



IEC61850-3 Industrial Ethernet Switch

Why Kyland:

- Wide product range: Modularly designed rack mount switches and DIN-Rail models with high voltage input
- Compliant with IEC61850-3 and IEEE 1613
- Supports NTP, precise time sync IEEE1588v2 and ITU-T.G.8261/G.8262 (Sync-E)
- Supports redundancy protocols: IEC62439-3(HSR/PRP), IEC62439-6(DRP), DT-Ring family, RSTP
- Multi-service platform for switches and time server with GPS and IRIG-B modules
- Built-in IEC61850 data modeling with MMS server for device management
- Supports legacy RS232/485/422 serial connections combined with data switching



SICOM3028GPT
19 inch
Rackmount
Modular
IEEE1588
Ethernet switch



SICOM3024P
19 inch
Rackmount
Ethernet switch



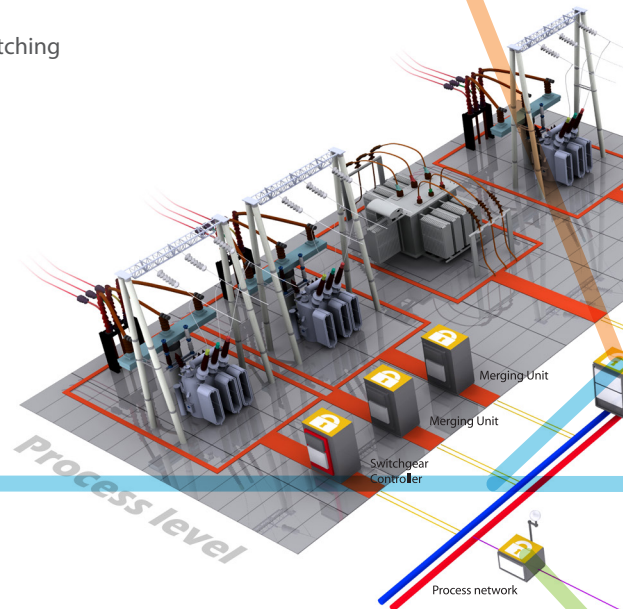
Ruby 3
HSR/PRP
Redbox/Switch



SICOM3005A
Serial Server and
Switch



SICOM3306PT
DIN-Rail
IEEE1588
Ethernet switch



Intelligent Gateway for IED integration

Why Kyland:

- Supports data collection from both legacy IEDs and IEC61850 IEDs with ethernet and serial connections
- Easy configuration by importing standard .CID files
- Supports protocols: IEC60870-5-101, IEC60870-5-102 (master), IEC60870-5-103 (master - slave), IEC60807-5-104 (master - slave), MODBUS (master - slave - RTU/TCP), DNP 3.0 (master - slave - serial/over TCP/IP), SEL (master - fast meter/SER), AREVA (master - courier)
- Supports BRCB and URCB reports, GOOSE messaging, MMS file transmissions and IEC61850 modules



DG-X1
19inch Rackmount
Intelligent Gateway



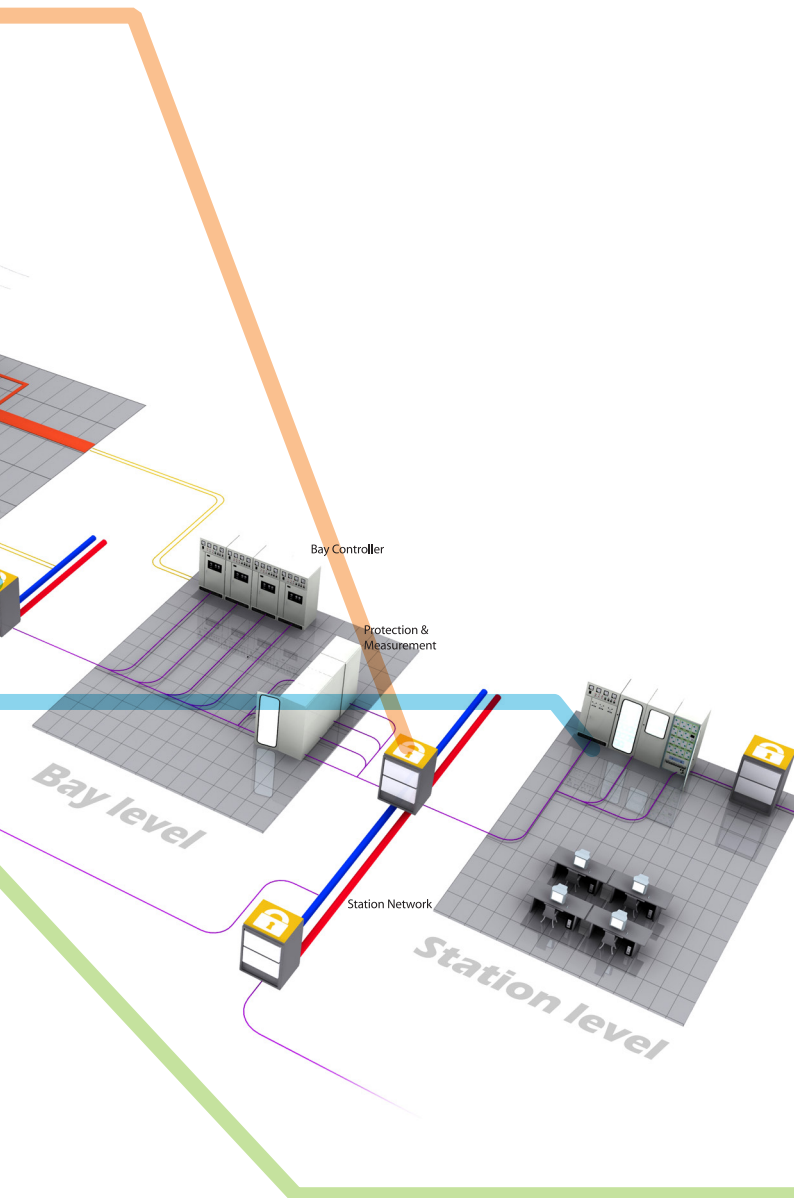
DG/850-iBox
Intelligent Gateway



DG-Mini
Plugin Gateway
module for GE D20

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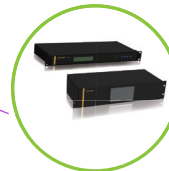
IEC61850 Substation Automation Solutions



Precise Time Synchronization Solution

Why Kyland:

- Product portfolio includes time server, IEEE1588v2 Switch, clock converter, time test instrument
- High precision time server with $\pm 100\text{ns}$ accuracy with multiple reference satellite systems: GPS, BD, GLONASS
- Supports multiple reference source switchover within 200ns
- Different oscillator options support holdover performance up to 1us/1h
- IEEE1588 to IRIG-B conversion device for backward compatibility
- Reliable multiple source selection algorithm and holdover performance
- Optional management protocols of MMS/IEC60870-5-104/SNMP for time server
- Compliant with IEEE PC 37.238 Power Profile



PTS-10/30
Precise Time Server



PTC1000
DIN-Rail Clock
Converter



ePT-100
3U Time Tester