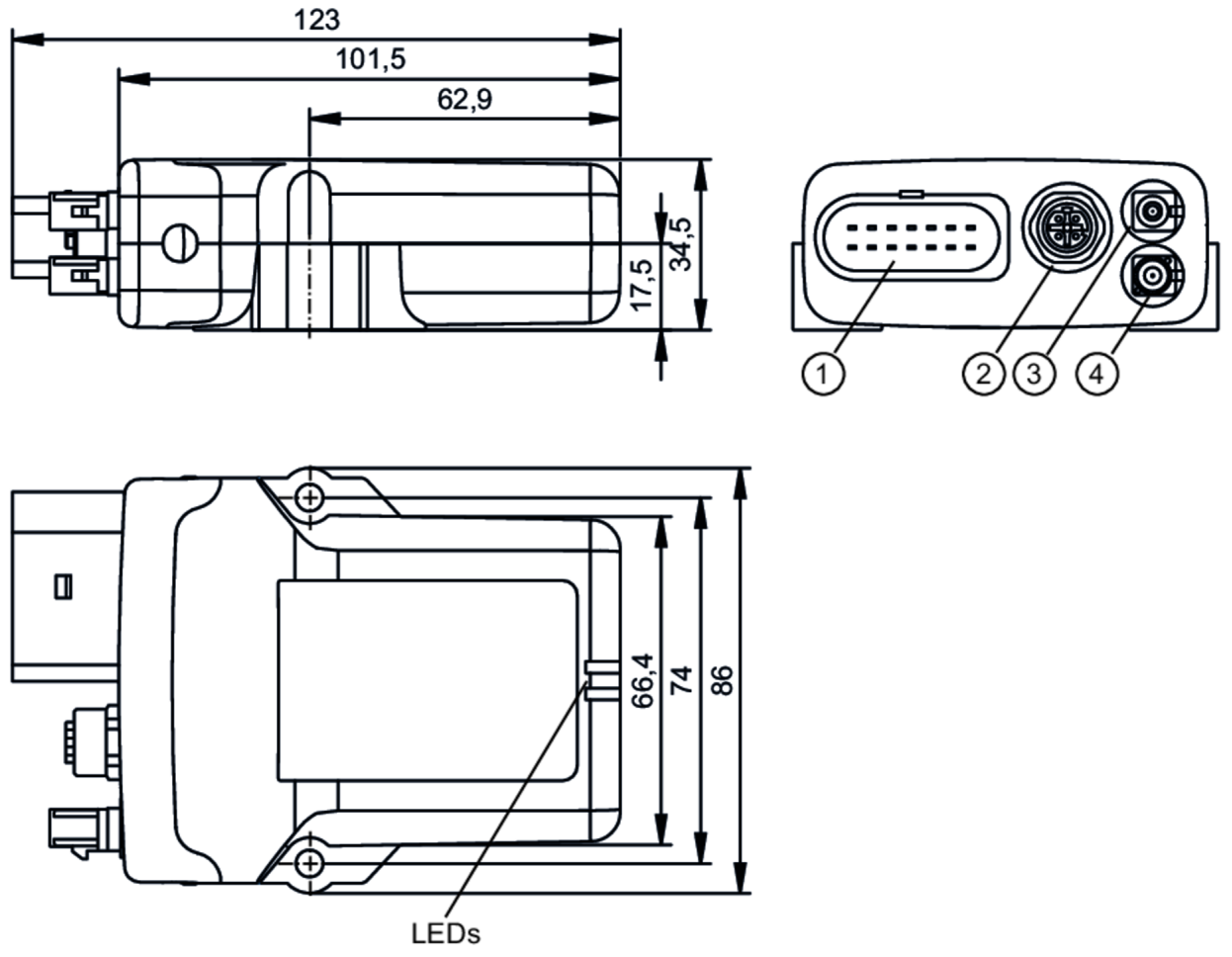
CR3171

Ethernet LTE/GNSS radio modem

mIOT/Gateway 4G/Ethernet



1 Micro Timer II connector
2 M12 connector
3 FAKRA socket D
4 FAKRA socket C

Application		
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]	6...36 DC
Nominal voltage DC	[V]	12 / 24
Nominal voltage tolerance	[%]	50
Current consumption	[mA]	< 290; (24 V; sleep mode: <= 1 mA)
Inputs / outputs		
Number of inputs and outputs		Number of analog inputs: 4; Number of digital outputs: 1
Inputs		
Number of analog inputs		4
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
Number of measurement axes		3
Measuring range acceleration	[g]	± 16
Inclination measurement		
Resolution		16 bit
Number of measurement axes		3
Measuring range vehicle yaw rate	[°/s]	± 250
Interfaces		
Communication interface		Bluetooth; GNSS; Mobile networks; WLAN
Bluetooth		
Transmission standard		EDR 2.1; EDR 5.0
Frequency band		2,402 ... 2,48 GHz
Transmission power	[mW]	9.46; (Bluetooth 2.1 + EDR; 9,95 mW: Bluetooth 5.0; Antenna integrated)
GNSS		
Frequency band		GPS; GLONASS; Beidou; Galileo; QZSS
Mobile networks		
Transmission standard		GSM; GPRS; EDGE; UMTS; HSPA; 3G; 4G; LTE Cat-4
Frequency band		2G / GSM / GPRS / EDGE: 850 / 900 / 1800 / 1900; 3G / UMTS / HSPA: 850 (B5) / 900 (B8) / 1700 (B4) / 1900 (B2) / 2100 (B1); 4G / LTE Cat 4: B1, B2, B3, B4, B5, B7, B8, B12, B13, B19, B20, B25, B26, B28, B38, B39, B40, B41
Note on interfaces		eSIM
WLAN		
Transmission standard		IEEE 802.11 a/b/g/n
Frequency band		2,412 ... 2,472 GHz; 5,150 ... 5,350 GHz; 5,470 ... 5,725 GHz; 5,725 ... 5,785 GHz
Transmission power	[mW]	72.11; (2,412 ... 2,472 GHz; 91,62 mW: 5,150 ... 5,350 GHz; 58,08 mW: 5,470 ... 5,725 GHz; 24,43 mW: 5,725 ... 5,785 GHz; Antenna integrated)
Operating conditions		
Ambient temperature	[°C]	-40...75
Protection		IP 6K7; (with mounted connectors or protective caps)

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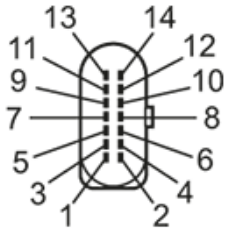
Tests / approvals			
EMC		EN 301489-1	
		EN 301489-17	
		EN 301489-19	
		EN 301489-52	
		EN IEC 61000-6-2	
		EN ISO 13766-1	
		EN 62311	
Radio approval		EN 301511, EN 300440, EN 301908-1, EN 301908-2, EN 301908-13, EN 300328, EN 303413	
Standard		EN 62368-1; EN 301893; EN IEC 63000	
Mechanical data			
Weight	[g]	266.3	
Material		housing: PA black	
Displays / operating elements			
Display		status	2 x LED, multi-color
Hardware			
Processor		Dual Core ARM Cortex A7 (650 MHz)	
Working memory		DDR3 RAM: 512 MB FRAM: 32 KB	
Mass storage		2,5 GByte Flash	
Data memory			
Real-time clock		yes; UTC, battery buffered	
Remarks			
Pack quantity		1 pcs.	
Electrical connection - plug			

Connector: Micro Timer II



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voltage supply, CAN

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:	GND terminal 31
11:	CAN2_H bidirectional
12:	CAN2_L bidirectional
13:	CAN1_H bidirectional
14:	CAN1_L bidirectional

Electrical connection - Socket

Connector: M12; coding: D

Ethernet

1:	TxD+
2:	RxD+
3:	TxD-
4:	RxD-
	screen (connected to the housing)

Electrical connection - GNSS

Connector: FAKRA C; Moulded body: blue

Electrical connection - Mobile networks

Connector: FAKRA D; Moulded body: claret violet