Siemens 6GK1105-2AB10

01 Map the active topology

1 Map the active topology
2 Check power and grounding
3 Reconnect copper and fiber
4 Exercise redundancy and alarms
5 Close the network handover

Work sequence

Record port assignments, optical direction, ring-manager selection and standby coupling. Save management settings and input alarm assignments. Identify which paths can be isolated without defeating the required network availability.

Acceptance condition

The installed topology and intended redundant path are unambiguous.

Copper ports	6 × 10/100 Mbit/s RJ45
Optical ports	2 × 100 Mbit/s full-duplex BFOC

Ring closure: Close a redundant path only after confirming the manager assignment and supported topology. An unmanaged loop can disrupt the network.

Record the observed condition, test method and result for this stage. Resolve any difference before moving to check power and grounding.

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02 Check power and grounding

1 Map the active topology

2 **Check power and grounding**

3 Reconnect copper and fiber

4 Exercise redundancy and alarms

5 Close the network handover

Work sequence

Isolate the work area as required and compare both supply circuits with the approved SELV arrangement. Inspect the signaling-contact wiring separately from the power feed. Retain cabinet grounding and horizontal ventilation orientation.

Acceptance condition

Both power paths and the signaling circuit are correctly identified and connected.

Supply inputs	2 decoupled 24 V DC sources; 18–32 V DC
Input state 1	+13 to +30 V

Input interpretation: Input-status mode changes the meaning of front indicators; distinguish electrical signal state from port-link state.

Record the observed condition, test method and result for this stage. Resolve any difference before moving to reconnect copper and fiber.

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03 Reconnect copper and fiber

1 Map the active topology

2 Check power and grounding

3 **Reconnect copper and fiber**

4 Exercise redundancy and alarms

5 Close the network handover

Work sequence

Restore RJ45 branches and the BFOC optical pairs to their labeled ports. Inspect connector condition and verify the fiber type and budget; protect optical ends from contamination. Confirm display mode before interpreting front indications.

Acceptance condition

Local access links and backbone directions match the saved network map.

Digital-input current	8 mA maximum
Signaling contact	24 V DC / 100 mA maximum

Fiber assessment: Evaluate the complete optical path including connectors and splices. Maximum distance is conditional on the specified fiber and attenuation margin.

Record the observed condition, test method and result for this stage. Resolve any difference before moving to exercise redundancy and alarms.

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04 Exercise redundancy and alarms

1. Map the active topology
2. Check power and grounding
3. Reconnect copper and fiber
4. **Exercise redundancy and alarms**
5. Close the network handover

Work sequence

Within an approved network test window, interrupt one intended redundant path and observe recovery. Test each power feed and representative digital-input alarm independently. A link remaining up is not sufficient proof that supervision operates.

Acceptance condition

The alternate data path and each required monitoring indication function independently.

Aging time	40 s default
Fiber run	Up to 3000 m with specified multimode fiber and loss budget

Ring closure: Close a redundant path only after confirming the manager assignment and supported topology. An unmanaged loop can disrupt the network.

Record the observed condition, test method and result for this stage. Resolve any difference before moving to close the network handover.

Siemens 6GK1105-2AB10

05 Close the network handover

1. Map the active topology
2. Check power and grounding
3. Reconnect copper and fiber
4. Exercise redundancy and alarms
5. **Close the network handover**

Work sequence

Restore the normal topology, confirm a single redundancy manager and review persistent faults. Retain the final settings, observed recovery behavior and port map. Remove temporary test connections before releasing the network.

Acceptance condition

Normal communication and configured supervision remain stable after all test conditions are removed.

Ring limit	50 OSM/ESM nodes for <0.3 s reconfiguration
Switching method	Store and forward

Siemens 6ES7222-1BH32-0XB0

Siemens 6ES7307-1EA01-0AA0

Siemens 6ES7532-5HF00-0AB0

Related products require separate compatibility assessment. Retain the final configuration and signed test outcome.