Arbiter Systems, Inc

Model 10881A Fiber-Optic to Logic Adapter

General Description

The Model 10881A fiber-optic to logic adapter allows transmission of a digital signal over several kilometers[1] and upon receiving, for the conversion to a +5 V CMOS logic level output signal. One optical signal is received and simultaneously sent as an electrical signal on two separate, individually-buffered BNC connectors. Figure 1 provides an illustration of the Model 10881A configurations.

The signal logic level is HI whenever the optical signal is ON.   Whenever optical data is received the Data LED illuminates (flashes).

Specifications

Input:	Fiber-optic signal via a 62.5/125 μm^2 fiber; -10 to -24 dBm input level
Connector:	one type ST fiber optic connector.
Output:	+5 V CMOS signal
Connectors:	two (2) standard BNC connectors or two (2) pluggable terminal strips
Impedence:	10 ohms
Current:	±75 mA maximum
Power Input:	+9 to +13.5 Vdc
Power Supply:	120 Vac, 60 Hz source; 90 to 260 Vac 47 to 63 Hz source; or +72 to +140 Vdc source
Size:	50 x 38 x 50 mm (2.0 x 1.5 x 2.0 in.), overall height including connectors
Weight:	94 g (3.30 oz.)
Temperature:	Operating: -10° to +50° C
	Nonoperating: -40° - +75° C

Ordering

120 Vac, 60 Hz power supply:
10881Aopt01: two (2) BNC output connectors
10881Aopt02: two (2) pluggable termial strip output connectors

+72 to +140 Vdc power supply:
10881Aopt03: two (2) BNC output connectors
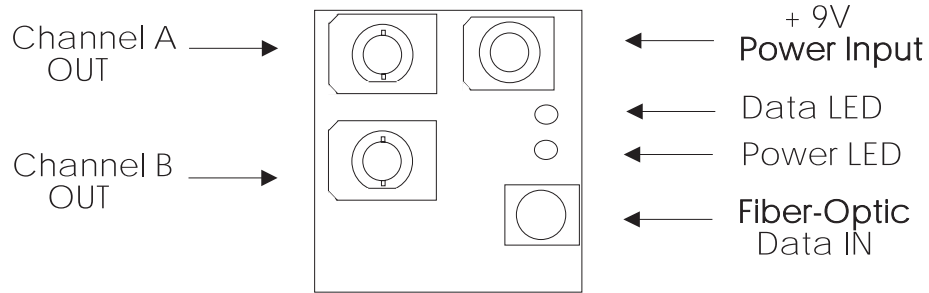10881Aopt04: two (2) pluggable termial strip output connectors

90 to 260 Vac, 47 to 63 Hz power supply:
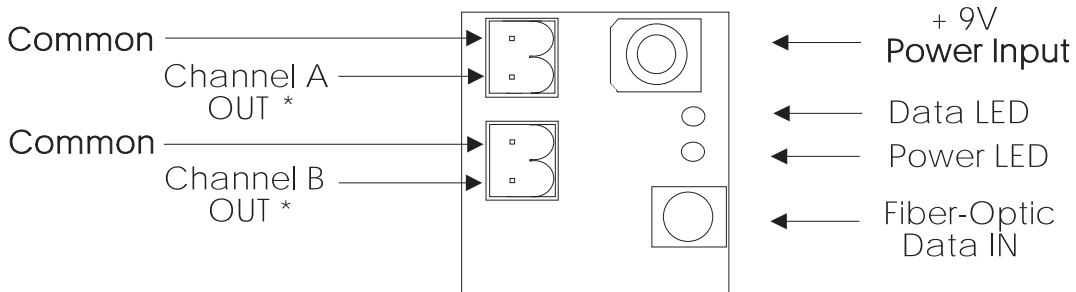10881Aopt05: two (2) BNC output connectors
10881Aopt06: two (2) pluggable termial strip output connectors

PD0020300

10881Aopt01, 10881Aopt03, and 10881Aopt05
Fiber Optic-to-Logic
Adapter

Channel A OUT →

Channel B OUT →

← + 9V **Power Input**

← Data LED

← Power LED

← **Fiber-Optic** Data IN

10881Aopt02, 10881Aopt04, and 10881Aopt06
Fiber Optic-to-Logic
Adapter

Common

Channel A OUT *

Common

Channel B OUT *

← + 9V **Power Input**

← Data LED

← Power LED

← Fiber-Optic Data IN

* Note: Mating Connectors included

Figure 1. Model 10881A Fiber-Optic to Logic Adapter