

INDUSTRIAL 3G CELLULAR ROUTER/MODEM

For high reliability Serial and Ethernet communications to remote equipment using cellular networks.

CYBERTEC Model 2220



- > Industrial design, -30 to +70°C temperature range, 10 to 60 VDC voltage range
- > Support for 2G, 2.5G, 3G and 3.5G networks
- > HSPA/UMTS 2100/1900/850MHz
- > HSDPA: 7.2Mbps downlink
- > HSUPA: 2Mbps uplink (upgradeable to 5.76Mbps)
- > UMTS: 384kbps downlink/uplink
- > EDGE: 236.8kpbs downlink/uplink
- > GSM/GPRS/EDGE 850/900/1800/1900 MHz
- > Serial IP Gateway / Modbus IP Serial Gateway / DNP3 IP Serial Gateway
- > High-performance Firewall, SSL and IPSec VPN services
- > SMS Functionality for remote monitoring and diagnosis
- > Built-in 2-port 10/100 Fast Ethernet switch
- > Configure System hibernation with time profile

Introduction

Cybertec Model 2220 HSPA Cellular router is designed specifically for applications requiring a high level of reliability and performance. Unique features such as Smart multilevel watchdog technology ensures units do not lock up. Support for latest 3G Fast Uplink enhancements open up new application opportunities with total data security over public or private networks.

Applications



TELEMETRY

Dial-Up or IP connection to Weather Stations and Data Loggers.



CCTV

Live video from remote CCTV Cameras using high uplink bandwidth.



INDUSTRIAL AUTOMATION

Fast connection to remote PLC and RTU Installations using Serial or Ethernet.



INTELLIGENT TRANSPORT

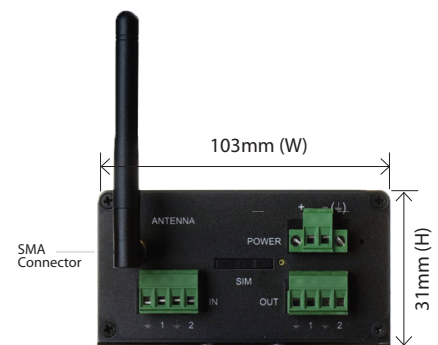
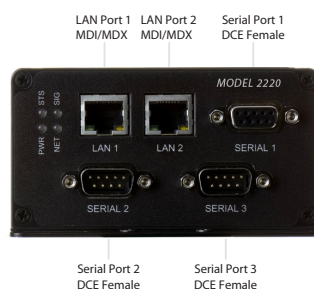
Connection to Variable Message Displays, Tolls, Mobile Transport.



DIGITAL SIGNAGE

Reliable and fast Upload/Download of Digital Content.

Dimensions (unit = mm)



Specifications

Wireless Network

HSUPA / HSDPA / UMTS

2200W-Series	850 / 1900 / 2100 MHz
2200E-Series	900 / 2100 MHz
Power	+24 dBm
Downlink Speeds	1.8 Mbps (Categories 1-4, 11 and 12) 3.6 Mbps (Categories 5 and 6) 7.2 Mbps (Category 7 and 8)
Up-link Speeds	2 Mbps / 5.76Mbps (network dependent)
Circuit-Switched Data	64, 14.4 and 9.6 Kbps

GSM / GPRS / EDGE

850 / 900 / 1800 / 1900 MHz	
GSM Power	2W @ 850 / 900 MHz 1W @ 1800 / 1900 MHz
EDGE Power	+27 dBm @ 850 / 900 MHz +26 dBm @ 1800 / 1900 MHz
GPRS/EDGE Multislot	Class 12
Circuit-Switched Data	14.4 and 9.6 Kbps

Power

Standard

Rated Voltage	10 to 60 VDC
Rated Current	800 mA (Max)
Operating Voltage	10 to 60 VDC
Operation Current	500 mA @ 12VDC
Connection	Detachable Screw Terminal
Polarity	Dependant, Reverse Polarity Protection

Standby Timer

Standby Current	10 mA @ 12V
System	will hibernate according to Time Profile
Configured with	WEB interface

LED Indicators

System Information

Power (PWR)	Signal Strength (SIG)
Status (STS)	Network Status (NET)
Ethernet Link / Activity	

GOIP

Connection

2 x Digital In - Voltage	from Constant
2 x Digital Out - Open Collector	20v / 300mA

Control & State Changes

SNMP, DNP3, SMS, Email, HTTP/HTTPS

Serial Port

Connection

1 x 9-pin D-Sub Female
2 x 9-Pin D-Sub Male

Protocols

DNP3 IP Serial Gateway
Modbus IP Serial Gateway
Serial UDP/ TCP Gateway
Reverse Telnet RFC2217 Server
Modem Emulator
Send, Receive and Manage SMS Message

Networking

Features

IP/TCP/UDP/ICMP/ARP/RARP
Dynamic (DHCP) Server
Network and Port Address Translation (NAT/NAPT)
Dynamic DNS Client
Port Mapping/Forwarding
DNS Proxy
Bridging

Routing

Quality Of Service
Policy-Based Routing
Static / Dynamic Routing
Routing Information Protocol (V1 / V2)
Virtual Router Redundancy Protocol (VRRP)

Security

NAT / Packet Filtering
Stateful Packet Inspection
Protection against Denial of Service attacks
IP Security (IPSec)
Layer 2 Tunnelling Protocol (L2TP)
OpenVPN SSL VPN
3DES and AES (128/256) Encryption Support
Point-To-Point Tunnelling Protocol (PPTP)

Antenna

Physical Interface

External Antenna SMA Female Connector (ANT)
Receive Diversity SMA Female Connector (AUX)

Approvals

A-Tick Approval
C-Tick Approval
CE Type Approval
RoHS Compliant

Management

General

Simple Network Management Protocol (SNMP)
Web Based HTTP/HTTPS Management
Web Based Firmware Upgrade
Diagnostic Test
SMS Control
DNP3
Telnet

Web - Security

Local User Access Control
RADIUS User Access Control

Alerting & Notification

Protocols	SNMP DNP3 SMS Email
Events	Temperature Network Registration Packet Switch Events Circuit Switch Events Signal Strength

Connection Management

Poll Remote Server	Poll at Interval Poll if RX Idle Reconnect in RX Idle
Poll Failure Action	Restart Connection Restart RF Module Reboot Modem

Environmental

Operating

Temperature	-20 to +60°C -30 to +70°C (Restricted Operation)
Humidity	0 to 90% Relative Humidity Non Condensing

Storage & Transport

Temperature	-40 to +85°C
Humidity	0 to 90% Relative Humidity Non Condensing

Ordering Information

Part Number	Description
C MODEL 2220W	Cybertec 2220 Modem for UMTS 850/1900/2100Mhz Networks
C MODEL 2220E	Cybertec 2220 Modem for UMTS 900/2100Mhz Networks

Manufactured and designed in Australia

Note: *Access speed will vary depending on the network coverage and speed that the network operator offers.