

## Test system for digital substation IEC61850 compliant relay testing (optional)



### IEC61850

The international standard IEC61850 describes the communication protocol for IED to exchange and transmit messages in substation network.

Confirming to IEC61850 standard, sample values describe digital data over substation network, gose used for relay tripping describe binary status signals over substation network.

To test the relay with IEC61850 standard, it needs the test set to be able to generate digital data according to IEC61850 communication protocol and to access the gose messages in the communication network.

After in depth study and trials for a long time, now we are proud that we can supply digital relay test system to user and to be leader in this field. We also got the IEC61850 PICS certification by national test institute in Feb 2009.

### Specifications

#### IEC 61850 GOOSE

Simulation support 4 GOOSE simulating synchronized. Mapping of binary outputs to data attributes in published GOOSE messages.

Subscription support 8 GOOSE subscription synchronized. Mapping of data attributes from subscribed GOOSE messages to binary inputs.

Performance Type '1A': Class P2/3 (IEC61850-5)

VLAN support selectable priority VLAN-ID

#### IEC 61850 Sampled Values

Specification IEC61850-9-1/2

Sampling Rate Samples per cycle can be setting up to 256.

Synchronized Synchronized

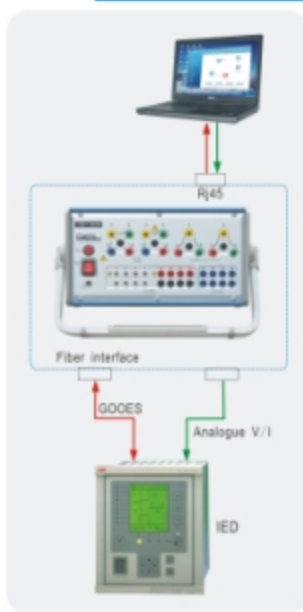
VLAN support selectable priority VLAN-ID

#### IEC 61850 port

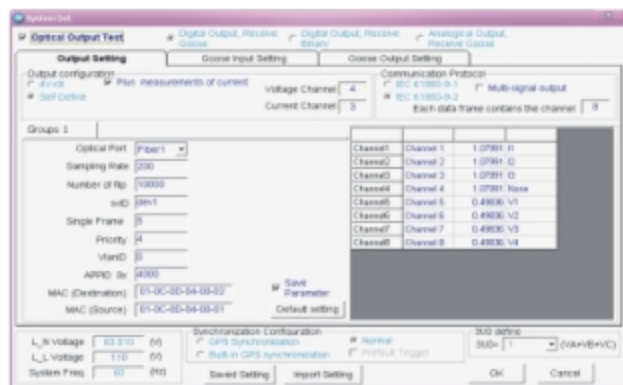
Type Fibre optic, RJ45(optional)

Wavelength 1310nm

Optical Power -34dBm



### Setting in software



Snap shot showing the settings for IEC61850 relay in our MPWin relay software. According to relay users can easily make proper settings and then go into the testing module for further testing of IEC61850 relay.



## Test system for traditional and digital substation MP3000-F Multi-test system

### Multi-functions

In order to realize testing different relays with only one tester, we especially designed MP3000F for user, it is very convenient to test traditional relays or digital relays.

MP-3000F test system have the multi-functions, it can test traditional relays and digital relays. From its front panel it can generate analogue signal and receive, send binary. From its back panel, it can generate digital signal and receive, send gose. All these controlled by MPWin relay tester software inc.

MP-3000F also have some optional functions, it can test transducer and power meter etc.



### Test object

- All relays with IEC61850 communication protocol
- Traditional relays and protections

### Test type



### Characteristic

- Can test traditional relays and test IEC61850 relays without need of external device.
- Have the same parameter and accuracy with MP-3000 test system.
- Output analogue signal from front panel and output digital signal from back panel.
- Optional functions to test especially relay

### Feature

- Provide more than two IEC61850-9-1/2 sample reports
- Can send, receive gose and make flexible setting for gose
- Provide 8 binary input and 4 binary output (high speed binary output)
- Can make different setting for channels, sample rate, coefficient, etc by software. Realize to test different relays
- Provide internal GPS (accessory optional)