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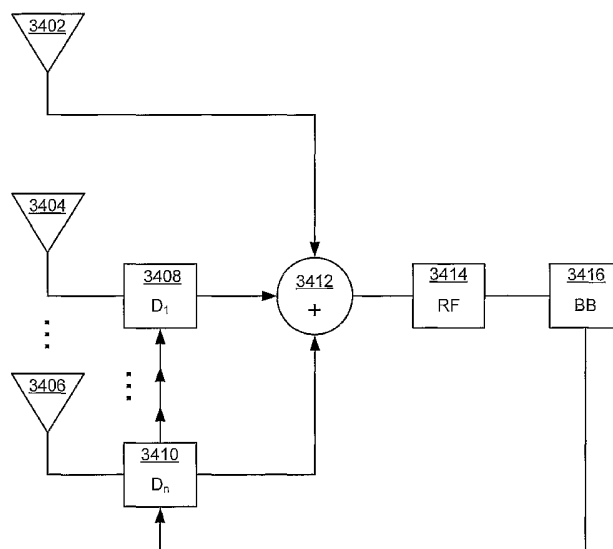
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[Continued on next page]

(54) Title: ULTRA-WIDEBAND COMMUNICATION APPARATUS AND METHODS



(57) Abstract: Ultra-wideband (UWB) communication systems and apparatus are provided. One embodiment of an UWB signals receiver may include a first antenna (3402) that receives UWB signals, and a second antenna (3404) that also receives UWB signals. The UWB receiver also includes a delay element (3408) communicating with the second antenna (3404), with the delay element delaying the UWB signals received by the second antenna (3404). A combiner (3412) in the receiver then combines the UWB signals received by the first antenna (3402) with the delayed UWB signals received by the second antenna (3404). This Abstract is provided for the sole purpose of complying with the Abstract requirement rules that allow a reader to quickly ascertain the subject matter of the disclosure contained herein. This Abstract is submitted with the explicit understanding that it will not be used to interpret or limit the scope or the meaning of the claims.



SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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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)

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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.
Y,P	US 2004/0239562 A1 (SCHANTZ) 02 Decemeber 2004 (02.12.2004) figure 7, paragraphs 68 and 72.	1-15
Y,E	US 7,046,187 B2 (FULLERTON et al) 16 May 2006 (16.05.2006), figure 8, column 6, lines 42-67	1-15

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

☐ See patent family annex.

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"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent family

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