TX/Communications Canada Inc.

10BaseT Console Common Optional Features for All Chargers Above 15 Amperes

Introduction

The 10BaseT Console is used for operational monitoring of battery chargers. It provides status, control and operation indication and history logging. The Console design is not limited to charger applications; it is a general type Console with 10BaseT Ethernet, RS232 and modem interface. This Console can be used for other applications, such as RS232 to Ethernet Console / Converter.

Products Options

120 volt 60Hz AC input, 54 volt XX Amp output Linear Charger
220/240 volt 50/60Hz AC input, 54 volt XX Amp output Linear Charger

Other input voltages available on request

Specifications

1. Motorola MC68302 CPU.
2. 2 MB system RAM, expandable to 4 MB maximum (total).
3. 2 MB system ROM, expandable to 8 MB maximum (total).
4. 10BaseT Ethernet interface.
5. Two RS232 serial interfaces.
6. 9600 Baud internal modem, upgrade to 28.8 Baud.
7. Real Time Clock.
8. 4 X 40 characters LCD display.
9. Front panel provides all the LED indicators showing the operating status.
10. User's front panel input key pads.

The Ethernet interface will support the basic communication protocol. It includes TCP, IP, UDP, HTTP, FTP, SLIP and Telnet. The features provide remote monitoring and control. The CPU controller can remotely turn ON/OFF the charger relays.

The RS232 serial interface may be used to communicate with the generator's on board controller for monitoring the operational conditions of the engine.

I/O ports and Serial ports

The microprocessor contains three Serial Communication Controllers (SCC) and two general purpose I/O ports. The first two SCCs are used for the RS232 interface and the third SCC is used for MODEM interface. Three bits on PORT B are used for the LED indicator and MODEM handshaking.

The SCC1 to SCC3 in the microprocessor are configured to the asynchronous RS232C serial port, SCC1 is used for Serial Port 1 and SCC2 is used for Serial Port 2. SCC3 is for driving an external modem at a maximum speed of 33.6K baud.

A RTC (Real Time Clock) is included in the circuit. It is used for local time keeping for a time stamp on each message.

Internal Modem

A built in 14,400 bps, high speed modem module is a standard device on the LCD Display module for supporting remote dial-in access. The MODEM is directly connected to the SCC0 in the microprocessor. This remote link can be used as a Remote Monitoring Terminal for system diagnostics. The modem module is a full-featured, self-contained data solution. No external component is required for the operations. The model module contains all data communication components, a serial V.24, TTL level interface, and a built in DAA (Direct Access Arrangement) for TIP-RING connection. Dialling, call progress, and telephone line interface functions are fully supported and controlled through the AT command set. The modem TIP-RING connections are through a RJ-11 modular jack on the charger housing and can either be connected directly to an outside CO line or a line from the system. A built in EPROM can store two user customized modem configurations and up to 4 telephone numbers (maximum 36 digits).

The modem performs complete handshake and data rate negotiations. All tone and pattern detection required by the applicable CCITT or Bell standard are supported. The modem directly connects to port 4 of the

QUART. It operates as a stand alone device. It supports 7 or 8 data bit, ODD, EVEN or NONE parity, and 1 or 2 stop bit data formats.

Modem Features

- CCITT V.34bis, V.34 V.FC, V.32bis, V.32, V.22bis, V.22A/B, V.23, V.21
- Bell 212A and 103
- Enhanced AT commands