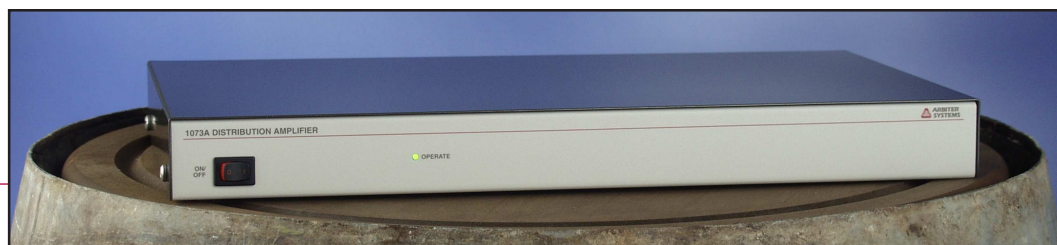


## Model 1073A Distribution Amplifier



The Arbiter Systems®, Inc. Model 1073A Distribution Amplifier is designed to buffer and distribute signals generated by sources such as the Models 1084A/B/C, 1088B, 1092A/B/C and the 1093A/B/C GPS Satellite-Controlled Clocks. The Model 1073A includes three separate channels, each with four high-drive-capability outputs, to buffer your choice of signals. Each channel has a limiting amplifier to stabilize the peak-to-peak signal level. Each input is galvanically isolated with a transformer or optical isolator to break ground loops and reject common-mode signals. Standard isolation is 2000 volts rms.

Each channel may use independent signals or, for applications requiring more than four outputs, may use the same signal. Channel A may drive channels B and C or channel B may drive channel C. These selections are made with internal jumpers. For fiber-optic input signals, Option 01 provides an 820 nm, Type ST optical fiber input for channel A.

Each input and output may be individually ac- or dc-coupled. In dc-coupled mode, the Model 1073A can

distribute 5 V CMOS/TTL logic-level signals, such as one pulse per second (1 PPS) and unmodulated IRIG-B timecode. In ac-coupled mode (intended for frequencies of 100 kHz or greater), the Model 1073A can receive and distribute timebase and reference frequency signals up to 10 MHz. Input and output configuration may be independently selected. For example, a channel may receive an ac-coupled 5 MHz input, and one output of that channel may be set for dc-coupled (logic-level) output while the other three are set for ac-coupled outputs. Settings are made with internal jumpers.

Because of the limiting amplifiers and frequency limit when ac coupled, the Model 1073A is not suitable for distribution of modulated IRIG-B signals.

Intended primarily for unattended operation, the Model 1073A has no display or keyboard. A front-panel LED indicates that power is applied and the unit is operating. Power options include 85 to 264 Vac/110 to 275 Vdc with an IEC-320 detachable cordset, 110 to 275 Vdc terminal strip inlet with surge withstand, or 10 to 60 Vdc terminal strip inlet with surge withstand.

## Model 1073A Specifications

### I/O Configuration



#### Configuration

Channels Three, each with four outputs

#### Mode

Independent Each channel independently driven  
Common A/B B/C outputs driven by A or B input  
Selection Internal push-on jumpers

#### Inputs

DC coupled Opto-isolator (HCPL2601) in series with 562-ohm resistor  
Level 5 mA at 5 volts, nominal  
Polarity Center conductor positive  
Frequency DC to 5 MHz  
AC coupled RF transformer; 50 ohms  
Level 0 to +15 dBm (0.6 to 3.6 Vpp)  
Frequency 100 kHz to 10 MHz  
Selection Internal push-on jumpers  
Isolation 2000 Vrms, minimum, to common

#### Outputs

Driver Each output, 74HC125 quad buffer  
Coupling AC (0.1  $\mu$ f capacitor) or dc  
Selection Internal push-on jumpers  
Level 5 Vpp, open-circuit  
2.5 Vpp (+12 dBm), into 50 ohms  
Impedance 50 ohms

#### Connectors

Input Isolated 50-ohm BNC, 1 per channel  
Output 50-ohm BNC, four per channel  
Fiber Optic Type ST, for 62.5/125  $\mu$ m multimode fiber, optional (1073opt01)

### Interface

#### Operator

Status LED Power On (green)

### Certifications and Approvals

CE mark/label and certificate

### Power Requirements

#### Standard

Voltage 85 to 264 Vac, 47 to 440 Hz, 20 VA max.  
or 110 to 275 Vdc, 15 W maximum  
Inlet IEC-320 with fuse and mating cordset. Specify cordset P01-P10

### General

#### Physical

Size 1 RU rack mount or tabletop; 260 mm deep FMS. Rack mounts included 508 x 381 x 203 mm (20 x 15 x 8 in.), shipping  
Weight 2 kg (4.5 lbs), net  
3.2 kg (7 lbs), shipping

#### Environmental

Temperature Operating: 0° to +50° C  
(-20° to +70° C typical)  
Nonoperating: -40° to +75° C  
Humidity Noncondensing  
EMC Radiated susceptibility: passes walkie-talkie test  
Conducted emissions: power supply complies with FCC 20780, Class A and VDE 0871/6.78 Class A  
Surge withstand capability (SWC), power inlet: designed to meet ANSI/IEEE C37.90-1 and IEC 801-4

### Options

#### I/O Options

Fiber-Optic Input 1073opt01

#### General Options

On/Off Switch 1073opt04

#### Power Options (select only one)

IEC-320 Power Inlet, 85 to 264 Vac, 110 to 275 Vdc 1073opt07  
Terminal Power Strip, Surge Withstand 10 to 60 Vdc 1073opt08  
Terminal Power Strip, Surge Withstand 110 to 275 Vdc, 85 to 264 Vac 1073opt10

## Model 1073A Specifications

### Accessories

#### Included

<u>Description</u>	<u>Order No.</u>
19 in. Rack Mount Kit	AS0028200
Operation Manual	AS0045800
Power Cord	P09

#### Available

<u>Description</u>	<u>Order No.</u>
Power Cord	P01-P10
BNC (Male) Breakout to 100 mm Wires	AP0003400
BNC (Female) Breakout to 100 mm Wires	AP0008900
19 in. Rack Slide Kit	AS0033100
24 in. Rack Mount Kit	AS0056600

### Cordset and Plug Styles

The following are the available IEC-320 mating cordset plug style and specifications:

<u>Option No.</u>	<u>Country</u>	<u>Specification</u>	<u>Voltage Rating</u>
P01	Continental Europe	CEE 7/7	220V
P02	Australia/NZ/ PRC	AS 3112- 1981	240V
P03	U.K.	BS 1363	240V
P04	Denmark	Afsnit 107-2-01	240V
P05	India	BS 546	220V
P06	Israel	SI 32	220V
P07	Italy	CEI 23-16/VII 1971	220V
P08	Switzerland	SEV 1011.1959	220V
P09	North America and ROC	NEMA 5-15P CSA C22.2 #42	120V
P10	Japan	JIS8303	120V