

# STAR<sup>®</sup> Network DCU II

Data Collector Unit

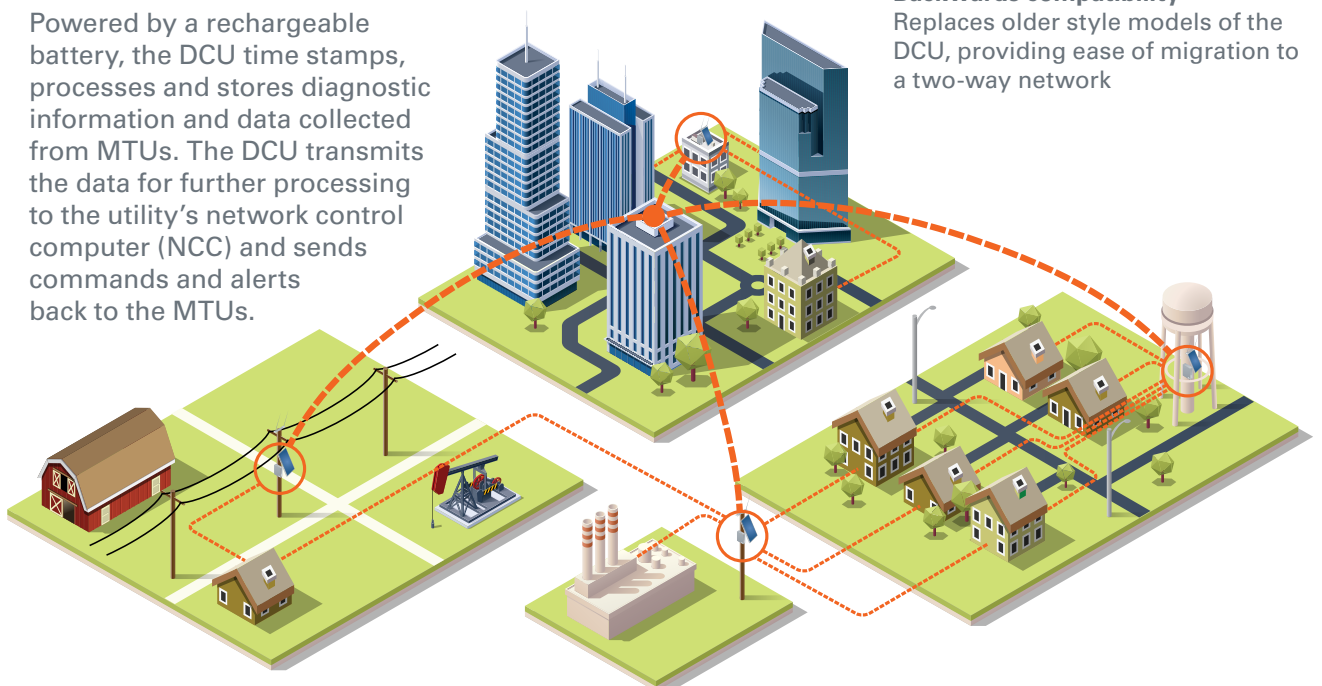


The STAR Network Data Collector Unit II (DCU) enhances your AMI network by providing reliable and flexible, two-way communications for electric, water and gas meters.

The STAR Network DCU II is the backbone of an AMI network, communicating to meter transmission units (MTUs) over individual 450 – 470 MHz radio frequencies, and to the STAR Network Control Computer (NCC) using a network backhaul of choice.

The STAR DCU II provides flexible installation due to its ability to recharge by solar or AC power. The DCU's rugged, weatherproof design allows for installation on poles, rooftops, buildings or water towers.

Powered by a rechargeable battery, the DCU time stamps, processes and stores diagnostic information and data collected from MTUs. The DCU transmits the data for further processing to the utility's network control computer (NCC) and sends commands and alerts back to the MTUs.



## STAR DCU II delivers

### Safety and security

Initiates an immediate message upon receipt of an event or alarm from an MTU

### WAN backhaul

Communicates over cellular, fiber-optic, Ethernet, Wi-Fi and Wi-MAX on public or private networks

### FCC compliance

Meets requirements under Part 15 and Part 90 radio technology for a Class A digital device to transfer commands to MTUs

### Backwards compatibility

Replaces older style models of the DCU, providing ease of migration to a two-way network

## DCU II Specifications

<b>External enclosure</b>	316 stainless steel, NEMA 3R
<b>Internal electronics enclosure</b>	NEMA 4X
<b>Dimensions</b>	22" h x 14" w x 8.25" d
<b>DCU weight</b>	55 lbs.
<b>Nominal Voltage</b>	12VDC
<b>Power consumption</b>	5 watts average
<b>Approval</b>	FCC Part 90, Industry Canada RSS-119

### Environmental

Operating temperature -40°C to +70°C;  
storage temperature of -40°C to +85°C

### Battery

6.9" h x 6.5" w x 4.9" d; weight: 23.3 lbs.;  
nominal power: 12 volts; capacity: 26 A-h

### STAR Antenna

Two 38.4" antennas spaced 48" apart; weight: 10 lbs.

### Solar Panel Option

31.3" h x 26.5" w x 2" d; weight: 18 lbs.;  
power output: 65 watts; nominal power: 12 volts

### Cellular Technology

GSM / GPRS / HSPA+  
CDMA / 1xRTT

## DCU Features

- Configured for end-to-end, two-way communication with MTUs over FCC-licensed 450 - 470-MHz radio frequencies
- Band-pass filters are tuned to a unique frequency, minimizing external interference from other sources
- Designed to provide network redundancy, ensuring read rate needed to achieve 98.5% or higher billing accuracy
- Does not require add-on repeaters or similar devices
- Supports the utility's preferred choice for backhaul communications: cellular, wired or wireless Ethernet, including Wi-Fi, fiber, frame relay and DSL/cable
- Ensures secure transmissions and device access via software and hardware security features including:
  - Message encryption
  - Passphrase for DCU console access
  - DCU door access and tamper notifications
- Provides priority reporting for error conditions
- Maintains time synchronization of endpoints for accurate time stamps for collected data
- Provides diagnostic data for calls, alarms, redundancy, location, battery, temperature, charging current, firmware version and passphrase status
- Configurable communications for scheduled frequency, or always-on listening mode
- Remote firmware upgrades for ease of network management
- Data storage up to 28 days or 600,000 transmissions
- Battery backup and power save mode; provides up to 14 days of operation
- GPS location identification



### Contact Aclara Today!

web: [www.aclara.com](http://www.aclara.com) | phone: 800.297.2728 | email: [info@aclara.com](mailto:info@aclara.com)

Aclara represents the utility industry's leading technologies for device networking and communications, data management, analytics, and customer-service. Your utility can rely on the Aclara STAR\_select™ network, solutions, and services to improve end-to-end system communications, increase billings and customer satisfaction, and enhance conservation of water resources.

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