime is over. The Xbox 360 got an update and a place on our teardown table. Join us as we dive in and see what makes this round of the 360 tick.

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TOOLS:

- [Flathead 3/32" or 2.5 mm Screwdriver](#) (1)
 - [iFixit Tech Knife](#) (1)
 - [Metal Spudger](#) (1)
 - [Spudger](#) (1)
 - [Phillips #1 Screwdriver](#) (1)
 - [T7 Torx Screwdriver](#) (1)
 - [T9 Torx Screwdriver](#) (1)
 - [T10 Torx Screwdriver](#) (1)
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Step 1 — Xbox 360 E Teardown



- At the E3 2013 Xbox Media Briefing, Microsoft briefly announced a redesigned version of the Xbox 360 styled after the much anticipated Xbox One.
- Despite a new look, the Xbox 360 E's tech specs are nearly identical to those of the Xbox 360 S:
 - 4 or 250 GB Hard Drive
 - Internal Wi-Fi capability

Step 2



- Microsoft did a little bit of housekeeping with the backside of the Xbox 360 E, yielding a neater port layout that does away with the old A/V and S/PDIF ports in favor of a single composite out jack.
- Apparently having five USB ports was excessive, so now you only get four. The E has two ports in the front to match the two seen here, dropping one of the rear USB ports found in the S.

Step 3



- Back on the front of the device, the first thing we notice is a warning sticker. It seems that Microsoft

hasn't yet caught up to Sony's [skip protection technology](#).

- Our **new, out of the box** console has some cosmetic damage. The Xbox 360 logo on the optical disc drive faceplate is missing a portion of the "X." We hope this is just a one time occurrence and not common to other Xbox 360 E consoles.
- ⓘ Regardless, we'll love our Microsoft Ybox just the same.

Step 4



- Just like the previous generation, the hard drive comes out easily with the help of a handy-dandy pull tab.
- Speaking of "just like the previous generation," the 250 GB hard drive in our console is labeled as an Xbox 360 S hard drive.
- ⓘ Talk about cutting costs; Microsoft didn't even print new stickers to put on the E's hard drive case.

Step 5



- If there's something we here at iFixit can't do, it's leave a "black box" alone.
- We slice open the hard drive case to see who's providing the storage for our particular Xbox.
- The 5400 RPM Seagate 250 GB hard drive is pretty cool, but we're more intrigued by what's underneath it.
- Closer inspection shows that not only does the hard drive case have a pull tab, it has a *spring-loaded* pull tab.
- *A standard 2.5" SATA hard drive means I can safely upgrade my Xbox 360 E, right?*
- ⓘ Unfortunately, no. Any attempt to "disassemble, decompile, create derivative works of, reverse engineer, or modify" hardware is a violation of the Xbox Live Terms of Use and may result in enforcement action.

Step 6



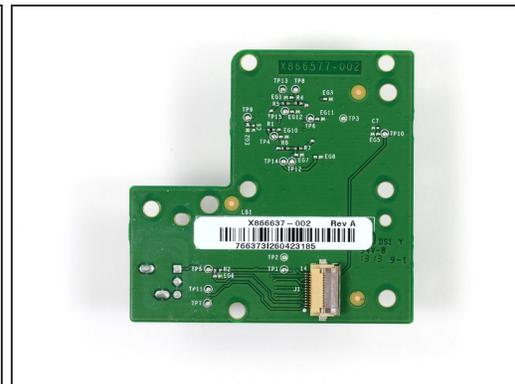
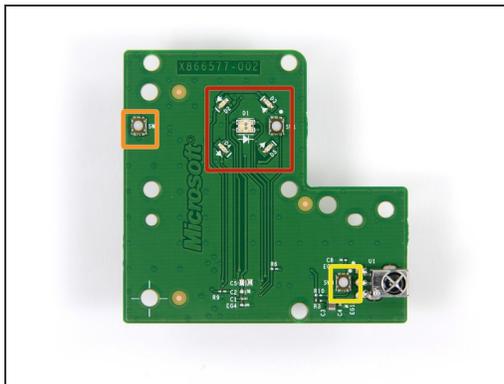
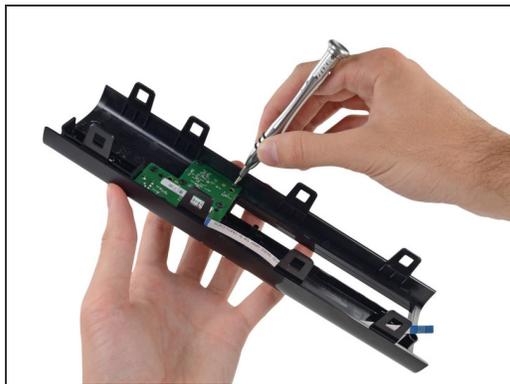
- Removing the bottom and top panels requires us to release a few clips along the perimeter of each panel with the aid of our metal spudger.
- ⓘ A pleasant side effect of the new, subdued design is that these top and bottom panels come off far more easily than on the 360 S. Without the chrome bezels, there are fewer clips to pop and less to break on your way inside.

Step 7



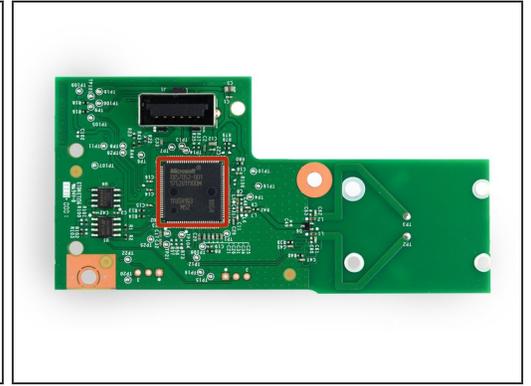
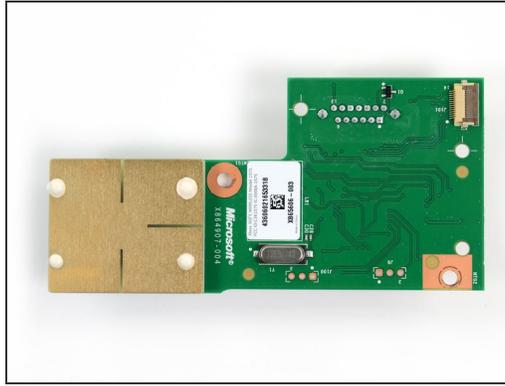
- [This feels familiar...](#)
- Just like the 360 S, the E's top panel and left case require some precise and diligent spudgering to remove.
- Our first glimpse inside the Xbox 360 E shows us, well, not much besides the metal frame. It looks like we'll have to keep digging.

Step 8



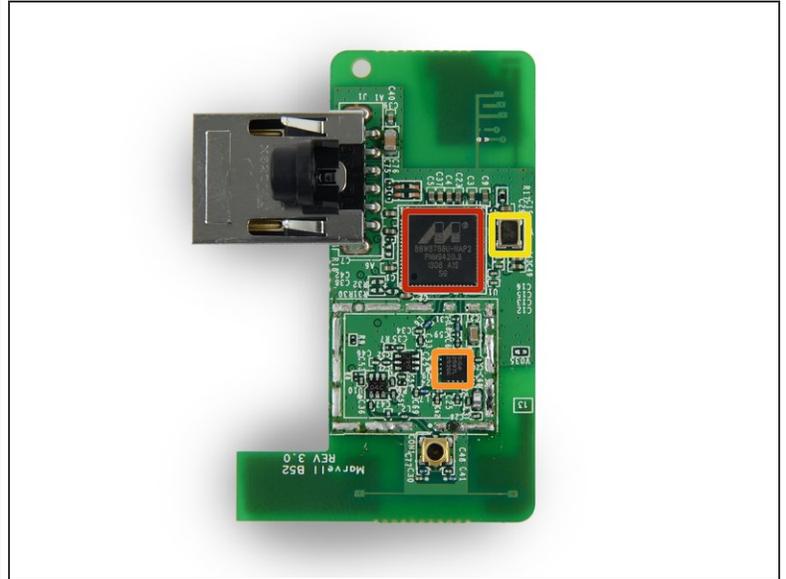
- New to the 360 E, the front buttons are housed on their own separate board within the front panel, rather than residing on the RF module.
- ⓘ There's not much to admire on the button board, but Microsoft did take the effort to make sure their name was printed quite prominently on it.
- The following buttons are located on the button board:
 - Power button (surrounded by LEDs for that characteristic glowing ring)
 - Disc tray eject button
 - Connect (wireless sync) button

Step 9



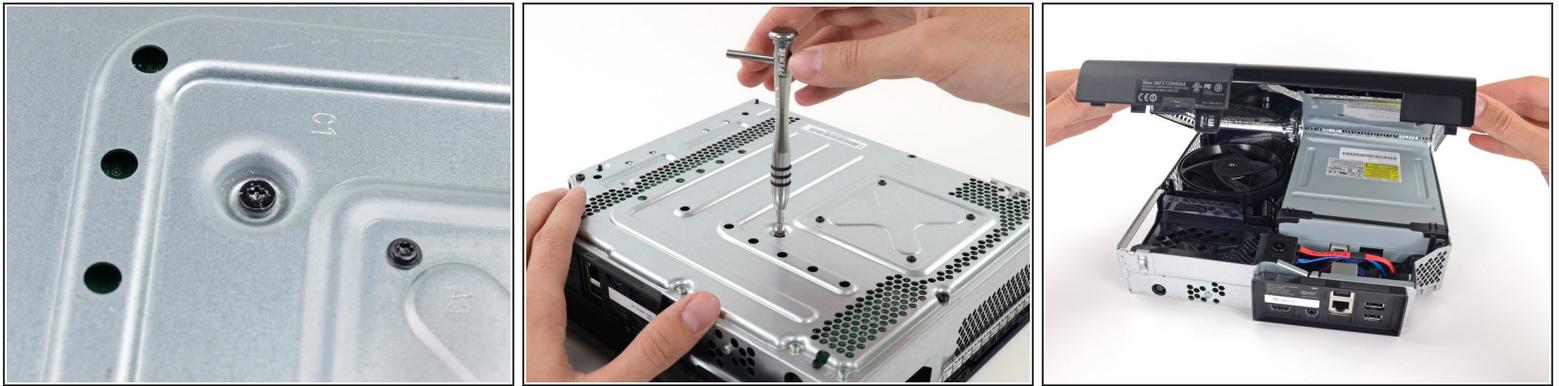
- Unlike the hard drive, Microsoft redesigned, and even printed new stickers for, the Xbox 360 E's RF module.
- ⓘ The new module is labeled as model 1575, compared to the old model number 1409. That's 12% more model number!
- While much of the board is largely unchanged, the absence of the [power button backlight](#) found in the Xbox 360 S is easily noticed.
- Even Microsoft's X857052-001 IC is the same part from the 360 S' RF module.

Step 10



- The Wi-Fi board is tucked away in the backside of the console.
- We found the following ICs on the Wi-Fi board:
 - Marvell [88W8786U](#) integrated MAC/baseband/RF SoC
 - Skyworks [2597L](#) 2.4 GHz power amplifier with power detector
 - California Eastern Laboratories [μPG2179TB](#) SPDT switch

Step 11



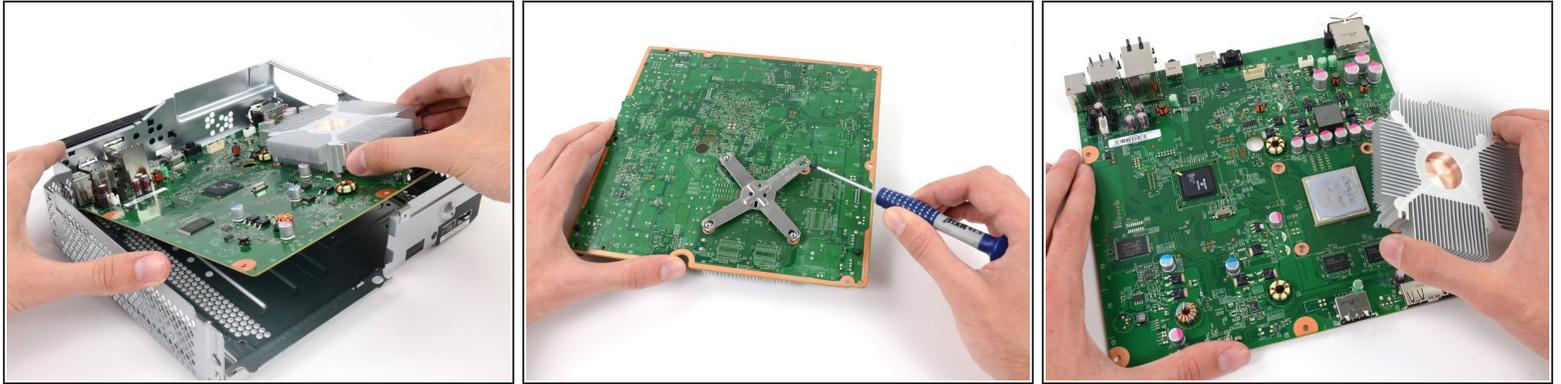
- This screw came pre-screwed-up. We're beginning to think that our 360 E's assemblers chose expediency over error elimination.
- The Torx screws in the metal frame are reluctant to let go, so we grab the extension from our [54 bit driver kit](#) and use it to activate high-torque driver mode.
- With the final component of the outer case out of the way, we get to the really good stuff at last.
- Inspection at a macro level reveals no major changes. We'll have to see what happens [if we go deeper](#).

Step 12



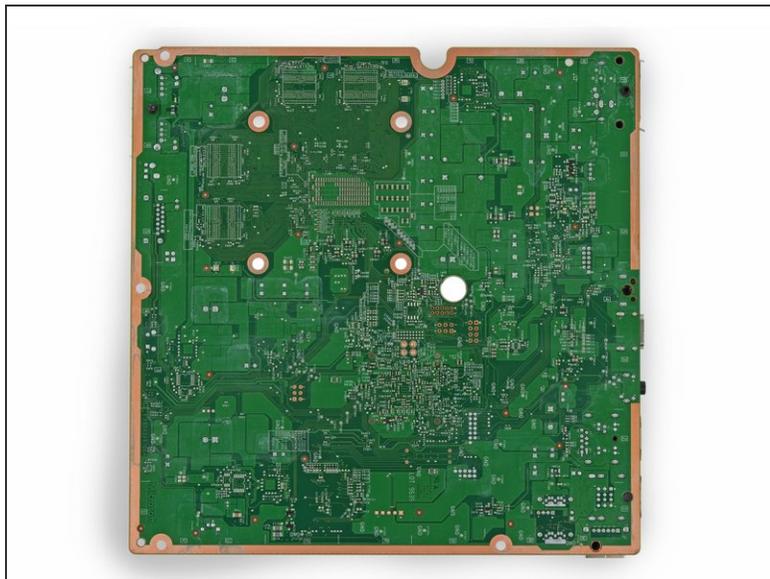
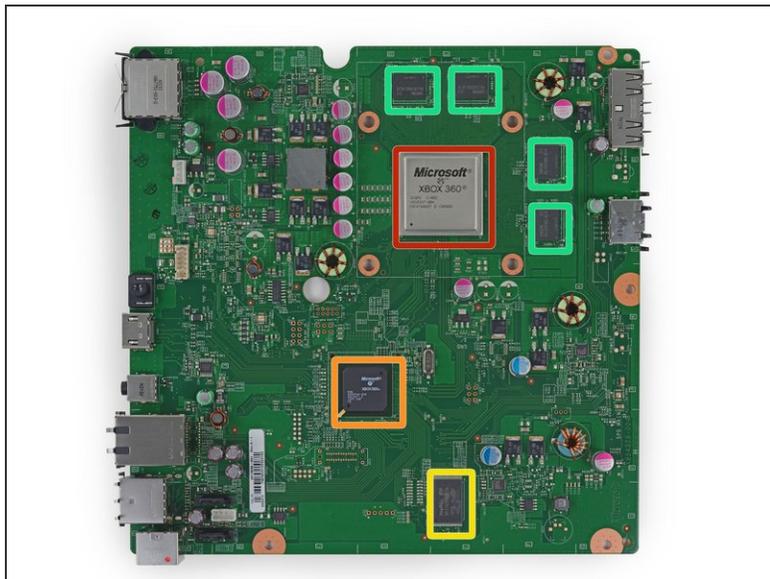
- The design of the optical drive remains unchanged. The optical drive in this particular Xbox 360 E is the Lite-On DG-16D5S.
- Microsoft claims that the Xbox 360 E is "quieter than ever." How much of that quiet has to do with the fans is unknown seeing as how the fan is identical to the [fan found in the Xbox 360 S](#).
- The fan is labeled as X858313-008; its lovely cowling is labeled F94, or X857295, in fine print.

Step 13



- With the guts of the E cleared out of the way, we can finally gain access to its brain.
 - *Disclaimer: Anatomical accuracy not guaranteed.*
- If you've ever been around an Xbox 360, chances are you've heard of the [Red Ring of Death](#)—a catastrophic failure caused by overheating that was rampant in nearly every revision of the console.
- Finally, after a drastic redesign to the processors and their heat sink in the Xbox 360 S, Microsoft seems to have the overheating issues under control, and is continuing to use the same cooling system in the 360 E.
- With the heat sink [unclamped](#) and free to move about the cabin, we pop it off to take a gander at the processor.

Step 14



- It's time to think inside the box. The prominent ICs found on the frontside of the motherboard:
 - [GlobalFoundries](#) (joint venture of AMD and ATIC) [XCGPU](#) SoC (combination of the Xenon CPU and the Xenos X818337 GPU onto the same die, with eDRAM in the same package)
 - Microsoft X850744-004 south bridge
 - Hynix [HY27US08281A](#) 128 Mb NAND flash
 - Samsung [K4J10324KG-HC14](#) 1 Gb GDDR3 SDRAM (total of four = 4 Gb = 512 MB)
- On the backside...
 - A green land flecked with gold and the hopes of the [internet-free gamers](#) of tomorrow.

Step 15



- Xbox 360 E Repairability Score: **8 out of 10** (10 is easiest to repair).
- Without the flashy chrome bezels, the 360 E's case is easier to open than 360 S.
- Highly modular design allows replacement of drives, fan, Wi-Fi card, RF module, button board, and heat sink independently.
- Use of cards and connectors instead of cables, where possible, makes disassembly and reassembly a snap.
- The hard drive is easily accessible for upgrade or replacement but requires buying a proprietary Xbox hard drive.
- Use of clips instead of screws on the main case makes opening more difficult and potentially damaging.

To reassemble your device, follow these instructions in reverse order.