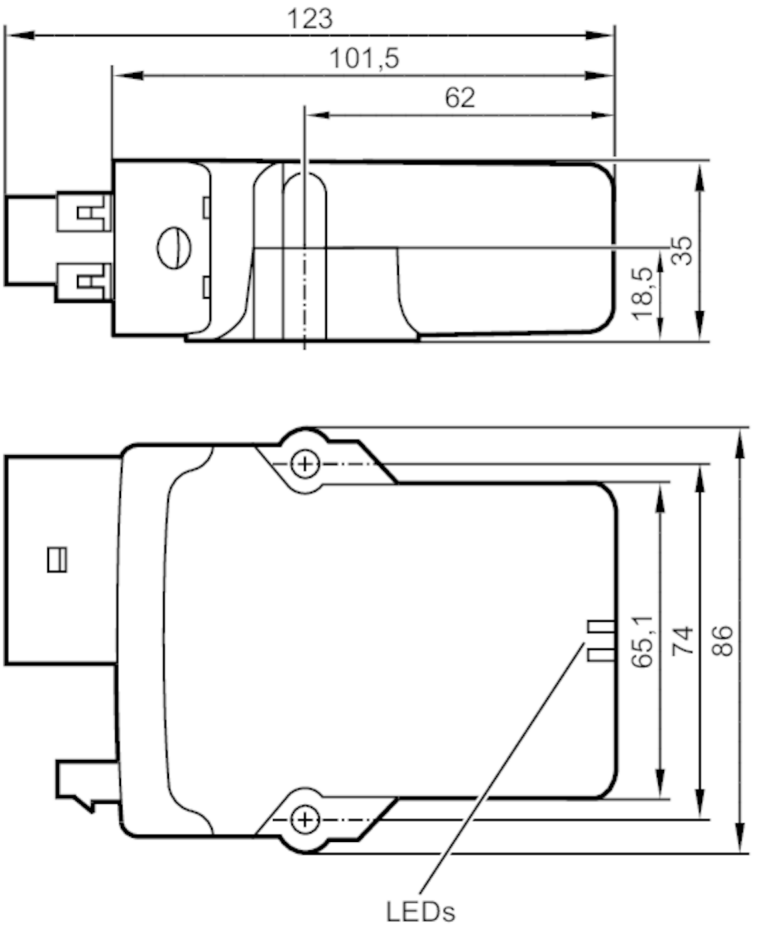
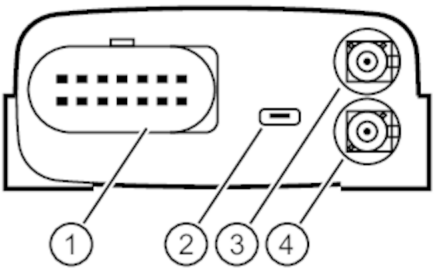
CR3158

CAN LTE/GNSS radio modem

mIOT/Gateway 4G/EXT





1 Micro Timer II
2 USB (Micro-AB)
3 FAKRA-D
4 FAKRA-C

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 analogue inputs: 3; Number of digital outputs: 1
Inputs		
Number of analogue inputs		3
Analogue input (voltage)	[V]	0...15

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Resolution of analogue 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		
Connector type		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	
Materials		housing: PA black	
Displays / operating elements			
Display		status	2 x LED, multi-colour
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 memories			
Real-time clock		yes; UTC, battery buffered	
Remarks			
Pack quantity		1 pcs.	

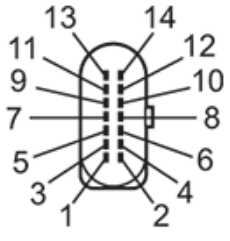
Electrical connection - GPS / GNSS

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	analogue input 1
5	analogue input 2
6	analogue 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