

Technical Data Sheet

Product Name

IntelliGate LTE



This product is designed to make any industrial machine smart. It is a highly efficient gateway that creates a balance between operating performance and installation costs to enable large scale IoT deployments in production environments. It comes in robust industrial housing and supports Modbus interfaces as well as multiple communication protocols.

General Data

Supply	220/110V AC or 24V DC
Connectors/Glands	Ethernet RJ45 Connector
Connectors/Glands	3x Gland Inserts for free cabling
Environmental	EN 60529 IP66
Temperature	-20 to +60°C
Conformity	CE
Dimensions	140 x 165 x 45 mm

Edge Computing

Processor	Tensilica Dual Core
Processing	Manage any machine or aggregate
Processing	Manage up to 2x 246 MODBUS capable devices (fans/drives)

Wireless

Mobile	LTE, 3G, GSM
WiFi	802.11n Hotspot/Client Mode

Wired

LAN	RJ45 Ethernet up to 100Mbps
Industrial Networks	2x MODBUS (Galvanic
Digital	Isolated)

LTE and WCDMA Operating Bands

The following LTE / 3G / 2G bands might be used for the operation of the IntelliGate LTE. Some of the bands are optional, other will be supported always. Operational bands in North America are marked **BOLD**.

Operating Band	Description	Mode	Tx (MHz)	Rx (MHz)
Band 1	IMT 2100MHz	LTE FDD / WCDMA	1920 – 1980	2110 – 2170
Band 3	DCS 1800MHz	LTE FDD / GSM	1710 – 1785	1805 – 1880
Band 5	CLR 850MHz	LTE FDD / WCDMA / GSM	824 – 849	869 – 894
Band 7	IMT-E 2600MHz	LTE FDD	2500 – 2570	2620 – 2690
Band 8	E-GSM 900MHz	LTE FDD / WCDMA / GSM	880 – 915	925 – 960
Band 20	EUDD 800MHz	LTE FDD	832 – 862	791 – 821
Band 28	700MHz	LTE FDD	703 – 748	758 – 803
Band 38	IMT-E 2600MHz	LTE TDD	2570 – 2620	
Band 40	IMT 2300MHz	LTE TDD	2300 – 2400	
Band 41	BRS 2500MHz	LTE TDD	2555 – 2655	

LTE and WCDMA Transmit Power

The conducted transmit power is the maximum power that the module, tested at the antenna port, can transmit. The 3GPP protocol requires different transmit power levels for each power class. Listed below are the required and the tested values of the transmit power.

Mode	Band	3GPP Requirement (dBm)	Tx Power (dBm) Typical	Note
GSM	GSM 850	39±2.5	32.5±1	-
	GSM 900	39±2.5	32.5±1	-
	DCS 1800	30±3.0	29.5±1	-
WCDMA	Band 1	24+1.7 / -3.7	23.5±1	-
	Band 5	24+1.7 / -3.7	23.5±1	-
	Band 8	24+1.7 / -3.7	23.5±1	-
LTE FDD	Band 1	23±2.7	23±1	10MHz Bandwidth, 1 RB
	Band 3	23±2.7	23±1	10MHz Bandwidth, 1 RB
	Band 5	23±2.7	23±1	10MHz Bandwidth, 1 RB
	Band 7	23±2.7	23±1	10MHz Bandwidth, 1 RB
	Band 8	23±2.7	23±1	10MHz Bandwidth, 1 RB
	Band 20	23±2.7	23±1	10MHz Bandwidth, 1 RB
	Band 28	23+2.7 / -3.2	23±1	10MHz Bandwidth, 1 RB
LTE TDD	Band 38	23±2.7	23±1	10MHz Bandwidth, 1 RB
	Band 40	23±2.7	23±1	10MHz Bandwidth, 1 RB
	Band 41	23±2.7	23±1	10MHz Bandwidth, 1 RB

Wi-Fi Specifications

The output power for the different wireless-networking standards for each used IEEE 802.11 network PHY standard.

Technical Specifications	
Output Power	802.11b: 18.5dBm ± 1.5dBm @11Mbps
	802.11g: 13dBm ± 1.0dBm @54Mbps
	802.11gn HT20: 13dBm ± 1.0dBm @MCS7
	802.11gn HT40: 12dBm ± 1.0dBm @MCS7