Data Collection and Communication Module

Scan Transponder-5

Dimensions:
13.5”H x 8.5”W x 4.5”D

The **Scan Transponder-5** is the central data collector for the Quadlogic metering system. It communicates with all Quadlogic meters over the existing electric wires that serve each metered tenant in a building. This form of Power Line Communications (PLC) is a Quadlogic patented two-way technology that is robust and reliable.

Features

- Built-in Power Line Communications
- Communicates data through distribution transformers (480/120V)
- Voltage: 120/208V, 120/240V, 220/380V, 277/480V, 347/600V
- Each device collects data for up to 240 metering points (Multiple devices can be connected via RS-485 cable)
- Non-volatile flash memory
- UL, UL-C

Communication Options From Scan Transponder to PC:

Remote:	19.2 internal modem (for telephone connection)
	Network data link (4-wire RS-485)
	RS232 Serial port
On-Site:	Optical port

Verifies:
Each communication begins with clock and meter ID verification to ensure data integrity.

Collects:
Each day the ST-5 collects and verifies all previously uncollected meter readings, interval readings and event logs. (Fully programmable.)

Stores:
Stores approximately 40 days of rolling interval data in non-volatile flash memory.

Reports:
The ST5 or network of ST5s is accessed from a remote meter reading system using Ethernet or a telephone modem for data transfers.

Models beginning in ST5M include a modem, RS-485 and RS-232.
Models beginning in ST5 include RS-485.

Catalog Number	Includes:
ST5M-120V	Modem, RS-485, RS-232
ST5M-277V	
ST5-120V	RS-485 only
ST5-277V	

QUADLOGIC Tel (212) 930-9300 Fax (212) 930-9394 www.quadlogic.com

Specifications

▸ Monitoring Specifications

- Voltage: 120/208V, 120/240V, 277/480V, 347/600V
- Communication Frequency Band: 10 - 90 kHz
- Number of Metering Points per Scan Transponder-5
  : Up to 240

▸ Liquid Crystal Display

- 32-digit liquid crystal display (16 digits x 2 rows)
- 6 whole digit consumption register
- Data digit height: 0.31”

▸ Operating Range

- Voltage: 120/208V, 120/240V, 277/480V
- Frequency: 50-60Hz
- Rated Voltage: 90% to 110%
- Temperature: -20°C to +60°C
- Operating Power: Less than 5 watts

▸ Environment

- Usage: For indoor use only
- Enclosure: NEMA 1 rated
- Temperature: -20°C to +60°C
- Humidity: 0-90% relative humidity (non-condensing)
- Pollution Degree: 2
- Maximum Altitude: 2000 meters

▸ Metering Industry Standards

- UL and CUL: recognized under E204142

▸ Standards

- UL and C-UL: recognized under E204142

▸ Shipping Weight and Dimensions (1 Enclosure)

- Dimensions: 13.5”H x 8.5”W x 4.5”D
- Shipping weight: 10.60 lbs

▸ Memory

- 4 Megabyte non-volatile flash memory retains daily and interval data
- During power outage:
  - Flash memory retains daily and interval data for approximately 40 days rolling
  - Long-life lithium battery maintains time, and retains data acquired within the incompleted interval at the time of the outage

How does it work?

Meters, Scan Transponder (Data Collector) and phone line (or Ethernet) are installed at the site.

Each day, the Scan Transponder sends a signal to the meters over the EXISTING power lines in the building to collect the data.

Each meter responds with data over the same EXISTING power lines.

Computer (on or off site) dials into a modem in the Scan Transponder to collect data.

Electric bills and reports are