20 Most Promising Semiconductor Companies

The semiconductor industry came to the forefront of the technology drive with its central theory of developing electronics better and cheaper than what redefined state-of-the-art few months earlier. It led to the modernization of gadgets and devices, emphasizing on the durable contingent mechanism that further stimulated the world to anticipate for more reliable devices. With the course of time, these devices shrank in size leaving the trace of old predicaments for finest and fastest equipments in minimum budget. Right from transistors, solar cells to silicon controlled rectifier and digital and analog circuits, the industry reflected the three dogmas of transistors, solar cells to silicon controlled rectifier and digital and fastest equipments in minimum budget. Right from.

Today, computers are transforming into laptops and further to handstops, justifying the industry’s potential to acquire the intelligence of inducing more and more transistors onto the chip. The industry not only altered the technological outlook around the world but also hit the global market with its outreaching sales across the globe. Many companies around the world, serving semiconductor products, have enlisted their names as top notch semiconductor solution providers. In the last few months, a distinguished panel of the industry’s top CEOs, CIOs, VCs, analysts and industry experts including siliconindia editorial board identified the eminent companies that primarily serve the semiconductor industry. They have shortlisted the ones that are at the forefront of rendering revolutionized semiconductor solutions and services.

In the selection process, they delved into the business practices, services and compared them against the industry standards to ensure their eligibility and superior potentials in the semiconductor industry. Therefore, in this edition of siliconindia, we bring to you the “20 Most Promising Semiconductor Companies-2015”, featuring the companies creating an impact in the semiconductor industry.

Sierra Circuits
Empowering the Semiconductor Industry with Time-to-Market Advantages

Sierra Circuits has served over 20,000 designers, innovators and technical experts since 1986, having manufactured and assembled high-end prototype PCBs on fast turntimes. With over 45,000 square feet comprising their PCB manufacturing facility and a 10,000 square foot PCB assembly facility, Sierra turns the highly complex and multiple-step process of PCB manufacturing into a simpler one. Another aspect that enables Sierra to maintain an edge over competitors is their constant research and development toward improving the manufacturing processes and developing cutting edge technology, “We sell time and technology. Our production turnaround time is faster than our competitors and we have always been ahead with respect to the use of technology. This is the way Sierra has minimized local and offshore competition,” Ken continues.

Sierra Circuits recently worked with the Bates Research and Engineering Center at Massachusetts Institute of Technology’s Brookhaven National Laboratory Relativistic Heavy Ion Collider (RHIC). They designed readout electronics for the STAR experiments’ upgraded detector system. Originally, the prototype readout module were five APV25 chips wire-bonded directly to a PCB. The first prototype module distributed the chips’ inputs through bone wires to edge connectors. It was a composite, two boards having been laminated together, and allowed for no rework once the chips were bonded to the board. As a result, it limited the fabrication and assembly was very expensive. Sierra Circuits fabricated the BGA substrates and the tracker module boards, which each monitor 640 channels. This has helped achieve a 94 percent yield.

Sierra Circuits is certified for the following quality standards and procedures: ISO:90001, ISO:13485 (for medical devices), and MIL-SPEC (for the military, defense and aerospace industries). They have been servicing the needs of defense, aerospace, semiconductor and mission-critical applications for several decades. “Because of our extensive use of technology, there is minimal room for human-error in Sierra’s manufacturing process. Besides, no other competitors can match the levels of quality extended by Sierra towards technologically advanced PCBs,” comments Ken. Through 2015, many of the patented products from Sierra will be introduced to the market. “These technologies are truly revolutionary and could drive the future electronic industry,” states Ken.