

DATA SHEET MURATA LBAD0XW1SS WIRELESS MODULE

KEY BENEFITS

Smallest size of NB-IoT module in the world (12.6 x 10.6 mm ²)
Low power consumption (~3μA in PSM)
Can operate at 2.2V
Powerful MCU (M4), optional for open MCU
Global band support for worldwide products (650MHz to 2.2GHz)

NETWORK

3GPP Protocol Stack Compliance	Release 13
Support for TS.34 IoT Communication Efficiency	Supported
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)	1, 2, 3, 5, 8, 12, 13, 17, 18, 19, 20, 25, 26, 28, 66, 70
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)	None
Speech Codecs	None
Protocol Support	TCPIP, TLS, Ping, LwM2M, CoAP, HTTP, HTTPS, MQTT, iperf, SNMP, SIM Toolkit
Firmware Updates	UART, FOTA
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)	12.6 x 10.6 x 1.8
Weight (g)	0.5
Operating Temperature - Extended Operation (°C)	-30 to +85
Supply Voltage Range (V)	2.2 - 3.63
On-board Memory	4MB Flash / 4MB SRAM
Interfaces	
USB 2.0 (480 Mbps)	None
ASC0 HS Serial Modem	None
GPIO Lines	37
UICC and U/SIM (1.8 V/3 V)	Supported, 1.8V / 3V
ADC and I2C	Supported
4-Wire HS Serial Interfaces ASC1	None
Digital Audio, prepared for Analog Audio	None



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CERTIFICATION DETAILS

GMA Certification	None
Deutsche Telekom Certification Date (Initial Firmware)	25.01.2019 (geneva-mp3-nb.V1.7.0)
Certified Deutsche Telekom Affiliates	AT, CZ, DE, HR, HU, NL, PL, SK
Certifying Entity	DTAG ITS-IVA
DT Certification Type (Conditions)	Limited
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	Cmogrski 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.



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