

A series of thin, light gray curved lines that sweep across the top and left side of the page, creating a sense of motion and design.

kYLia

KYLIA

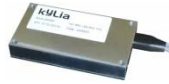
Products & service portfolio

Product portfolio: telecoms



- **DWDM Multiplexers:**

AWG competitors



Components
(mics)



Instruments
(t-mics)

- **Phase demodulators:**

other names: DPSK demodulators / Delay line Interferometer / Mach-Zender Interferometer



Components
(mint)



Instruments
(w-t-mint)

- **Coherent receivers:**

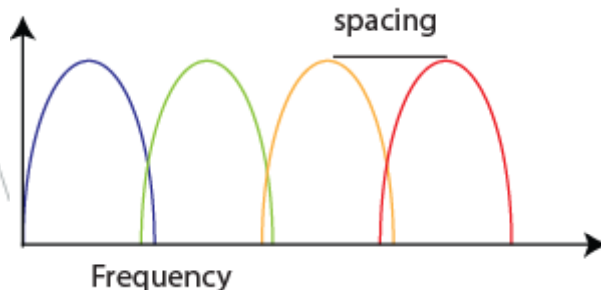
other names: 90° optical hybrid / mixer
single and dual **polarization** coherent receivers



Components
(coh-24 coh-28)

DWDM : component (mics)

- **Functionality:** Multiplexing or Demultiplexing several wavelengths (**up to 48**) with spacing between **12.5 GHz (0.1 nm)** up to **200 GHz (1.6 nm)**.
- **Description:** **Dense Wavelength Demultiplexers Multiplexers** are very often called **AWG**. mics has one common fiber and n fiber outputs. mics works both ways (multiplexing or demultiplexing).
- **Markets:** **Telecommunication:** laboratories, big companies, universities. Our technology is ideal for **submarine networks**.
- **Main Advantages:** **very narrow spacing** (down to **12.5 GHz-0.1 nm**),
Passively athermal,
Any spacing available between 12.5 GHz to 200 GHz

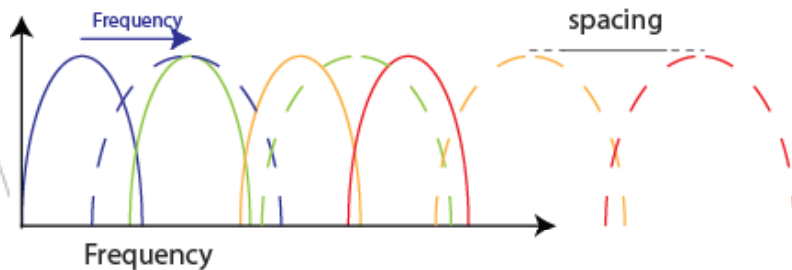


More information

<http://www.kylia.com/dwdmuxd.html>

DWDM : instrument (t-mics)

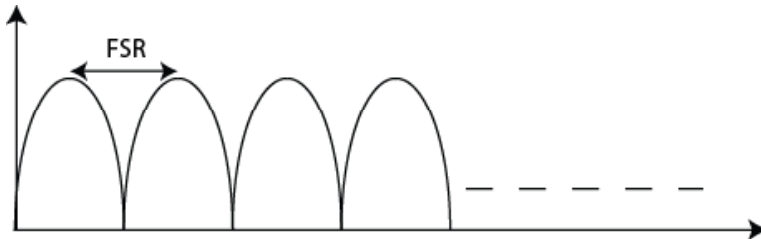
- **Functionality:** t-mics is a DWDM **tunable in frequency and in spacing**
- **Description:** t-mics is the **tunable** version of the mics. t-mics is an **instrument**. t-mics has one common fiber and n fiber outputs. mics works both ways (multiplexing or demultiplexing). Spacing and frequency tunings are performed manually or electrically.
- **Markets :** Telecommunication. Mainly dedicated to lab application, t-mics can also be considered for measurement in-situ for **network testing**.
- **Main Advantages:** no equivalent on the market, **Very narrow spacing available (12.5 Ghz-0.1 nm)**.



• **More information** <http://www.kylia.com/tunable.html>

Phase demodulator : component (mint)

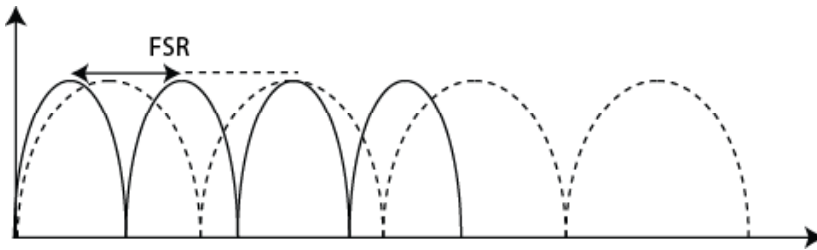
- **Functionality:** converting a **Differential Phase Shift Keying** optical signal into an intensity-keyed signal.
- **Description:** Mint-1x2 has **one input** and **two outputs**. The two outputs carry the constructive and destructive interference resultances usually to a Photodiode. Phase is controlled by an external voltage.
- **Markets:** **Telecommunication:** laboratories, big companies, universities. Our **mint-1x2** are usually dedicated to be plugged to PhotoReceivers.
- **Main Advantages:** Excellent performances,
Ready for integration,
Very short delivery delay.



• **More information** <http://www.kylia.com/dpsk.html>

Phase demodulator : instrument (w-t-mint)

- **Functionality:** Free Spectral Range tuning.
- **Description:** **w-t-mint** is the **tunable** version of the mint. w-t-mint is an **instrument**. The FSR is controlled either manually or electrically.
- **Markets:** **Telecommunication:** laboratories, big companies, universities.
- **Main Advantages:** No equivalent on the market
FSR tuning range -> **10 GHz to infinity**

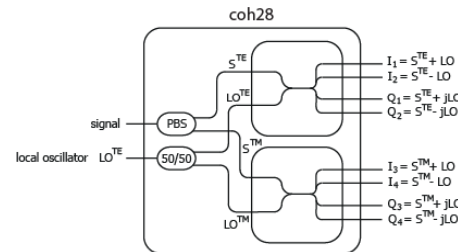
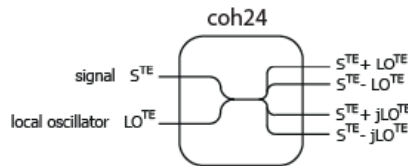


• **More information** <http://www.kylia.com/dpsk.html>



Coherent receivers: coh24-coh28

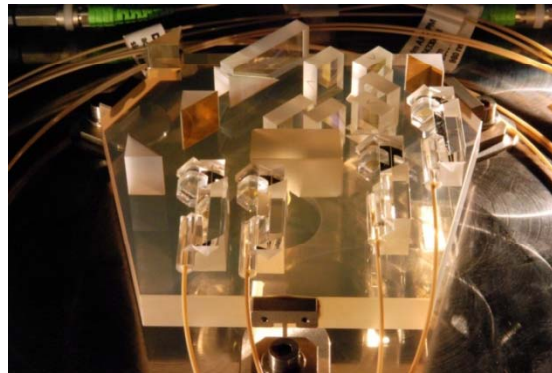
- **Functionality:** retrieving the **amplitude** and **phase** of an incoming signal.
- **Description:** A coherent receiver is an interferometer with **two inputs** and **four outputs**. (**Eight outputs** for a **dual polarisation** version). One input is a **Local Oscillator** (parameters are known). The second input is a **signal** (parameters are unknown). The outputs carry the resultances of interference to Photodiodes in order to compute phase and amplitude.
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- **Markets:** **Telecommunication:** laboratories, big companies, universities.
- **Main Advantages:** Excellent performances,
Ready for integration,
Very short delivery delay.



Prototyping service

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- **Functionality:** Prototyping **interferometers** and optical assemblies in free space.
- **Description:** Kylia manufactures optical assemblies according to customer specifications. A design help may be included. Implementation of **active elements** is an option (Laser diodes/ liquid crystal cell/ MOEMS ..)
- **Markets:** **Medical, spatial, Telecommunication....**
- **Main Advantages:** Assembly precision : **nanometer** scale,
Assembly technique validated in the **telecom** and **spatial industries**,
Final products will be **compact** and **stable**.



Interferometer assembled under Astrium contract for ESA