

**Pyramix 5.0, internal bussing and I/O Capabilities, in 64 channels HDTDM Mode and 128 channels XDTDM Mode**

Note 1																		Notes
Bussing capabilities		AES Normal Speed		AES High Speed		MADI2 Standard		MADI2 Extended		ADAT		TDIF		SDIF				
Broadcast	HDTDM	XDTDM	HDTDM	XDTDM	HDTDM	XDTDM	HDTDM	XDTDM	HDTDM	XDTDM	HDTDM	XDTDM	HDTDM	XDTDM	HDTDM		XDTDM	
48 kHz 1FS	64	128	24	24	24	24	56	56	64	64	16	8	16	16			See Note 2	
96 kHz 2FS	32	64	12	12	12	24	28	28	32	32	8	4	8	8				
192 kHz 4FS	16	32	6	6	6	12	14	14	16	16	4	2	4	4				
384 kHz 8FS	8	16	3	3	3	6	7	7	8	8	2	1	2	2				
Music	HDTDM	XDTDM	HDTDM	XDTDM	HDTDM	XDTDM	HDTDM	XDTDM	HDTDM	XDTDM	HDTDM	XDTDM	HDTDM	XDTDM	HDTDM	XDTDM		
44.1 kHz 1FS	64	128	24	24	24	24	56	56	64	64	16	8	16	16			See Note 3	
88.2 kHz 2FS	32	64	12	12	12	24	28	28	32	32	8	4	8	8				
176.4 kHz 4FS	16	32	6	6	6	12	14	14	16	16	4	2	4	4				
352.8 kHz 8FS	8	16	3	3	3	6	7	7	8	8	2	1	2	2				
DXD 8FS		16		3		6		7		8		No In !						
DSD 64FS		16		8 or 6			Note d)	16		16		Note e)			Note f)	8		

**General information**

In Pyramix V5.x, the number of channels has been doubled. The inter-board bus has been enhanced in terms of bandwidth and is now called XDTDM bus for eXtreme Definition Time Domain Multiplex. Some exceptions exist and these are discussed below.

**Detailed notes and information :**

- The column "Bussing capabilities" indicates the maximum channels count available in a Pyramix system in V4.x and V5.x modes:
  - The **HDTDM** mode is the V4.x compatibility mode and offers the same PCM channels count as previously, except that DSD/DXD modes are no longer supported in this mode.
  - The **XDTDM** mode - V5.x only - offers twice as many PCM and DSD/DXD channels compared to Pyramix V4.x.

2 The greyed cells indicate that the corresponding mode does not exist for the corresponding daughter cards.

3 DXD / DSD are only available in XDTDM mode.

a) The AES daughter card now offers the maximum possible count of **24 channels in 2FS High speed mode**.

b) In DSD mode, the number of I/O depends on the AES I/O format (Sony or P3D respectively).

c) In DXD mode, the number of I/O depends of the I/O format speed.

d) Although the theoretic maximum DSD channel count with a MADI daughter card is 24, the bus capability has a maximum of 16 DSD channels.

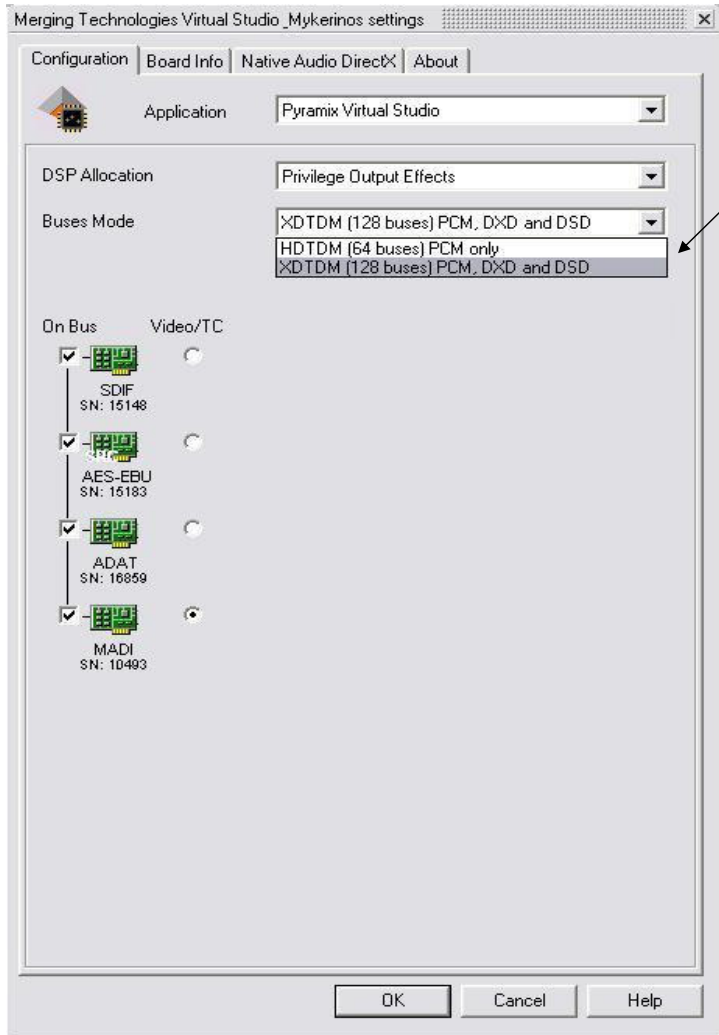
e) The ADAT daughter card, despite its original design dating back to 1999, is still fully supported in V5.0 beta 4 in HDTDM mode only !  
 The ADAT daughter card supports now the XDTDM mode with a hardware rework ONLY. In this mode, the ADAT daughter card offers 8 output channels through optical output A) replicated on the optical output B) and **No Inputs**.

This hardware rework consists in adding a shield to the ADAT similare to the one used for the DUAL daughter card. Please contact your Merging sales partner to order this retrofit kit.  
 => **Do not try to use the ADAT daughter card in XDTDM mode without this required shield!**

f) In a mono-board system, only 2 DSD channels are available.

## How do I switch between the HDTDM and XDTDM modes ?

The HDTDM and XDTDM modes are selected in the VS3 Control Panel as shown in the picture below.



A drop down menu enables switching between the two modes.

As you can see, the routing functionality has disappeared from this page and has been moved into Pyramix under the "Pyramix Settings" window. For information, a screen shot of the Pyramix Settings window is shown below :

