AMI Tech’s DCU-0720 is an intelligent device with built-in RS485 port to acquire data from cluster of meters with built-in GSM/GPRS modem to transfer data to the remote data acquisition server.

DCU-0720 is used in automatic meter reading (AMR) and Advanced Metering Infrastructure (AMI) architectures. DCU collects information and data from Energy Meters, saves into the local storage before forwarding data to the utility.

The built in Web Server feature increase flexibility and convenience, making it easy to configure and maintain the system via internet.

**SALIENT FEATURES**

- Manages upto 32 meters
- Detects device failures and logs the same and to meters via communication port
- Alerts during power outages
- During the network outage, stores up-to 60 days meter data
- Inbuilt watchdog monitoring
- Industrial grade design
- Support for DLMS & Modbus and various Indian Legacy meter protocols
- Isolated RS232 and RS485 interface
- Interfaces: RS232, RS485, Ethernet port, Quad band GSM/GPRS
- Communication to central server via GSM/GPRS and Ethernet
- Collects complete meter data (Instantaneous Parameters, Load Survey, Tampers, Energies, power quality)
- On-board SD card for backup data storage
- Inbuilt battery backed Real-Time Clock (RTC)
- LED indicators for field diagnosis & testing
- Simple design for easy field installation
- Suitable for wall/rack mounting
- Available in 1, 2, 3, 6, 9, 14 card combinations as per application requirement
TECHNICAL SPECIFICATIONS

- Operating System: Linux v2.6.32
- 32 bit processor operating at min 400MHZ
- 64/128 MB SD RAM, 256 MB Flash (optional up to 1 GB)
- One RS232 port for inbuilt GSM/GPRS modem
- One RS232 port for external interface
- One RS485 port for interfacing energy meters
  - Transient voltage suppressors, 3000 VDC, 1 Sec galvanic isolation
  - Surge Protection with response time less than 5 Nano Sec
  - Data rate up to 115200 bps
- One 10/100 Mbps Ethernet port compatible to IEEE 802.3 standard
- Inbuilt Real Time Clock with battery backup
- TCP/listener/server: upto 8
- TCP/IP Client: up to 8
- UDP Sockets: up to 8
- GSM/GPRS Modem
  - Quad band: 850/900/1800/1900 MHz
  - GPRS multi slot call 10/12
  - SMS, GPRS
  - Push type sim card tray with lock function
- Web-Server
  - HTTP
  - FTP
- Email Support
  - SMTP
  - POP3
  - Webmail Attachment
- Time Synchronization
  - Internet time servers using SNTP
  - MDAS Server
  - GPS (Optional)
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OTHER FEATURES

- Data logging/compression/encryption
- Supports text, CSV, ASCII, binary etc.
- Alarming & Scheduling
- Remote access/remote configuration using public/static IP address
- IP/port filtering
- Internal web page interface with restricted access
- Interface to substation HMI system
- DNS Support

Digital Input Module
- 16 Opto-isolated Channels (up to 5 kV) supporting direct field input voltages of 24 / 48 / 110 / 200 VDC
- 4U size hot pluggable Euro cards for easy expansion/maintenance
- LED indications on fascia plate for power and digital input status.
- Operating Temperature: -10 to 70 °C

Digital Output Module
- 16 Single pole relays with one normally open (NO) contact
- 4U size hot pluggable Euro cards for easy expansion/maintenance
- Relay coil and contact are protected by means of free wheel diodes
- LED indications on fascia plate for power and digital output status
  - Digital outputs can be configured as single/double points on the same module
  - Rated current 2 A and Breaking capacity of 2000 VA

Analog Input Module
- 8 Isolated Analog Channels for Measuring Current and Voltages
- Both Unipolar and Bipolar Configuration supported in a single card
- Current Range: ± 20, 0-20 and 4-20 mA
- Voltage Range: ± 10 V, 0-10 V
- 16 bit resolution

Power Supply
- 230 ± 10% VAC input/110 to 120 VDC input
- Power Consumption: Max 3 A

EMI/EMC specifications
- Surge Immunity as per IEC 61000-4-5
- Fast Transient Burst as per IEC 61000-4-4
- Electrostatic Discharge as per IEC 61000-4-2

Environmental
- Temperature: -10 °C to +70 °C
- Operating Humidity < 95%, Non-Condensing

Mechanical
- Dimensions for 9-slot DCU 320mm(L) X 195mm(D) X 175mm(H)
- Dimensions for 14-slot DCU 470mm(L) X 195mm(D) X 175mm(H)