

# DATA SHEET UNISOC IVY8908A WIRELESS CHIPSET

## KEY BENEFITS

3GPP Release 13 NB-IoT specification fully-compliant
Software upgradeable to support 3GPP Release 14 features
Wide frequency range of supported RF bands
Supports all deployment scenarios (standalone, in-band, guard-band), single-tone and multi-tone in uplink
Supports CP-CIoT and UP-CIoT
Power saving features, including PSM and eDRX, with multiple SoC low power modes
Up to 192MHz MIPS processor, integration 32Mb SPI NOR flash and pSRAM

## NETWORK

<b>3GPP Protocol Stack Compliance</b>	Release 13
<b>Support for TS.34 IoT Communication Efficiency</b>	Radio Policy Manager (RPM) planned
<b>Wireless Protocol Support</b>	
2G/GPRS	None
3G/UMTS	None
4G/LTE	None
NB-IoT	Supported
<b>Frequency Band Support</b>	
2G Bands (MHz)	None
3G Bands (MHz)	None
4G Bands (MHz)	None
NB-IoT Bands (MHz)	B1, B2, B3, B4, B5, B8, B12, B13, B17, B18, B19, B20, B25, B26, B28, B66, B70, B71
<b>3GPP Classes / Categories</b>	
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 (100 kbps, 100 kbps)
<b>Short Message Service (SMS)</b>	Text, PDU
<b>Speech Codecs</b>	None
<b>Firmware Updates</b>	Over-the-air update service, UART
<b>Integrated Positioning Technology</b>	
GPS	None
GLONASS	None
Control Plane A-GPS Support	None

SUPL A-GPS Support	None
<b>Regulatory</b>	
eCall	None
Standalone / Assisted GNSS	None
TTY	None

## HARDWARE

Dimensions (L x W x H, mm)	6.5 x 7.0 x 0.5
Weight (g)	<1
Operating Temperature - Extended Operation (°C)	-20 °C to +70 °C
Supply Voltage Range (V)	3.2 - 4.2
<b>Interfaces</b>	
USB 2.0 (480 Mbps)	None
ASC0 HS Serial Modem	None
GPIO Lines	26 with interrupt
UICC and U/SIM (1.8 V/3 V)	1.8 V, 3 V
ADC and I2C	Supported
Serial Interfaces 1.8 V (including automatic baud rate detection)	Supported
Digital Audio, prepared for Analog Audio	None



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## CERTIFICATION DETAILS

GMA Certification	None
Deutsche Telekom Certification Date (Initial Firmware)	19.08.2019 (V8.0.2)
Certified Deutsche Telekom Affiliates	AT, CZ, DE, HR, NL, PL, SK
Certifying Entity	DTAG ITS-IVA
DT Certification Type (Conditions)	<b>Limited</b> (Technical issue regarding out-of-service handling)
<b>Deutsche Telekom Affiliate Country Codes</b>	
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	Comorgski 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



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