DGT RIOT

GPRS/EDGE

UMTS/HSPA/HSPA+

LTE

CDMA2000 EVDO rev.A i B

DUAL SIM

WAN USB

Ethernet

Radio Internet of Things – Internet of Things is currently a general description of M2M market.

DGT RIOT is a product line of multifunctional devices dedicated to data transmission in industry. Modular architecture of the device allows for multiple functional possibilities in configuration of WAN and LAN radio access interface.

The device has the functionality of a router, and supports a wide range of network protocols. It is based on a powerful 400MHz processor with ARM9 core and software based on Linux OS.

In the design and manufacture of the device, the components of high quality with improved resistance to environmental conditions were used, ensuring correct operation at temperatures from -30°C to +60°C.

WAN

DGT RIOT provides wireless WAN network access in GSM (GPRS/EDGE), WCDMA (UMTS/HSPA/HSPA+), CDMA (CDMA2000 EVDO rev.A and B) and LTE technologies.

Based on specific client needs the device can be equipped with proper radio interfaces. In case a wired access is required (Ehernet, xDSL), one of the available Ethernet interfaces can operate as a WAN.

WAN USB

DGT RIOT enables WAN access via USB modems. Currently supported modems are ZTE and Huawei devices operating in both HSPA and LTE technology. Upon customer's request any other preferred modem can be added to the supported list.

Local interfaces
The device supports various types of local access interfaces which are installed based on customer's requirements. The basic version of DGT RIOT is equipped with two Fast Ethernet interfaces and can be furthermore expanded with:
- RS485
- RS232
- Mbus
- Wireless Mbus
- CLO
- 802.15.4 (Z-WAVE, ZigBee).

Reliability

In order to increase reliability of access to data transmission networks, the device:

· Supports two SIM cards of different operators

· Has built-in innovative path selection algorithm that checks transmission load of the entire network infrastructure up to the end device, and not just the radio propagation conditions

· Is able to connect various radio access technologies eg. 3GPP and CDMA2000 while automatically choosing the best available at any given moment technology

· Is equipped with multi-stage hardware and software work monitoring mechanisms (watchdog)

· Provides alternative wired or wireless backup connection for main network access technology

· Supports USB modems

Management

DGT RIOT is equipped with local and remote management mechanisms. Local management is based on WWW interface. In case of remote management a dedicated DGT OMC application which supports entire groups of devices can be utilized. This application enables operator to:

· Update software

· Reset the device

· Restore factory settings

· Change configuration parameters

· Monitor parameters (including the quality of transmission and SLA transmission parameters)

· See alarm information

· Perform diagnostics – list of global or specific device events

· Group devices

· Automatically perform some of the actions (eg. Software update) at a specific hour.

The device can be also managed via:

· SNMPv3,

· Telnet/SSH,

· SMS.

Application

Configuration flexibility in the choice of functionality significantly expands the range of possible applications ranging from access to the Internet, via telemetry, remote reading, teleoperation, security, data link backup and wherever you need a reliable data transmission.

Specifications

WAN communication:
· GSM / GPRS / EDGE: 900, 1800, 1900 MHz
· UMTS/HSPA/HSPA+: 900, 1800, 2100 MHz
· LTE: 900, 1800, 2100, 2600 MHz
· CDMA2000 (1xRTT,EVDO rev.A,B 450MHz band A and L)
· Dual (combination of 3GPP and CDMA2000)
· FastEthernet

Local communication:
· FastEthernet
· USB
· RS-232
· RS-485/422
· CLO
· Additional FastEthernet 10/100 port
· Optionally available I/O digital and ana-logue ports

SIM/R-UIM Interface:
· 2x SIM cards or 1x SIM and 1x R-UIM

Supported network functionality

Network protocols:
·NAT, DHCP server/client
·DNS relay, DDNS
·PPP, PPoE
·NTP (time)
·RIPv1, RIPv2

VPN:
· Internet access - PPPoE, PPTP, L2TP
· Pass-through - PPTP, L2TP, IPSec

Security
· MAC, IP address and port filtering

Other
· Port forwarding
· system logs and statistics

Management:
· Device can be managed locally via WWW interface
· Device can be managed via SNMP ver.3 protocol
· Optionally remote management can be carried out via DGT OMC application
· Management via SMS and access via Telnet / SSH.

Power supply:
·DC 12 ÷ 56V

Operating conditions:
·-30°C ÷ +60°C

Casing:
·Material: Aluminum
·Dimensions: 100mm x105mm x46mm
·Weight: 170g

Antennas:
2x SMA (female)