

# WDM

## Wavelength Division Multiplexer GigaBit Converter



The new BGB WDM (Wave Division Multiplexer) is designed to complement and enhance BGB's Optilinc FORJ to convert two fibre (duplex) systems to a single fibre multiwave length system (simplex).

Its unique rugged design has been developed to adapt itself to all environmental conditions. Designed to survive the arduous [physical and electrical] environments found in the wind energy industry (which insist on inbuilt transient surge protection), the WDM protects itself from lightning strikes via inbuilt electronic clamping systems.

When combined with BGB's Optilinc, the WDM lends itself to all applications whether it be light or heavy industry.

### Power

Input nominal 24Vdc range 18V to 36V  
Power consumption max 6W typically 3.5W  
Internally fused at 3A for transient protection

### Protocol

Protocol transparent

### Media Connections

Compliant with IEEE 802.3z Gigabit Ethernet

### Dual Fibre

Connection ST duplex metal 1x9 format into 62.5/125microns or 50/125microns multi-mode fibre.  
Wavelength 850nm nominal  $-20/+10$ nm  
Output power  $-9.5$ dBm min to  $-4$ dBm max delivered into 62.5/125microns.  
Extinction ratio  $>9$ dB  
Input power range  $-18$ dBm min to 0dBm max  
Signal detect threshold assert at  $-18$ dBm de-assert at  $-30$ dBm typical, Hysteresis  $>1$ dB. Indication of link integrity by Red/Green LED

### Single Fibre

Connection SC 2x5 format into 62.5/125microns single mode fibre.  
Wavelengths 1550nm / 1310nm.  
Output optical power  $-9$ dBm min to  $-3$ dBm max delivered into 9/125microns.  
Extinction ratio  $>9$ dB  
Input sensitivity  $-21$ dBm min to  $-3$ dBm max  
Signal detect threshold assert at  $-21$ dBm de-assert at  $-35$ dBm typical, Hysteresis  $>1$ dB. Indication of link integrity by Red/Green LED

### Environmental

Operating temperature range  $-20^{\circ}\text{C}$  through  $80^{\circ}\text{C}$  ambient.  
Storage  $-40^{\circ}\text{C}$  through  $+85^{\circ}\text{C}$  ambient.  
Humidity 40% through 90%RH non condensing.

