

Utah Sandar AS

User Manual & Installation Guide

UTAH-100/XVDA SERIES

Wideband Analogue Distribution 1:4 & 1:8

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INTRODUCTION

Thank you for choosing a Utah Sandar product. We are convinced that your choice will prove to be a wise and worthy decision for many years to come.

Your Utah Sandar product has been tested for performance at the factory according to the specifications given for the system in this manual. However, before putting the device into operation we kindly ask you to read this manual, and act according to the information given.

All information given in this document is property of Utah Sandar. To the knowledge of Utah Sandar there are no errors in the manual. Should any errors be discovered, please notify Utah Sandar. Utah Sandar will under no circumstances accept responsibility neither for errors in this manual, nor consequences of such errors.



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WARRANTY

This Utah Sandar product is warranted against defects in materials and workmanship for a period of two years from the date of invoice. During the warranty period, Utah Sandar will, at its option, either repair or replace products that prove to be defective.

The warranty shall not apply to defects resulting from improper or inadequate installation or maintenance by buyer, buyer-supplied software or interfacing, unauthorized modification or misuse, operation outside of the environmental specifications for the product, or improper site preparation or maintenance.

If a product needs to be returned for service, please first contact the Utah Sandar Helpdesk to obtain a Return Material Authorization (RMA) number. Make sure the packaging provides sufficient protection against ESD and mechanical damage. Please enclose a note with the RMA, return address, contact person details and a failure symptom description.

DOCUMENT REVISION HISTORY

Rev.	Date	Description
1.2	2009-10-08	Changed product name
1.1	2009-01-16	Change Company name and logo
1.0	2008-01-10	Production release
A	2006-05-26	Preliminary

SAFETY CONSIDERATION

General

This product and related documentation must be reviewed for familiarization with safety markings and instructions before operation. This product has been designed and tested in accordance with the relevant international standards.

Safety Symbols



Indicates hazardous voltages.



Indicates earth (ground) terminal.



The **CAUTION** sign denotes a hazard. It calls attention to an operating procedure, practice, or the like, which if not correctly performed or adhered to could result in damage to or destruction of part or all of the product. Do not precede beyond a CAUTION sign until the indicated conditions are fully understood and met.



The **WARNING** sign denotes a hazard. It calls attention to a procedure, practice, or the like, which, if not performed or adhered to could result in personal injury. Do not proceed beyond a WARNING sign until the indicated conditions are fully understood and met.

Safety Earth Ground

This is a Safety Class 1 product (a protective earth terminal (GND) is provided).

An uninterrupted safety earth ground must be provided from the main power source to the product input wiring terminals, power, cord, or supplied power cord set.

Whenever it is likely that the protection has been impaired, the product must be made inoperative and secured against any unintended operation.

INSTALLATION

Initial Inspections

Check the contents of the shipment for completeness and possible transport damage. If the contents are incomplete or damaged, contact Utah Sandar AS immediately for repairing or replacement parts of the equipment.

ESD Handling



This product may contain Electrostatic Sensitive Devices (ESD). Precautions to minimise the risk of damage, due to electrostatic discharge during handling, are recommended. For guidance, refer to British Standard BS CECC 00015, Part 1:

BASIC SPECIFICATION FOR PROTECTION OF ELECTROSTATIC SENSITIVE DEVICES



Before Applying Power

Verify that the product is configured to match the available main power source per the input power configuration instructions provided in this manual.



Service

Servicing, adjustments, maintenance or repair of this product may be performed by qualified personnel only. Adjustments described in this manual may be performed with power supplied to the product while protective covers are removed. Energy available at many points may, if contacted, result in personal injury. Capacitors inside this product may still be charged even when disconnected from their power source.

UTAH-100/XVDA 1:4 & 1:8

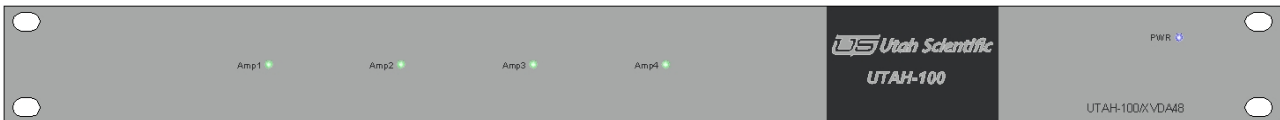
GENERAL DESCRIPTION

The UTAH-100/XVDA Distribution Amplifiers

The UTAH-100/XVDA84 contain 8 separate amplifiers with 1 to 4 wideband distribution amplifiers, and the model UTAH-100/CVDA48 contain 4 separate 1 to 8 wideband distribution amplifiers build in 19" 1U compact frame. The unit distributes analogue video signals and other type of signals which are within the specification of the amplitude and the bandwidth. Each amplifier has one 75 ohms BNC input and four matched 75 ohms BNC outputs. The gain is fixed to 0dB. Power consumption and Heat dissipation is extremely low, hence the UTAH-100/XVDA is delivered with a standard off-the-shelf universal AC/DC Power Supply. To reduce the possibility of power interrupt the unit is equipped with two DC connectors for redundancy powering. Extra Power Supply is an option and is not delivered as standard.



UTAH-100/XVDA84



UTAH-100/XVDA48

External Power Supply

The external Power Supply is an AC/DC Switch Mode Plug-in power supply module with compact design. The power supply has a universal input voltage, and is available with EU, UK or US plug-in terminals. Standard terminal is EU. The output voltage is 12V DC and is short circuit proof and deliver up to 10W. One secondary cable with the modular connector in the one end connects to the power supply and the other end with a 5.5/2.1mm jack connects to the SA1100 frame. Sandar TeleCast recommends the Power Supply 9525 from Mascot A/S, but other types of Power Supplies may be used with similar specifications.

DC CONNECTION

Power DC-jack 2.1mm: Centre pin: +12V
 Bushing: 0V (GND)

SPECIFICATIONS

INPUT:

Number	UTAH-100/XVDA84	: 1 (x 8 amplifiers)
	UTAH-100/XVDA48	: 1 (x 4 amplifiers)
Impedance		: 75Ω
Nominal input level		: 1.0Vp-p
Maximum signal level		: 3Vp-p
Return Loss		: ≥ 40 dB, 0.1 - 5 MHz
		≥ 15 dB, 5 - 270 MHz
Connector		: BNC

OUTPUT:

Number	UTAH-100/XVDA84	: 4 (x 8 amplifiers)
	UTAH-100/XVDA48	: 8 (x 4 amplifiers)
Impedance		: 75Ω
Nominal output level		: 1.0 Vp-p (±10%)
Max. output level		: 3 Vp-p
Return Loss		: ≥ 40 dB, 0.1 - 5 MHz
		≥ 15 dB, 5 - 270 MHz
Connector		: BNC

PERFORMANCE: *)

Gain, nominal	: 0dB, ±0.1dB
Frequency response 10kHz- 30MHz	: ±0.1dB
BW -3dB	: > 350 MHz
Differential gain	: < 0.05%
Differential phase	: < 0.05°
Crosstalk to 5MHz	: > 70dB

POWER:

DC 1	nominal	: 12V, 0.17A
DC 2	nominal	: 12V, 0.17A

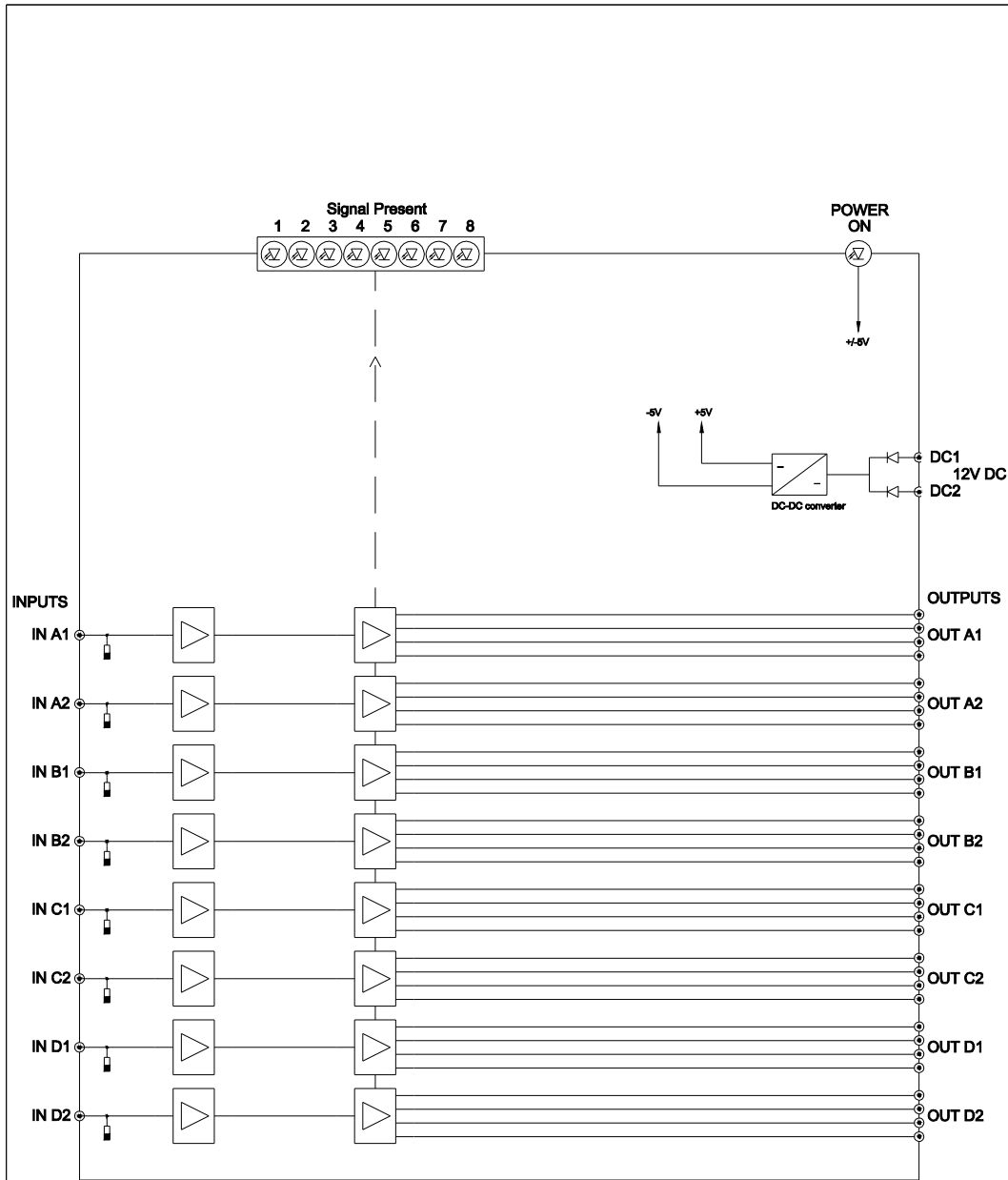
FRAME:

	: UTAH-100/XVDA
	W: 482.6mm (19")
	H: 43.6mm (1U)
	D: 52mm
Weight	: 0.7kg
Operating temperature range	: 0°C - 45°C
Humidity	: 90% non condensing

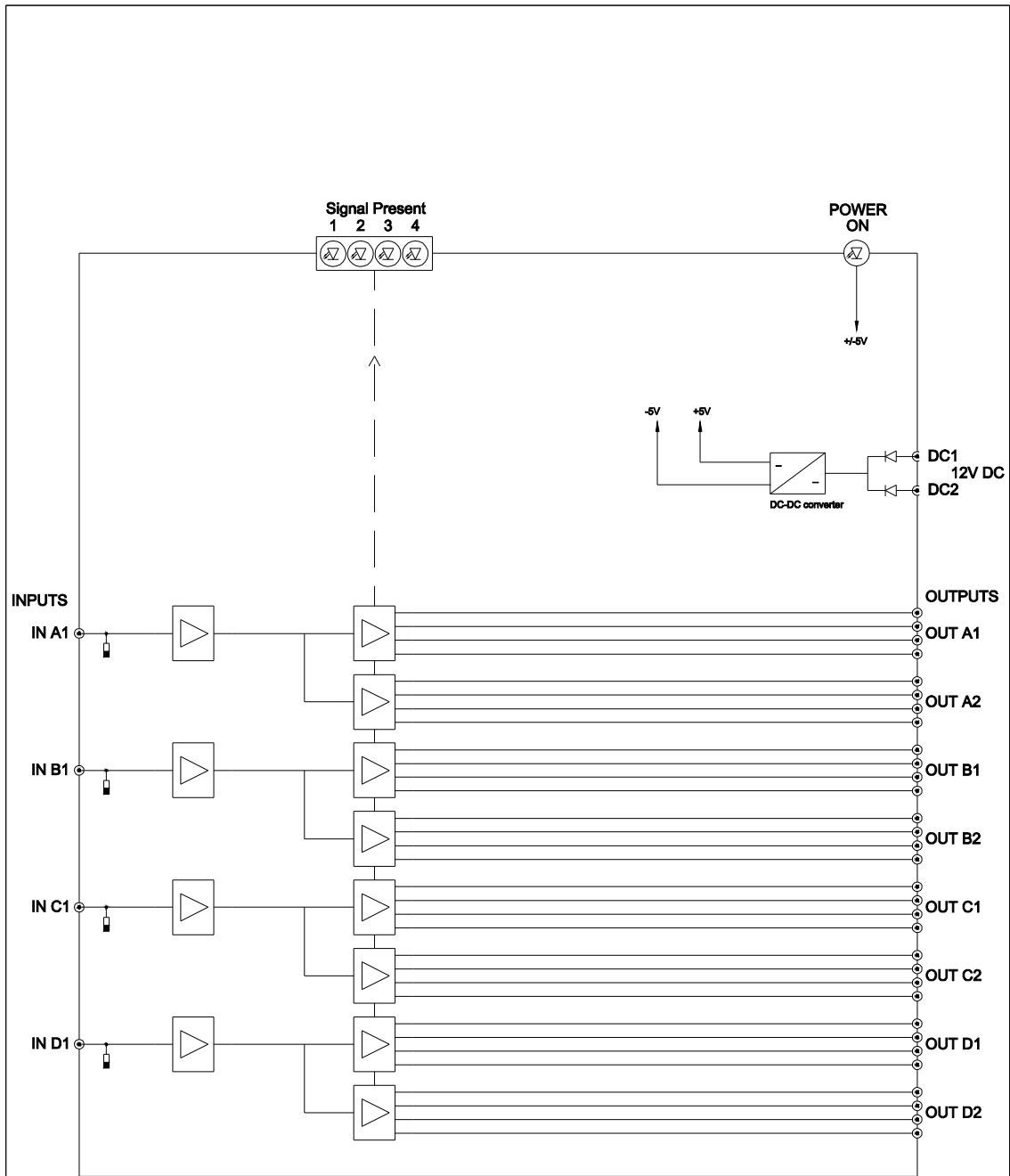
*) All outputs have to be terminated in 75 ohms.

Utah Sandar AS reserves the right to change specifications without prior notice.

BLOCK DIAGRAM



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		UTAH-100/XVDA84				3189-03
02	2009-10-08/HD	1:4 ANALOGUE DISTRIBUTION, BW: >350MHz				Utah Sandar AS
01	2009-01-16/HD	BLOCK DIAGRAM				
Rev No	Date/Sign		Part No.	Ref	Proj	



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		UTAH-100/XVDA48				3195-03
02	2009-10-08/HD	1:8 ANALOGUE DISTRIBUTION, BW: >350MHz				Utah Sandar AS
01	2009-01-13/HD	BLOCK DIAGRAM				
Rev.No	Date/Sign	Part No.:		Ref.		Proj.