

# MiXXWave

By Oxxius

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| <b>Product range</b> | Wavelength Combiners                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Product name</b>  | MiXXWave with Single Frequency lasers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Description</b>   | <p>The MiXXWave is a laser combiner that merges several laser sources into a single, precisely aligned output for advanced multi-wavelength applications. Available in two versions ( L4Cc – up to 4 lasers and L6Cc – up to 6 lasers), it integrates wavelengths from 375 to 1064 nm from Oxxius or third-party laser sources, with outputs in free space or via optical fibers. Its compact, thermally stable design ensures reliability, easy maintenance, and full control through standalone software.</p> <p>Key features</p> <ul style="list-style-type: none"> <li>• L4Cc: up to 4 lasers, 2 AOMs • L6Cc: up to 6 lasers, 2 AOMs</li> <li>• Combines 375–1064 nm wavelengths</li> <li>• Up to 4 fiber or free-space outputs</li> <li>• Integrated electro-mechanical shutters on each port</li> <li>• Extension modules for port switching, power split, or AOTF modulation</li> </ul> |



## General Specifications

| Power stability (baseplate temperature +/- 3K) |                                                      |
|------------------------------------------------|------------------------------------------------------|
| Free space                                     | ±1 % p-to-p                                          |
| PM + SM fiber coupled                          | ±2 % p-to-p                                          |
| Modulation                                     |                                                      |
| Analog (0 - 5 V)                               | DC - 1 MHz                                           |
| Rising time using digital modulation (TTL)     | ≤ 2 ns (LBX) / ≤ 150 ns (LCX with AOM)               |
| Power extinction ratio                         | Infinite (LBX) / ≥ 40 dB (LCX with AOM)              |
| System specifications                          |                                                      |
| Operating temperature                          | 15°C to 40°C at baseplate                            |
| Supply voltage, standard Plug and Play version | 100 - 240 V AC                                       |
| Supply voltage, OEM version                    | 24 V DC                                              |
| Warm-up time                                   | 30 minutes                                           |
| Communication interfaces                       | USB, Ethernet, dedicated electrical interface        |
| Software                                       | Full access from µManager, dedicated Oxxius software |
| Typical weight                                 | L4Cc: 7 to 9 kg L6Cc: 10 to 12 kg                    |
| Warranty                                       | 24 months                                            |

## Available Options

|                            |
|----------------------------|
| Single-mode fiber coupling |
| Multimode fiber coupling   |
| Heat management            |
| Broadband beam splitter    |
| 1:2 High rate switch       |
| 1:3 High rate switch       |
| 1:2 Beam switch            |
| Controlled optical density |
| Multi-channel modulation   |

*Oxxius has a policy of continuous product improvement. Specifications may change without notice.*