

## CANect® CL-T27

# Remote Updates & Diagnostics

The CANect® CL-T27 is built to power the future of IoT innovation in rugged environments by offering over-the-air programming (OTA) with the flexibility of using our applications or your own tools.

### Build Your Solution

The T27 telematics hardware from HED enables OEMs to build vehicle specific applications leveraging HED standard programming tools or create custom applications using Linux.

### Remote Diagnostic and Troubleshooting

Remote diagnostics and troubleshooting through wireless connectivity. Adopt HED standard Portal, View or reflector applications or build with your own back office tools.

### Remote Vehicle Programming

Update, reprogram and adjust vehicle capabilities with the touch of a button with Over-the-Air (OTA) programming via Cell or Wi-Fi connectivity.

### Predictive Maintenance

Decrease downtime by monitoring asset conditions. Create early notifications and warnings using real-time & historical trend monitoring.



#### 4G LTE and Wi-Fi

Choose remote wireless connectivity and data access through 4G LTE Cat-M1, Cat-4 or Wi-Fi connectivity.

#### Multiple Local Connectivity Options

USB, Ethernet, Wi-Fi, and CAN capabilities to enable a variety of OEM interfaces and applications.

#### Integrated Security

Built in security with Industry standard secure boot and on-board, security key use and storage, and encrypted communications

**Contact your Sales Team today!**



HED specializes in the design, manufacture, and application of innovative controls and telematics systems for on- and off-highway OEMs. We provide a complete line of controllers, displays, keypads, and telematics solutions.

HEDcontrols.com | 262-673-9450

Rev:101424

# CL-T27 | Specifications

COMPUTING CORE	
<b>Overview</b>	Cortex-A7 ARM Processor running at 800 MHz
<b>CPU</b>	Cortex A7 @ 800 MHz (single-core)
<b>Flash</b>	8GB eMMC Flash
<b>RAM</b>	512MB DDR3 RAM
ELECTRICAL	
<b>Operating Voltage</b>	9V- 36V
<b>Key Switch</b>	Standard for Start/Shutdown
<b>Inputs</b>	up to 2 inputs
<b>Outputs</b>	1 sinking output
<b>Max Amp. Draw</b>	300mA at 12V
<b>Average Draw</b>	270mA at 12V
<b>Power Off-LI-Polymer</b>	1.5 mA
<b>Internal Battery</b>	Lithium-ion Polymer (LiPo) 1500mAh
<b>Battery Certification</b>	UN38.3 and IEC62133-2
<b>Transient Immunity</b>	ISO 7637-2, Pulse 1, 2a, 2b, 3a, 3b
<b>Starting Profile</b>	ISO 16750-2, Section 4.6.3
<b>Load Dump</b>	ISO 16750-2, Section 4.6.4, 40V clamped
MECHANICAL	
<b>Housing Material</b>	Polycarbonate
<b>Installation</b>	30mm M4; Torque: 40 In/Lbs. (4.5 Nm)
<b>Connectors</b>	1x 35-pin AMPSEAL
<b>Dimensions (mm)</b>	139.3 x 123.3 x 44.8
<b>Weight</b>	.65 lbs
INTERFACES	
<b>CAN</b>	2x CAN ports
<b>USB</b>	1x USB OTG (supply up to 500mA to device, max 2.5W)
<b>Ethernet</b>	1x Ethernet 10/100 Base-T
<b>Wi-Fi</b>	Dual-band Wi-Fi 802.11
ACCELEROMETER / INCLINOMETER	
<b>Function</b>	3-Axis ; ±3°
ANTENNA	
<b>Cat-M1</b>	<b>CL-A31-104-10</b> (cable length: 3000 mm)
<b>Cat-4</b>	<b>CL-A41-105-10</b> (coming soon)

CELLULAR COMMUNICATION	
<b>4G LTE</b>	<b>Cat-4</b> – North America/Canada FDD- B2/ B4/ B5/ B12/B13/ B25/ B26 WCDMA – B2/B4/B5
	<b>Cat-M1/NB1</b> - Global 4G FDD- B1/ B2/ B3/ B4/ B5/ B8/ B12/ B13/ B18/ B10/ B20/ B28 ; TDD- B39 (Cat-M1 only)
<b>SMS</b>	MT/MO; Cell Broadcast; Text & PDU
<b>Protocols</b>	PPP/TCP/UDP/SSL/TLS/FTP(S)/HTTP(S)/NITZ/ PING/ MQTT
<b>SIM</b>	Micro SIM (3FF)
GNSS INTERFACE	
<b>Receiver</b>	GNSS, GPS, GLONASS
<b>Horizontal Accuracy</b>	<2.5m; autonomous, open sky
<b>Time-to-First-Fix</b>	Cold: 11.57s; Hot: 1.8s; Aided: 3.4s
<b>Receiver Sensitivity</b>	Tracking & Nav: -157 dBm Cold: -146 dBm; Hot: -157 dBm
ENVIRONMENTAL SPECIFICATIONS	
<b>IP Class</b>	ISO 20653, IP67
<b>EMC Conformity</b>	FCC Part 15 (b) and ISED Canada. 2014/30/EU – CE Mark Radiated Emissions: ISO 13766-1, EN 13309, ISO 14982 Conducted Emissions: CISPR 25, Section 6.3 (Voltage Method) Radiated Immunity: ISO 11452-2 Conducted Immunity: ISO 11452-4 (BCI method), 20- 200MHz at 100mA ESD: ISO 10605, IEC 61000-4-2
<b>Vibrations</b>	IEC 60068-2-64 Random Vibration Test VII Test: Random Vibe, Freq. Range: 10-2000Hz, Level: 57.9m/s <sup>2</sup> per Figure 11 / Table 12 Duration/axis: 8hrs (32Hrs total exposure)
<b>Shock</b>	IEC 60068-2-27 Mechanical Shock Level: 500 m/s <sup>2</sup> - 6ms, Shape: Half-sinusoidal # Pulses: 100 per direction/axis (600 total shock pulses) Level: 500 m/s <sup>2</sup> - 11ms, Shape: Half-sinusoidal # Pulses: 6,000 per direction/axis (18,000 total shock pulses)
<b>Temperature Range</b>	Operating: -40C to +65C Storage: -40C to +80C

## PART NUMBER CONFIGURATION OPTIONS

CL-T27- 8-10-9N

Pre-installed SIM (1 = Aeris US, 2 = Verizon US, 3 = Aeris Fusion/International, 8 = Customer supplied SIM)

Carrier / Region (0 indicates Global/Cat-M1, 1 indicates North America/Cat-4)

