

DATA SHEET LIERDA NB86-G WIRELESS MODULE

KEY BENEFITS

Ultra-small size NB-IoT module, 20 x 16 x 2.2mm3
Supports 3GPP Rel. 14 NB-IoT air interfaces and protocols
Ultra-low power consumption
Up to +20 dB extended coverage compared to GPRS (164 dB MCL)
Operating Temp Range of -40 °C to 85 °C
CoAP over UDP/IP
GSMA TS.34 communication efficiency enhancements (Radio Policy Manager)

NETWORK

3GPP Protocol Stack Compliancy	Release 13 / 14
Support for TS.34 IoT Communication Efficiency	Radio Policy Manager
Wireless Protocol Support	
2G/GPRS	None
3G/UMTS	None
4G/LTE	None
NB-IoT	Supported
Frequency Band Support	
2G Bands (MHz)	None
3G Bands (MHz)	None
4G Bands (MHz)	None
NB-IoT Bands (MHz)	B3, B5, B8, B20
3GPP Classes / Categories	
CSD	None
GPRS Multislot Class (DL/UL)	None
EDGE Class (DL/UL)	None
HSDPA Category (DL)	None
HSUPA Category (UL)	None
LTE Category	None
NB-IoT Category	NB1
Short Message Service (SMS)	Text, PDU mode *
Speech Codecs	None
Protocol Support	CoAP, UDP, IPv4/6
Firmware Updates	Not supported
Integrated Positioning Technology	

GPS	None
GLONASS	None
Control Plane A-GPS Support	None
SUPL A-GPS Support	None
Regulatory	
eCall	None
Standalone / Assisted GNSS	None
TTY	None

HARDWARE

Dimensions (L x W x H, mm)	20 x 16 x 2.2
Weight (g)	1.3
Operating Temperature – Extended Operation (°C)	-40 °C to +85 °C
Supply Voltage Range (V)	3.1 - 4.2
Interfaces	
USB 2.0 (480 Mbps)	None
ASC0 HS Serial Modem	None
GPIO Lines	Not Supported
UICC and U/SIM (1.8 V/3 V)	1.8 V / 3 V
Module ON/Reset	Supported
ADC and I2C	Supported
4-Wire HS Serial Interfaces SCA1	None
Analog Audio	None
Digital Audio	None

* SMS is not supported on the Deutsche Telekom NB-IoT network.



LIFE IS FOR SHARING.

DATA SHEET LIERDA NB86-G WIRELESS MODULE

CERTIFICATION DETAILS

GMA Certification	None
Deutsche Telekom Certification Date (Initial Firmware)	10.09.2018 (V150R100C20B300SP2)
Certified Deutsche Telekom Affiliates	AT, CZ, DE, HR, NL, PL, SK
Certifying Entity	DTAG IDU-TIV
DT Certification Type (Conditions)	Limited certification (GCF certification outstanding, chipset technical issues to be addressed)
Deutsche Telekom Affiliate Country Codes	
AL	Telekom Albania
AT	T-Mobile Austria GmbH
CZ	T-Mobile Czech Republic a.s.
DE	Telekom Deutschland GmbH
GR	COSMOTE Mobile Telecommunications S.A.
HR	Hrvatski Telekom d.d.
HU	Magyar Telekom Telecommunications plc
ME	Cmorgski Telekom a.d. Podgorica
MK	Makedonski Telekom AD – Skopje
NL	T-Mobile Netherlands B.B.
PL	T-Mobile Polska S.A.
RO	Telekom Romania Mobile Communications S.A.
SK	Slovak Telekom, a.s.



CONTACT

Deutsche Telekom AG
Friedrich-Ebert-Allee 140
53113 Bonn
iot-device-support@telekom.de



LIFE IS FOR SHARING.