

V1615D

DUAL SDI DISTRIBUTION AMPLIFIER

INSTALLATION and OPERATION

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DUAL SDI DISTRIBUTION AMPLIFIER

INSTALLATION AND OPERATION

1. DESCRIPTION

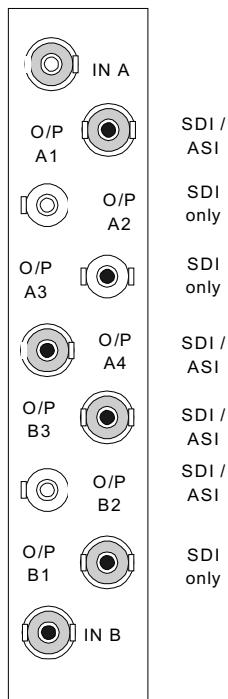
The V1615D Dual SDI DA is a broadcast specification distribution amplifier for SDI data streams. The unit will also distribute ASI, but with a limited number of outputs. It forms part of the Vistek V1600 range of modular interface products. It is a 3U high card, which may be fitted into either the 1U V1601 or 3U V1603 chassis from which it is powered.

There are passive rear panels to interface to the card, which are required for the 1U and 3U chassis (16VR1H and 16VR3H respectively). NOTE: The rear is unique to the V1615D and is incompatible with rears for other V1600 modules, including other V1615 variants.

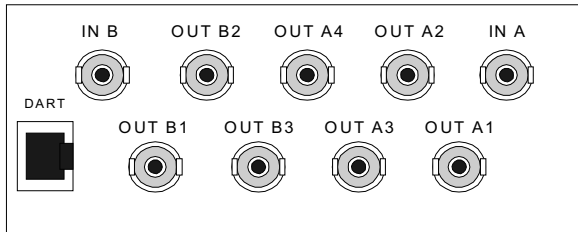
The unit will provide 4 SDI outputs from channel A and 3 from channel B, If however the unit is being used to distribute ASI, only 2 outputs are available from each channel. The serial data rate may be 143, 177, 270, 360 or 540 Mbit/s,

2. INSTALLATION

2.1 REAR PANEL - 3U (16VR3H)



2.2 REAR PANEL - 1U (16VR1H)



2.3 REAR PANEL CONNECTIONS

| SIGNAL | CONN | DESCRIPTION |
|--------|------|---|
| IN A | BNC | SDI / ASI input (channel A) |
| A1, A4 | BNC | SDI / ASI outputs. (channel A) |
| A2, A3 | BNC | SDI only outputs. (channel A) |
| IN B | BNC | SDI / ASI input (channel B) |
| B2, B3 | BNC | SDI / ASI outputs (channel B) |
| B1 | BNC | SDI only output (channel B) |
| DART | RJ45 | DARTNET connection. Only used in one position in 1U rack. |

2.4 POWER CONSUMPTION

The power consumption of the V1615D is approximately 3.5W with full load.

2.5 INSERTION DELAY

The video insertion delay, from I/P to O/P is ~20ns.

2.6 INTERNAL HARDWARE

2.6.1 MAIN BOARD

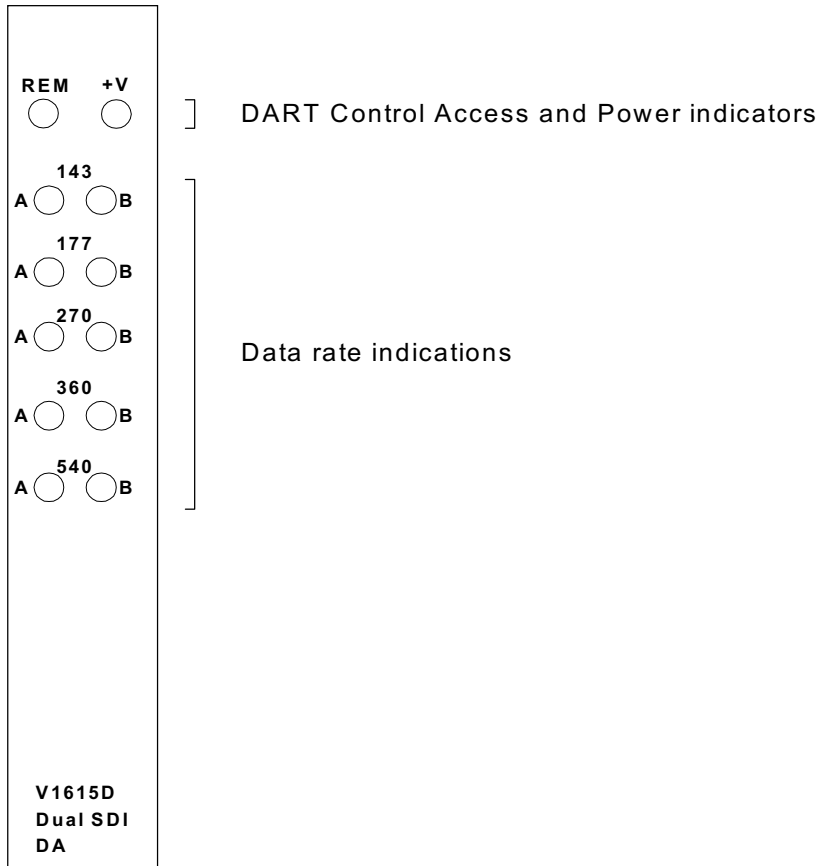


The significant items on the main board are described here:

| | |
|------|-----------------------|
| FS 1 | Input power fuse, 3A. |
| JP 1 | JTAG port. |

3. OPERATION

3.1 FRONT PANEL



3.2 POWER

The power LED, marked +V, indicates that the 5V VCC power rail is present on the board. This shows not only that power has been applied to the rear, but also that the on board regulator is functioning.

There is a fuse on the unit in series with the power input, and if this has 'blown' then the +V LED will be OFF.

3.3 REMOTE CONTROL

The V1615D has no controllable features, however data rate and signal fail flags may be read as status.

| Parameter | Status |
|---------------------|-------------------------|
| Channel A data rate | 143, 177, 270, 360, 540 |
| Channel A fail | Present / Fail |
| Channel B data rate | 143, 177, 270, 360, 540 |
| Channel B fail | Present / Fail |

3.4 DATA RATE INDICATIONS

Ten LED's on the front panel indicate the data rate of the A and B channel inputs. If no valid serial stream is present on one or both channels, no LED(s) will be illuminated for that/those channel(s).

3.5 FAULT FINDER

| Symptom | Possible Cause |
|--|---|
| Power light on, but failure to detect signal is present. | <p>Is the correct rear panel being used? NOTE: The V1615D rear is incompatible with other V1600 rears, even other V1615 variants.</p> <p>Are input signals connected to the correct BNC's? NOTE: Inputs to the DA are the TOP and BOTTOM BNC connectors. See Sec. 2.1 / 2.2</p> |
| ASI stream is detected but output data is corrupted. | This unit has a limited number of outputs when it is used to distribute ASI. Make sure only ASI compatible outputs are being used. See Sec. 2.3 |