

Title: PCB Molding An Upward Curve Of Innovation In Building Protection Systems

Summary:

For keeping one step ahead in a bid to secure the buildings, the OEM's and manufacturing unit of the building protection system are striving to provide a complete pack of security, compatibility and affordability to the client. With this, the printed circuit boards used to build up the security system play a crucial role in enhancing the effectiveness and durability of the end product offered in the market. The PCB manufactures USA and across the globe need to provide high end customization in the PCB design and PCB prototyping services by maintaining international standard of quality to provide a heavy duty and high performance PCB. This article enlists the different types of the building protection system widely used in current times. Giving you a brief on the importance of these electronic building security equipment, this article is a detailed guide on the type of PCB used in the building protection system.

Article:

Be it a residential building, hospital, shopping mall, hotel, school, educational institution or any kind of a building, the security of the building is a prime facet to get a complete building solution. This also includes protecting the building, its asset and the human life from the airborne toxic industrial chemical, radiological and biological attacks or any accidental release apart from fire, water, earthquake and other security concerns. For these high value security solutions, the upgraded technology for the building safety system is now a top priority, especially in the commercial building sector and residential constructions. To introduce a completely new concept and a unique solution, it is necessary to focus on the dynamic electronic design and manufacturing solution in consultation with the custom PCB experts.

The printed circuit boards used in the making of the building security devices have many PCB manufacturing techniques with which one can create an altogether a unique modification in the new and existing electronic equipment. The modification and discovery in the building protection system have an increased use of state-of-the-art PCB fabrication techniques like Through-Hole-Technique, Surface Mount Technique, Cable Harness, Wire Harness and Box Build PCB assembly. To know about the ups and downs of the building security systems, it is also important to stay updated with the new innovation of the current times in the global market. Some of them are listed as under which has the highest requirement of varied PCB design and fabrication services.

Robust Fire detection System:

The flexible PCB is the foremost element in manufacturing the automatic fire detection technology and multi sensor devices for fire detection. This has also made it possible to get a hybrid instrument for fire detection that can also apply the modern signal processing techniques like fuzzy logic and neural network. This has made possible to bring new modifications in the fire risk assessment and fire fighting equipment for the building protection.

Electric Locking Mechanics:

The electronic devices having multiple functionalities like keyless electronic system, large scale entry solutions, retrofitting interior enclosure system, electromechanical lock and many more devices are used to provide security needs of electric locking mechanics.

Lightning Protection System:

The Lightning Protection System (LPS) provides safety of building from the destruction by the power of lightning that is directed towards the ground. For this, the rigid/flex PCB and cable harness PCB assembly are widely used in the electrical elements used in this lightning protection system with simple rods, triggering system and with taut wire. Among all, the lightning surge arrestor is in the mainstream that is used to protect the building from the havoc of lightning that can wreak on the delicate electronic instruments installed inside the building. These arrestors are installed on the electrical service panel that has a proper coat onto it that is capable enough to resist the direct lightning strike. This type of building protection system is majorly used in the metal covered buildings.

Fire Alarm System:

With rigid/flex printed circuit board and PCB prototypes, the fire alarm specialists are now able to bring new creative inputs into the device functionalities. Depending on the size of the building, the type of fire alarm system is decided as it has complex installations in the building. These consist of the hardwired system, conventional system, radio linked system and analogue addressable fire alarms.

Electric Smoke Detector:

A PCB used in smoke detection alarms need complex engineering and rigorous testing process to get a long estimated life of the batteries used in smoke detection devices installed in the building. Be it a hardwired AC operated or battery operated smoke detector, ionization and photoelectric technology has brought further improvements in the product performance and durability.

Induction loop and hearing enhancement system:

The wired or wireless induction loop system and hearing enhancement system with a high tech loop driver and audio source helps to catch the clear sound without interference.

Another new innovation is marked in the electric gauge door opener, cathodic building and structure protection, smoke alarms, burglar alarm, door monitoring and locking and fire door control devices. Above all the buzz word in building security market is the Eco-Friendly safety and security solutions to protect the building with the safety of the environment and human life as well.

TechnoTronix proffers a custom PCB prototype and manufacturing solution with the help of well defined PCB fabrication process and fully equipped tool room. With a passionate team of technical experts, we provide complete turnkey solutions with quick turnaround and timely delivery of order to our customers. Having good PCB assignments of building protection devices and equipment, our research team has made us one of the renowned players in providing electronic and design solution to the building security and safety requirements.

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