

RESUME

K.Karthigayen

+6016 6271593

kkarthigayen@yahoo.com

Address : No 87, Jalan SS18/4, 47500 Subang Jaya, Selangor , Malaysia

Nationality : Malaysian

Gender : Male

Scope of Work & Experience

Company	: Flextronics Technology Penang (February 2012 – Present)
Business Nature	: Contract Manufacturing All Segments
Function	: Technical Project & Process Development Manager
Work Description	: Lead, coordinate, manage and deploy all new technology and process development/improvement projects across all Penang Flextronics sites

RESPONSIBILITIES

- Lead, plan and oversee all facets of project lifecycle, including initiation, scheduling, planning, execution as well as risk management
- Manage a technical cross functional team from all departments to participate in the development projects
- Work with the customers for scoping, planning and executing development builds
- Serve as the focal point in customer communication with Flextronics Penang
- Coordinate and drive 4M readiness for development builds within the internal team
- Track and closely follow up on the projects and ensure timely deployment
- Prepare and present detail proposals to customer and ensure all technical aspects are taken into consideration for the technology or process development projects
- Perform product tear down analysis to understand the product/process requirements from manufacturing and design stand point. This includes Design for Manufacturing (DFM) analysis
- Drive closure of any technical issues identified during the development builds
- Provide design and technical solution to issues encountered during the builds
- Lead technical meetings with both customer and Flextronics Penang
- Plan the build budget and prepare quotation for customer

ACHIEVEMENT

- Successfully established the entire 2 part mixing potting process for one of Penang's Flextronics largest customer. This has won Flextronics a multi-million dollar business per annum
- Evaluated and implemented robust wave soldering fluxes which has improved the wave soldering process yield/quality by 50%
- Comprehensive & extensive studies done to improve the PCBA rework quality & turnaround time. Rework turnaround time reduced by almost 60%

- Improved the ICT yield by 80% by implementing a robust process which allows better ICT probe ability and test point accessibility
- Component damage occurrence in line was reduced by almost 60% and reduced board scrap by almost 75K USD per quarter. This was done by developing and implementing various jigs/fixture to ensure proper board handling

Company	: Flextronics Advance Technology Group (February 2010 – February 2012)
Business Nature	: Contract Manufacturing - Global
Function	: Senior Staff Engineer- Design for Excellence (DFx) Engineering
Work Description	: Lead and coordinate DFx activities across all Flextronics sites & provide design solutions to Flextronics as well as Customer design centers

RESPONSIBILITIES

DFx activities at Flextronics Center of Excellence (COE) sites:

- Certification of DFM Engineers in Basic and Advanced level
- Continuous training and development on both tool usage and technical knowledge
- Deploy new tools releases, and ensure good system performance
- Define and initiate projects to improve the competency level of DFM engineers across Flextronics sites while working to ensure the ultimate success and acceptance of the program
- Responsible and accountable for the coordinated management of multiple related projects directed toward organizational objectives

DFx activities at design centers:

- Conduct basic and advance level Design Center Compliance training
- Ensure the design centers understands the needs of COE's and all designs complies to the Flextronics Design & Guidelines
- Perform correlation case studies of DFM Issues to Manufacturing Build Report
- Coach, mentor and lead DFM champions
- Ensure the DFx activities is carried out as per the Flextronics Product Life Cycle process
- Early engagement with the projects in the design center
- Plan, schedule and execute DFM training across all design centers

ACHIEVEMENT

- Lead DFx summits for various segments
- Train and certify 25 DFM engineers across Flextronics sites
- Successfully deployed the Flextronics Design Tool across all COE sites
- Implement and sustain DFx activities across multiple Flextronics Design Centers
- Reduce design issues significantly across various Flextronics designed product
- Received the **Flextronics Star Individual Contributor** award for successfully deploying and standardizing DFx process across all Flextronics sites which includes AMERICAS, EUROPE and ASIA region

Company	: Flextronics Mobile & Consumer Segment (August 2009 - February 2010)
Business Nature	: Contract Manufacturing – Mobile & Consumer Segment
Function	: Senior Engineer – Advance Manufacturing Engineering (AME)
Work Description	: Ensure the SMT/Assembly/PCB/PCBA DFM process in all Flextronics Mobile and Consumer segment meets the Flextronics guidelines

RESPONSIBILITIES

- Responsible to maintain and update the segment specific design rules
- Provide SMT support at Flextronics Mexico one of the largest RIM Blackberry mobile phone manufacturing sites.
 - Perform PCB/PCBA DFM analysis for all RIM blackberry mobile phone
 - Liaise with customer to close all design, process & material related issues
 - Identify and train the subject matter expert for the underfill process
 - Perform machine & tooling optimization for the underfill process
 - Perform DoE to identify the best parameters for the underfill process
 - Involved in the NPI projects deployment in Mexico
 - Involved in RIM product rework qualification
 - Perform DoE to identify the best practice for the rework process
 - Involved in day to day issues seen in the SMT line
 - Standardization in terms SMT process
- Initiated PCB/PCBA DFM activities in Mexico for RIM products
 - Identifying Subject Matter Expert on site to perform the DFM analysis
 - Train candidate in understanding failures and correlating issues seen in the production floor with the issues reported in DFM report
 - Mentoring the trainee for at least 3 months to ensure the trainee is competent enough to perform the DFM analysis

ACHIEVEMENTS

- Stationed in Mexico for 3 months to ensure all RIM mobile phone NPI products are transferred accordingly and meets the production output
- Ensure all underfill NPI line qualification meets RIM's requirements
- Optimized and increased SMT/Underfill output by 30% to 40%
- Received compliments from RIM customer and Flextronics Mexico management on the commitment and achievement in ensuring smooth product transfer and ramp

Company	: Flextronics Technology Shah Alam (July 2006 - July 2009)
Business Nature	: Contract Manufacturing – Mobile & Miniaturized Segment
Function	: Surface Mount Assembly (SMT) Engineer
Work Description	: Lead prototype projects and transfer these projects successfully to the High Volume Manufacturing sites across all Flextronics sites

RESPONSIBILITIES

- Set up the entire SMA line which includes the below
 - Solder Paste Inspection & Automated Optical Inspection
 - Underfill process
 - SRT BGA rework station
 - Solder Paste Printing
 - Reflow Oven
 - Basic hot bar machine startup
- Project lead for multiple Sony Ericsson mobile phones/miniaturized products. Job scope as an object lead as below:
 - Lead a team of 2 engineers, 3 technicians and 6 operators for a respective project.
 - Stencil design based on stencil aperture area ratio/aspect ratio & solder paste Cp/Cpk analysis.
 - Generate X, Y coordinates for pick & place machines.
 - Perform PCB/PCBA Design for Manufacturability (DFM) analysis
 - Assist panelization for ODM projects.
 - Prepare and handover production process documents
 - Yield study & process improvement and align lean six sigma manufacturing.
 - Work closely with customers to close all issues before a product is transferred to High Volume Manufacturing.
 - Perform DoE & FMEA
 - Perform Destructive & Non Destructive analysis
 - Subject matter expert in Underfill process development and rework process

ACHIEVEMENTS

- Object lead for multiple Sony Ericsson/ODM mobile and miniaturized products.
- Pioneer for stencil design based on area ratio calculation. Implemented in all factory sites to ensure zero paste printing issues due to the stencil design.
- Perform solder paste and underfill material compatibility studies. Proposed solder paste and underfill material are being used in current a product which yields in exceptional good results and reliability.
- Created and proposed to other factory sites a standard template to monitor solder paste printing results. This ensures the printing process is in control and ensures minimum defects which are related to the solder paste printing process.

- Lead multiple projects with Sony Ericsson relating to underfill process and qualifying underfill material reworkability. These materials are being used in Sony Ericsson/ODM products and the underfill rework yield is up to 90 %.
- Created and implemented best underfill rework method with the approval of Sony Ericsson Technical Lead. This reduced the underfill rework scrap rate by 50% at factory sites.
- Attended external training in Singapore and certified as an underfill machine programmer.
- Transfer product to sites with high yield (>99% SMA yield).
- Lead multiple product site transfers in Shah Alam, China and Brazil.
 - LG mobile product factory site transfer in Shah Alam (October 2007)
 - Sony Ericsson PC Card product factory site transfer in Shah Alam (November 2007)
 - Sony Ericsson PC Card and mobile product factory site transfer in Doumen, China (December 2007, January 2008 and October 2008)
 - Sony Ericsson mobile product factory site transfer in Sorocaba, Brazil (May 2008)
- Assist the team ISO lead and Flextronics Industrialization group was ISO 9001:2008 and ISO14001:2004 certified.

Education Background

Undergraduate Degree : University Tenaga National
 Field of Study : Bachelor (Hons) Degree in Electrical & Electronics Engineering
 Graduation Date : August 2006
 Final Year Project : Built In Self Test for Analog and Mixed Signals

Secondary Education : High School Setapak
 Field of Study : Pure Science
 Completion Date : Year 2000
 SPM Results : Aggregate 9

Language Spoken & Written

Proficiency 0=Poor ; 10=Excellent

Language	Spoken	Written
English	10	10
Malay	10	10
Tamil	10	5

Skills & Strengths

Software Skills

- GC Preview , GC Power Station
- Valor to perform DFM analysis
- Minitab to generate control charts and plot process Cp & Cpk
- Microsoft office applications
- Attended 6 Sigma Green Belt training
- Attended and completed 6 days Emerging Leadership Training
- Attended and completed 3 days SPC training
- Attended and completed Cadence Allegro PCB design training

Personal Strengths

- Fast learning and adapting capability.
- Possess good analytical skills
- Possess leadership quality, and able to communicate and work effectively in a team. A good team player.
- Can blend into any type of working environment and possess very good public relation skills.
- Able to handle pressure and deal with complicated scenarios involving clients or customers.
- Possess good communication skills both in English and Malay.
- Self-reliant and well motivated with high objectives and result-driven mindset.

Referees

Name : Sarawanan Nadras
Relation : Previous Department Head
Company : Aker Solutions
Position : Senior Project Manager
Contact number : H\P 019 3512410
Email : sara2190@hotmail.com

Name : Datuk R. Karunakaran
Relation : Relative
Company : KR Advisory Sdn Bhd(former Director General of MIDA)
Position : Executive Director
Contact number : H\P 019 2125577 Main: 03 20936391
Email : Karu.kr@gmail.com