

## **Title: Innovation ploughing into the automotive industry with the help of PCB's**

### **Summary:**

In this present world of Virtual Reality and Digitalized concepts, the automotive industry is hitting the tipping point to bring new transformation with the help of up-graded technology. Dabbling with advanced technologies, the automakers are able to create latest pieces with inbuilt vehicle-to-vehicle communication system, networked web links to support the repair and diagnostics, GPS system, infotainment system and other various applications along with Wi-Fi facility. These automotive development is driving the automaker and OEMs with enormous opportunities as well as challenges to survive in the market. With this to make the automotive manufacturing an effective one, the printed circuit board plays a vital role to create new innovations and fix up the defective vehicle mechanism. The automotive PCB manufacturers in the USA are constantly striving to help the automakers to come up with a unique model of innovation. This article is a detailed brief to PCB used in vehicle and the technological transformation taking a step ahead in discovering a unique user-friendly vehicle with the help of the PCB.

### **Article:**

To stake a claim in upcoming new technologies and increasing improved customer experience, it is now becoming a central point of consideration to bring out the new classy vehicle design, car manufacturing techniques, testing system in the global market. The current vehicle manufacturer's also aim to maintain equilibrium between deep capital investment and long product cycle to make the car model a success story. With this, the type of printed circuit board to be used in the vehicle is decided with focusing more on the type of material used in the vehicle and the level of electronic manufacturing and design solution needed in the vehicle production. To go into the roots of the automotive industry, it is equally important to get insights into the PCB used in vehicles and the new innovations brought forward by researchers to create a dream vehicle of the series. The below paragraph drives you to the types of PCB used in the automotive sector.

Most of the automotive innovation, car and truck manufacturing needs highly durable, reliable and tough PCB application. A high tech PCB requirement is marked that can withstand harsh driving conditions and can be a catalyst to the new innovation exposing the automotive electronics. The high power copper plated PCB is the most widely used PCB by the automakers. Furthermore, the automotive PCB prototype and PCB automotive sensors are the prime source of electronic development, especially for the Engine Management System (EMS), Dashboard, fuel regulator, power supplies and for V2V communication. The flexible PCB and other automotive electronic circuits are a prime time trend for the installation of highly compact and multi feature technology applications in vehicles. Also for

unique electronic solution, PCB box Build and Cable harness PCB assembly are in hot demand. In case of limited PCB editions, PCB prototypes with cost effective techniques of production is in the mainstream to shop for innovation for most of the automotive researchers. The other technology advancement in the current times is as under with the vibe of development in PCB assembly and PCB fabrication.

The so called *intelligent car* has highly advanced features that sound futuristic, but is one of a kind in current times. A relinquishing vehicle control with automatic cruise control, self breaking, automatic accident avoidance system, self parking, computerized steering and electronic engine control had broken the bar of Digitalized automotive innovation. Also a notion of driverless cars is the next predicted series of exciting transformation. Well! On the other hand, further modification is seen in the alternative powered vehicle, safety system, navigation and ergonomic vehicle set new trends in the market. The long range battery powered cars in the USA is one of the eco friendly models of innovation having multiple functionalities to get a user friendly experience. Going green and target the green thinking consumers, hydrogen powered car are also gearing up in California, Japan and Germany. The new in-vehicle standard includes embedded wireless connectivity, parallel parking system and head up display screen to catch the constant focus of the driver. All these innovations also have to go through various testing system like crashing test, durability test and many more to get a top model in the automotive market.

The other automotive PCB board application includes DC/AC power converter, Digital Display, Audio and Video equipment, Anti lock brake system, Electronic Computer Unit (ECU), Automatic dimming and electronic mirror control system, interior LED lighting, Power relay, engine timing system and remote diagnostic system. These automotive applications also hunt for the new concepts in PCB engineering that can raise the bar of the vehicle production to the next level.

Thus, the use of the printed circuit board is driving the automotive market in the fast moving world of technology, making the traditional vehicle pretty transparent and bringing new innovation every other day.

TechnoTronix is an ISO 9001-2008 certified with having RoHS compliance PCB manufacturing and PCB prototyping expert. Offering range of PCB customization to the automaker and suppliers, we have experience in PCB designing, co-engineering the PCB, rigorous testing system and on time order delivery process. To stay tuned to the use of PCB in latest automotive technology visit <http://www.technotronix.us/index.html>. In order to drop any queries or to get a quote, visit <http://www.technotronix.us/contact-us.html>. You can also mail us at [sales@technotronix.us](mailto:sales@technotronix.us)