

## Introduction

D22M/D32M Series GPRS DTU enables various kinds of legacy devices with serial port to communicate over cellular network and the Internet easily and freely. It not only works as a cellular Modem, but also can construct a smooth "cellular Data Tunnel" between Host and Remote side, ensuring an efficient communication for data transmission and remote device management.

D22M/D32M Series GPRS DTU could offer the ability of remote controlling IO by 4 tunnels GPIO, it can work with the WDSP protocol, and as one of the component of the FDSP system. The FDSP system is the basement of constructing a remote SCADA system.

With the selectable RS-232/TTL/485 serial port, D22M/D32M Series GPRS DTU is an ideal solution for factory automation, environmental monitoring and remote device management etc. Meanwhile, it is supplied with simple Software interface that streamline application development process, freeing system integrators from dealing with complex communication protocols of GPRS and the Internet. Users do not need to change the existing system, saving cost and time for field maintenance, and making it a perfect solution for data transmission.

## Application

- Remote Data Monitor and Control
- Water, gas and oil flow metering
- AMR (automatic meter reading)
- Power station monitoring and control
- Remote POS (point of sale) terminals
- Traffic signals monitor and control
- Fleet management
- Power distribution network supervision
- Central heating system supervision
- Weather station data transmission
- Hydrologic data acquisition
- Vending machine
- Traffic info guidance
- Parking meter and Taxi Monitor



- Telecom equipment supervision (Mobile base station, microwave or optical relay station)

## Benefits and Features

- Industrial design with intelligent software capabilities
- Plug-and-play design with easy-to-use software interface for easy integration
- No need to build expensive fixed line network, saving cost substantially
- Easily manage and control distributed remote devices over the air
- Support WDSP protocol
- Two Class built-in Watch Dog
- 4 ways Digital I/O port
- Remote firmware upgrade over the air (OTA)
- 1 serial port special for data transferring
- 1 serial port special for AT command & Debugging
- Connect to any serial device to GPRS and the Internet
- Reliable GPRS network connectivity, providing fast and cost-effective long-range
- Always-On-Line/on Demand mode
- Sleep mode supported
- wake up Remotely (SMS or Voice call)
- Local and remote configuration over the air
- Multi-destination IP supported

## Specification

Cellular	
Cellular network support	GSM/GPRS
Frequency bands:	GSM 850\E-GSM 900\DCS 1800\PCS 1900
Transmit power:	Class 4 (2 W) at GSM 850 and E-GSM Class 1 (1 W) at DCS and PCS
GPRS	GPRS multi-slot class 12 (default) GPRS Multi-slot class 1-12 (configurable) GPRS Mobile station Class B
Bandwidth	GPRS Down-link: 85.6kbps Up-link: 85.6kbps CSD: 14.4kbps
Protocol	
Protocol Support	TCP,UDP,PPP,HTTP,FTP,MMS
APN	Supported
WDSP protocol	supported
Interface	

Antenna	50 Ω SMA female interface
Terminals	3.5mm 12pin terminals
LED	Power LED Status LED Data LED
SIM slot	1.8V/3V
Voice	Ears/Mic slot
<b>Serial port</b>	
Serial Port 1	RS232/RS485/ TTL optional 1200~115200bps—data tunnels
Serial port 2	RS232/RS485/ TTL optional 1200~115200bps---command tunnels
<b>Power</b>	
Power supply	normal mode: DC7V-25V , typical DC12V/1A low power consumption mode: DC5V±0.1V/1.5A
Power Consumption	Normal mode: Peak: 0.8A@+9VDC Average: 30mA@+9VDC Idle: 3.5mA@+9VDC Low power consumption mode: Peak: 900mA@+5VDC Average: 30mA@+5VDC Idle: 3mA@+5VDC
<b>Remote IO (D32M Only)</b>	
Relay output	2 tunnels , AC250V/10A DC30V/10A
GPIO	2 tunnels, Optical isolation .I/O configurable,
<b>Physical</b>	
Temperature	Normation Operation: -35~80℃ Restricted Operation: -35~-45℃ and 80~85℃ Storage temperature: -45~90℃
Humidity	90% Maximum (Non-condensing)
Dimensions	Item (L x B x H): 75mm x 50mm x 16mm(5.3"x3.7"x1.4") Packaging (L x B x H): 260mm x 190mm x 65mm(10.3"x7.5"x2.6")
Weight	Item: 200g Packaging: 690g
Electronic Compatibility	Anlistatig test: Class 3 Radio electromagnetism test: Class 3
<b>Others</b>	
Warranty	1 Year
Package Contents	The D22M/D32M Series DTU DC 12V/1A Power Adapter Antenna CD-ROM with Product Documentation

## Products models

D22M116 GPRS DTU, 850M/900M/1800M/1900M,RS-232

D22M126 GPRS DTU, 850M/900M/1800M/1900M,RS-485

D22M216 GPRS DTU, 900M/1800M,RS-232

D22M226 GPRS DTU, 900M/1800M,RS-485

D22M116 GPRS DTU, 850M/900M/1800M/1900M,RS-232

D22M126 GPRS DTU, 850M/900M/1800M/1900M,RS-485

D22M216 GPRS DTU, 900M/1800M,RS-232

D22M226 GPRS DTU, 900M/1800M,RS-485

D32M116 GPRS DTU, 850M/900M/1800M/1900M,RS-232, 4 GPIO

D32M126 GPRS DTU, 850M/900M/1800M/1900M,RS-485, 4 GPIO

D32M216 GPRS DTU, 900M/1800M,RS-232, 4 GPIO

D32M226 GPRS DTU, 900M/1800M,RS-485, 4 GPIO

D32M116 GPRS DTU, 850M/900M/1800M/1900M,RS-232, 4 GPIO

D32M126 GPRS DTU, 850M/900M/1800M/1900M,RS-485, 4 GPIO

D32M216 GPRS DTU, 900M/1800M,RS-232, 4 GPIO

D32M226 GPRS DTU, 900M/1800M,RS-485, 4 GPIO