

NAME

casin, casinf, casinl – complex arc sine

LIBRARY

Math library (*libm*, *-lm*)

SYNOPSIS

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

```
double complex casin(double complex z);
```

```
float complex casinf(float complex z);
```

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

DESCRIPTION

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

One has:

$$\text{casin}(z) = -i \log(iz + \text{csqrt}(1 - z * z))$$

ATTRIBUTES

For an explanation of the terms used in this section, see [attributes\(7\)](#).

Interface	Attribute	Value
<code>casin()</code> , <code>casinf()</code> , <code>casinl()</code>	Thread safety	MT-Safe

STANDARDS

C11, POSIX.1-2008.

HISTORY

glibc 2.1. C99, POSIX.1-2001.

SEE ALSO

[clog\(3\)](#), [csin\(3\)](#), [complex\(7\)](#)