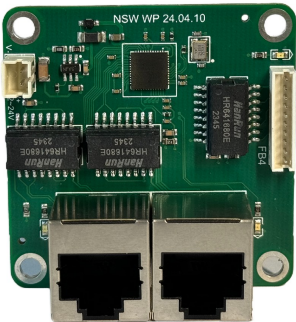


NSW WP

3-Port 100M Network Switch Board with Direct FB4 Header

NSW WP is a compact network switch board built into laser fixtures, stage lighting and OEM show-control equipment, where a desktop switch is mechanically unsuitable. Two shielded RJ45 ports carry network in and through; a third port is wired directly to the laser controller through the on-board FB4 ribbon header, so no patch lead is needed inside the housing. Every board is bandwidth-tested before shipping.



KEY FEATURES

- Three 100M ports — 2 x RJ45 plus 1 x FB4 ribbon header
- All three ports verified at full 100M line rate (93–96 Mbit/s sustained)
- Factory-verified at more than 12 FB4 laser fixtures on one chain
- DC 12–24 V input on a 2-pin header
- 48.0 x 48.0 mm board, four Ø3.5 mm mounting holes on a 41.0 x 41.0 mm pitch
- OEM / ODM: mechanical layout, harness and connector position customisable

SPECIFICATIONS

Model	NSW WP
Function	3-port Ethernet switch board for FB4-based fixtures
Network ports	2 x shielded RJ45, board-mount (single dual-port body)
Controller port	1 x FB4 header, 10-pin 1.50 mm pitch, wired directly to the controller
Port speed	100 Mbit/s on all three ports
Measured throughput	93–96 Mbit/s sustained, every port, factory-tested
Verified chain size	more than 12 FB4 laser fixtures
Switch controller	5-port 10/100M switch controller, three ports used
Status LEDs	3
Power input	DC 12–24 V, 2-pin header, 2.00 mm pitch
PCB size	48.0 x 48.0 mm, R3.0 corners
PCB thickness	1.6 mm nominal, 6-layer (finished 1.54 mm ±10%)
Mounting	4 x Ø3.5 mm non-plated holes, 41.0 x 41.0 mm pitch, 3.5 mm from each edge
Ingress protection	none on the bare board — sealing comes from the enclosure and panel connectors

TYPICAL APPLICATIONS

- Laser projectors using an FB4 controller, where the network must reach a panel connector
- Outdoor laser fixtures, behind sealed panel-mount network connectors
- Touring and rental fixtures needing network in / through daisy-chaining
- OEM show-control boxes and embedded control panels

INTEGRATION NOTES

For an outdoor fixture the RJ45 ports are patched to sealed panel-mount network connectors on the housing. The board itself is a bare PCBA and carries no ingress rating of its own; the seal is made by the enclosure and the panel connectors fitted to it. The FB4 header removes the internal patch lead between switch and controller, which is the usual failure point in a vibrating fixture.

Geometry read from the production CAD file NSW_WP_260616.PcbDoc. Boards currently shipping carry the silkscreen marking NSW WP 24.04.10; the outline, mounting pattern and hole sizes shown here are identical on both revisions.



Numbers refer to the callouts on the drawing above.

ORDERING INFORMATION

NOTES

Operating temperature range, ingress rating, net weight and regulatory approvals are not characterised for the bare board and are therefore not stated in this document. Contact info@supercanlight.com for OEM qualification data. Specifications are subject to change; confirm critical dimensions against the current CAD file before committing tooling.