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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

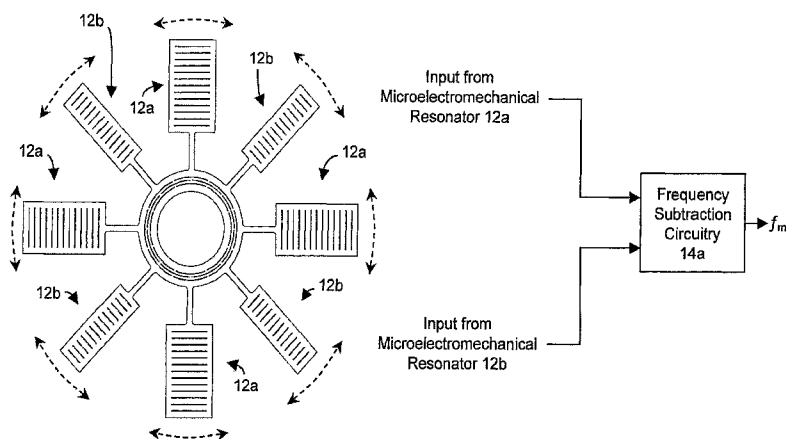
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(54) Title: OSCILLATOR SYSTEM HAVING A PLURALITY OF MICROELECTROMECHANICAL RESONATORS AND METHOD OF DESIGNING CONTROLLING OR OPERATING SAME

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(57) Abstract: There are many inventions described and illustrated herein. In one aspect, the present inventions relate to oscillator systems which employ a plurality of microelectromechanical resonating structures, and methods to control and/or operate same. The oscillator systems are configured to provide and/or generate one or more output signals having a predetermined frequency over temperature, for example, (1) an output signal having a substantially stable frequency over a given/predetermined range of operating temperatures, (2) an output signal having a frequency that is dependent on the operating temperature from which the operating temperature may be determined (for example, an estimated operating temperature based on an empirical data and/or a mathematical relationship), and/or (3) an output signal that is relatively stable over a range of temperatures (for example, a predetermined operating temperature range) and is "shaped" to have a desired turn-over frequency.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/05539

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - B81B 7/04 (2007.01)

USPC - 331/177R

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8) - B81B (2007.01)

USPC - 73/497,570-672; 331/154-164,177R,177V,178-181; 333/186-201

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)

USPTO EAST System (US, USPG-PUB, EPO, JPO, FPRS, DERWENT), GoogleScholar

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,124,765 A (CHAN et al) 26 September 2000 (26.09.2000) entire document	1, 2
X	US 6,424,074 B2 (NGUYEN) 23 July 2002 (23.07.2002) entire document	1-5, 13-15, 22
Y		10-12, 16-21, 23-37
X	WO 2004/102796 A1 (BOURGEOIS) 25 November 2004 (25.11.2004) abstract, Fig. 1, Fig. 5	1, 2, 6-9
Y		16-19, 31-33
&	US 2007/0024158 A1 (BOURGEOIS) 01 February 2007 (01.02.2007) entire document	1, 2, 6-9
		16-19, 31-33
Y	US 2005/0151592 A1 (PARTRIDGE et al) 14 July 2005 (14.07.2005) paragraphs [0074-0077, 0108], Fig. 9a	10-12, 20, 21, 23-37
Y	US 2005/0001698 A1 (BOUCHE et al) 06 January 2005 (06.01.2005) paragraphs [0003, 0016, 0017]	11, 21, 35

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