SANTA ANA, CA – From the moment one steps through the door of **Express Manufacturing Inc.'s** Southern California headquarters, attention to detail is paramount.

Readily available is a chart showing defect parts per million trends. In the first quarter of 2009, DPPM were 15,458; in the fourth quarter of 2011, that number had been reduced to 525.

The improvements over the past few years have been eye-opening, but in fact the success of EMI is 30 years in the making.

It began in 1982, when CP Chin started an electronics manufacturing service on a Ping Pong table in his garage. Thirty years later, around the corner from its original location, EMI boasts 800 Orange County employees, and another 660 employees at its China subsidiary. At the company's Santa Ana location, the firm added its fifth building last year, bringing to 223,000 sq. ft. its total manufacturing space worldwide. The fifth building was added to accommodate additional customers (more space for dedicated controls and inventory).

Since we last visited the facility, in October of 2010, changes to the layout of the main building were noticeable. The company invested $3 million in new equipment in the US last year, which no doubt made Fuji happy: EMI now has 13 Fuji SMT lines at the Santa Ana campus, plus eight more at EMI Asia. (The latter has capacity for four more on the first floor of its three-story building.) EMI averages 150 placements per assembly. EMI also now has a DEK Horizon 03ix screen printer, and can handle 01005 components and package-on-package.

Also new to EMI's Santa Ana facility is conformal coating equipment, a service that used to be outsourced. The PVA machines are used for coating parking lot payment stations that will function regardless of outside temperature and moisture.

Also new since our last visit is the firm's environmental test upgrades. Espec chambers perform environmental stress screening to qualify packages. Equipment includes an acoustic microscopy inspection system, an extended/high-temp chamber, a thermal/humidity chamber, a thermal shock chamber, and a HAST chamber. The majority of boards the contract manufacturer builds are 4 to 6 layers, but EMI has tackled PCBs up to 16 layers.

EMI is now ITAR registered and is subsequently "heavily involved in ITAR projects" for the US government, says Chin. This explains a thorough check-in system for visitors. (A CIRCUITS ASSEMBLY reporter was issued her own badge, complete with a DMV-style photo.)

The company works with a number of industries: telecom, military/aerospace, test and measurement, medical, high-end computing, and industrial control. Seventy to 80% of its revenue comes from materials, in line with most larger EMS companies. EMI performs a mix of consignment and turnkey work, including NPI.

During the first week of April, the company received its largest single order ever – for $17.6 million – for complete turnkey telecom products. (The customer's name was not disclosed.)

This record order comes on the heels of a record year; the privately held company – the largest EMS firm in Orange County based on employee headcount – had double-digit growth in 2011 for a total of $103.5 million. The company broke the $100 million mark last year for the first time and expects double-digit growth this year as well.

This would have never been possible without the obvious dedication to customers, who rely on EMI long-term for pricing, on-time delivery, and quality. Every six months, EMI sends their customers a one-page survey, and according to Chin and his hospitable crew, they take the results very seriously. EMI also performs 100% first-article inspection.

The company also prides itself on its China facility working seamlessly with the US. The Asian site opened six years ago to focus on high-volume, low-cost production, for mainly Asia-Pacific and European customers. The setup in China is identical to the US, and is Hong Kong government certified. With communication and purchasing performed in the US, there aren't issues with time zones and language barriers, and most important, IP is protected in both locations. EMI Asia also follows US regulations.

Chin and EMI don't have much time for games anymore. Now in the final stages of AS9100C certification, EMI is riding great momentum. Who can say how much it will have grown after another 30 years? The contract manufacturer seems to have figured out the recipe, starting with its friendly and knowledgeable employees. During the five minutes this reporter was in the lobby, the receptionist and I determined my birthday is the same as her son's. From then on, we were smiling throughout the visit.