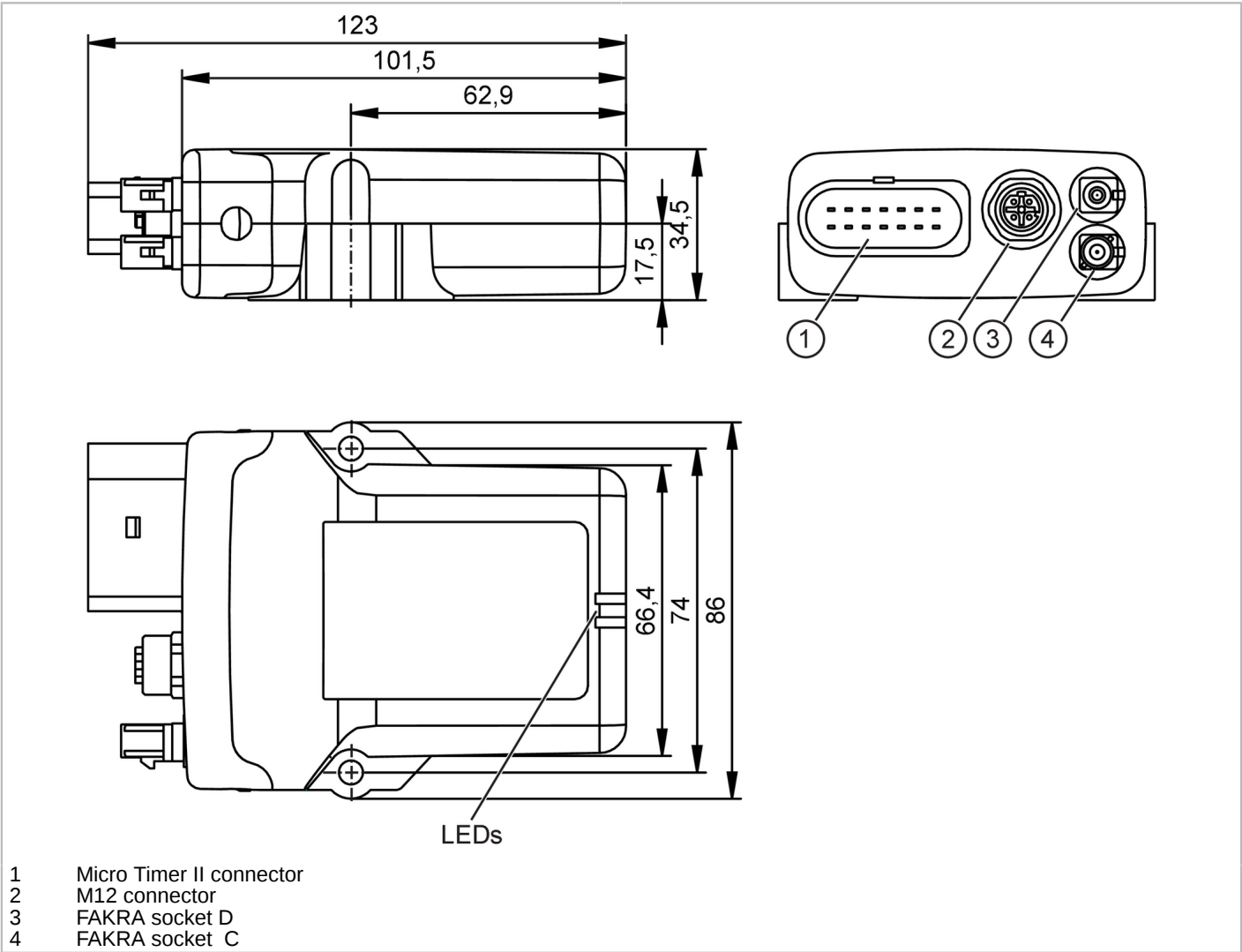


CR3171



Ethernet LTE/GNSS radio modem

mIoT/Gateway 4G/Ethernet



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



Ethernet LTE/GNSS radio modem

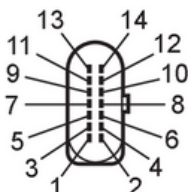
mIoT/Gateway 4G/Ethernet

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		
		
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	



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mIOT/Gateway 4G/Ethernet

Electrical connection - Socket

Connector: M12; coding: D; Contacts: 4



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