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(71) Applicant *(for all designated States except US)*: **BAE SYSTEMS INFORMATION AND ELECTRONIC SYSTEMS INTEGRATION INC.** [US/US]; 65 Spit Brook Road, Nashua, New Hampshire 03060 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **BROMMER, Karl, D.** [US/US]; 165 High Street, Exeter, New Hampshire 03833 (US). **BROMMER, Tracey, H.** [US/US]; 165 High Street, Exeter, New Hampshire 03833 (US). **SIMONSON, Peter** [US/US]; 7 Old Mason Center Road, Greenville, New Hampshire 03048 (US).

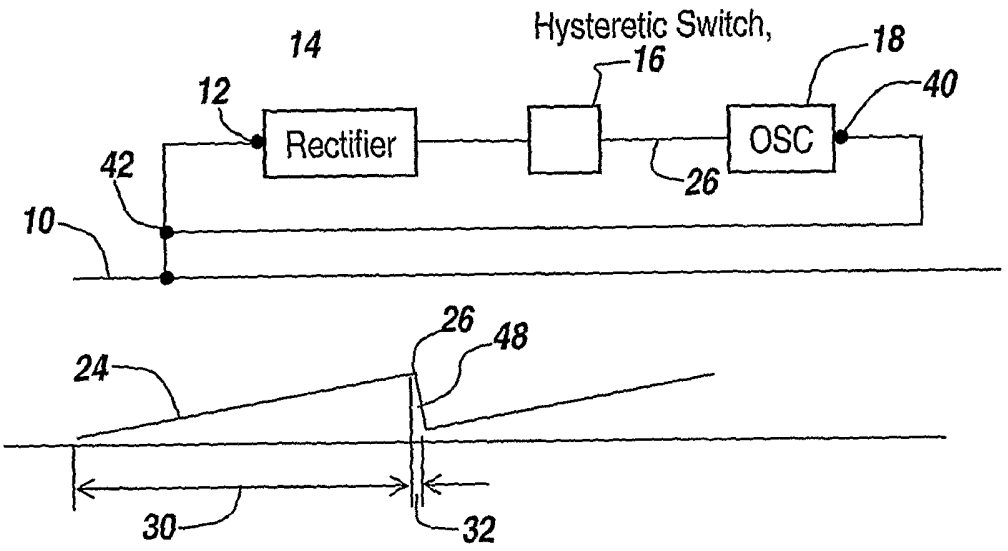
(74) Agent: **LONG, Daniel, J.**; BAE Systems Information and, Electronic Systems Integration Inc., 65 Spit Brook Road, Nashua, New Hampshire 03060 (US).

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(54) Title: MICRORADIO DESIGN, MANUFACTURING METHOD AND APPLICATIONS FOR THE USE OF MICRORADIOS



(57) Abstract: A microradio (10) is provided with a hysteretic switch (16) to permit an optimum range increasing charging cycle, with the charging cycle beling long relative to the transmit cycle. Secondly, an ensemble of microradios permits an n2 power enhancement to increase range with coherent operation. Various multi-frequency techniques are used both for parasitic powering and to isolate powering and transmit cycle. Applications for microradios and specifically for ensembles of microradios include authentication, tracking, fluid flowing sensing, identification, terrain surveillance including crop health sensing and detection of improvised explosive devices, biohazard and containment breach detection, and biomedical applications including the use of microradios attached to molecular tags to destroy tagged cells when the microradios are activated. Microradio deployment includes the uses of paints or other coatings containi microradios, greases and aerosols.

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A. CLASSIFICATION OF SUBJECT MATTER

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 455/40, 127.1, 343.1, 39, 550.1, 128, 129; 340/505, 539.1, 573.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,259,372 B1 (TARANOWSKI ET AL) 10 July 2001 (10.07.2001), columns 3-5.	1-15, 19-22, 28-88, 94-99
X	US 5,273,939 A (BECKER) 28 December 1993 (28.12.1993), column 4 line 64 to colum n 5 line 12.	89-93
A	US 2003/0234730 A1 (ARMS ET AL) 25 December 2003 (25.12.2003), paragraps [0050], [0054]-[0060], [0066], [0070], [0079].	1-99

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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Name and mailing address of the ISA/US
Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
Facsimile No. (571) 273-3201

Authorized officer
Nguyen T. Vo
Telephone No. 571-272-2600

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