Jay Mistry

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SUMMARY

- To be a competent member in RF & Wireless Industry and providing efficient services to the company in attaining its goals
- Certified RF engineer with experience in designing, measuring and testing of RF Filters, Low Noise Amplifier, Antennas, Wafer probing
- Competent in RF circuit design, simulation and testing of component and subsystems in frequency ranging from L band to X band

EDUCATION

M.S in Electrical Engineering (Wireless & Microwave)	University of South Florida, Tampa	GPA = 3.9/4	**Jan 18 – Dec 19**
B.E in Electronics & Telecommunication	University of Mumbai, India	GPA = 3.4/4	**Aug 13 – May 17**

CERTIFICATIONS & TRAININGS

- Keysight RF/MW Industry Ready certified
- Python essential training
- MATLAB Essential training.

SKILLS

- **Tools** - Keysight Advace Design System (ADS), MATLAB, AWR Microwave, NGspice, MPLAB, AutoCAD
- **Language**: Python, C
- **Testing skills**: RF Filters, Matching Network, Wafer Probe, Antenna, Couplers, Mixers, Isolators, Circulators, Waveguides, Power splitters
- **RF performance metrics:** EVM, S-parameter, Noise Figure, RF link budget, IP3, Gain, ACPR, P1dB, VSWR, Smith chart, S-parameters
- **RF instrument:** Spectrum Analyzer, VNA (Agilent ES071C), Signal Generators. Oscilloscope, Power meters.
- Good understanding in analyzing RF Transceiver/RF Front-End device, Link budget
- Wireless Communicaton: MIMO, BPSK, QPSK, 16QAM, GMSK, OFDM, SC-FDMA, LTE, CDMA, WCDMA

Work Experience

Associate Engineer

NFPI **June 2017 – Nov 2017**

- Worked with Management team, support data-related applications in support of organizational and company goals
- Engaged with team, worked under direction of senior staff responsible for the complete performance of the assigned tasks and projects
- Provided support to technical staff in preparation of technical processes, development of new product
- Check all reports for accuracy and completeness
- Analyzed, monitored and reported progress to the project teams to ensure confinement of project and timelines

Intern

Indian Railways **March 2017 – April 2017**

- Trained about the various Signaling, Optical Fiber Communication (OFC), Server Management and Interlock aspects employed by railways
- Acquired industrial exposure & experience in Broadband & Wireless standard techniques, communication and IP networking protocols.

Academic Projects

Design Tools used: ADS, Momentum, MATLAB Testing: VNA, SA, Signal Generators

- **RF & Microwave Measurements Lab** **April 19**
  Performed on wafer 2-port SOLT calibration on GGS substrate & TRL calibration on GaAs wafer using wafer probes. Extracted S-parameters for Rectangular waveguides (X-band), Frequency Doublers using NF meter measurements, phase noise measurements using power meter.
- **2.05 GHz Microstrip Patch Antenna (ADS)** **April 19**
  Designed and tested a 2.05 GHz patch antenna and calculated the required dimensions using Linecalc in ADS.
- **Band Pass Filter Design (ADS)** **March 19**
  Designed a 3rd order coupled line Band Pass Filter centered at 2.45 GHz using micro strip coupled lines on FR4 substrate
- **Receiver System Integration** **March 19**
  Tested a bench-top system where a signal is received within a range of 915MHz and is down-converted to an IF frequency in the 70MHz range. Using VNA characterized the transmission coefficients of the several system components such as Amplifier, BPF filter, Mixer and calculated the gain, losses and filter bandwidth
- **2.1 GHz Coupled Line Bandpass Filter Design Project (ADS)** **Feb 19**
  Designed and fabricated a 5th order microstrip coupled line Chebyshev filter on FR4 substrate for 140mm by 64 mm board dimension using ADS software.
- **Low Pass Filter Design** **Feb 19**
  Designed a lumped element (LCL) low pass filter and a distributed stepped impedance (high-low-high) filter in ADS
- **Directional Coupler** **Jan 19**
  Created a schematic in ADS using microstrip substrate and microstrip coupled line. Explored the effects of adding MCRON and MCLIN on the output. Simulated and analyzed the S-parameters
- **Matching Network Design** **Jan 19**
  Designed and performed EM simulation on a distributed microstrip matching circuit to match a non-50 Ohm load to 50 Ohms using short circuit stubs on Keysight's ADS.
- **Mean Square Error Estimation (MATLAB)** **Nov 18**
  Using Linear estimator function and mean squre error function predicted the size of the forest
- **Random Early Detection Algorithm** **March 18**
  Prevents network congestion and then optimized it by applying priority-based selection over the packets received by a node in the queue