GreyB

CASE SUMMARY

Found Killer Prior-Art by performing reverse engineering on a smartphone.

Value Delivered

The client was able to use the analysis as evidence in an on-going litigation case and came out of trouble.

Problem to be solved

The client, a Global Law Firm, was looking for a prior-art solution for handling a lawsuit filed by a patent troll. The patent under target was related to the fingerprint sensor of a smartphone.

Solutions offered

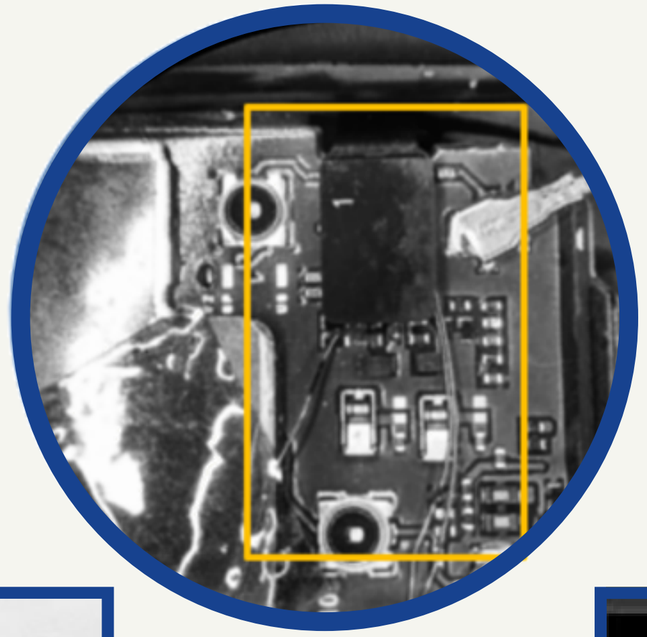
After exhausting all the conventional search approaches, we were not having a killer prior-art. This could be because the tech under focus was related to chip (integrated circuits) level features, so the chances of finding the written support for the features were less. Nonetheless, we checked all the online literature available related to various smartphone ICs, their specifications, pin configurations, etc. But, the required concept was not found.

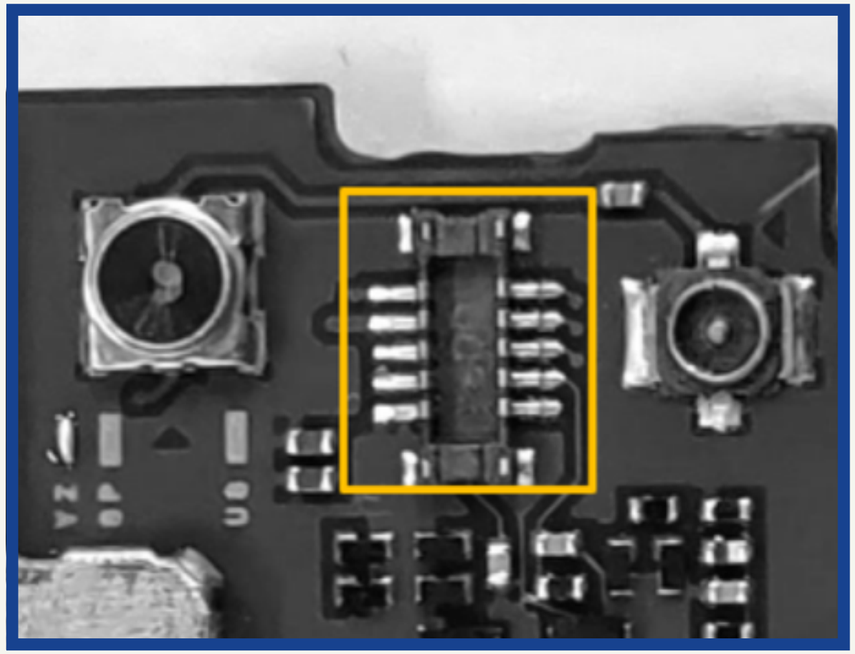
Anyways, on the basis of gathered information, we narrowed it down to a smartphone, that appeared quite promising from its chip configuration that we got online, and it was our intuition that it should work in the required way.
But we still needed concrete support that could be used in court as an authentic prior-art.

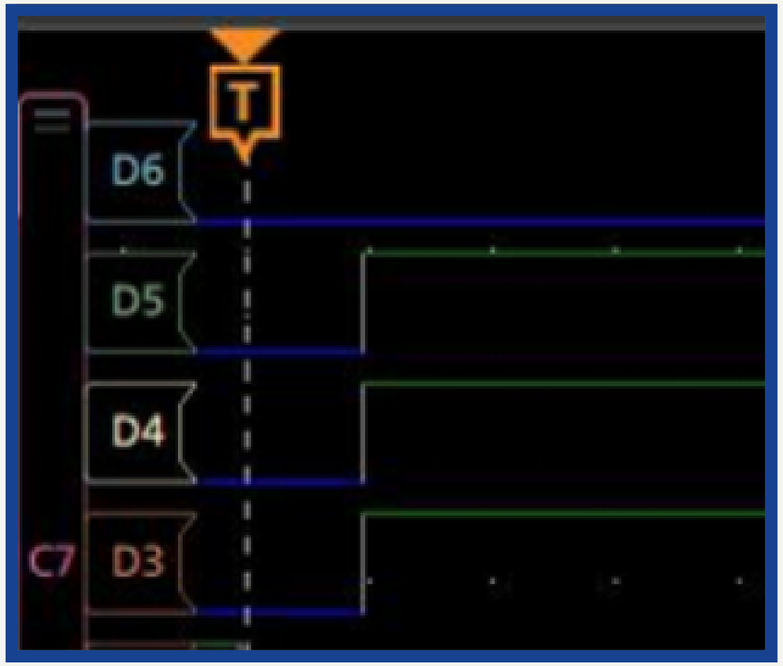
After brainstorming and having multiple internal discussions, we came to the conclusion that an RE analysis (Reverse Engineering) of the shortlisted smartphone could be a way out to confirm the availability of the features. We pitched the idea to the client. Our bold moves were met with a bold yes from the client.

Next was a challenging task in front of us. We tore down the smartphone to expose the various points on its motherboard. After identifying the connector on the the motherboard of the smartphone to which the fingerprint sensor was connected, we soldered the jumper wires to the points of interest so that we could connect them to the probes for taking the readings.
We further took the readings from the timing diagram using an oscilloscope. As anticipated, the required features were evident from these readings, it proved that the fingerprint sensor is first activated, and then at a later stage, the data communication from the fingerprint sensor takes place.

Using such pieces of evidence, we were able to crack the case.



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Get in touch with us!

Phone Number

+1 415 480 0300
+1 202 455 5058
+65 84306322

Email Address

Sales@Greyb.com
Chakshu@Greyb.com

Address

1 Scotts Road, #24-05, Shaw Centre, Singapore 228208

Quark Atrium, A-45, Industrial Focal Point, Phase VIII Extension, Mohali, Punjab, 160071, India