

[Apple CryptoKit / KEM](#)

Enumeration

# KEM

A key encapsulation mechanism.

iOS 17.0+ | iPadOS 17.0+ | Mac Catalyst 17.0+ | macOS 14.0+ | tvOS 17.0+ | visionOS 1.0+ | watchOS 10.0+

`enum KEM`

## Overview

Use a key encapsulation mechanism (KEM) to protect a symmetric cryptographic key that you share with another party.

## Topics

### Defining encapsulation outputs

`struct EncapsulationResult`

The result of a key encapsulation operation.

### Handling errors

`enum Errors`

Errors that CryptoKit throws when it encounters problems in key encapsulation mechanism (KEM) operations.

# Relationships

## Conforms To

Sendable, SendableMetatype

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## See Also

### Key encapsulation mechanisms (KEM)

enum MLKEM768

The Module-Lattice key encapsulation mechanism (KEM).

enum MLKEM1024

The Module-Lattice key encapsulation mechanism (KEM).

enum XWingMLKEM768X25519

The X-Wing (ML-KEM768 with X25519) Key Encapsulation Mechanism, defined in  
<https://datatracker.ietf.org/doc/html/draft-connolly-cfrg-xwing-kem-06>