



Rocky Enterprise Linux 9.2 Manual Pages on command 'casinh.3'

\$ man casinh.3

CASINH(3) Linux Programmer's Manual CASINH(3)

NAME

casinh, casinhf, casinhl - complex arc sine hyperbolic

SYNOPSIS

```
#include <complex.h>
```

```
double complex casinh(double complex z);
```

```
float complex casinhf(float complex z);
```

```
long double complex casinhl(long double complex z);
```

Link with -lm.

DESCRIPTION

These functions calculate the complex arc hyperbolic sine of z . If $y = \text{casinh}(z)$, then $z = \text{csinh}(y)$. The imaginary part of y is chosen in the interval $[-\pi/2, \pi/2]$.

One has:

$$\text{casinh}(z) = \text{clog}(z + \text{csqrt}(z * z + 1))$$

VERSIONS

These functions first appeared in glibc in version 2.1.

ATTRIBUTES

For an explanation of the terms used in this section, see at?

tributes(7).

??

?Interface ? Attribute ? Value ?

??

?c sinh(), c sinhf(), c sinhl() ? Thread safety ? MT-Safe ?

??

CONFORMING TO

C99, POSIX.1-2001, POSIX.1-2008.

SEE ALSO

asinh(3), cabs(3), cimag(3), csinh(3), complex(7)

COLOPHON

This page is part of release 5.10 of the Linux man-pages project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at <https://www.kernel.org/doc/man-pages/>.

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CASINH(3)