Mobile IoT Gateway

VA MOBILE-IOT-GEN3-GATEWAY-4G-GLOBAL-WIFI

Parker

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IoT Gateway Gen3 Specifications

Specifications		
Main Connector		DT13-12PA
Mating Connector		DT06-12SA
Ethernet Connector		M12 connector (4-pin), 10Base-T / 100Base-TX
Input Voltage		12V / 24VDC Minimum 6VDC – Maximum 32VDC
Input Protection		SAE J1113-11 transients and reverse voltage protection
Application Processor		NXP i.MX 8M Nano UltraLite Quad Quad Core ARM Cortex A53 1.4GHz and ARM Cortex M7
RAM		1GB DDR3L
Flash Memory		8GB eMMC v5.1
OS		Linux
IO Processor		ARM Cortex M4 180MHz 512kB Flash 200kB SRAM NXP LPC54618J512ET180E
GNSS		GPS, GLONASS, BeiDou, Galileo
Cellular Connectivity		Global 4G with 3G fallback
THALES PLS63 W module specifications:		
	FDD LTE	bands 1,2,3,4,5,7,8,12,13,18,19,20,26,28,66
	TD-LTE	bands 38, 40, 41
	UMTS (WCDMA/ FDD)	bands 1, 3, 2, 4, 5, 6, 8, 19
	Quad Band GSM	850, 900, 1800, 1900 MHz
	Regulatory Certifications	RED, GCF, FCC, PTCRB, IC, UL, CCC, IFETEL, UKCA, Anatel , JATE, TELEC
	Carrier Approvals	AT&T, Verizon, Telstra, NTT Docomo, KDDI
Wi-Fi		802.11 a/b/g/n/ac 2.4GHz and 5GHz

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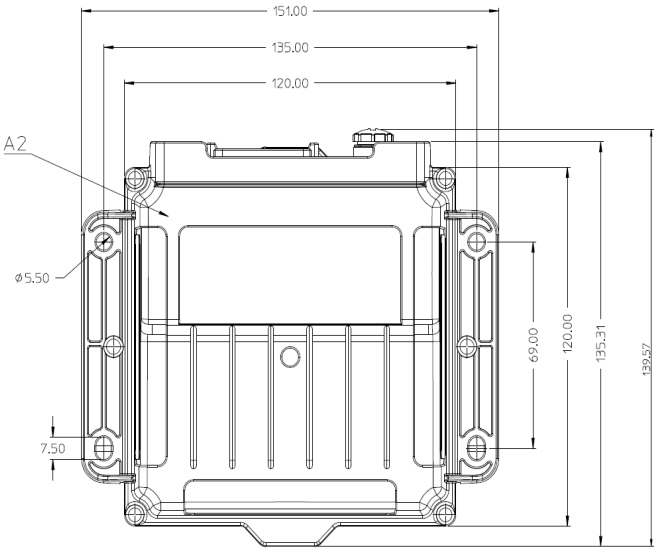
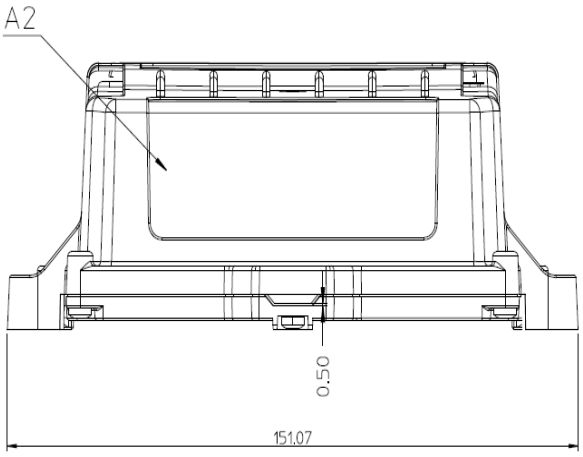
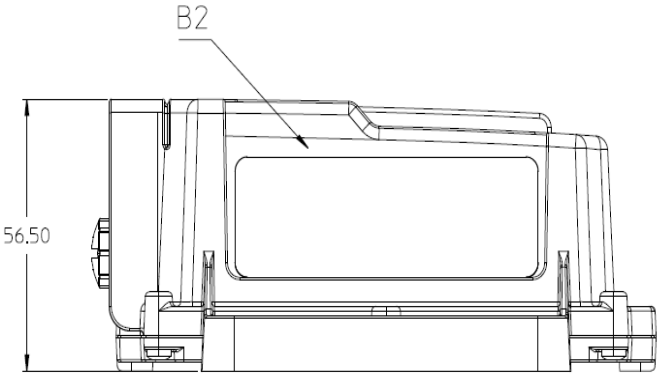
CAN		Support for CAN FD available x2 , configurable speeds of 250 kbps or 500 kbps
CAN Protocol		J1939 and Generic CAN. Supports 11 bit and 29 bit extended identifiers
Ethernet		10Base-T / 100Base-TX
Input Protection		SAE J1113-11 transients and reverse voltage protection
Reverse Voltage Protection		Up to -36VDC
IMU Used for Wake Up Only		3-axis accelerometer and 3-axis gyroscope IMU ±125 to 2,000 dps gyroscope ±2g to 16g accelerometer
Digital Inputs		1 x Digital input (0 – 32V) pull down with option to enable 20kΩ pull up resistor to power supply input voltage through software. Vin, low(max) = 1.40VDC Vin, high(min) = 3.48VDC 1x Chassis detect with 47kΩ pull up to 3.3VDC internal voltage supply.
Digital Output		1 x Low-side drive up to 1A
Sleep Current		≤ 100uA @ 12VDC input
IP Rating		IP67
Backup Battery Supply		1000mAh Lithium-Ion
	Discharge Temperature	-20˚C to +60˚C
	Charging Temperature	10˚C to 45˚C
	Estimated Holdup Time	3.33 hours for continuous operation. Actual consumption may vary based on application. Holdup time will increase by implementing periodic wakeup algorithm.
Wake up Sources		CAN, Ignition, IMU, RTC, SMS
Load Dump		ISO 16750 Test Pulse 5a, up to 202VDC

Mechanical Design







Units measured in mm

Compliance Requirements

Specifications	
Operating Temperature	-30°C to +75°C - 20°C to 60°C battery discharge temperature
Storage Temperature	-40°C to +85°C
Regulatory Certifications	North America: FCC, IC, PTCRB, AT&T CE, Australia, South Africa
Load Dump	ISO 16750-2 Test Pulse A
EMC-Immunity, Transients & Surges	ISO 7637-1 and ISO 7637-2 Test pulse 1, 2a, 2b, 3a, 3b and 4
EMC-Immunity, EFT	EN 301489 and EN 61000-4-4
EMC-Immunity, ESD	EN 61000-4-2
IP Rating	IP67
Salt Spray	SAE J1455 4.3.3.1
Fluid Compatibility	SAE J1455 4.4.3.2
Operating Random Vibration	10Hz, 1000Hz, 2000Hz
Operational Shock	50G, 11ms, 18 shocks/unit (3 direction per axis)
Bench Handling Shock	Drop Height: 1m to the concrete, 6 drops
Drop Test	ISTA 2A

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