TQ377 MCG

INTRODUCTION

The MCG, short for Mobile Communication Gateway, is a telematics unit with a Linux based OS, WiFi/BT for local connectivity, a 4G/GSM modem for global cellular connectivity and GNSS receiver for navigation. It is perfectly suitable for global remote monitoring of heavy machinery and other systems in need of both remote access and collection of data.

LOW LIFE CYCLE COST

Discover impressive installation speed with different installation alternatives, with built in antennas cutting both cost and time spending mounting. An extensive testing of the unit for tough environment (vibration, temperature, chemicals etc) guarantees a long lifetime.

UNBEATABLE CUSTOMIZATION

Different KPIs can be gathered and processed by the MCG interfaces and the units processing capability. It is adoptable to different customers control systems and engines. The unit is customized using the configuration file in Python. Customization of different CAN information is easily configured in an XML file. The Linux open source platform makes easy and affordable integration possible for every need.

CERTIFIED IN 80+ COUNTRIES

The MCG is CE, FCC and E-marked approved and is in the process of being certified in more than 80 countries around the globe.

HARDWARE BASIC FEATURES

Module	Description
CPU	ARM Cortex A8 600MHz
Memory	512MB DDR3 SDRAM
Storage	4GB Flash (EMMC)
Internal sensors	Tree axis vibration and Gyro sensor
Internal clock	Internal low power RTC
Misc.	Status LED

SOFTWARE BASIC FEATURES

Module	Description
OS	LINUX Openwrt
FW Distrubution	Distributed nodes for different SW features
CAN-Setup	XML configurable CAN setup, SAE J1939 and other CAN functionalities
Configuration language	Python
Misc.	File transfer OTA software load and configuration

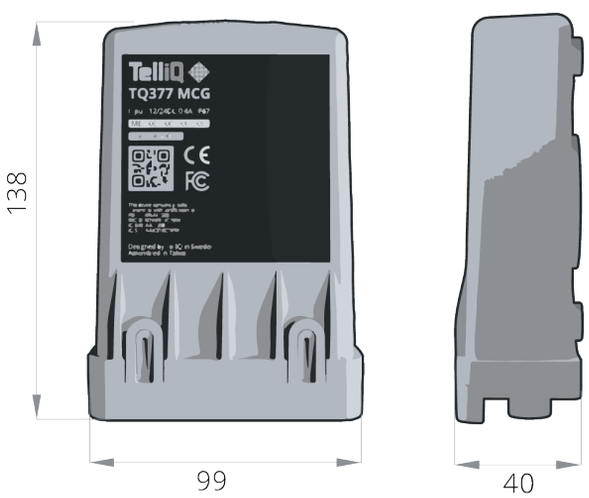
EXTERNAL INTERFACES

Feature	Description
Power input	9-36Vdc, Nom: 12V/24V (Nom cur.: 100mA, Deep sleep: <200µA)
Ignition input	+12V/24V at ignition ON
I/O inputs	2x Din/Ain/pulse configurable
CAN	With sensor power output
Ethernet	M12, 4PiN D-Coded Female

APPROVALS AND CERTIFICATIONS

Certificates	
CE	E-Marking
RED	FCC
EN 13 309	Country certifications for more than 80 countries.
EN 62368	

DIMENSIONS

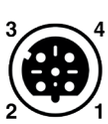


CONNECTIONS

X1 - POWER CONNECTOR
M12, 5PIN
MALE

X2 - CAN CONNECTOR
M12, 5PIN
FEMALE

X3 - ETHERNET CONNECTOR
M12, 4PIN
D-CODED FEMALE



WIRELESS COMMUNICATIONS

Feature	Desciption
WiFi	2,4GHz, via internal antenna.
Bluetooth	Via internal antenna.
Cellular	4G (LTE NB1 and M1) or GSM world wide module via internal antenna.
SIM-card	Embedded-SIM and possibility for plastic Micro-SIM (3FF)
GNSS	Recievier via internal antenna.

ENVIRONMENTAL

Feature	Desciption
IP Code	IP67
Resistance to chemicals	Restistant to Mineral Oil, Synthetic Oil, Anti-freeze coolant, Hydraulic Oil, Salt water, Diesel fuel, Add blue
Operation temperature	-40°C to +70°C
Misc.	High vibration resistant

PIN DECLARATION

X1	Name	Description
1	+12/24V	Power to MCG
2	Ignition/DIN1	12V/24V at ignition ON
3	GND	GND
4	IO2	Digital/Analouge/Counter
5	IO3	Digital/Analouge/Counter

X2	Name	Description
1	CAN shield	Optional CAN shield
2	CAN V+	Controlled sensor power from MCG, <100mA
3	CAN GND	GND
4	CAN Hi	CAN 2.0b
5	Can Low	CAN 2.0b

X3	Name	Description
1	TX+	Ethernet
2	RX+	Ethernet
3	TX-	Ethernet
4	RX-	Ethernet