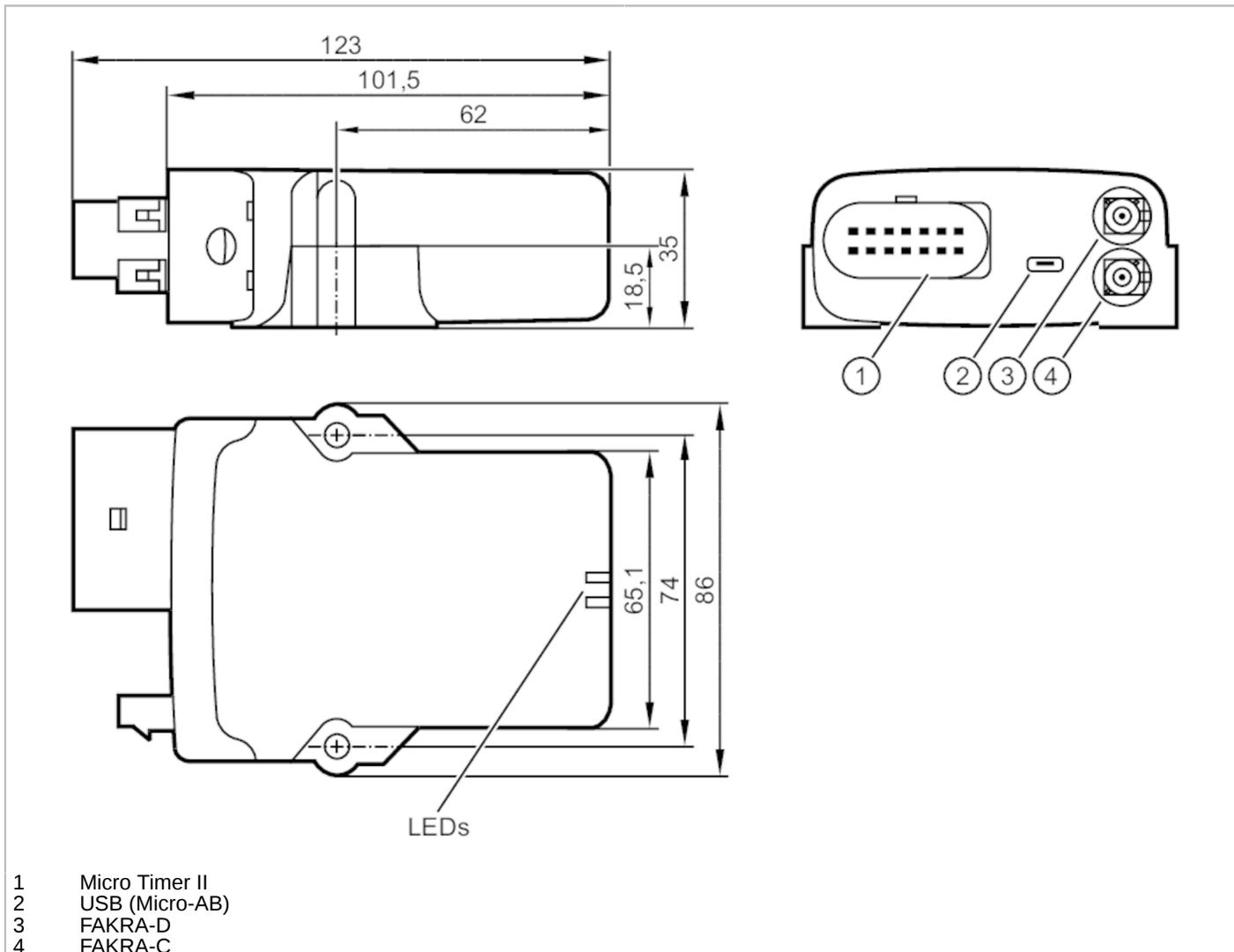


CR3158



CAN LTE/GNSS radio modem

mIoT/Gateway 4G/EXT



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



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Resolution of analog input	12 Bit
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; WLAN; Bluetooth; Mobile networks
Number of CAN interfaces	3
Number of USB interfaces	1
Bluetooth	
Transmission standard	EDR 2.1; EDR 5.0
Transmission power [mW]	22.39; (Antenna integrated)
CAN	
Interface	CAN Interface 2.0 A/B ISO 11898
Note on interfaces	CAN2: Electrically separated
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
USB	
Type of connector	Micro-AB
Usage type	firmware update
WLAN	
Transmission standard	IEEE 802.11 a/b/g/n
Frequency band	2,4 GHz; 5 GHz
Transmission power [mW]	53.23; (2,4 GHz; 22,39 mW; 5 GHz; Antenna integrated)

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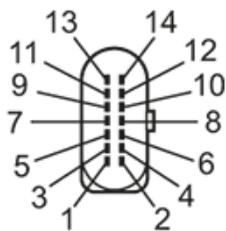
Operating conditions		
Ambient temperature	[°C]	-40...85
Protection		IP 67
Tests / approvals		
Standard		EN 61000-6-2; EN 61000-6-3; IEC 62368-1; UN/ECE-R10; EN ISO 13766-1; ISO 7637-2; IEC 60068-2-30; IEC 60068-2-6; IEC 60068-2-27; IEC 60068-2-31
Mechanical data		
Weight	[g]	248
Housing		rectangular
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 - GPS / GNSS		
Connector: FAKRA C		
Electrical connection - GSM / UMTS / LTE Cat 4		
Connector: FAKRA D		



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Electrical connection - plug



1	supply VCC terminal 30
2	CAN3_L bidirectional
3	GND terminal 31
4	analog input 1
5	analog input 2
6	analog input 3
7	Digital output
8	Digital input terminal 15
9	CAN3_H bidirectional
10	CAN2_GND
11	CAN2_H bidirectional
12	CAN2_L bidirectional
13	CAN1_H bidirectional
14	CAN1_L bidirectional