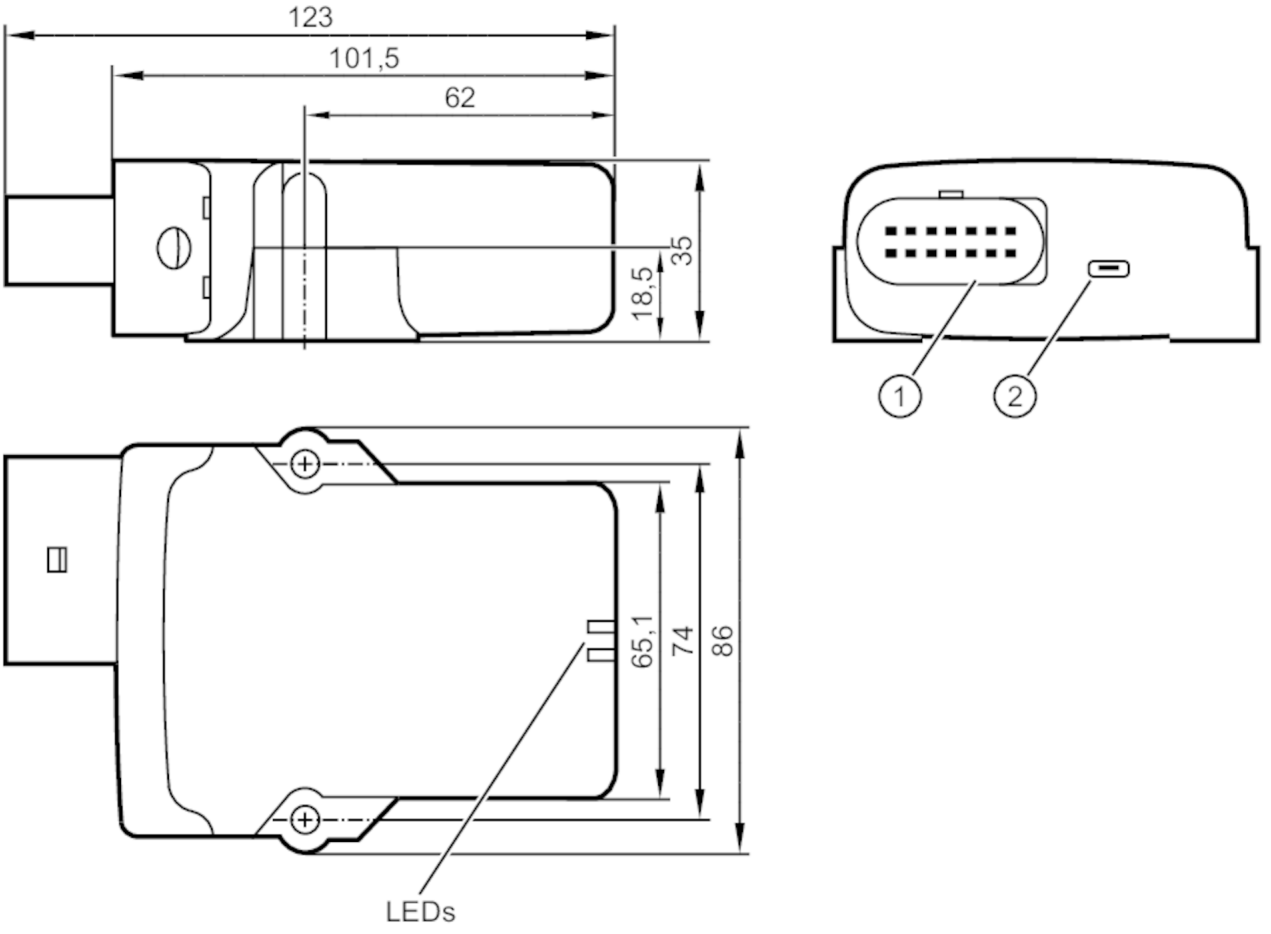
CR3146

CAN LTE/GNSS radio modem

mIoT/Gateway 4G



1 Micro Timer II
2 USB (Micro-AB)

Application		
Radio approval for		EU/RED; USA; Canada
Note on radio approval		The list of countries applying the European Radio Equipment Directive 2014/53/EU (RED) can be found under “Downloads”.
Electrical data		
Operating voltage	[V]	8...32 DC
Nominal voltage DC	[V]	12 / 24
Nominal voltage tolerance	[%]	50
Nominal voltage tolerance 2	[%]	50
Current consumption	[mA]	< 250; (Normal operation; sleep mode: < 500 µA)
Inputs / outputs		
Number of inputs and outputs		Number of analog inputs: 3; Number of digital outputs: 1
Inputs		
Number of analog inputs		3
Analog input (voltage)	[V]	0...15
Resolution of analog input		12 Bit

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Outputs		
Number of digital outputs		1
Voltage range DC	[V]	6...36
Permanent current rating of switching output DC	[mA]	500
Measuring/setting range		
Resolution		16 bit
Acceleration measurement		
Resolution		16 bit
Sampling rate	[Hz]	10
Number of measurement axes		3
Measuring range acceleration	[g]	± 16
Inclination measurement		
Resolution		16 bit
Sampling rate	[Hz]	10
Number of measurement axes		3
Measuring range vehicle yaw rate	[°/s]	± 250
Interfaces		
Communication interface		CAN; Mobile networks
Number of CAN interfaces		1
Number of USB interfaces		1
CAN		
Interface		CAN Interface 2.0 A/B ISO 11898
GPS		
Note on interfaces		Antenna integrated
Mobile networks		
Transmission standard		GSM; GPRS; EDGE; UMTS; HSPA; 3G; 4G; LTE Cat-4
Frequency band		GSM / GPRS / EDGE / 2G: 850 / 900 / 1800 / 1900; UMTS / HSPA / 3G: 850 (B5) / 900 (B8) / 1700 (B4) / 1900 (B2) / 2100 (B1); 4G / LTE Cat 4: 700 (B12, B17) / 750 (B13, B28) / 800 (B20) / 850 (B5) / 900 (B8) / 1700 (B4) 1800 (B3) / 1900 (B2) / 2100 (B1) / 2600 (B7)
Note on interfaces		SIM card onboard Antenna integrated
USB		
Type of connector		Micro-AB
Usage type		firmware update
Operating conditions		
Ambient temperature	[°C]	-40...85
Protection		IP 67
Tests / approvals		
Standard		EN 61000-6-2; EN 61000-6-3; IEC 62368-1; UN/ECE-R10; EN ISO 13766-1; ISO 7637-2; IEC 60068-2-30; IEC 60068-2-6; IEC 60068-2-27; IEC 60068-2-31

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Mechanical data		
Weight	[g]	233.7
Housing		rectangular
Type of mounting		Backplane mounting
Dimensions	[mm]	123 x 86 x 35
Material		housing: PA black

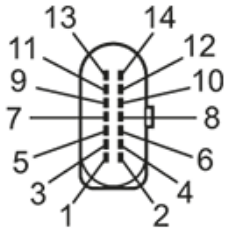
Displays / operating elements		
Display	status	2 x LED, multi-color

Hardware	
Processor	ARM Cortex M4 based STM32 (168 MHz)
Working memory	Program Flash: 1 MB FRAM: 32 KB SRAM: 1280 KB
Mass storage	128 MB

Data memory	
Real-time clock	yes; UTC, battery buffered

Remarks	
Pack quantity	1 pcs.

Electrical connection - plug



1	supply VCC terminal 30
2	Factory setting 1 Input
3	GND terminal 31
4	analog input 1
5	analog input 2
6	analog input 3
7	Digital output 1
8	Digital input terminal 15
9	Factory setting 2 Input
10	not used
11	not used
12	not used
13	CAN1_H
14	CAN1_L