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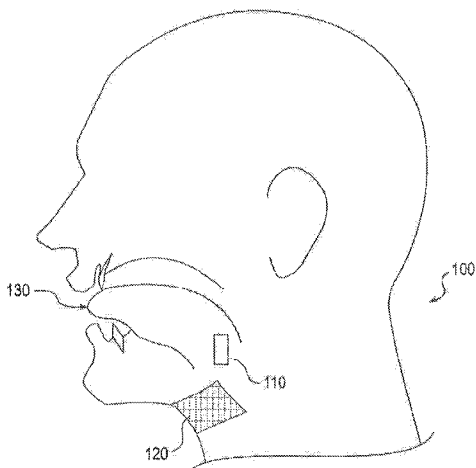


Fig. 2

(57) Abstract: A unit configured for implantation in a subject's body may include a carrier, an implantable circuit associated with the carrier, an antenna arranged on the carrier and configured to wirelessly receive energy from a location external to the subject's body and to provide at least a portion of the energy to the implantable circuit, and at least one component associated with the carrier for receiving energy from the implantable circuit. Wherein the implantable circuit and the antenna have an internal resonant frequency mismatched from an external resonant frequency of an external circuit, to account for resonance frequency variation as a result of implantation in the subject's body.



INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC(8) - A61B 5/08, 5/103; A61N 1/00, 1/05, 1/08, 1/36, 1/372 (2014.01)
 USPC - 600/534, 595; 607/2, 42, 44, 46, 48, 59, 60, 72, 76, 116, 118
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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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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)
 MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A; FR-A); Google/Google Scholar; IP.com;
 ProQuest; Search terms used: hypoglossal, genioglossus, antenna, frequency, resonance, drift, difference, variation, alter, adjust, set,
 internal, external, capacitance, capacitor, implant

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X — Y	US 2011/0172733 A1 (LIMA, MG et al.) July 14, 2011; figures 1, 5, 5A, 7; paragraphs [0033]-[0036], [0040]-[0042], [0048]-[0051], [0053], [0056], [0060]-[0065], [0077]-[0086]	1-4, 6-8, 22 ----- 5, 9-15
Y	US 2009/0179716 A1 (GAY, SD) July 16, 2009; abstract; figure 8; paragraph [0056]	5
Y	US 7835804 B2 (FRIDMAN, GY et al.) November 16, 2010; abstract; column 10, line 32	9, 16-20
Y	US 2012/0153893 A1 (SCHATZ, DA et al.) June 21, 2012; paragraphs [0016], [0142], [0358], [0436]	10-11, 18
Y	US 2012/0179234 A1 (CARRINGTON, C) July 12, 2012; paragraph [0031]	12
Y	US 2012/0139485 A1 (OLSON, DP et al.) June 7, 2012; paragraphs [0080]-[0081], [0087], [0109]-[0111]	13, 19
Y	US 2005/0075699 A1 (OLSON, DP et al.) April 7, 2005; abstract; paragraphs [0046], [0095]	14, 20
Y	US 4541431 A (IBRAHIM, IH et al.) September 17, 1985; abstract; column 6, lines 25-31	15
Y	US 2012/0172948 A1 (AGHASSIAN, D et al.) July 5, 2012; figures 3, 9-10; paragraphs [0027], [0033]-[0034], [0069], [0074], [0079]; claim 14	16-21
Y	US 5350413 A (MILLER, JA) September 27, 1994; column 1, lines 66-68 to column 2, lines 1-14	17, 21

Further documents are listed in the continuation of Box C.

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