Structure

DSPComplex

A structure that represents a single-precision complex value.

iOS | iPadOS | Mac Catalyst | macOS | tvOS | visionOS | watchOS

```
struct DSPComplex
```

Mentioned in

- Controlling vDSP operations with stride
- Performing Fourier transforms on interleaved-complex data

Overview

Complex data are stored as ordered pairs of floating-point numbers. Because they are stored as ordered pairs, complex vectors require address strides that are multiples of two.

Topics

Initializers

```
init()
```

```
init(real: Float, imag: Float)
```

Instance Properties

`var imag: Float`

The imaginary part of the value.

`var real: Float`

The real part of the value.

Relationships

Conforms To

`BitwiseCopyable`
`Copyable`
`Sendable`
`vDSP_DiscreteFourierTransformable`

See Also

Data types

`typealias vDSP_Length`

An unsigned-integer value that represents the size of vectors and the indices of elements in vectors.

`typealias vDSP_Stride`

An integer value that represents the differences between indices of elements, including the lengths of strides.

`typealias COMPLEX_SPLIT`

`struct DSPDoubleComplex`

A structure that represents a double-precision complex value.

`typealias DOUBLE_COMPLEX_SPLIT`

`struct DSPSplitComplex`

A structure that represents a single-precision complex vector with the real and imaginary parts stored in separate arrays.

`struct` **DSPDoubleSplitComplex**

A structure that represents a double-precision complex vector with the real and imaginary parts stored in separate arrays.

`struct` **VectorizableDouble**

A structure that represents a double-precision real value for biquadratic filtering and discrete Fourier transforms.

`struct` **VectorizableFloat**

A structure that represents a single-precision real value for biquadratic filtering and discrete Fourier transforms.