



# Actiontec Q1000 Teardown

Actiontec Q1000 Modem Teardown on August 23, 2013.

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# INTRODUCTION

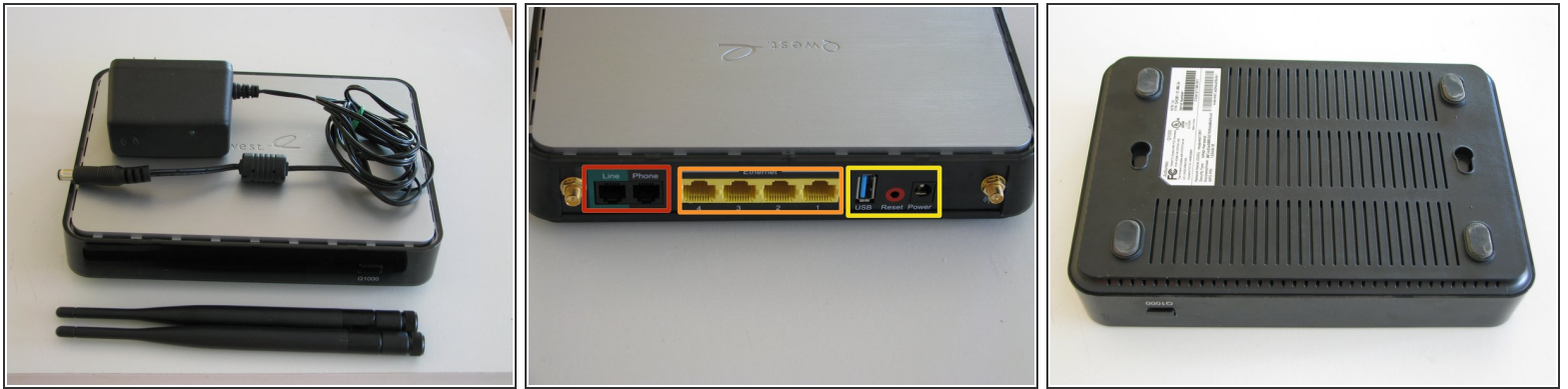
This teardown is a working [Actiontec Q1000 Modem](#), sold by Qwest as a Qwest Q1000.



## TOOLS:

- [Pro Tech Toolkit](#) (1)
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## Step 1 — Actiontec Q1000 Teardown



- The Qwest Q1000 modem, made by Actiontec.
- Port side with antennas detached.
  - DSL and Phone in ports
  - 4 Ethernet ports
  - USB port, reset button, and power jack
- Not a screw in sight.

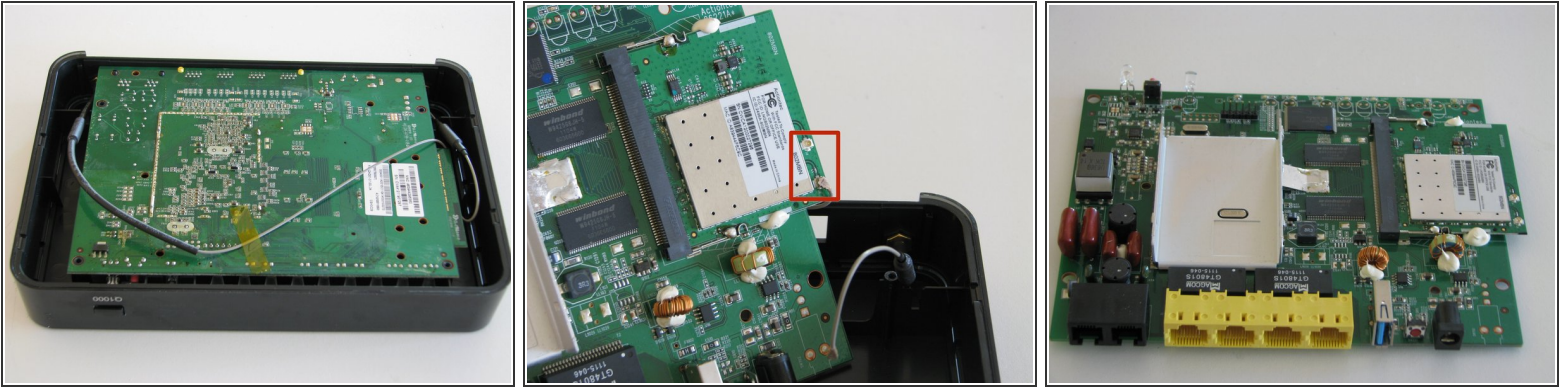
## Step 2



- As usual, the rubber feet are hiding screws!

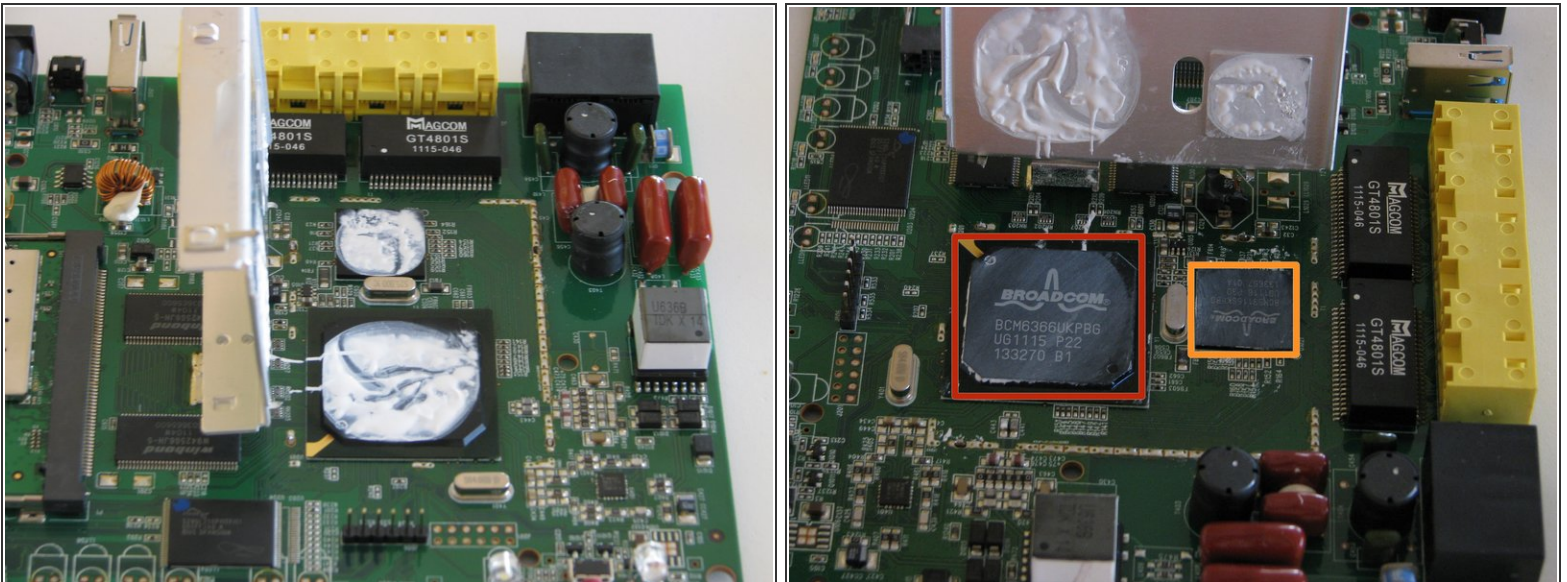


## Step 3



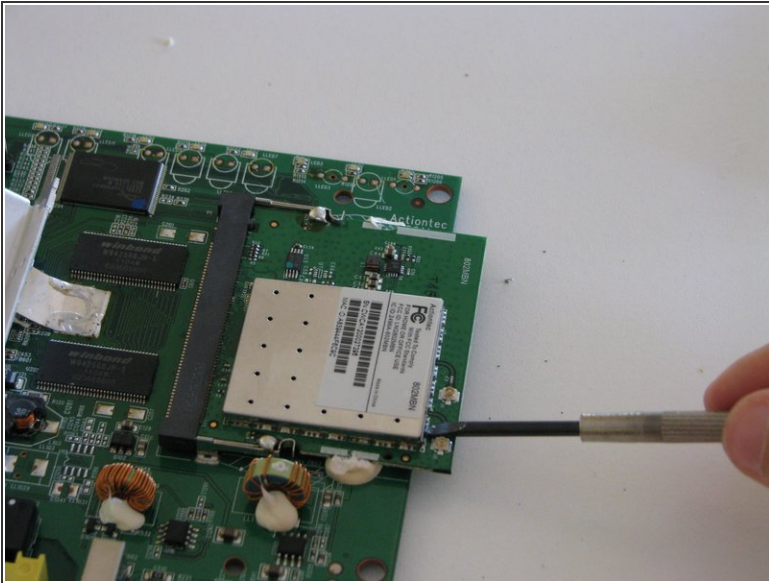
- Nothing really to see here...
- Remove the 2 antenna wires from the wifi card. One is also taped to the back of the board.
- The circuit board is finally free!

## Step 4



- Looks like someone was generous with the thermal paste.
- Underneath the cover:
  - Broadcom BCM6366
  - Broadcom BCM53115

## Step 5



- The Wi-Fi card lets down its shield...
- The chip is a BCM4322.

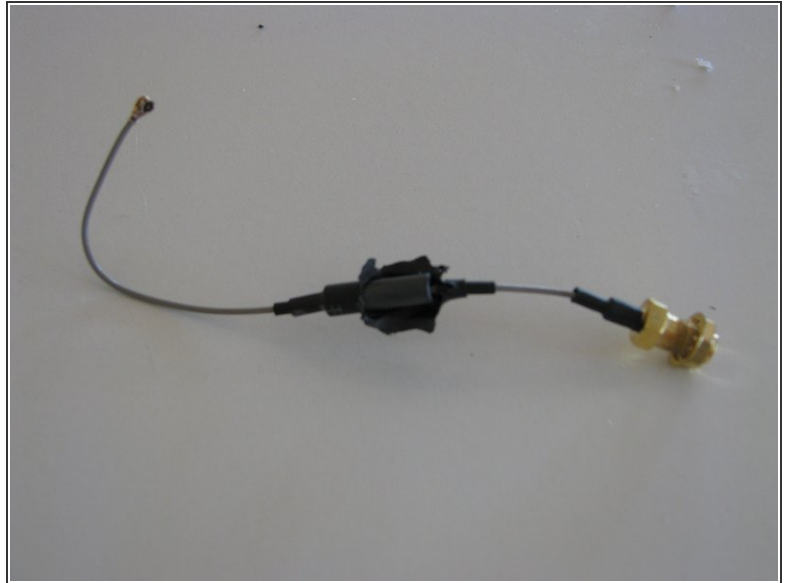
## Step 6



- The inside of the top case.
- The antenna connectors are screwed onto the case.



## Step 7



- The antenna connectors have gold-plated coax connectors and standard Wi-Fi antenna connectors.
- What's underneath the heat-shrink? A ferrite bead to minimize interference.

## Step 8



- Testing out the light pipe with an LED throwie...
- The light pipe takes light from tiny surface-mount LEDs on the motherboard and refracts it to the panel.
- Here are all the LEDs:
  - 8 of the LEDs that work with the light pipe
  - One more surface mount LED
  - A white LED for illuminating the Qwest logo
  - A dual-color (red/green) LED for the WPS status indicator.

## Step 9



- The empty shell that once held a DSL modem.
- The 2 detachable Wi-Fi antennas. Nothing to tear down here!

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## Step 10

A graphic with a black background. At the top, the text "Repairability Score:" is written in a glowing blue, sans-serif font. Below it, the score "8/10" is displayed in a much larger, glowing blue, sans-serif font.

- Repairability score: 8/10
- The entire device is held together with only 4 screws.
- The Wi-Fi antenna connectors are screwed in and the cables are not soldered to the board.
- The antennas are replaceable as well.
- The heat sink is soldered in place, making removal difficult.
- The Wi-Fi card is soldered in and held in place with silicon adhesive, making it impossible to remove without damaging the card or the device.