Product Datasheet

Nibble™ R 2.0

ChipSense™ Evaluation Device

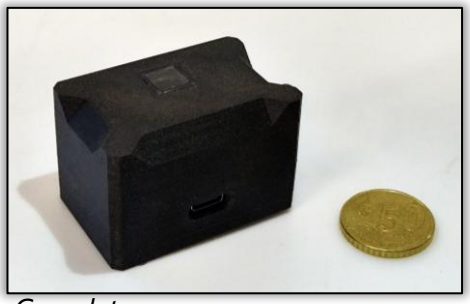
Spectral sensing module, including
- Hyperspectral Sensor ChipSense™ 2.x
- Electronics
- Light source and optics

Standard* available in various configurations to be specified at product ordering:
- Wavelength range configuration: VIS, NIR, SWIR, VIS-NIR-SWIR
- Mechanical set-up: Complete, Without Housing, PCB-Only

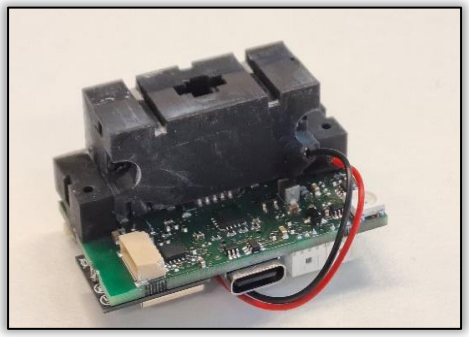
Compatible with SpectraByte™ (Desktop app) and SpectraWeb™ (Browser app)

*Alternative configuration possible on request

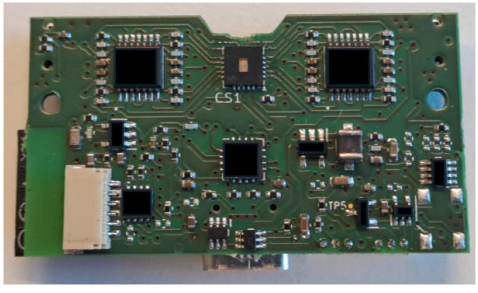
Parameter	Unit	Specifications
Intended use/application		Solid Materials or Liquids Analysis
Certifications		CE/FCC
Optical Sensing Mode		Reflection
Product Assembly Configurations		Complete, Without Housing, PCB-Only
ChipSense package		QFN
ChipSense product on-board		2.1-16
Wavelength range configuration options		VIS/NIR/NIR-BP/SWIR/ Full Range
Wavelength range configuration VIS	nm	550 - 950
Wavelength range configuration NIR	nm	850 - 1700
Wavelength range configuration NIR-BP	nm	850-1100
Wavelength range configuration SWIR	nm	1100 - 1700
Wavelength range configuration Full Range	nm	550 - 1700
Light Source Type		Tungsten-based filament
Light Source power consumption (full. Power)	W	0.5
Light Source dimmable		Yes, 64 levels
Light Source lifetime	h	40.000
Light Source Operation Mode		Continuous/Triggered
Signal acquisition method		Sequential
Acquisition Time per Channel Range	ms	7.5-140
Signal to Noise ratio (White ref. sample)	dB	70
Optical window dimension	mm	10x10
Measurement area	mm	5x4
Max working distance	mm	2
Device Control via PC SW (SpectraWeb)		Yes
Device Control via PC SW (SpectraByte)		Yes
On-Device User Interface		none
Wired Connectivity		USB-C
USB-C Protocol		USB serial port (115.2 kbps)
6 pole SH protocol		UART or RS485 (115.2 kbps)
Wireless Connectivity		Wi-Fi (2.4 GHz)
Power supply		DC (USB) or Battery
Voltage Supply	V	3.7 - 5.1
Current Consumption Stand-by	mA	110
Current Consumption Light Source on at Max Power	mA	290
Size (l x w x h)	mm	52 x 34 x 32
Size (only PCB)	mm	46.42 x 26.55 x 1.7
Recommended Operating Temperature	°C	10 - 40
Operating temperature	°C	0 - 50
Accessories delivered in package		USB-C Cable, White Reference
Software companion		SpectraByte, SpectraWeb, FW update tool



Complete



Without Housing



PCB Only

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