ScanCorder

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COMPOLYTICS

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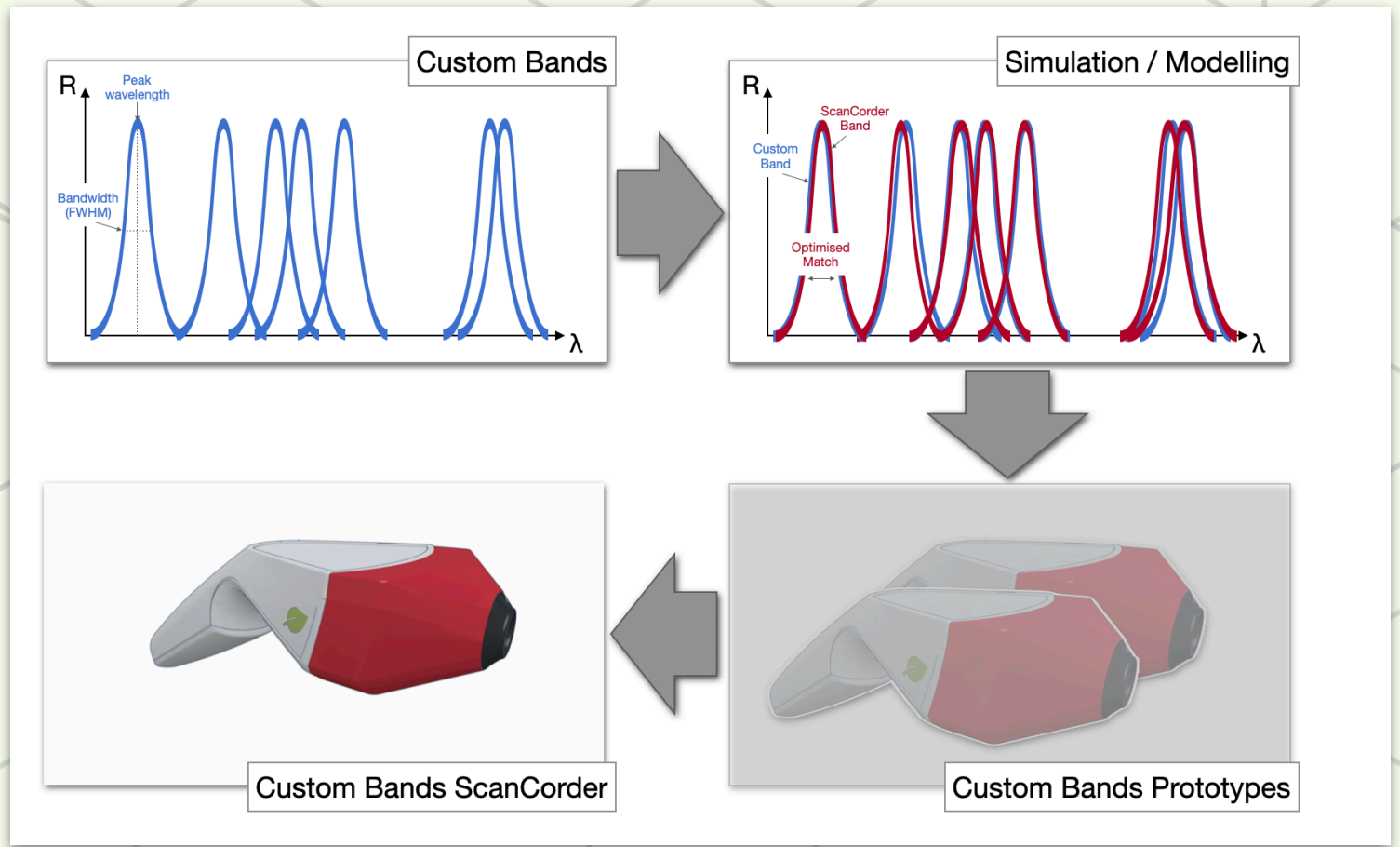
When your application already calls for defined spectral bands, we turn them into a multispectral sensor. Our inverted spectroscopy principle replaces traditional filters with a compact, energy-efficient optical design.

Custom Bands ScanCorder

Technical approach

- Featuring Compolytics' unique technology: **Inverted Spectroscopy**.
- Your spectral design – engineered into innovative hardware.

Aspect	Your Benefit
Defined band configuration	Realises your specific spectral design
Inverted spectroscopy principle	Compact, energy-efficient, filter-free
Prototype verification	Tested in your real-world environment
From specification to hardware	Seamless path from idea to device



The process

1. **Band specification**
   You provide peak wavelengths, preferred bandwidths, and intended application.
2. **Feasibility & simulation**
   We simulate expected sensor response using high-resolution laboratory data and our comprehensive modelling and design tools.
3. **Prototype design & construction**
   Based on your spectral configuration, we build one or several prototypes using the inverted spectroscopy architecture.
4. **Field validation**
   Prototypes are tested and validated under your application conditions to confirm performance and stability.
5. **Final delivery**
   After successful validation, we manufacture your Custom Bands ScanCorder hardware in the requested lot size and deliver it with the corresponding data model (if requested).

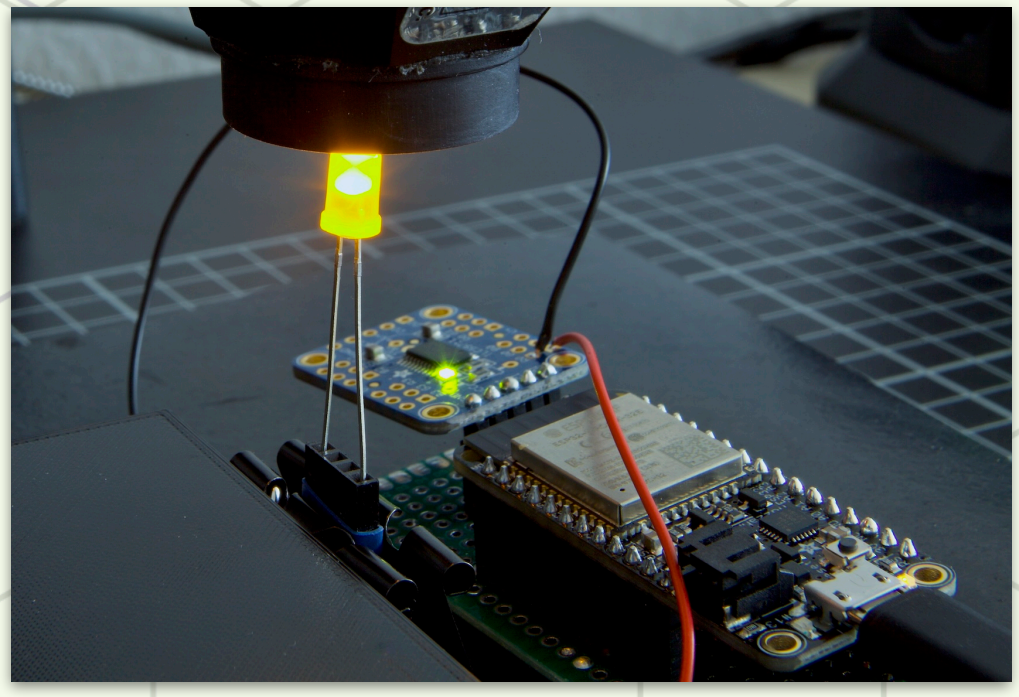
Benefits

- Specific: Implementation of your defined spectral concept.
- Innovative: Inverted spectroscopy replaces filters with smart data modelling.
- Efficient: Low-power design ideal for mobile or embedded use.
- User-friendly: Ready-to-use hardware and software workflow.
- Predictable: Fixed-price project packages available.

Specs & services

- Input: Customer-defined spectral bands (typically 6–24).
- Measurement principle: Inverted spectroscopy → Green Sensing.
- Prototype stage: Included in every project.
- Validation: Under customer-specific conditions.
- Output: Custom Bands ScanCorder hardware + validated ML model.
- Integration: Delivered with CICADA software support without extra cost.
- Delivery: From single prototype to production lots.

Validation of customer-defined spectral configurations



Get more information

- Schedule an online demo session via our website or send your enquiries to: sales@compolytics.com.

Mini glossary

- **Inverted spectroscopy:** Filter-free sensing approach using data modelling instead of traditional optics.
- **Band specification:** Customer-provided set of spectral bands (peak wavelengths and bandwidths) that define the target sensor.
- **FWHM:** Full width at half maximum.
- **Prototype sensor:** First hardware version to test in real conditions.
- **Soft-sensor:** A physical sensor combined with ML for indirect measurements.