

## trinamiX Mobile NIR Spectroscopy Solutions

### trinamiX PAL Two



#### Spectroscopic specifications

<b>Spectral range</b>	1,300 nm – 2,350 nm
<b>Scan spot size</b>	50 mm <sup>2</sup> , evenly illuminated
<b>Spectral resolution</b>	< 50 nm
<b>Signal to noise ratio</b>	> 11,000 per spectral resolution element

#### Optical components

<b>Technology</b>	Grating technology
<b>Detector</b>	128-pixel PbS line array detector
<b>Lamp module</b>	12 Tungsten halogen lamps Lifetime > 500,000 scans (typically)
<b>Scan window</b>	Scratch resistant sapphire window

#### Physical specifications

<b>Dimensions</b>	180 mm x 124.5 mm x 70 mm
<b>Weight</b>	700 g
<b>IP class</b>	IP65 dust- and waterproof (splash and jet water)

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#### Environmental conditions

Operating temperature	0 °C – 40 °C / 0 °C – 30 °C for charging
Storage temperature	– 20 °C – 60 °C
Air humidity (non-condensing)	20 % – 80 % (operation) / 20 % – 90 % (storage)
Height above sea level	≤ 3,000 m
Type of use	Indoor and outdoor (operation), indoor (charging)

#### Electrical specifications

Power input (for charging)	5 VDC, max. 2 A via USB type C connector
USB-connection (for stationary use)	USB type C
Wireless connection (for handheld use)	BLE ( <i>Bluetooth® Low Energy</i> )

#### Battery

Type	Rechargeable lithium-ion battery
Number of scans per battery charge	> 3,000, typically 5,000
Nominal voltage	3.6 V
Nominal capacity	4,900 mAh
Charging current	1,600 mA
Transport classification	UN class: 9 UN number: 3,480, Lithium-ion battery Energy of battery: < 100 Wh

#### Radio frequency module

The device contains the following radio frequency (RF) module:

Type	ESPRESSIF ESP32-S3-MINI-1
Frequency range	2.40 – 2.48 GHz
Max. output power	Typ. 0 dBm, max. 9.96 dBm

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