DAVID NGHIEM, Ph.D.

Founding CEO & Chief Scientist
Global Wireless Technology, Inc.
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HIGHLIGHTS

- Has been developing proprietary technologies, including MRI safety/compatibility technology for medical devices, implant-explosive-device detection technology for homeland-security & anti-terrorism applications, and wireless power-charging technology.
- Has also been providing the industry with fast-turn-around, innovative and cost effective antenna element/array solutions for a variety of wireless applications, including medical (MICS, ISM/SRD, BLE/MBAN) implant/body-worn device/external device & equipment, RFID packaging/surgical metal tool/bio-application, cell-phone/LTE, Wi-Fi/Bluetooth, GPS, satellite (150 MHz, C & Ku band), and millimeter wave (mmW) communication systems. Thirteen US Issued Patents: 9,698,847 – 8,947,301 – 8,933,848 – 8,483,838 – 8,195,305 - 8,160,707 - 7,979,089 – 7,917,226 – 7,742,787 – 7,363,087 – 7,289,855 – 6,114,996 – 6,008,762 & One US Patent Pending: 20160218433 A1
- Has many years of experience in antenna design including modeling, testing, prototyping, and manufacturing - Strong knowledge of antenna/electromagnetic numerical modeling & simulation (IE3D, HFSS, CST, XFDTD), and far-field/near-field measurement techniques.
- Has strong knowledge of the FCC regulatory for wireless devices & equipment, including FCC EIRP, TRP, TIS, emission testing, coexistent interference testing, and SAR measurement & calculation.
- Developed a new concept to minimize surrounding metal-structure effects on the antenna performance, a simple antenna-efficiency measurement technique that significantly shortens the design cycle, and a reliable & cost-effective MRI survivability/SAR/heating measurement methodology.
- Experienced in the complete process of antenna design & product development, including management, marketing & sales.
- Provided the industry and consumers with the Advanced Cellular Phone Antenna (ACPA) technology that significantly improves the system performance and reduces radiation. Most of the cell phones currently in the market have the main antenna mounted at the bottom as proposed in the 1997 ACPA solution.
- Provided a simple, but effective solution: Wireless Device Grip Guide (WDGG) that would further improve the cell-phone system performance, save energy, prolong battery life and reduce radiation significantly. View a smartphone that incorporated the WDGG housing design.
- Discovered the dominant leaky-modes for stripline and microstrip transmission-line structures that have commonly been employed in millimeter wave (mmW) circuit design – Provided the industry with practical solutions to eliminate the circuitry cross-talk and power loss due to the dominant leaky-modes.
- Experienced in a variety of working environments, including startup company, medium & large companies, commercial & defense companies, and industry & university.
- Received the 2016 IEEE Twin Cities Section Outstanding Engineer Award.
- US Citizen: Obtained extended background check security clearance in 1994.