



PARCELIVE™ datasheet

The Parcelive device is a GSM/GPRS tracker specifically designed for parcels.

It is a battery-powered device that embeds multiple sensors which provide measurements of temperature, humidity, pressure and kinematic data (tilt, freefall, shock).

The unit connects globally and securely to its Parcelive Enterprise systems via Hanhaa Mobile network.

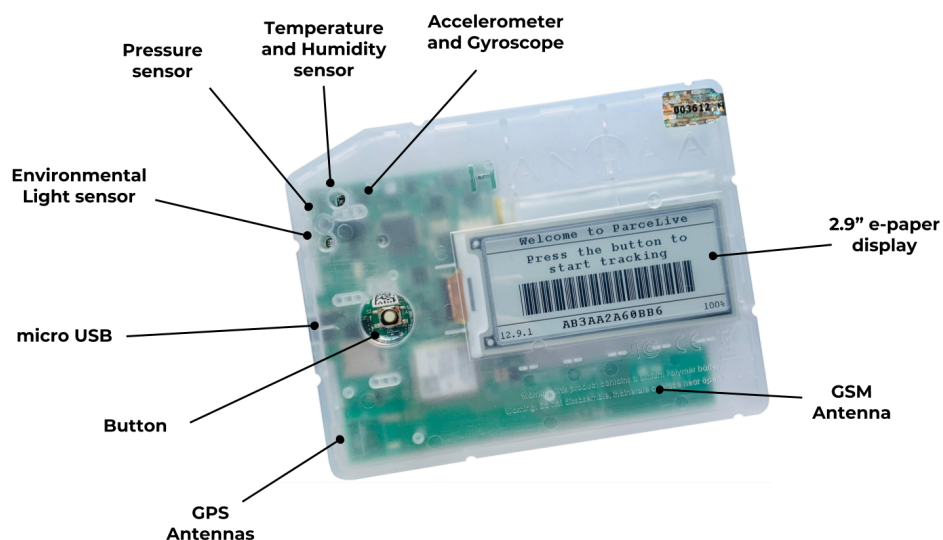
Parcelive device has an internal Flash memory on-chip that store data while the GSM Network is not available.

The duration of the battery highly depends on the frequency of the data reports, it can range from few days up to 3 months.

Dimensions	x 130 mm (W) x 100 mm (H) x 10.5 mm (D)
Weight	144 grams

Powered by:

1880mAh VARTA Lithium-Polymer battery



Parcelive Sensors description

Sensor	Function	Specification
HTS221	Capacitive digital sensor for relative humidity and temperature	- 0 to 100% relative humidity range - Humidity accuracy: $\pm 3.5\%$ rH, 20 to +80% rH - Temperature accuracy: ± 0.5 °C, 15 to +40 °C
LPS25HB	MEMS pressure sensor / digital output barometer	- 260 to 1260 hPa absolute pressure range - Embedded temperature compensation
OPT3001	Ambient Light Sensor	- Full-Scale 0.01 lux to 83k lux
LSM6DS3	high-performance 6-axis digital accelerometer and gyroscope	- ± 16 g full scale - Sampling up to 1.6 kHz

Parcelive GMS Modem specs

The MC60 is a GSM/GPRS+GNSS combo module from Quectel based on the MT2503D platform which is the combination of GNSS platform MT3333 and GSM/GPRS platform MT6261.

Operating Territories

GSM Band	Band freq. MHz	ITU- Region	Countries
E-GSM-900	900	1 & 3	Africa, Europe, Middle East, Oceania and Asia, except for Japan and South Korea which never deployed GSM
DCS-1800	1800	1 & 3	
GSM-850	850	2	North, South and Central America North, South and Central America
PCS-1900	1900	2	

Parcelive GNSS Receiver specs

MC60 supports GPS+GLONASS. The two-constellation system is especially suitable for urban areas with high-rise buildings and complex environments.

GNSS Specs	Mode	Specification
Horizontal Position Accuracy	Autonomous	± 2.5 m CEP
Velocity Accuracy	Without Aid	<0.1m/s
Sensitivity	Tracking	-167dBm

Parcelive Operating Conditions Specifications

Parameter	Specification
Temperature	-15°C to +50 °C (limited by operating range of lithium battery)
Humidity	5 to 90% non-condensing RH
Rate of change of Temperature	Max 0.5 degC/min averaged over a period of 5 mins
Air Pressure	70 to 106 kPa
Thermal Radiation	700 W/m ²
Movement of surrounding air	5 m/s
Vibration	Sinusoidal sweep of: 0.3 mm displacement: 2-9 Hz Acceleration 1 m/s ² : 9-200 Hz
Shock	40 m/s ² @ 22ms duration

Parcelive Storage Conditions Specifications

Parameter	Specification
Temperature	-20 to + 60 °C (Storage at the extremes of this temperature range should not exceed more than 1 month)
Humidity	5 to 95% non-condensing
Rate of change of Temperature	Max 0.5 degC/min averaged over a period of 5 mins
Air Pressure	70 to 106 kPa
Thermal Radiation	700 W / m ²
Movement of surrounding air	1 m/s
Vibration	Sinusoidal sweep of: 1.5 mm displacement: 2-9 Hz Acceleration 5 m/s ² : 9-200 Hz
Shock	40 m/s ² @ 22ms duration
Static Load	When placed in its product packaging, the equipment shall withstand a 5 kPa load without damage

Parcelive Transportation Conditions Specifications

Parameter	Specification
Temperature – transportation	-20 to +60 °C (Transportation that involves exposure to the extremes of this temperature range should not exceed a duration of more than 1 month)
Humidity	5 to 95% condensing
Rate of change of Temperature	Direct transfer from -40 to +30 °C air temperature
Air Pressure	70 to 106 kPa
Thermal Radiation	600 W / m ²
Movement of surrounding air	20 m/s
Vibration	Sinusoidal sweep of: 3.5 mm displacement: 2-9 Hz Acceleration 10 m/s ² : 9-200 Hz Acceleration 15 m/s ² : 200-500 Hz
Shock	100 m/s ² @ 11ms duration 300 m/s ² @ 6ms duration
Free Fall	When packaged in its shipping packaging, the equipment shall withstand a drop of 1.2m without damage
Toppling	When packaged in its shipping packaging, the equipment shall withstand toppling from all edges without damage
Steady State Acceleration	20 m/s ²
Static Load	When packaged in its shipping packaging, the equipment shall withstand a 10 kPa load without damage

Environmental specifications

Parameter	Specification
RoHS	European Directive 2002/95/EC (RoHS)
WEEE	EC Directive on Waste Electrical and Electronic Equipment (WEEE)
REACH	REACH compliant