

HD/LINK™ MODULE

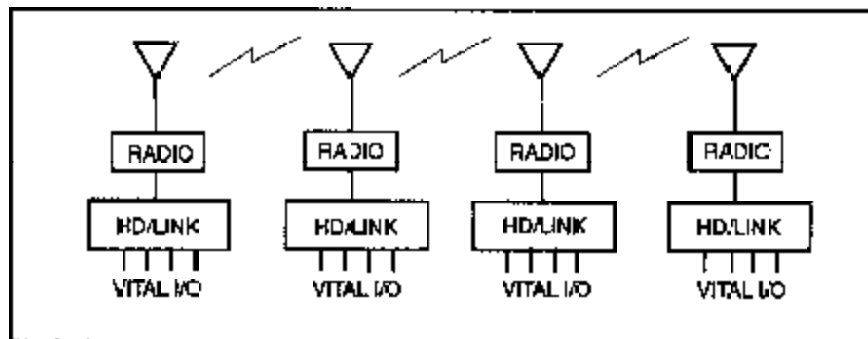
A53201



- LOW COST FOR POLE-LINE REPLACEMENT
- REPLACES LOST SECTION OF POLE LINE
- CREATES A 10-MILE VITAL CIRCUIT IN A HURRY
- SPANS A BRIDGE
- EASY CONNECTION TO SLIDE FENCES OR ELECTRIC LOCKS IN THE MIDDLE OF NOWHERE

Safetran's new vital HD/Link™ System is designed to cope with everyday problems in a simple, yet highly secure manner. In just a few hours, one or two people can replace a signal control line-wire circuit, covering distances up to 10 miles, with an HD/Link™ System. With multiple radio sites, greater distances can be achieved.

A typical HD/Link™ System consists of two or more HD/Link™ vital I/O modules and a suitable communications link such as Safetran's S³/Link™ Spread-Spectrum Radio, an ATCS network, or even dial-up modem. Site specific configuration is performed by field personnel in a matter of minutes, and then electronically validated and approved by a central design office or signal engineer. Optionally, fully configured HD/Link™ Modules can be supplied by Safetran.



Typical HD/Link™ System

HD/LINK™ MODULE (CONT.)

Each HD/Link™ Module provides eight inputs and eight outputs that can be used to construct unipolar and bipolar bidirectional circuits. These circuits can be used in new installations in place of costly pole lines, or as direct replacements for existing line wire between any geographic locations.

Features of each HD/Link™ Module include:

- Eight fully isolated unipolar inputs combinable into four bipolar vital inputs
- Eight fully isolated unipolar outputs combinable into four bipolar vital outputs
- Outputs can directly drive vital signaling relays (100 to 1,000 ohms) or signal searchlight mechanisms
- Internal event recorder typically stores more than one week's data
- Local or remote diagnostics
- Status and diagnostic LED's to aid in troubleshooting
- Positive configuration management and enforcement
- Fully compatible with Safetran R/Link™ Systems and S³/Link™ Spread-Spectrum Radios, as well as ATCS networks
- Spare modules are not site specific and do not require configuration before use

A railroad-maintained database of installed HD/Link™ circuits is used to avoid duplicate rf addressing. Safetran-supplied software provides direct or dial-up access to this database for validation of the proposed system design. Once the configuration is verified, the software provides a printout containing hardware part numbers, ordering information, site wiring diagrams, and unique configuration data for each module. Safetran also offers assistance in system design and configuration management.

A software-generated electronic key (approval number) provided by the railroad's central design authority is stored at each site along with the site configuration data. This information is stored in an EEPROM housed in the HD/Link™ Module wiring connector and will only allow a properly configured module with the correct software version to function. This also permits maintenance personnel to replace a faulty HD/Link™ Module without reconfiguring the unit.

Operation of the HD/Link™ Module can be monitored locally with a lap-top computer via the diagnostic port on the front of the unit or remotely from a network management system (optional). Diagnostic access is provided to note the communications error rates, event logs, troubleshooting test points, and other useful information.

SPECIFICATIONS

Input Power:

Voltage 9.0 - 16.5 VDC; nominal 12 VDC
Current 1 ampere

Input Impedance:

1,000 ohms

Relay Drive:

Operates vital relays between 100 to 1,000 ohms coil resistance

Environmental:

Temperature -40 degrees F to +160 degrees F (-40 degrees C to +71 degrees C)
Humidity 95% noncondensing

Housing:

Package Black powder-coat metal
Dimensions 11.3 inches (28.7 centimeters) high, including connector and mounting tab
3.6 inches (9.1 centimeters) wide
9.6 inches (24.4 centimeters) deep

Weight:

4 pounds (1.8 kilograms) approximate

Mounting:

Relay rack or wall

ORDERING INFORMATION

To order, specify the following:

HD/Link™ Module, Part No. 9000-53201-00XX

Number of circuits
4 = 4 I/O circuits
8 = 8 I/O circuits
Connector (A53013-01)
0 = Not included
1 = Included

COMM B-1-8
SIGNAL D-2-8

NOTES

