

CHAMELEON CTM-15X MODEM WITH WI-FI DATA SHEET

Rugged Design

- Wide operating temperature range (-30 °C - +65 °C)
- Tested to MIL-STD 810F/SAE standards for shock, temperature, vibration and humidity
- Shock absorbing mounting bracket for enhanced shock and vibration isolation
- CNC machined aluminum/hi-impact thermoplastic composite enclosure

High Speed Cellular Communicator with the addition Wi-Fi

- EV-DO (REV A) - 3.1 Mbps (peak download) 1-2 Mbps (typical), 1.8 Mbps (peak upload) 300-500 kbps (typical)
- HSPA+ - 21 Mbps (peak download), 5.7 Mbps (peak upload)
- IEEE 802.11a/b/g/n



Functionality

- Linux operating system
- 10/100 Ethernet port, DB-9 serial port
- Integrated 12 channel Trimble GPS receiver (NMEA/TAIP) 6 analog or digital inputs, 4 digital outputs
- Low power (<1 mA) shutdown mode with wake on timer/event
- 9-36 Vdc power input
- DHCP server with port forwarding for local and remote configuration via telnet/SSH or embedded web page, firewall features
- Machine to machine device support - UDP/TCP PAD, MODBUS Master Gateway, MODBUS Slave Gateway (TCP/SERIAL), ULCP
- User configurable time/speed/heading/distance/input reporting logic for GPS, I/O and device status commands
- Email/SMS support for reports and output triggering
- Store and forward of reports when out of coverage
- Remote firmware upgrade
- DYNDNS (dynamic domain) configuration
- Odometer feature
- Monitor the amount of data transmitted and received over a wireless link
- Advanced reporting logic for GPS, I/O, ignition, OBDII, power up, voltage level, acceleration/ deceleration
- Onboard support for IPsec and SSL based VPNs (virtual private networks)

SPECIFICATIONS	
ENVIRONMENTAL	<p>Random Vibration: MIL-STD 810F Method 514.5C. 5 ~ 500 Hz, 1.6 ~ 2.0grms</p> <p>Shock: MIL-STD 810F Method 516-I, 40G, 11ms Sawtooth wave</p> <p>Temperature (operating): MIL-STD 810F Method 502-II, -30 °C to +65 °C</p> <p>Temperature (storage): SAE 1455 4.2.3, Storage: -40 °C to +75 °C</p> <p>Humidity: SAE J1455 Humidity test 4.2.3, 85-95% relative humidity for 2, 24-hour cycles</p>
POWER	<ul style="list-style-type: none"> 9 to 36 Vdc 0.5 Amps max @ 12 volts Less than 1mA standby at 12 volt Protection to SAE J1455
GPS	<ul style="list-style-type: none"> L1 (1575.42 MHz) frequency 12 channel continuous tracking receiver Accuracy: <5 metres (50%) <8 metres (90%) Reacquisition: <2 sec (90%) <10 sec (hot start) SMA GPS antenna connector and other options 3.3 Vdc active antenna support
ANALOG + DIGITAL I/O	<p>6 Inputs (analog or digital) 0-10V analog range (10 bit resolution) 36V max input, 50 kohm input impedance alarm configuration</p> <p>4 Digital Outputs 500 mA sink capability, overload protection Open drain configuration 12 position, dual row 3.5 mm pitch Term. Block Weidmuller part#: 1727670000</p>
DEVICE INTERFACES	<p>DB9 RS232C configured for DCE PPP connection interface configuration commands interface (com port) PAD (UDP/TCP).SNMP MODBUS SERIAL</p> <p>RJ45/Ethernet 10/100 base T Always on ethernet connection (plug and play) MODBUS TCP Configuration commands interface (telnet/SSH or web)</p>

SPECIFICATIONS	
CELLULAR	<ul style="list-style-type: none"> Dual band (800/850/900 MHz and 1800/1900 MHz) CDMA (1xRTT/EVDO), UMTS (WCDMA/HSPA) RF power 23.5 dBm max into 50 Ohms SMA antenna connector and other options available
Wi-Fi	<p>Radio Operation: IEEE 802.11a/b/g/n</p> <p>Security: 802.11i with AES-CCM & TKIP Encryption, 802.1x, 64/128/152bit WEP</p> <p>Data Rates: Legacy 802.11a/b/g (1-54Mbps), 802.11n (up to 300 Mbps)</p> <p>Range (Indoor, Antenna Dependent): up to 300 meters</p>
OPTIONS AND SOFTWARE	<p>Custom on board application processing capability (Linux O/S 2.6 KERNEL)</p> <p>Chameleon Planet Monitor multiple modem network status, GPS location, etc</p> <p>Chameleon Chat UDP/TCP port monitor</p> <p>Gateway Series Allows the modem to communicate with various WPAN devices</p> <p>WPAN Device Accessories E-VDT, Man Down Pendant, Marine Asset Tracker, Message Terminal, etc</p>
APPROVALS	FCC, Industry Canada