

ABSTRACT

FLOATING-POINT NUMBER MULTIPLICATION COMPUTATION METHOD AND APPARATUS, AND ARITHMETIC LOGIC UNIT

5 This application discloses a floating-point number multiplication computation method and
apparatus, and an arithmetic logic unit, and belongs to the data processing field. The method
includes: obtaining a plurality of to-be-computed first-precision floating-point numbers (101); and
decomposing each to-be-computed first-precision floating-point number to obtain at least two
second-precision floating-point numbers, where precision of the second-precision floating-point
10 number is lower than precision of the first-precision floating-point number (102); determining
various combinations including two second-precision floating-point numbers obtained by
decomposing different first-precision floating-point numbers (103); inputting the second-precision
floating-point numbers in each combination into a second-precision multiplier to obtain an
intermediate computation result corresponding to each combination (104); and determining a
15 computation result for the plurality of to-be-computed first-precision floating-point numbers based
on the intermediate computation result corresponding to each combination (105). The method may
be used to save computing resources.

Figure 1

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