

## Redundant Switch & Distribution Unit (RSDU)

2 inputs & 12 configurable outputs

**AD12** is a 12 channels signal Redundant Switch & Distribution Unit (RSDU) packaged in a 19" 1U enclosure.

The unit accepts 2 buffered inputs which are distributed to 12 buffered outputs. Each output can be connected to each input using RS-232 or by LAN (optional).

Each AD12 output used as an input to another AD12 unit, thereby creating a system of multiple dozens outputs, starting from a single input. The unit includes a front panel LED indication for inputs/outputs validation.



### Key Features

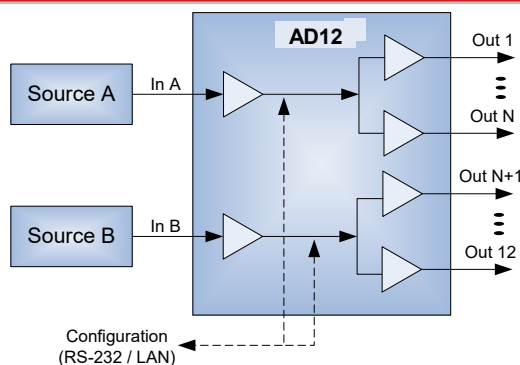
- 12 channels configurable outputs
- 2 input signals (sine or square)
- Monitor and control: RS-232, LAN (UDP)
- Supply Voltage: 90-260 VAC (DC as an option)

### Description

The AD12 unit accepts 2 buffered inputs which are distributed to 12 buffered outputs. Each output can be switched to each input using RS-232 or by LAN (optional).

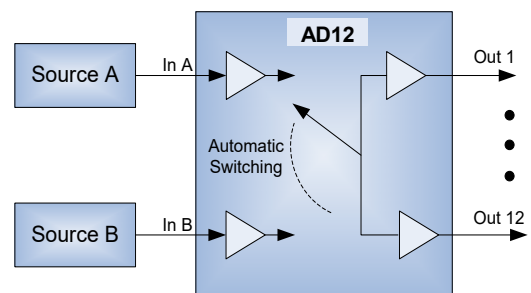
Each AD12 output used as an input to another AD12 unit, thereby creating a system of multiple dozens outputs, starting from a single input. The unit includes a front panel LED indication for inputs/outputs validation.

### Typical Applications



#### Application A: Redundancy.

In case where two inputs are connected, input A is distributed to all outputs by default. In case of an input failure or disconnection, the unit switches automatically to input B. When input A is valid again the unit switches automatically back to input A.



#### Application B: Switch / Distribution.

The user defines which input is connected to each one of the outputs.

All specs are @ 25°C, quiescent conditions and sea level ambient unless otherwise specified

## Specifications

RF Input & Outputs		
Inputs (x 2 inputs)	Frequency	1Hz to 10MHz (sine wave) 1Hz –50KHz and 150KHz-10MHz (square wave)
	Level	Sine wave: 0dBm to 21dBm  Square wave: 2.5V to 5V Note: higher voltage level will be clipped to 5V.
	Load Impedance	50Ω
	Connector	BNC / TNC (option)
Outputs (x 12 outputs)	Frequency	Same as input
	Level	Same as input ± 20%
	Rise time	Same as input (not less than 15ns)
	Internal insertion loss	1.4dB (nominal)
	Jitter	Input additional Jitter<=1ns
	Load Impedance	50Ω
	Connector	BNC / TNC (optional)
Phase Noise Floor	Offset from carrier [Hz]	Phase Noise typical [dBc / Hz]
	1Hz	-102
	10Hz	-132
	100Hz and above	-147
BIT's Inputs	Open connector inputs. For each input, indicates a pass / fail criteria to the AD12A (*)	
CLI (Command Line Interface)	BIT indication, unit identification (serial number, version) and outputs configuration	RS-232 Baud rate: 19,200 bps Protocol: 1, 8, 1, No parity
LAN (option)	Monitor and control by UDP	

(\*) In case the input signal is exists and the BIT is valid, the unit shall treat the input as valid (for more details contact factory).

Power Supply	
Power Supply	90-260 VAC 47/63 Hz (DC power supply as an option, 28VDC / -48VDC)
Power Consumption	≤ 10W

Standards	
CE Compliance	Safety per IEC950 / UL1950 / EN60950. EMI / EMC per EN50081, EN50082, EN50024 and FCC Part 15 Class A.

Temperature Range	
Operation	-20°C to + 65°C
Storage	-40°C to + 85°C

Dimensions & Weight		
19" x 1U Rack Mount	Dimensions	19" x 1U Rack Mount: 43.7mm (height) x 483mm (width) x 285mm (depth)
	Weight	≤ 3 kg

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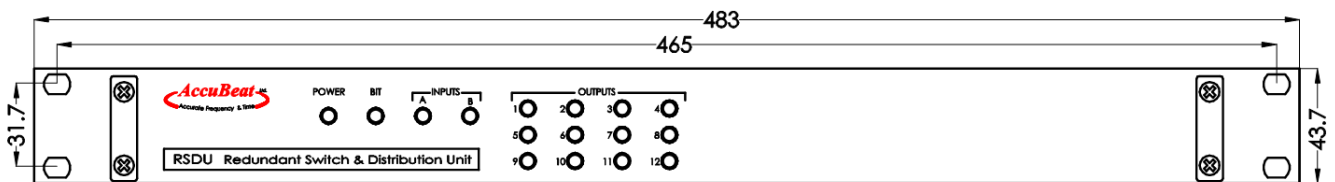
**BIT**

<b>Front panel LED Indications</b>	Power, BIT, Inputs A & B validity, 12 outputs validity indications (one for each output).
<b>Hardwired overall BIT indication</b>	Open collector overall BIT indication

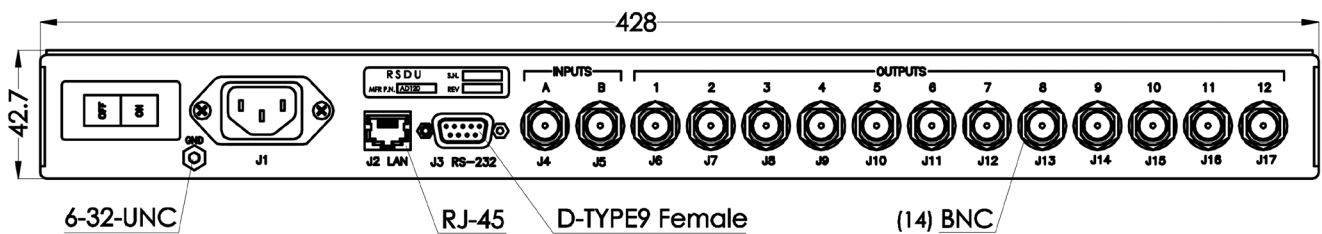
**Electrical ICD**

Connector	Standard Type	Options
o Power Supply	AC, Standard Inlet (IEC320 C14)	28VDC / -48VDC
o Input A	BNC	TNC
o Input B	BNC	TNC
o CLI (Rx, Tx), Overall BIT output , Inputs BIT (*)	D-Type	
o LAN (option)	RJ-45	
o OUT 1 – OUT 12 – Output signals	BNC	TNC

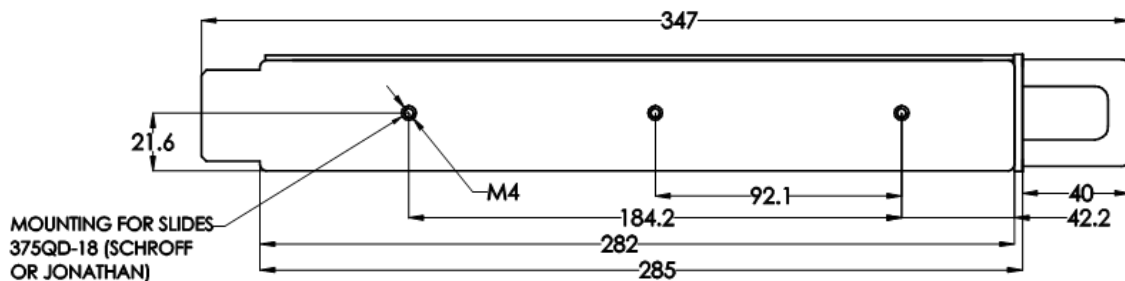
**Mechanical ICD**



**Front Panel**



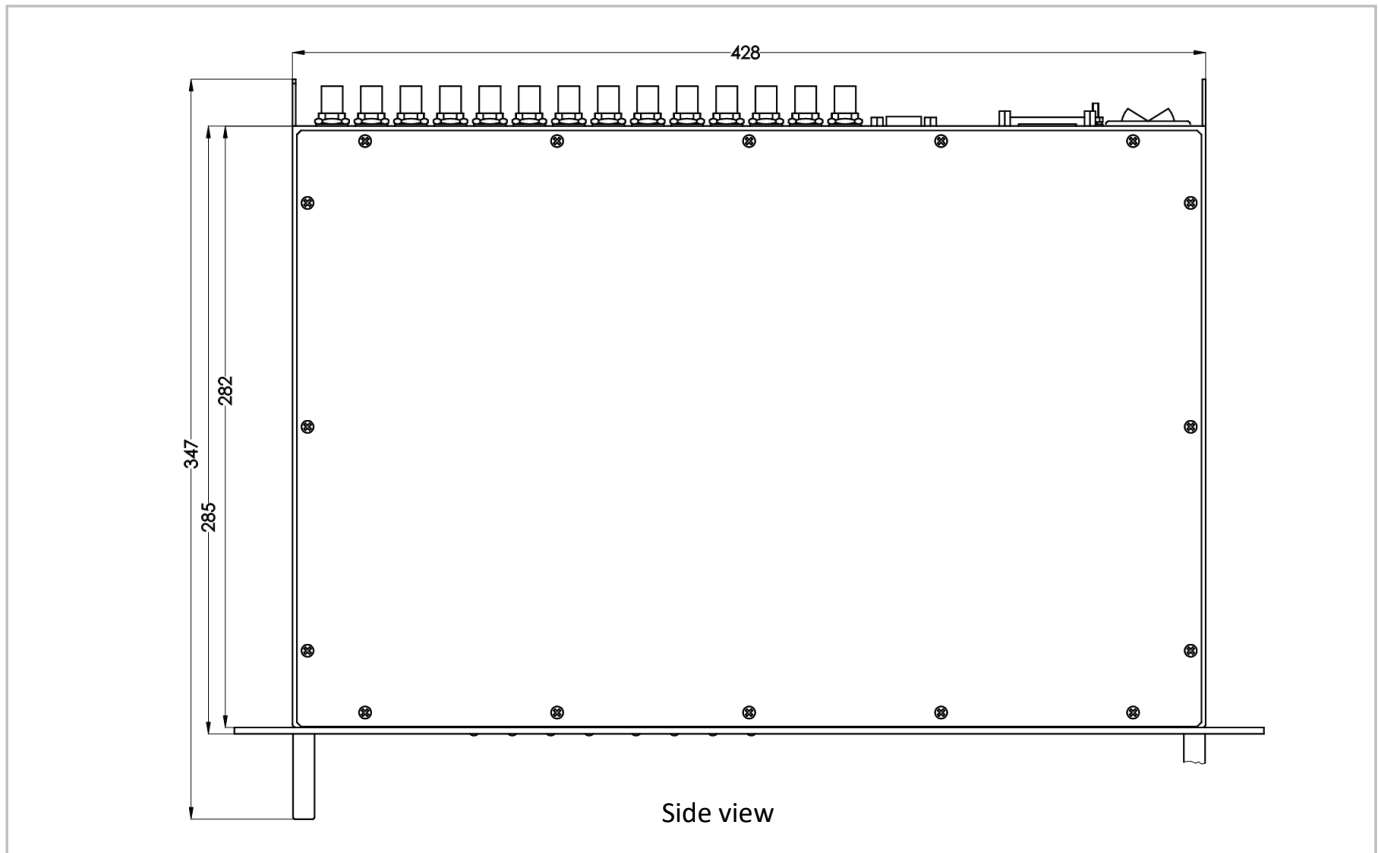
**Rear Panel**



**Top View**

MOUNTING FOR SLIDES  
375QD-18 (SCHROFF  
OR JONATHAN)

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**HOW TO ORDER**

AccuBeat P/N	Monitor & Control	I/O Connectors	Power Supply
AD12000	CLI (RS-232) & LAN (UDP)	BNC	AC (90-260VAC)
AD12001	CLI (RS-232)	BNC	AC (90-260VAC)

**Accessories**

SW50031	CUSTOMER GUI FOR AD12A
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For all other options – contact factory

AccuBeat Ltd, 5 Ha'Marpeh St., Har Hotzvim, P.O.Box 45012, Jerusalem 91450, Israel  
 Tel: +972-2-5868330, Fax: +972-2-5868550, E-Mail: [marketing@accubeat.com](mailto:marketing@accubeat.com)  
<http://www.accubeat.com>