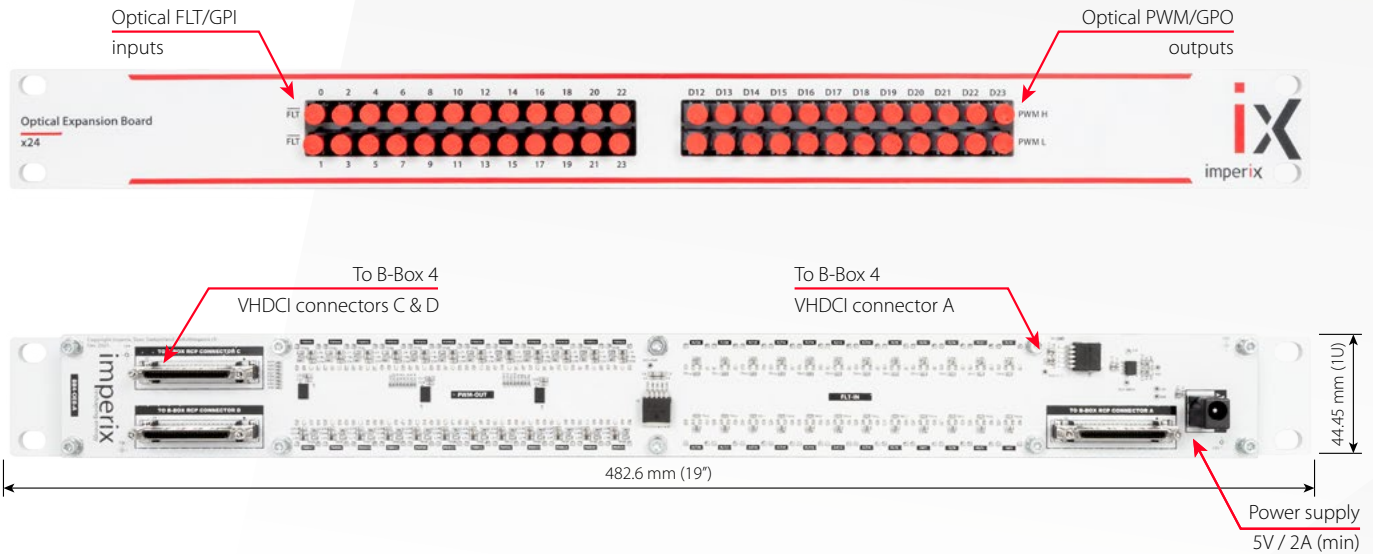


BB4-OEB

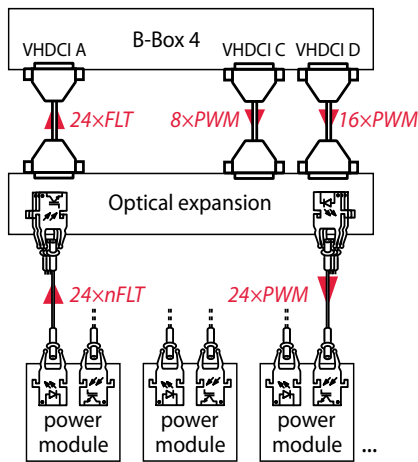
X24 OPTICAL EXPANSION BOARD FOR B-BOX 4

“ A useful addition to the controller for applications with a high I/O count in difficult EMI environments.



GENERAL DESCRIPTION

The optical expansion board converts the electrical signals from the VHDCI connectors, located on the rear side of the B-Box 4, to optical signals. It provides access to 24 FLT/GPI inputs and 24 PWM/GPO outputs using optical fibers. With the optical expansion, A B-Box 4 can therefore control up to 12 NPC phase legs, 12 full-bridge modules, or 24 half-bridge modules.



WIRING INSTRUCTIONS

- The optical expansion board must be supplied by the provided external power adapter PPL18U-050L6 (5V/3A).
- The VHDCI cables can be connected as needed, as indicated on the rear side of the interface.
- The GPIO voltage should be selected as 3.3V on the B-Box 4, although the interface is tolerant to 5V logic signaling.

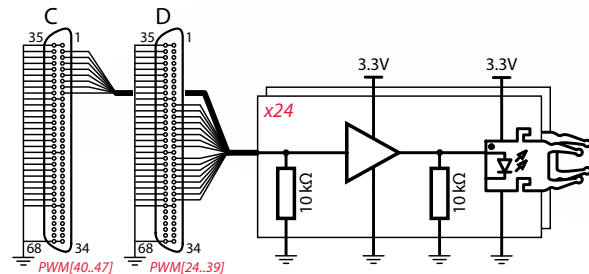
KIT CONTENT

- 1x 19" rack-mountable expansion board
- 1x 90-264VAC to 5V power supply (15W)
- 3x VHDCI cables (1m)

OUTPUTS

Outputs can be used as PWM or GPO resources depending on the configuration within the B-Box 4 software.

- 24x PWM signals (channels #12–23 / lanes #24–47)
- FT50MVNR (50Mbps) non-inverting emitters
- Max. propagation delay difference: ± 8 ns
- Usable as general-purpose outputs (GPO) as well



INPUTS

Inputs can be used as FLT or GPI resources depending on the software configuration. As the receivers are inverting, the absence of light results in a logical '1'.

- 24x FLT signals (#0 to #23)
- FR50MVNR (50Mbps) inverting receivers
- Max. propagation delay difference: ± 8 ns
- Usable as general-purpose inputs (GPI) as well

