



4GCAT1 GATEWAY

A versatile IoT platform

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1. Product specifications

Feature	Details	JEG4132	JEG4133	JEG413X
Power Supply	7-32 VDC	✓	✓	✓
Operating Temperature	-20° C to + 70° C	✓	✓	✓
SIM	Plastic Sim / e-SIM (Optional)	✓	✓	✓
Wireless technology	LTECat-1with Internal antenna	✓	✓	✓
	EX800G series Quectel module	✓	✓	✓
GNSS	GPS + GLONASS with internal antenna		✓	✓
Bluetooth	BLE5.3		✓	✓
Vibration sensor	3-axis accelerometer with motion interrupt		✓	✓
Analog inputs	2 inputs with 0 to 5V range		✓	✓
Digital inputs	2 inputs with maximum voltage of 32V		✓	✓
Digital output	1 output with 1A source strength		✓	✓
RS485	Isolated RS-485 with 3.5KV isolation	✓	✓	✓
CAN	Surge up to 50 VDC	✓		✓
Memory	16MB Data flash			✓
USB	Debugging and programming port (For development phase only)	✓	✓	✓
LEDs	LED 1:Power	✓	✓	✓
	LED 2:Serial communication (Software control)	✓	✓	✓
	LED 3:Network latch (Software control)	✓	✓	✓
	LED 4:GNSS (Software control)		✓	✓
Tamper	LDR based box open alert	✓	✓	✓
Harness	Length as per product requirement	2m	0.3m	0.3m
	Thickness (sq.mm.)	0.35	0.25	0.25
Enclosure	ABS enclosure with IP65 protection	✓	✓	✓
Mounting Options	Screw mounting	✓	✓	✓
Watchdog	Hardware watchdog	✓	✓	✓
Reset	Resets witch	✓	✓	✓
Power back-up	Super cap for last gasp packet		✓	✓



2. Product compliances

a. Environmental Performance

Tests	Compliance
Thermal Cycling	With temperature range of -20 to +70 degree
Humidity Temperature Cycling	10% to 90% RH (non-condensing)
High Temperature Endurance	Device can operate up to 70 degrees for 24 hrs
Storage Temperature	With temperature range of -20 to +85 degree
Over Temperature	Device can operate up to 70 degrees for 24 hrs
Shock	As per IS 9000, severity 15g, 11 ms duration, total 6 impacts (2 on each axis)
Vibration	AS per IS 9000, 10-55-10 Hz in a sweep period of 1 min with continuously varying frequencies. To be tested for 15 mins in each axis
Dust and Gravel	IP65 as per IEC60529
Salt Spray	Clause 4.8 of IS 10250 for 96h

b. Abnormal Tests

Tests	Compliance
Reverse Battery	For 32V reverse battery supply
Short Circuit Test	Short circuit on RS 485 lines for 1 min
Over voltage	Up-to 36V
Low Voltage (LV) Battery	Up-to 6.5V
DC Surge	For 12V system pulses 1,2a,2b,3a,3b,4 and 5 For 24V system pulses 2a,2b,3a,3b
DC Brownout	Pulse4

c. Electromagnetic Interference (EMI) Electromagnetic Compatibility (EMC)

Tests	Compliance
Radiated Emissions	Class B as per CISPR11
Conducted Emissions	Class B as per CISPR11 for DC port
Radiated Immunity	3V/m as per EN50082-2
Electromagnetic Fast Transients (EFT)	+/-2KV as per IEC61000-4-4
Electrostatic Discharge (ESD)	+/-4KV contact discharge, +/-8KV air discharge as per IEC 61000-4-2
Conducted Radio Frequency (RF) Immunity	10Vrms as per IEC61000-4-6
Power Frequency Magnetic Fields	As per IEC61000-4-8



d. Other compliances

Category	Requirement
Certification	RoHs3-2015/863/EU Directive
Accredited 3 rd Party Lab Reports	RF-ETSI301908-1C13 Safety IEC62368-1
Compliance Reports	3GP PTS36521-1
TEC	Yes

3. Product images



4. Mechanical dimensions

