GARY L. STEVENS

Glendora, CA
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Sr. RF/MICROWAVE DESIGN ENGINEER

SUMMARY: An experienced and versatile design engineer with strong capabilities in the development of RF circuits and systems. A self-motivated professional who works well with others and can quickly and efficiently develop hardware solutions for your RF and microwave needs.

EDUCATION: Bachelor of Science in Electrical Engineering, 1973. West Coast University, Los Angeles, CA.

45 semester units in electronics and math, 1966-67. Pasadena City College, Pasadena, CA. Dean's Honor List 1967.

FCC First Class Radiotelephone License and Amateur Radio License WD6FLY.

EXPERIENCE: **Senior Member of Technical Staff/ Sr. Research Engineer, Communications Systems Research Section, NASA/Jet Propulsion Laboratory, Pasadena, CA (9/74 - 8/07)**

Developed an RF/microwave transceiver to support land mobile/satellite communications experiments using NASA's Advanced Communications Technology Satellite at 20 & 30 GHz.

Developed a microstrip-matched, 70 watt, 1.6 GHz linear amplifier to support L-band satellite communications experiments.

Cognizant Engineer for two of the nine RF units within the highly successful Magellan spacecraft's Synthetic Aperture Radar that mapped the surface of Venus.

Developed an Allan Variance Stability Analyzer which measures the fractional frequency stability of the world's most stable atomic oscillators.

Developed S- and X-band planetary radar receivers for the Goldstone Solar System Radar that precision tracking and high resolution mapping of the surfaces of comets, asteroids, planets and their natural satellites.

Co-developed a high-performance, hybrid RF isolation amplifier which became a commercial product.

Co-developed a Precision Signal Power Measurement system used in the Deep Space Network. This system accurately measured the strength of the weak signals (±0.2 dB

@ -175 dBm) received by the DSN from inter-planetary probes carrying 20 Watt transmitters.

Consulting Engineer, (7/03 - 6/04).

Developed 10GBPS /CAT5E Ethernet hardware for SolarFlare Communications, Inc.

Consulting Engineer (dba Stevens Consulting), W. Covina, CA (2/95 - 5/95).

Developed an earth terminal QPSK modulator for a satellite-based differential GPS distribution system which supports precision farming throughout the continental US.

Founder and President, Radiolab, Inc., West Covina, CA (9/84-8/92).

Designed, developed and delivered frequency-hopping spread spectrum UHF transceivers for secure, airborne voice communications.

Developed RF and microwave frequency synthesizers designed for various low phase noise and frequency-hopping applications.

Developed key systems and technologies incorporated in emergency lighting systems which now fly in commercial airliners around the world.

Provided consultation and design recommendations for ELF air-to-submarine communication system (USAF contract).

Provided consulting, design, and RF hardware development services to a firm exploring RF interference mitigation techniques in wideband FM systems.

Consulting Engineer (dba Stevens Consulting), Arcadia, CA (1/78 - 9/84).

Provided consulting, engineering and product development services.

Designed and developed a series of professional, studio-quality wireless microphone transmitters and receivers for a world leading manufacturer and supplier of these systems. Responsible for several innovations which were integrated into these systems including:

- audio signal linearization in receiver circuits to compensate for unavoidable transmitter nonlinearities.

- the split-case handheld microphone/transmitter which eliminated the external, rigid or dangling wire antennas from these units. This concept is now used by all competing manufacturers.

- developed an AGC-switched, spatial-diversity receiver system employing multiple antennas and RF front ends to virtually eliminate the deleterious effects of multipath reception in enclosed soundstages and auditoriums.

Engineering Analyst, Deep Space Network Operations, Philco-Ford Corp. at Jet Propulsion Laboratory, Pasadena, CA (2/74 - 9/74).

Generated models and performed analysis to test DSN subsystem performance.

Sr. Electronic Technician, Jet Propulsion Laboratory, Pasadena, CA (6/67 - 2/74).

Designed, constructed, tested and documented R&D electronic systems.

PATENT: Received US Patent 8,085,342 B2 for *Highly Miniaturized, Battery Operated Digital Wireless Camera Using Programmable Single-Chip Active Pixel Digital Camera Chip* issued December 27, 2011.

HONORS: Received 23 NASA awards for outstanding performance & contributions.

PERSONAL: US citizen, inactive DISCO Secret Clearance.