Bluebell

BN368
Multi-Format Converter

Thank you for purchasing this Bluebell Opticom professional broadcast video product. The BN368 Multi-Format Converter is very simple to install and this Quick Start Guide should provide sufficient information to get you up and running in the vast majority of cases.

Quick Start Guide

Ref: BN368 QSG issue 1.0

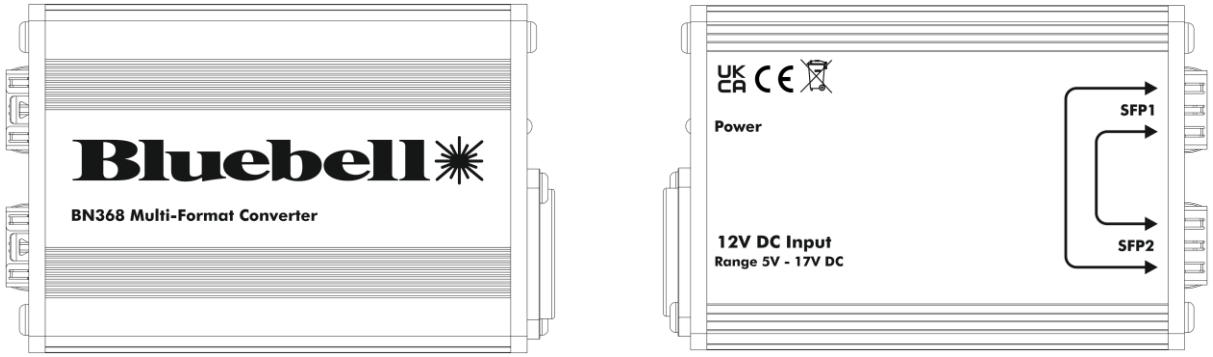
Overview:

The BN368 is a compact and versatile SFP-to-SFP converter designed for use in Outside Broadcast (OB) and studio applications, capable of handling a broad range of broadcast video, audio, and data signals. Featuring two SFP cages and powered via a XLR connection, the BN368 supports a wide range of configurations, including MSA and non-MSA SFP modules. Its intelligent design enables data flow versatility, allowing channel configurations such as dual transmit, dual receive, or standard Tx/Rx communication.

The BN368 is widely used for converting signals between optical and electrical formats, managing wavelengths, and monitoring signals. It can also be used to regenerate multimode optical signals as single-mode or vice versa, facilitating integration into existing fibre systems. Supporting a variety of signal types, including 12G-SDI, composite video, MADI, computer-generated sources, and Ethernet with bitrates up to 25GbE, the BN368 offers exceptional flexibility for handling contemporary signal formats.

The device incorporates a user-friendly LED system for status monitoring and diagnostics, offering intuitive feedback for operational states, fault detection, and connectivity. Whether used in broadcast, telecommunications, or data centre applications, the BN368 ensures reliable and efficient signal conversion with minimal setup.

This guide provides detailed instructions on setup, operation, troubleshooting, and maintenance of your BN368 to maximise performance and reliability.



Power supply:

The BN368 requires an external power supply voltage between 5 and 17 V DC. A Bluebell Model PS12 PSU (12 V) will be packed with the interface if one was ordered. The power supply connector is a Neutrik® XLR4M, and a locking mating connector is pre-fitted to the PS12 DC cable.

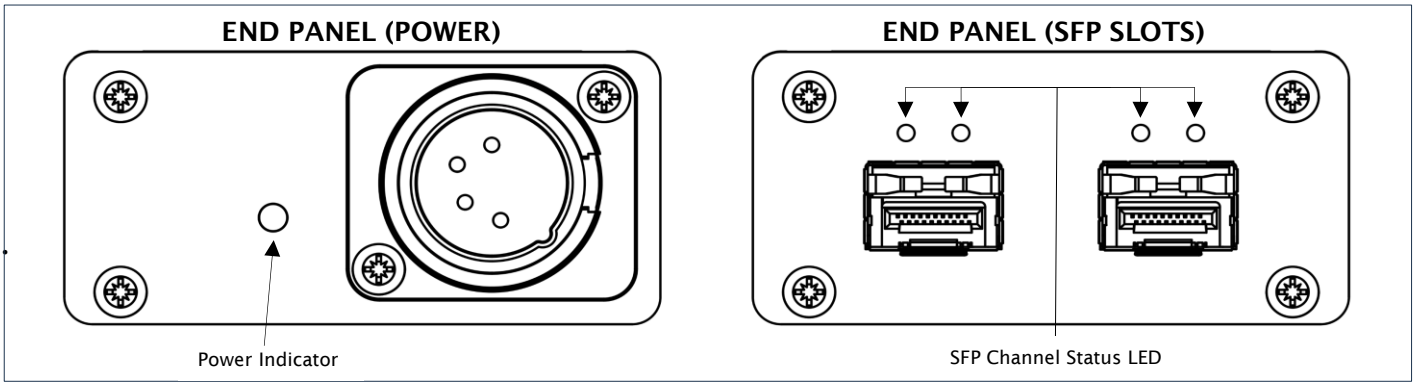
If using an alternative PSU, wire the connector as below:

Pin	
1	0 V
2	n/c
3	n/c
4	+V DC

The base power consumption of the BN368 is 100mW when powered by 12V DC, excluding any SFP modules. The total power consumption depends on the specific SFP modules installed in the two slots. The total power consumption can be calculated as:

Total Power Consumption = 100mW (BN368) + Power Consumption of SFP Module 1 + Power Consumption of SFP Module 2.

LED Status Descriptions:



The BN368 is equipped with two LEDs above each SFP port for each of the SFP channels. These LEDs provide status feedback depending on the type of SFP module inserted: Optical SFPs or non-optical SFPs (e.g., Coax, Copper Ethernet).

The LEDs update every 500ms, offering real-time feedback to assist with identifying and troubleshooting connection issues.

For Optical SFPs

Green: The optical light level is within acceptable parameters. The module is functioning optimally.
Yellow: The optical light level is outside the ideal range but still operational. This serves as a warning.
Orange: The optical light level is too low or too high. This is an alarm state, suggesting potential issues with the fibre link.
Flashing Yellow: SFP detected but lacks diagnostic information from the SFP module.
Flashing Orange: This could indicate that the SFP is malfunctioning.

For Non-Optical SFPs

Green: A Tx (transmit) or Rx (receive) signal has been successfully detected. The module is operational.
Orange: No Tx or Rx signal has been detected. This is an alarm state, suggesting the channel is not functioning or the link is down.
Flashing Yellow: SFP detected but lacks diagnostic information from the SFP module.
Flashing Orange: This could indicate that the SFP is malfunctioning.

The BN368 relies on diagnostic information provided by the connected SFP modules to determine the LED status. It is important to note that the reporting of diagnostic parameters is optional and varies between SFP manufacturers. As a result, the LEDs on the BN368 operate solely based on the data received from the SFPs.

If an SFP module does not support diagnostic reporting or provides incomplete data, the flashing yellow/orange LED does not necessarily indicate that the signal will not pass through the SFP. Instead, it may indicate either the lack of diagnostics or a potentially faulty SFP. Additional troubleshooting or testing is recommended to confirm the status of the SFP module and its functionality.

NOTE: For any technical issues not covered in this Quick Start Guide, please contact Bluebell Opticom.

Contact details:

Bluebell Opticom Ltd.
Unit 2, The Quadrant
Howarth Road
Maidenhead Berkshire
SL6 1AP
United Kingdom

Tel: +44 (0) 1628 510055
Fax: +44 (0) 1628 510057
Email: support@bluebell.tv
Web: www.bluebell.tv