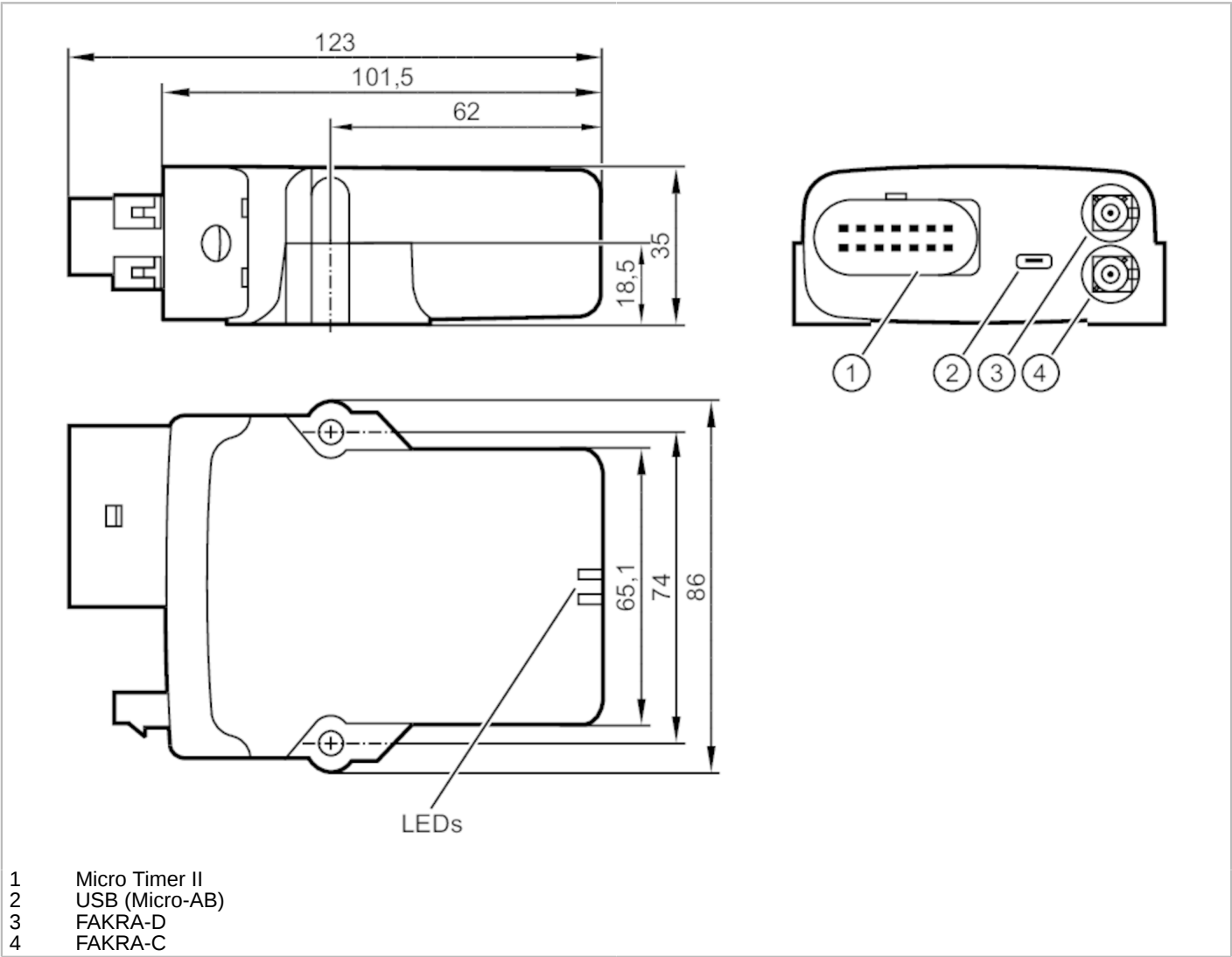


CR3158



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	Mirco-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
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		
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	