



V6157

HD/SD SDI DA 6 O/P, Hi Sensitivity

User Guide

Issue: 1.1

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Vistek V6157 HD/SD SDI DA 6 O/P, Hi Sensitivity

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1 Description

The V6157 is a high sensitivity SDI Distribution Amplifier which operates at both HD and SD data rates. In order to provide the extra high sensitivity there are only six outputs despite most of the V1600 range of Distribution Amplifiers having eight outputs. The input signal can be any Serial Interface data rate from 143, 177, 270, 360, 540 or 1.485Mb/s. The module automatically detects whether the input signal is SD or HD or is not present and indicates so on the front panel. Three of the six outputs are suitable for ASI signals. The module has a re-clocker which may be bypassed using internal links.

The V6157 is a part of the V1600 range of interface modules and is built on a 3U high PCB which is fitted into the V1606 3U Chassis. The V1606 can have a total of up to 14 modules from the range. A suitable passive rear module, such as the V16HR3F, is required. The amplifier receives all its power and control from the rear module.

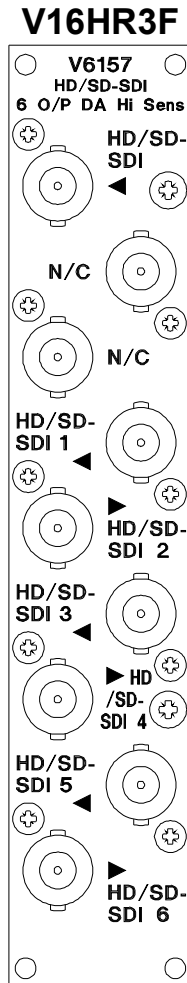
The DART remote monitoring and control system will indicate unit type, signal present and standard (HD or SD) and whether either re-clocker is disabled.



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2 Installation

2.1 Rear Panel



SIGNAL	SOURCE	COMMENTS
HD/SD-SDI	SDI Video I/P	Sourcing cable length up to 250m
N/C	No Connect	Not used
HD/SD-SDI 1 to 6	6 SDI Video Outputs	SDI Outputs (ASI Compatible)

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2.2 Power Consumption

Module	Power
V6157	<5W

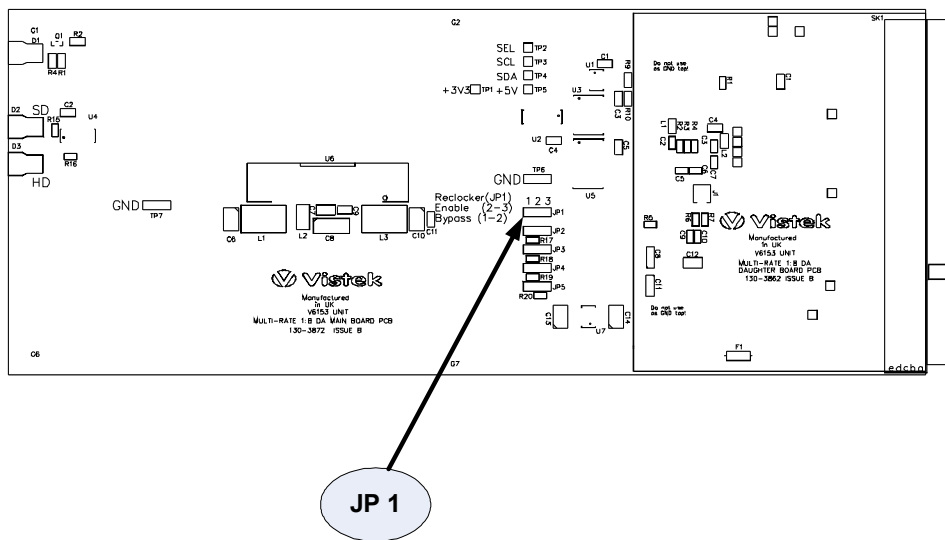
2.3 Insertion Delay

SIGNAL	DELAY
HD	<5ns
SD	<20ns

2.4 Hardware

The figure below shows diagrammatically the main board of the V6157 along with some components of interest.

A link is provided for disabling the Re-clocker, as shown.





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3 Operation

3.1 General

The Distribution Amplifier is a combination of 2 modules; a main module and a sub-module. An additional sub-module can be fitted to provide additional outputs. (This is a feature that was available on the V6151, and may become available on the V6157.)

The main module provides all the power distribution and DART logic, while the sub-modules take the SDI input and provide all the outputs.

3.2 Link Settings

A link is used to enable or disable the re-clocker on the main module. The link setting is defined here:

		Left	Right
Re-clocker	JP 1	Off	ON

3.3 ASI Signals

Although the V6157 is essentially a SDI DA, it can be used for ASI signals on some outputs. The main difference between an ASI signal and a pure SDI signal is that SDI is polarity independent while ASI signals are not. (There are other technical differences, but this is the critical one which directly affects the signal integrity.)

Four outputs do have the correct polarity, and can safely be used for ASI signals as shown here:

- HD/SD-SDI 2
- HD/SD-SDI 4

3.4 DART Controls

This unit has no remote controls, but does have remote status indication as follows:

- Input Locked
- SD or HD
- Re-locker – ON or OFF
- SDI Standard – 143, 177, 270, 360, 540 or 1485 Mb/s