NAME

mul24 − Fast integer function to multiply 24−bit integer values.

gentype mul24(gentype *x***, gentype** *y***);**

DESCRIPTION

mul24 multiplies two 24−bit integer values *x* and *y*. *x* and *y* are 32−bit integers but only the low 24−bits are used to perform the multiplication. **mul24** should only be used when values in *x* and *y* are in the range [−223, 223−1] if *x* and *y* are signed integers and in the range [0, 224−1] if *x* and *y* are unsigned integers. If *x* and *y* are not in this range, the multiplication result is implementation−defined.

NOTES

Fast integer functions can be used for optimizing performance of kernels. We use the generic type name **gentype** to indicate that the function can take **int**, **int2**, **int3**, **int4**, **int8**, **int16**, **uint**, **uint2**, **uint3**, **uint4**, **uint8**, or **uint16** as the type for the arguments.

SPECIFICATION

OpenCL Specification[1]

SEE ALSO

integerFunctions(3clc)

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NOTES

1. OpenCL Specification
   page 256, section 6.12.3 - Integer Functions