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Date: 10/13/2022

## Produktionsauftrag

Pos. Product & Description Our Article No. Your Article No. Qty.

copied from offer A22.0461 from 2022-09-26

1.0 PM8-VIS\_150 A00018 - 1

## Resonant, free-space electro-optic PHASE modulator for VIS Laser applications

- PM8-series: select fixed resonance frequency within **31 499 MHz**
- optimised resonance frequency fo: 150 MHz (+/- 2 MHz std. tol.) | RF bandwidth (-3dB): typ. < 1% of fo
- RF connector: SMA-f, straight | impedance @ fo: ca. 50 Ohms, return loss (S11): typ. < -20dB
- housing dimensions: 40x40x40mm^3 | mounting: 3x M4 for s- & p- pol.
- user wavelength λo: 488 nm | crystal aperture: 3x3mm^2, CA ≥ 90%
- BBAR: **360 650** nm (R\_avg < 1%, T\_avg > 95%) | wavefront distortion (WFD): < **λ/6** (633nm)
- max. recommended laser intensity @ λo: ca. 1 W/mm^2 | Laser insertion loss (LIL) @ λo: < 3 %
- modulation efficiency @ (1rad, fo, λο): typ. (16 +/-1) dBm | max. RF power: ca. 0.5W
- applications: Laser Frequency Stabilisation LFS (PDH, FM/MTS)
- CoO: GERMANY, HS code: 90139080, RoHS compliant, net weight: 0.125kg

1.1 +W A00203 - 1

## **Crystal Wedge option:**

- function/purpose: RAM suppression caused by e.g. polarisation misalignment & etalon effects
- Ref.: Vol. 41, No. 14 / July 15 2016 / Optics Letters 3331
- number of wedged facets: 1 (one) | wedge angle: 4° | anti reflection coating as stated above

1.2 +TXC A00210 - 1

## **Temperature Control option:**

- function/purpose: active temperature stabilisation of the modulator / crystal:
- incl. thermal crystal mount
- internal T-sensor (PT1000) | TEC (30x30mm^2, 12V, 4A, >30W)
- incl. mounting hardware (plastic screws, spacer, etc.) | for external temperature control (< 0.1K)

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Pos. **Product & Description** Our Article No. Your Article No. Qty. 2.0 QDR200 A00132 1 RF Driver for resonant, high-Q free-space electro-optic modulators - frequency range: 20 - 200MHz | resolution: < 1 kHz, Stability: 2.5ppm - P1dB: +20 dBm | RF level resolution: 0.1dB | output connector: SMA-f, bulkhead, 500hms - full front-panel control via display | interlock features (T, RL), PC controllable (USB) - enclosure: standalone benchtop version | EMC shielded | dimensions: 180x140x100mm^3 - power: low noise linear power supply (for mains: 115 or 230 VAC) - environment: housing is not sealed against moisture or condensation net weight: 2.5kg, CoO: Germany, HS code: 85432000 2.1 +HD A00231 1 **Heterodyne Detector option:** - function/purpose: error signal generation for laser frequency stabilisation (FM/MTS, PDH, ...) - low noise error signal generation (@ IF out) | digital 360 deg. phase control with < mrad resolution - 3x fo locking option for ultra-low RAM - Note: requires separate PID laser controller for closed loop LFS control 2.2 +DTC A00232 1 **Digital Temperature Controller option:** - function/purpose: Temperature stabilisation of EOMs for high RF power applications or RAM suppression - output current: +/- 4A | output voltage: -12 ... +12V | current limit (heating/cooling): 0 ... 5A - suitable temperature sensors: 10k NTC, Pt1000 | temperature stability: < 0.1K - Temperature settings via display or remote (USB) - including 2m connection cable (8-pole) 3.0 Shipping & Packaging A01162

Shipping date: Donnerstag, 3. November 2022

1 Parcel: 50x40x33cm^3, VW=13.5kg | not subject to any discounts