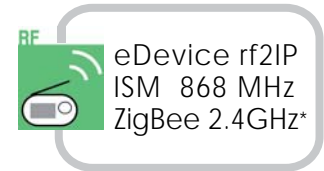




eDgate

Radio Gateway rf2IP

The eDgate is a packaged product that manages a wireless sensor network such as eDevice's rf2IP radio network consisting of eDnode radio modules. The eDgate stores, handles and transfers information between the eDnodes and a TCP/IP network over a PSTN, LAN, or GPRS connection. For each of these networks, eDevice offers an appropriate eDgate product.



Dimensions: 80 x 74 x 44 mm
(excluding box and antenna)

▶ Network

The RF link between eDgate and each wireless sensor operates in the ISM 868 MHz/915 MHz band with an FSK type coding, a bi-directional and half-duplex token-based dialogue. An 8 bit CRC ensures the control of data coherence.

The range is better than 200 meters line-of-sight, and around 30 inside buildings.

▶ Hardware

The eDgate is based on a standard 16 bit DSP allowing the management of different protocols (RF, TCP/IP, V.90, etc.), a 16Mbit flash memory with a file management system for storage and retrieval of data.

The eDgate includes all the required software and hardware to manage a wireless sensor network without a PC.

▶ Software

The embedded eDgate software manages the wireless sensor network (detection and removal of nodes, tokens, sleep and wake up stages, etc.).

The data stored in the eDgate is transmitted through the TCP/IP network using the eDevice Internet applications: embedded Web server, FTP client, email client...

eDgate 510
rf2PSTN gateway



Integrated V.90 Modem

Connects a wireless sensor network to Internet through PSTN. RJ11 interface for connecting to an analogue telephone line (PSTN/POTS). The eDgate510 integrates a V.90 modem as well as a PPP client for connection to a standard ISP (including optional eDevice worldwide ISP access).

eDgate 520
rf2LAN gateway



Integrated 10BaseT PHY

Connects a wireless sensor network to Internet through a LAN. RJ45 interface for connecting to a local area network (Ethernet). The eDgate520 integrates a DHCP client for acquiring an IP address from the network (permanent IP address also possible).

eDgate 530
rf2GPRS gateway



Integrated GPRS Module

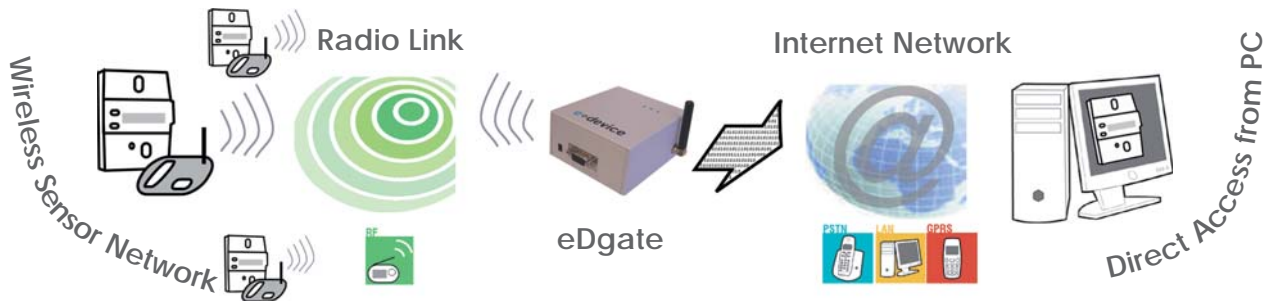
Connects a wireless sensor network to Internet through GPRS. FME antenna interface for connection to a cellular GPRS network. The eDgate530 integrates a GPRS Class 10 modem as well as a SIM card holder for connection to a standard GPRS APN (including optional eDevice GPRS Network).



eDgate

Radio Gateway rf2IP

Network Diagram



Software Engine Features

Serial Port

The DB9/RS232 port allows to connect the eDgate to a PC COM port and provides access to its configuration via a standard program such as HyperTerminal. The link is available with hardware flow control at between 9.6 and 57.6 kbps.

Flash File System

The Flash memory can store different file types: HTML pages for the Web server, files for FTP transfer, Macro files developed with the SDK, etc. Depending on the eDgate, the available Flash memory ranges from 512Kbits to 850Kbits.

FTP Client

The eDgate can exchange files with a distant FTP server. The files are stored in the Flash for processing or sent over the serial port.

Email Client

The eDgate can send and receive emails. The eDgate manages POP3 and SMTP protocols for the management of a standard email account.

AT# interface

The eDgate may be managed using standard AT commands (for the standard modem) or using AT# commands for data storage and manipulation and triggering of action.

Web Server

The eDgate includes an embedded Web server that can be accessed via a standard Internet browser. The Website is built with the SDK and stored in the Flash memory.

SDK & Macros

The eDgate can execute specific scripts for each client application. The Macros are developed in interpreted language through eDevice's SDK and then stored in the Flash memory of the eDgate.

TCP Client/Server

The eDgate opens and closes TCP sockets in client mode (Telnet) or server mode (listen). Once a TCP session is established, the eDgate can direct the flow of the data towards the serial port or a dedicated macro for data handling.



IDeMS - certified

The eDgate is IDeMS-certified, allowing connectivity to eDevice's Middleware Server to benefit from advanced Fleet Management and Network Services.

Availability

eDgate is available from eDevice as an evaluation kit (eDkit500). eDgate units are available separately under references eDgate510 (rf2PSTN), eDgate520 (rf2LAN) and eDgate530 (rf2GPRS). For tailor-made solutions, eDevice proposes to design in accordance with your specifications customized hardware and software, final product design, conception, industrialization and production.

