

## OEM Dual Carrier Cellular Gateway

The DX2-CAT12 provides a feature packed, compact industrial strength Dual Cellular Carrier OEM solution using ultra fast LTE technology. Using the latest LTE Advanced Category 12 technology with Carrier Aggregation the DX2-CAT12 can provides up to 600 Mbps of LTE data (per Carrier) for todays data intensive applications. The DX2-CAT12 provides features such as Dual Active Carrier with Instant Failover to maximize redundancy, ensuring your Ethernet and Serial based devices are always connected.

600 Mbps LTE / Carrier

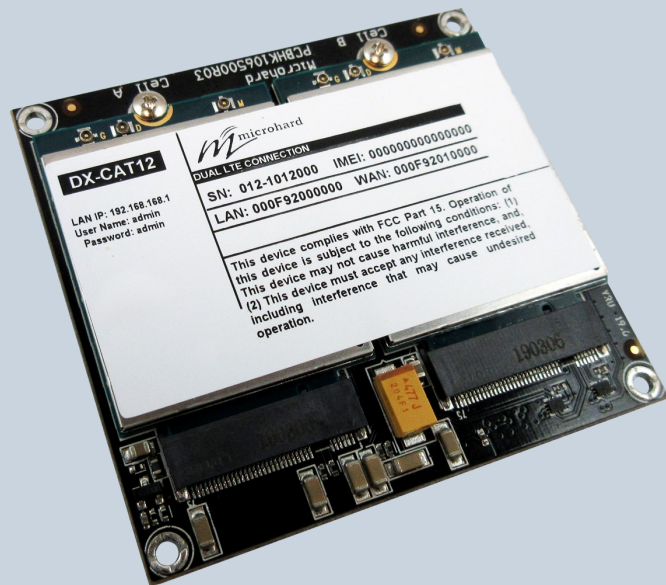
Firewall / ACL / VPN

Load Balancing

Instant Failover

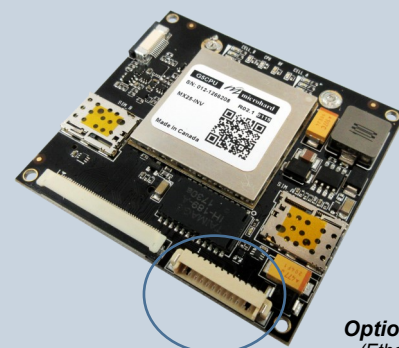
1 Gb Ethernet

RS232 Serial Port

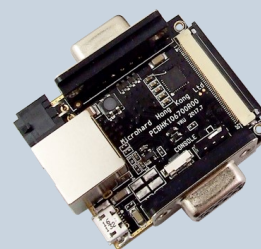


## Features

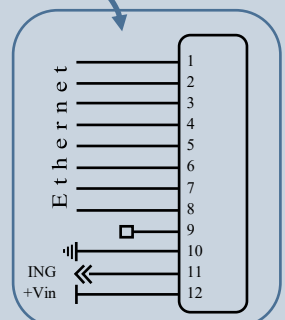
- Dual Active Module - CAT LTE Operation
- LTE Advanced w/Carrier Aggregation Technology
- Dual Carrier / Dual SIM
- Carrier Failover for Instant Redundancy
- Up to 600 Mbps Downlink / 150 Mbps Uplink per Carrier
- Global Band Support /Fallback
- Data Usage Alerts (Email, SMS)
- Firewall with ACL Security, DMZ & Port Forwarding
- IPSec, GRE / VPN Tunneling
- RS232 Serial Data Port
- 10/100/1000 Ethernet
- SMS Support: Ethernet (Telnet), Alerts
- RSSI, Status, Cellular LEDs
- Wide Operating Temperature (-40°C to +85°C)
- User interface via telnet or web browser
- Microhard NMS Support



Optional Quick Connect  
(Ethernet + Power + IGN)



Optional Interface Board



# DX2-CAT12

# Specifications

<b>Supported Bands</b> (Dual Cellular Modules)	LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B9/B12/B13/B14/B17/B18/B19/B20/B21/B25/B26/B28/B29/B30/B32/B66; LTE-TDD: B38/39/B40/B41 WCDMA: B1/B2/B3/B4/B5/B8/B9/B19  DL 2×CA: B1+3/5/18/19/20/26; B2+2/4/5/12/13/17/29/30/66; B3+3/5/7/8/19/20/28; B4+4/5/12/13/17/29/30; B5+7/30/66; B7+7/20/28; B12+30; B13+66; B19+21; B20+B32; B29+30; B38+38; B39+39; B39+39; B39+41; B40+40; B41+41; B66+66, 12, 29, 30, 5; B2+B14; B14+B30; B14+B66;  DL 3×CA: DL inter-band 3CA: B1+3+5/7/8/19/20/28; B1+7+20; B2+4+5; B2+4+13, B2+5+30; B2+12+30; B2+29+30, B3+7+20, B3+7+28, B3+7+8, B4+5+30, B4+12+30, B4+29+30, B5+66+2, B13+66+2; B66+12+30; B66+29+30, B66+5+30; B2+B14+B66; DL 2 intra-band plus inter-band 3CA: B2+2+5; B2+2+13; B3+3+7; B3+7+7; B3+3+20; B3+3+28; B3+3+1; B4+4+5; B4+4+13; B7+7+28; B5+66+66; B13+66+66; B66+66+2; B39+B39+B41; B39+B41+B41; B14+B66+B66 DL 3 intra-band 3CA: B40+40+40; B41+41+41; B66+66+66  UL 2×CA: B3+3; B41+41	<b>Diagnostics</b>	RSSI, RSRP, RSRQ, Voltage, Temperature, Remote diagnostics, Watchdog, UDP Event Reporting, SMS Alerts, Netflow
<b>Cellular Data Features*</b> (per module)	LTE-FDD: Max 600Mbps (DL), Max 150Mbps (UL) LTE-TDD: Max 430Mbps (DL), Max 30Mbps (UL) UMTS: DC-HSDPA: Max 42Mbps (DL) HSUPA: Max 5.76Mbps (UL) WCDMA: Max 384Kbps (DL), Max 384Kbps (UL)	<b>Input Voltage</b>	7 - 30VDC
<small>*Module Standalone Laboratory Performance</small>		<b>Connectors:</b>  <b>DX-CAT12 Module</b> Antenna(s) 4x UFL(Main1/Div1, Main2/Div2) Data 50-pin ZIF/FFC (TTL) SIM 1.8 / 3.0V (Nano - 4FF) Data2 12 Pin (8 pin Ethernet + Power/IGN)  <b>Interface Module</b> Power 4 PIN Interlock (Vin, Gnd) Serial Data 2x DB9 Female RS232 Ethernet RJ-45 Main Module Con. 50-pin ZIF/FFC (TTL)	
<b>Serial Interface</b>	RS232 Serial Data Port (TTL)	<b>Environmental</b>  <b>Operating Temperature</b>	-40°C to +85°C -40°F to +185°F  <b>Humidity</b> 5-95%, non-condensing
<b>Serial Baud Rate</b>	300bps to 921kbps	<b>Weight</b>  <b>DX-CAT12 Module</b>	~ 40 grams  <b>Interface Module</b> ~ 20 grams
<b>Serial Port Server</b>	Extensive Serial Port Support: TCP Server/Client / UDP Server/Client / Modbus / SMTP	<b>Dimensions</b>  <b>DX-CAT12 Module</b>	~ 2.50" x 2.25" x 0.35" (65mm x 58mm x 9mm)  <b>Interface Module</b> ~ 1.60" x 1.90" x 0.70" (41mm x 49mm x 18mm)
<b>Ethernet</b>	10/100/1000BASE-T, Auto - MDI/X (TTL)	<b>Approvals</b>	FCC / IC PTCRB
<b>SMS</b>	SMS to/from Ethernet via Telnet SMS Alerts SMS Remote Reboots	<h2>Order Options</h2>	
<b>Carrier Connection</b>	Keep Alive, DDNS, IP pass-through, Failover, Load Balancer	<b>Model</b>	DX2-CAT12
<b>Network Protocols</b>	TCP, UDP, TCP/IP, ARP, ICMP, DHCP, HTTP, SNMP, FTP, DNS, Serial over IP, Modbus Slave (TCP/Serial)		
<b>Security</b>	VPN, IPSec with IKE/ISAKMP; Multiple tunnel support (16); 3DES and up to 256-bit AES Encryption, Site to Site Tunneling, L2TP, Open VPN, GRE, HTTPS, RADIUS		
<b>Firewall</b>	NAT, NAT-T VPN tunneling, Port forwarding, VPN/GRE pass-through; Access control lists (IP/MAC filtering), Data origin / integrity Authentication, DMZ		
<b>Management</b>	Telnet, WebUI, SNMP V1/2/3, Wireless Upgrade (HTTP/FTP), RADIUS authentication, AT Command Interface (Serial/Telnet), Microhard NMS Support, Data Usage Alerts, SSH		

## Contact Information

Microhard Systems Inc.  
 150 Country Hills Landing N.W.  
 Calgary, AB, Canada T3K 5P3

Email: [info@microhardcorp.com](mailto:info@microhardcorp.com)  
 Tel: (403) 248-0028  
 Fax: (403) 248-2762

Copyright 2020 Microhard Systems Inc.  
 Specifications subject to change without notice.

