



IEEE C37.94 Nx64 kbit/s multi & monomode interface between teleprotection and multiplexer devices using multimode optical fibre. It defines clock recovery, jitter tolerances, physical connection method, and the equipment-failure actions.

Datasheet

ALBEDO C37.94 nx64 module



Power electrical companies have to protect high voltage lines, the supervision requires to transmit information in order to ensure correct operation. However this environment is characterized by a high level of electromagnetic fields caused that may disturb copper wires. Therefore it is recommended to use of optical links at the physical layer and the IEEE C37.94 protocol to exchange data between substations. The ALBEDO C37.94 nx64 module, designed *Ether.Genius*, provides a comprehensive solution.

TECHNICAL SPECIFICATIONS

1. CONNECTORS

- Smart Serial connector to the Ether.Genius hand set
- SFP 850 nm, Multimode, 2048 kbit/s, 1500 meters
- SFP 1310 nm, Monomode, 2048 kbit/s, 10 km

2. C37.94 MEASUREMENT

- Test Rate: N x 64 kbit/s, N = 1 to 12
- Configuration of internal, recovered clock
- Frame/Unframed BER test patterns

- ITU-T G.821 performance: ES, SES, UAS, DM.
- Results with pass / fail indications
- Test pattern generation / analysis
- Frequency (Hz), Deviation (ppm), Max deviation
- Round Trip Delay (ms).
- Defects: LOC, AIS, LOF, RDI, LSS, All 0, All 1
- Anomalies: FAS, TSE, Slip

3. OPERATION MODES

The unit generates and receives C37.94 streams for the installation and verification of multiplexers. Two operation modes:

- Endpoint or terminal mode
- Pass/through or Monitor mode

4. ETHER.GENIUS (TEST PLATFORM)

- Dimensions: 22x14x 6cm, Weight: 1.2 kg
- USB and Ethernet ports, Serial Port RS-232C
- Rechargeable Batteries continuous working for 5 hours.
- AC Power Adapter Input: 100 ~ 240 V AC, 50/60 Hz,
- Operating 0°~50°C Storage -20°~70°C Humidity 5%~95%
- 2xLEDS executing logical OR
- Soft LEDES in screen

