

Youngson Son

Staff Hardware Engineer

Langhorne, PA - Email me on Indeed: indeed.com/r/Youngson-Son/b946a2b2a792e8fa

Hardware Engineer (Analog, RF and Fiber Optic) with 15 years of experience leading product development, design from concept through meet the customer specification in the telemetry and cable television industry.

Product Development Process Improvement RF Analog
Fiber Optics Telemetry CATV
Authorized to work in the US for any employer

WORK EXPERIENCE

Staff Hardware Engineer

ARRIS - Horsham, PA - November 2007 to February 2016

Formerly Motorola), Horsham PA Nov. 2007- Feb. 2016

Global innovator in IP, video and broadband technology for the Cable Television Industry

Staff Hardware Engineer

Led team of 3 engineers and a technician in the concept, design and development of CATV optical headend products.

- Analyze and development Low Noise 1.2GHz Dual Forward Receiver.
- Design and development Digital Return (5-85MHz) Transmitter using Small Form-Factor Pluggable (SFP).
- Design and development RFoG ONU (Optical Network Unit).
- Design component Level include Schematic and PCB Layout.
- Test Prototype Unit and Create Specification Document.
- Analyze and development CATV Fiber High Density Low Noise Return Receiver.
- ITU optical transmitter (8dBm) with RF Amplifier, Cooled Laser, and Controller Circuits.
- Design Low Noise Return Receiver with low noise TIA, RF MMIC, and Digital Attenuator.
- Design Optical/RF transceiver in forward and return path with Laser Driver, TIA, RF MMIC, and Diplexer.
- Test all the RF, and Optical specific required parameters include Distortion, Delay, EINC (Equivalent Input Noise Current), RF response, spurious, and NPR.

Electrical Engineer

Antronix - Cranbury, NJ - July 2001 to February 2007

Design and developed the HFC and CATV products.

- Analyze and development CATV Fiber Node Amplifier (1310, 1550nm).
- Design CATV and Satellite Forward (MMIC, BJT) and Return (BJT-Push Pull) Amplifiers for Cable Communication about 5M to 1GHz and 1 GHz to 2.2GHz bandwidth.
- Design Drop Amp, Splitter, and Diplex filter (Active, Passive and MicroStrip).
- Experience FM Receiver, DC-DC Converter and Surge Protector (Ring Wave, Combination Wave)
- Analog and Rf circuit simulation, Drawing the Schematic and Layout, Prototyping the sample board and troubleshooting the circuit.

RF Design Engineer

Aeroflex RDL - Conshohocken, PA - June 2000 to February 2007

Design and developed the product X-band Frequency Generator.

- Stress Analysis and MTBF (Mean Time Between Failure) on RANSTAMO (X-band Frequency Generator) according to MIL-HNK-217 using Relux Software.
- Design Filters, Pad (attenuation) and Splitter.
- Design RF Transistors Matching Circuit.
- Design ALC (Automatic Level Control).
- Test all the RF parameters on RANSTAMO include Distortion, Phase Noise, RF response, and spurious.

Analog Design Engineer

AYDIN TELEMTRY - Newtown, PA - August 1995 to June 2000

Newtown PA Aug. 1995 - June 2000

A world-leading manufacturer of missile and aircraft flight test instrumentation, including airborne and ground telemetry products.

Analog Design Engineer

Design and research PSCC Products.

- Design PSCC (Programmable Signal Conditional Card) consist of programmable Gain(Amplifier) and Attenuator in Low frequency and Programmable Active Filter(6 pole butterworth filter).
- Design Active filters.
- Power Supply, DC-DC regulator, LDO, etc.
- Understand digital logic.

RF Engineering

Analyzing and troubleshooting military S band Transmitters and receivers.

- Analyzing RF circuits in Exciter and Amplifier by understanding and calculating such as Op-amp filters, Bipolar Transistor, J-FET, and Low, High, Bandpass filters, and Impedance Matching.
- Analyzing, developing and trouble-shooting the S, L, and TV band transmitters.

EDUCATION

Master of Science in Electrical Engineering

Drexel University

Bachelor of Science in Electrical Engineering

Drexel University