



Product Names: HDBT-IN2-F16, HDBT-OUT2-F16
HDBT7-IN2-F16, HDBT7-OUT2-F16
Input/Output Modules for VS-1616D, VS-1616DT

Date: October 2016

This technical note describes the thermal guidelines of HDBaseT cards (modules) when installed in the VS-1616D matrix switcher.

The VS-1616D frame is manufactured in two models: the regular VS-1616D and the VS-1616DT with improved ventilation. The VS-1616DT frame can be fully populated with HDBT modules due to an additional side fan that also increases the audible noise. The VS-1616D frame allows partial population using HDBT-IN cards.

The VS-1616DT frame has three openings for fans on the left side of the frame:



VS-1616DT Enhanced Thermal Dissipation Frame

To make use of improved ventilation in VS-1616DT frame, all HDBT and HDBT7 input and output cards must be equipped with enlarged heat dissipation radiators (heat sinks). The copper-colored heat sinks are easily recognized in the following illustration:



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Web: www.kramerav.com



With enlarged heat dissipation radiators, **any number** of HDBT and HDBT7 IN and OUT cards can be installed in a VS-1616DT frame.

Two new P/Ns were defined to replace the earlier ones for HDBT7 cards enhanced heat dissipation:

HDBT7-IN2-F16(DT) P/N 20-70008199

HDBT7-OUT2-F16(DT) P/N 20-70008299

The HDBT fully featured cards with enhanced heat dissipation are ordered using the same P/Ns as before the modification.

VS-1616D Installation Rules

Note: The following installation rules apply only to the VS-1616D chassis. The VS-1616DT chassis can be fully populated with HDBT modules.

Thermal considerations limit the use of up to four HDBT and HDBT7 input cards (both with and without heat sinks) per VS-1616D chassis and dictate where they can be installed.

The VS-1616D chassis is divided into two groups of four input and four output cards for a total of 16 cards.

When more than one HDBT/HDBT7 input card is used, the following guidelines are recommended (see following illustration):

- Install a blank spacer in the first position (#1).
- Install the first HDBT/HDBT7 card in the second position (#2).
- Install the second HDBT/HDBT7 card in the third position (#3).



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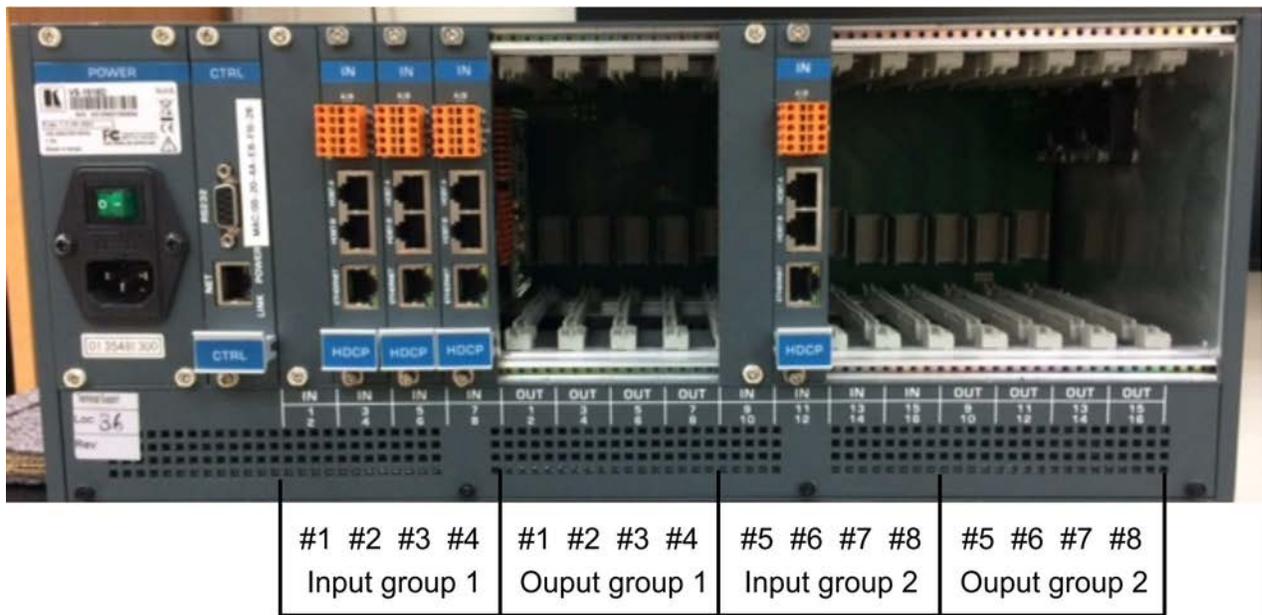
- Install a third HDBT/HDBT7 card (if required) in the fourth position (#4).
- If a fourth HDBT/HDBT7 card is required, install a blank space in position #5 and the card in position #6.
- There is no limitation on the number or type of output cards that can be installed.

Example Installation:

Note: The following example applies only to the VS-1616D chassis. The VS-1616DT chassis can be fully populated with HDBT modules.

The following example shows a VS-1616D populated with four HDBT input cards (maximum). The chassis with HDBT cards is populated in the following way:

- For effective air circulation, all empty slots must be closed with blank panels.
- Input group 1, position #1 (IN 1-2) must be empty and covered with a blank panel.
- Input group 1, positions #2, #3, #4 (IN 3-4, IN 5-6, IN 7-8) house HDBT cards.
- Input group 2, positions #5 (IN 9-10) must be empty and covered with a blank panel.
- Input group 2 position #6 (IN 11-12) houses one HDBT card.
- Input group 2 positions #7 and #8 (IN 13-14 and IN 15-16) can be populated with any input card type except HDBT type.
- Output slots can be populated with any combination of output cards.
- Output slots that are not used must be covered with blank panels.



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