



Cybertec produces reliable, high performing industrial communication products, built for the Australian environment.

Cybertec routers are ideal for a wide range of M2M applications. Utilising the coverage and flexibility of 4GX, 4G or VDSL2, they provide a flexible and reliable communications platform for interfacing with both Serial and Ethernet enabled devices.

With a constantly evolving product portfolio, Cybertec ensures that its range of industrial routers stay at the forefront of LTE technology and deliver on the latest end user requirements.

## BENEFITS OF CYBERTEC

- Designed and made in Australia for rugged conditions
- DNP3 Outstation supported (signal strength, digital IO)
- Able to operate in a wide temperature range
- Robust security and VPN options on select models, to meet industry and business needs
- Each modem is burn in tested to ensure years of reliable operation
- Modem and carrier redundancy options to ensure the modem is always accessible
- Multiple level watchdogs
- IoT compatible
- 5 Year warranty

## CYBERTEC APPLICATIONS

### Utilities and Renewables



- > SCADA and telemetry
- > IoT solutions
- > Smart metering
- > Analogue and digital remote monitoring
- > Remote asset monitoring and control
- > Remote monitoring and control of legacy serial hardware
- > Tank level monitoring (fuel, water, other)
- > Solar powered telemetry stations
- > DNP3 supported
- > Distribution reclosers ACR

### Rail and Transportation



- > SCADA and telemetry
- > Analogue and digital remote monitoring
- > CCTV monitoring
- > Device management
- > Vehicle monitoring tracking and telemetry
- > Tank level monitoring (fuel, water, other)
- > Solar powered telemetry stations

### Mining and Resources



- > SCADA and telemetry
- > Analogue and digital remote monitoring
- > Remote monitoring and control of legacy serial hardware
- > Environmental monitoring (weather, water, gas, air)
- > Tank level monitoring (fuel, water, other)
- > Vehicle monitoring tracking and telemetry
- > Health monitoring of remote devices (temperature, vibration)

### Business Services



- > IoT solutions
- > Smart metering
- > CCTV monitoring
- > Vehicle monitoring tracking & telemetry
- > Remote monitoring and control of legacy serial devices to prolong life span
- > Out of band management

## PRODUCT RANGE SELECTION GUIDE

Model	Network						Max Speed					
	4G	4GX	CAT 1	CAT 4	DSL VDSL2	SIM #	LAN Ports	Serial Ports	VPN Client*	Digital IO	DL	UL
DMM-450	✓	✓	✓			1	2	N/A	✓	0	10 	5 
2155X	✓	✓	✓			1	2	1xDCE	✓	0	42 	5.75 
2255X	✓	✓	✓			1	2	1xDCE, 2xDTE	✓	8DI, 5DO	42 	5.75 
2455X	✓	✓		✓		2	2	1xDCE	✓	0	100 	50 
5455					✓	N/A	2	1xDCE	✓	0	Location Dependent	

\* Cybertec do not support VPN Server

### 4G AND ITS VARIANTS

4G provides a significant throughput (speed) increase over 3G. The modem can download and upload at a much faster speed than 3G. 4G is excellent for applications like video monitoring, and other high bandwidth traffic. It may be necessary to increase your monthly data plan allowance if utilising 4G in some applications to cope with its ability to download/upload the same amount of data in about ¼ the time of 3G.

4GX utilises a different frequency and as such can provide connectivity at a greater range in rural areas and better penetration for in-building applications. 4GX connections allow you to realise the full speed possible from the network.

LTE Cat 1 is another variation of 4G that is designed for IoT and has a capped maximum download/upload rate of 10Mbps and 5Mbps respectively. By limiting this speed for applications which do not require high bandwidth, the power consumption of the modem is reduced for power sensitive implementations. It can also operate on the 700Mhz (4Gx) band which provides the benefits of better in-building penetration.

### DUAL SIM ADVANTAGES

Dual SIM modems provide carrier level redundancy. Eg one SIM with Telstra, a backup SIM with Optus for connectivity critical applications.

Provides automatic failover in the event of lost connection and inability to connect back to the same carrier.

### DUAL LAN PORTS

Having dual LAN ports removes the need for an additional network switch in small environments where you often require more than one network connected device.

### SERIAL PORTS

The serial port/s in a Cybertec provides the ability for serial devices to connect to the IP world. Example devices include Modbus RTU devices, serial only input devices etc. Modbus and DNP3 serial gateway modes supported.

### DIGITAL I/O

The Cybertec 2255X provides multiple digital inputs and outputs that are fully integrated in DNP3 outstation mode. This can be used for a variety of control and monitoring tasks. It may be used to power cycle a device which has become non-responsive (Output).

You could remotely trigger the device to power cycle via a SMS message or the web console on the modem. You could use it to monitor a door switch, alerting you if and when it changes state (Input).

### CYBERTEC 5455

This model of Cybertec is designed for VDSL2 use and does not connect to the cellular network. It utilises a fixed copper line, similar to a household VDSL2 modem/router.

### ORDERING DETAILS

Part Numbers and Descriptions	
C MODEL 2155X	Cybertec Modem 2155X
C MODEL 2455X	Cybertec Modem 2455X - 4G
C MODEL 2255X	Cybertec Modem 2255X
C MODEL 5455	Industrial VDSL2 Modem/Router
C MODEL DMM-450	Industrial Entry Level 4G Cellular Router

NB: Information contained in this document is correct at time of print, but is subject to change. Please check specific technical information with Madison Technologies, before making your final decision.