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Declarations under Rule 4.17:

[Continued on next page]

(54) Title: APPARATUS AND METHOD OF COMPENSATING FOR CLOCK FREQUENCY AND PHASE VARIATIONS BY PROCESSING PACKET DELAY VALUES

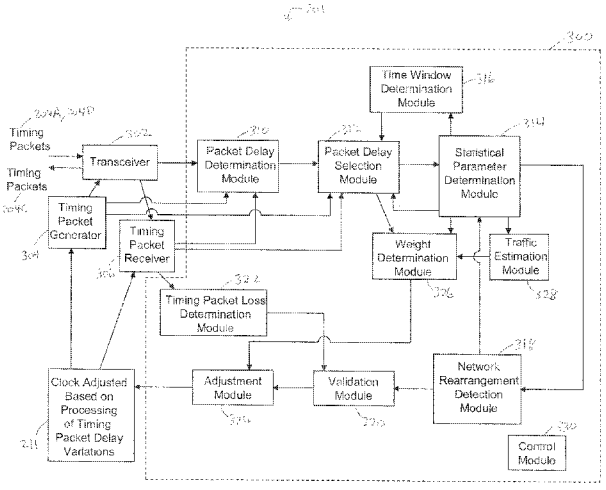

FIG. 3

(57) Abstract: An apparatus and method are described for compensating for frequency and phase variations of electronic components by processing packet delay values. In one embodiment, a packet delay determination module determines packet delay values based on time values associated with a first and a second electronic component. A packet delay selection module selects a subset of the packet delay values based on the maximum frequency drift of the first electronic component. A statistical parameter determination module evaluates a first and a second parameter based on portions of the subset of packet delay values. A validation module validates the parameters when each portion the subset of packet delay values includes a minimum of at least two packet delay values. An adjustment module compensates for at least one of a frequency variation and a phase variation of the first electronic component based on the parameters if the parameters are both validated.

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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)

H04L 7/02; H04L 7/00; H04K 1/10; H04L 27/38; H04L 27/26; H04L 25/40

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: compensat*, frequency, phase, variation, packet delay, parameter, validation, adjustment

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2005-0100106 A1 (HUNG-KUN CHEN) 12 May 2005 See abstract; figure 1; page 1, paragraph 8 - page 2, paragraph 12	1-30
A	EP 1349338 A2 (BROADCOM CORPORATION) 01 October 2003 See abstract; figure 1; column 3, paragraph 11 - column 6, paragraph 29	1-30
A	US 2003-0185326 A1 (THOMAS, J. KOLZE) 02 October 2003 See abstract; figure 1; page 2, paragraph 14 - page 2, paragraph 18	1-30
A	EP 0820173 A2 (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.) 21 January 1998 See abstract; figure 5; page 2, line 52 - page 3, line 56	1-30

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
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