ECL-DC

Ethernet/3G/RF Data Concentrator

ECL-DC has been developed for Smart Metering and Smart Grid applications supporting data communication and application scenarios making use of Ethernet, 2G/3G, RF networks.

ECL-DC supports following communication scenarios between server systems and 3rd party devices:

- Ethernet—Serial (RS232, RS485) Conversion
- Ethernet—2G/3G Conversion (NAT)
- Ethernet—RF Conversion
- 2G/3G—RF Conversion

Custom project needs can be fulfilled thanks to its powerful and flexible Linux based application developement platform. In addition to transparent bridging and NAT between interfaces, ECL-DC can support applications which require data readout, parsing, filtering, processing and smart protocol conversions.

Physical Specifications

- Size : 103 x 107 x 56 mm
- Weight : ~330 gr
- DIN Rail and Wall Mountable
- Sealable Terminal Cover (optional)

Environmental Specifications

- -20 ... +70°C operating temperature

Power Input

- 100 ... 240 VAC or 9 VDC—48 VDC
- 6 KV Impact Resistance

Wired Interfaces

- 1 x 10/100MBit Ethernet Interface
- 2 x USB 2.0 Interface (Host)
- 1 x RS485 Interface
- 1 x RS232 Interface (Optional)
- 300bps - 460kbps communication speed
- 7E1, 7O1, 8N1, 8E1, 8O1 framing

RS485 Automatic Data Direction Control

Wireless Features

- Dual Band UMTS (WCDMA/FDD)
  900/2100 Mhz (EU)
  850/1900 Mhz (US)
- Dual Band GSM
  900/1800 Mhz (EU)
  850/1900 Mhz (US)
- GPRS/EDGE Class 12
  HSDPA Cat.6-8
- 7.2 Mbps DL, 5.76 Mbps UL (HSDPA, HSUPA)
  237 kbps DL, 237 kbps UL (EDGE Class 12)
  85.6 kbps DL, 237 kbps UL (GPRS Class 12)
- CSD 9.6 kbps V.110
- SMA Antenna Connectors
- 25mW 169MHz or 433MHz or 868Mhz Embedded RF Module (Optional)
- Wireless MBus Support (169MHz or 868Mhz) (Optional)

Other Features

- ARM9 Microcontroller
- 256 MB RAM
- Embedded Linux Platform
- Java SE Support
- Internal GPS Support (optional)
- Power Line Communication (G3 and PRIME) is under development