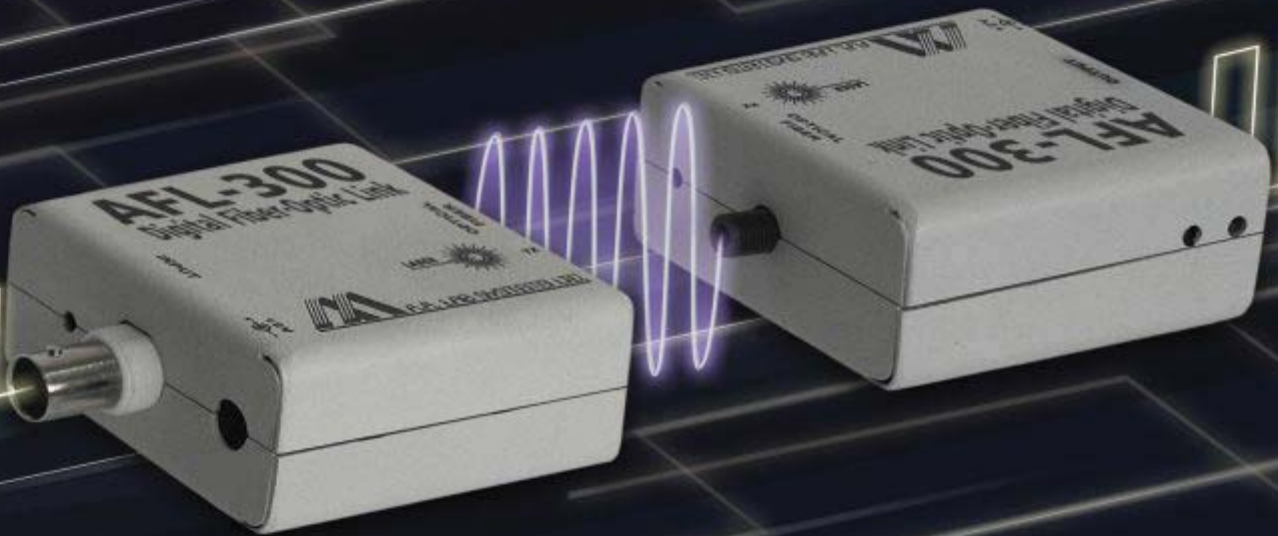


# AFL-300

## Digital Fiber Optic Link



The AFL-300 digital is an excellent solution for transmission of precise timing signal over optical fibers. Those signals can be triggering signals, synchronisation signals, GPS timing signals and any other TTL compatible signals (0 to 5V or 0 to 12V). The link can be used for isolation of signal sources/inputs on a high voltage platform from the control equipment (which is usually grounded) as well as eliminating ground loops in industrial applications.

The input to the AFL-300 is a logic input, 0 to 5V or 0 to 3.3V (0 to 12V per request).  
The output is 0-5V standard or 0-12V or open collector (switched using internal jumper).

**Technical Specifications**

- Input/output Range: 0-5V standard; input is compatible with 0 to 3V logic as well, Output can be switched by user between 0-5V to 0-12V to Open collector .
- Low Jitter - Up to 20 nSec. using MM fiber, up to 100 nSec using SM fiber
- Frequency Response: DC to 5MHz .
- Short propagation delay - 200 nSec + 5 uSec/Km.
- High Frequency bandwidth: DC to 5 MHz.
- Signal polarity can be inverted using an internal jumper.
- Low output noise
- Supply Voltage: 12V regulated power supply. 24V optional.
- Optical Fiber: Glass, 62.5/125 micron dia. Standard (up to 3 Km), ST connector standard, Single Mode fiber (Optional) - 9/125 micron, ST connector.
- Transmission Range:
  - Up to 3 Km standard, 50Km optional with Single-mode fiber Optical budget with Single Mode transceivers: 28 dB. point Voltage Isolation:
- Input to Output - infinite voltage isolation,
- Input/Output to Mains - standard 800V, Optional up to 2500V,
- Battery operated - infinite voltage isolation.
- Very small size: only 61 x 61 x 28 mm

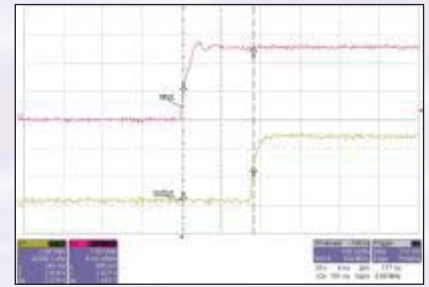
**EXAMPLE:**

Transmitter / Receiver pair  
AFL-300 DIG- - S - R

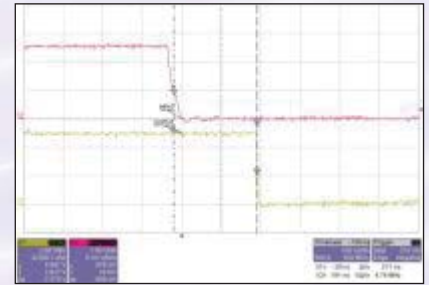
Where..

- SM = Single Mode (MM =Multi-Mode optics is the standard ).
- R = Range in meter

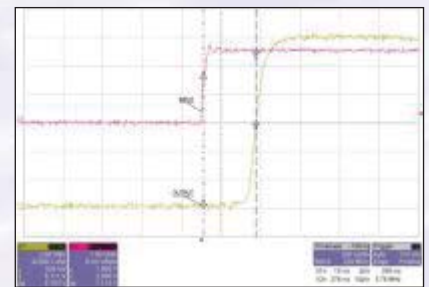
Optical Splitters are available in different splitting ratios. Please consult the factory for your system design.



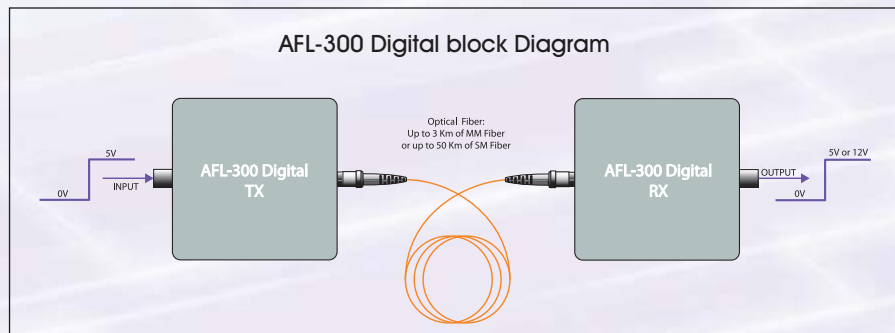
Rising Edge (100nSec/Div.)



Falling Edge (100nSec/Div.)



12V Output (200nSec/Div.)



**Rack Mounting: AFL-300-RACK**

A standard 19" rack mounting case for up to 10 AFL-300 units (receivers or transmitters) with ON/OFF switch and power supply / charger input.



**POWER SUPPLIES:**

AFL-300 - O5  
-5 channel power supply (for one side)

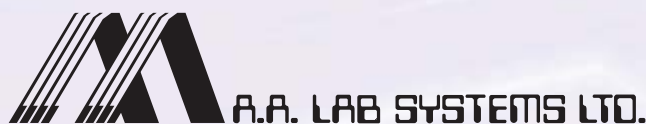


AFL - 300 - 10  
-10 channel power supply (for one side)



**AFL-300-BAT**

Battery operated power supply:  
Can run 5 channels for 10 hours.  
Includes a 12 V/ 8 AH battery, charger + cables.



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