

Case Study:

An Inductor Layout for a communication equipment

CRACKING THE EXACT DESIGN

CHALLENGE

When it comes to litigations involving top worldwide brands with millions at stake, Researchwire is the most sought-after search firm. Here is the testimony:

This was very high profile litigation unarguably the biggest talking point in patent space in 2015. Plaintiff is a pioneer in telecommunication research with large number of IP right to its credit, primarily related to essential patents of 2G , 3G and 4G cellular systems. Defendant, being headquartered in California, is a manufacturer of most popular smart phones of the current age. The patent lawsuits were extended worldwide on the defendant. Given the reputation of assignee and quality of patents thereof, it was indeed a challenging task for us to provide prior arts that could provide a path to invalidity of the patent. The patent pertains to a layout of an inductor to be employed in communication equipment with the characteristic of mitigating far field.

APPROACH

Having zeroed in on the concepts involved in the invention, after exhaustively going through file history, we started searching prior arts with conventional methods. The key words involved in the patent were generic and therefore a very large number of patents had to be analyzed quite minutely. We found three prior arts in preliminary round of search with one of the prior arts disclosing the design which was almost similar to the design taught in the invention with the characteristic of minimizing far field. Having received very high quality prior arts in the preliminary round itself the client was pleasantly surprised. With seemingly high expectations the client directed us to search for more such results with aim hitting the exact design. Involvement of very generic terms in the invention was posing a challenge to us while searching for non patent literatures but we rose to the occasion and manifested our strength which we are known for. As we had the thorough knowledge of product accused of infringing the patent, we were aware with the use of that specific design of inductor and we focused our search on the inductors used in monolithic radio transceivers, because radio transceiver invariably contains oscillators which in turn employ inductors.

Delving a bit deeper we started searching research papers related to the fabrication of oscillators on a semiconductor die and the design of inductor employed therein to minimize the far field. And thereafter we carried out a search to find as to which universities are working in the field of transceiver fabrication and how they minimize far field emanating out of inductor present therein. We found various educational institutions which comprised University of California, Berkeley; Keio University, Japan and a Swedish university. By doing so, we found a research paper specifically mentioning the design of an inductor on a semiconductor die with negligible effect on the other active elements present on the die. Interestingly the design didn't predate the priority date of the patent with a margin of just 2 months, because a patent application was filed claiming the same invention by same inventors an year and half prior to publication of the said research paper. We then visited the patents of the same inventors because there was a likelihood of getting the intended inductor design. One of the patents which we uncovered taught a communication circuitry with one of its blocks as a radio transceiver. In further explanation of the radio transceiver, we found the inductor being employed with the exactly similar design as that of the subject patent. The figure being given in the prior art was an exact replica of the figure given in the patents to elaborate the embodiments of the invention. All of the prior arts with the last one being knock out made a very strong invalidation contention. We received lot of appreciation from the client for the prior arts we uncovered.

In the instances where generic keywords are present in the patent claim , while the extensive knowledge of market application of the same adds value to one's search acumen it helps us get dispense with the redundant & unnecessary analysis too.