(54) **SYSTEMS, METHODS, AND DEVICES FOR ELECTRONIC SPECTRUM MANAGEMENT**

(71) Applicant: **Digital Global Systems, Inc.**, Tysons Corner, VA (US)

(72) Inventors: **Ronald C. Dzierwa**, Baltimore, MD (US); **Gabriel R. Garcia**, Severna Park, MD (US); **Daniel Carbajal**, Severna Park, MD (US)

(73) Assignee: **Digital Global Systems, Inc.**, Tysons Corner, VA (US)

(57) **ABSTRACT**

Devices and methods enable optimizing a signal of interest based on identifying and analyzing the signal of interest based on radio frequency energy measurements. Signal data is compared with stored data to identify the signal of interest. Signal degradation data is calculated based on noise figure parameters, hardware parameters and environment parameters. The signal of interest is optimized based on the signal degradation data. Terrain data is also operable to be used for optimizing the signal of interest.