



Linux Ubuntu 26.04 Manual Pages on command 'ldexpl.3'

\$ man ldexpl.3

ldexpl(3) Library Functions Manual ldexpl(3)

NAME

ldexpl, ldexpf, ldexpl - multiply floating-point number by integral power of 2

LIBRARY

Math library (libm, -lm)

SYNOPSIS

```
#include <math.h>

double ldexp(double x, int e);

float ldexpf(float x, int e);

long double ldexpl(long double x, int e);
```

Feature Test Macro Requirements for glibc (see feature_test_macros(7)):

```
ldexpf(), ldexpl():

    _ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L

    || /* Since glibc 2.19: */ _DEFAULT_SOURCE

    || /* glibc <= 2.19: */ _BSD_SOURCE || _SVID_SOURCE
```

DESCRIPTION

These functions return the result of multiplying the floating-point number x by 2 raised to the power e .

RETURN VALUE

On success, these functions return $x * (2^e)$.

If e is zero, then x is returned.

If x is a NaN, a NaN is returned.

If x is positive infinity (negative infinity), positive infinity (negative infinity) is returned.

If the result underflows, a range error occurs, and zero is returned.

ERRORS

The following errors can occur:

errno is set to ERANGE. An overflow floating-point exception (FE_OVERFLOW) is raised.

errno is set to ERANGE. An underflow floating-point exception (FE_UNDERFLOW) is raised.

For an explanation of the terms used in this section, see `attributes(7)`.

?	Interface	?	Attribute	?	Value	?
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Function	Thread safety	MT-Safe
<code>ldexp()</code> , <code>ldexpf()</code> , <code>ldexpl()</code>	Yes	Yes

STANDARDS

HISTORY

The variant returning double also conforms to SVr4, 4.3BSD, C89.

```
frexp(3), modf(3), scalbln(3)
```

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Idexp(3)