

Card-Edge Control Reference

Master List and Instructions for Using Compass™ Card-edge (Local) Control Codes

Manual Supplement



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Function Submenu/Parameter Submenu Overview

- Note:**
- Refer to card Product Manual for control descriptions and application examples. Where card controls found on DashBoard™ or other remote control is not shown here, these controls or displays may not be available using card edge controls.
 - This is a master list; not all cards have the controls described here (for example, SDI-only cards such as the 9062 do not have audio embedding/de-embedding selections described here).
 - Control names here are identical to those used in the Product Manual. If necessary, correlate the list here to the names and descriptions found in the respective Product Manual.

The functions and related parameters available on a typical card are organized into function **submenus**, which consist of parameter groups as shown below.

Figure 1 shows how the card and its submenus are organized, and also provides an overview of how navigation is performed between cards, function submenus, and parameters.

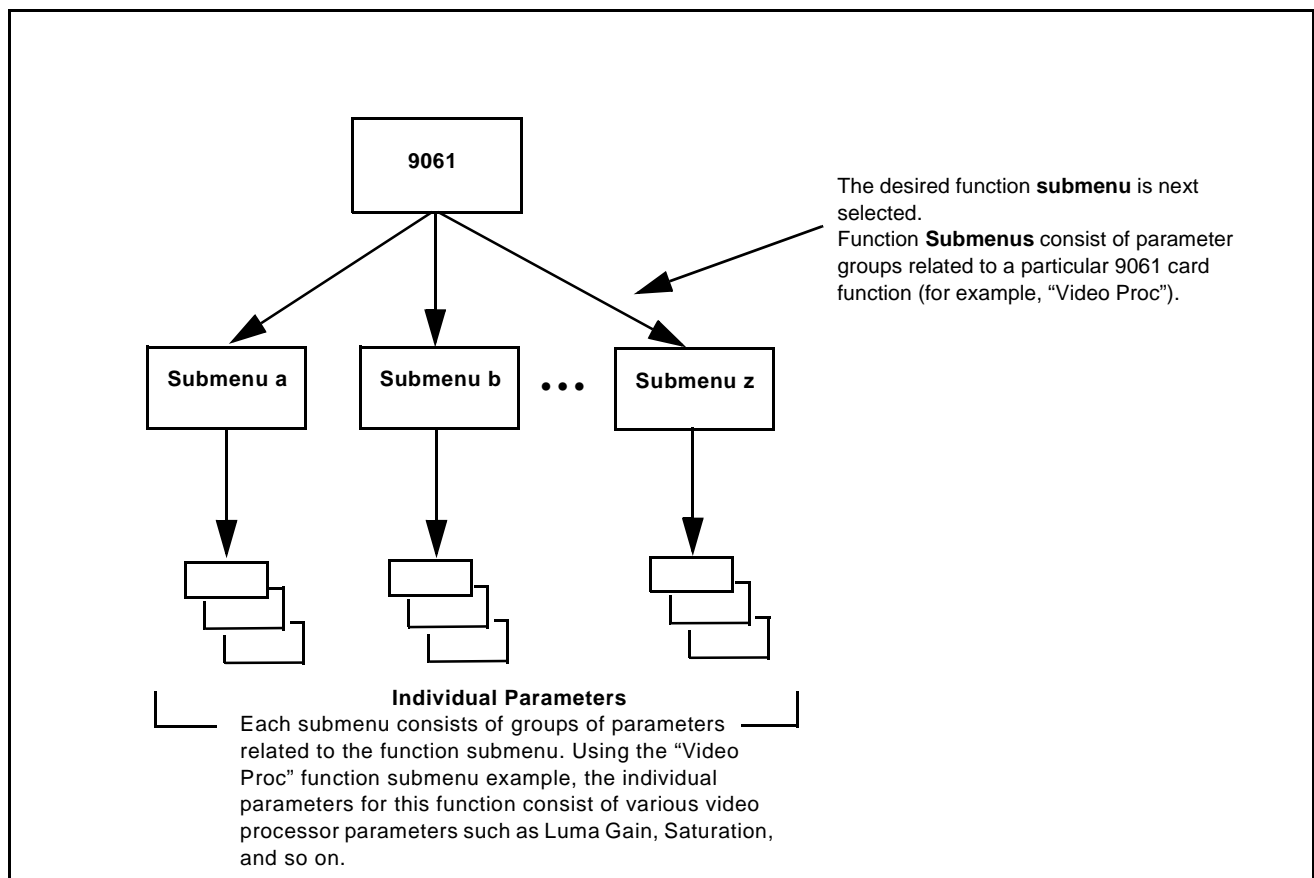


Figure 1 Function Submenu/Parameter Submenu Overview

Typical Card Edge Controls, Indicators, and Display

Figure 2 shows and describes typical card edge controls, indicators, and display.

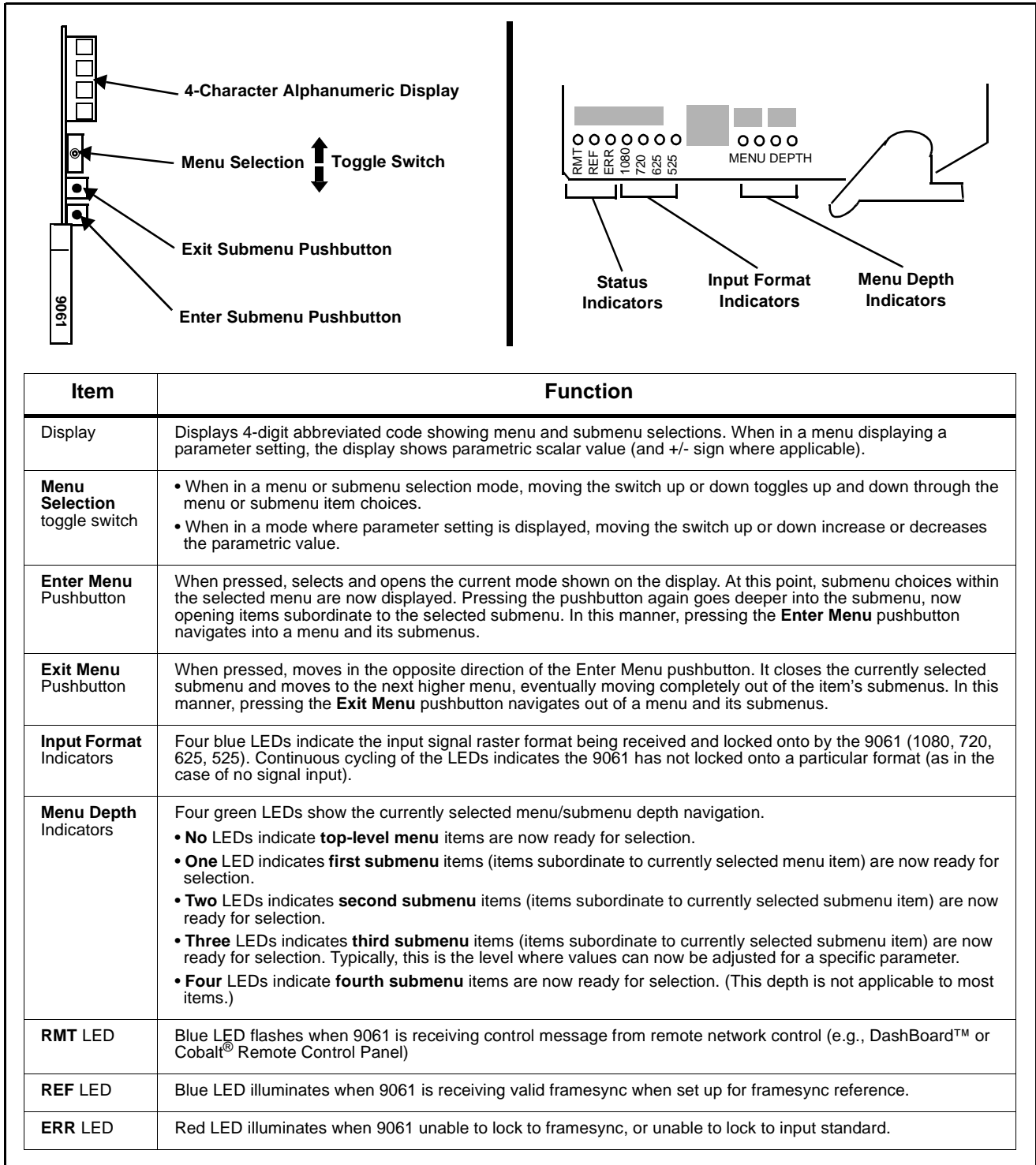


Figure 2 Typical Controls, Indicators, and Display

Typical Card Edge Control Menu/Submenu Structure

(See below.) Using the menu system of group menus and submenus described earlier, the parameters/controls are organized into menus and submenus. As appropriate, a submenu similarly may have its own further additional subordinate submenus.

Menu Group Item	<u>Menu Depth</u>	<u>Menu depth (as indicated by Menu Depth LEDs)</u>
		none
Submenu 1 (Submenu 1 selection items)	1	● ○ ○ ○
Submenu 2 (Submenu 2 selection items)	2	● ● ○ ○
Submenu 3 (Submenu 3 selection items and/or parameter values)	3	● ● ● ○
Submenu 4 (Submenu 4 selection items and/or parameter values)	4	● ● ● ●

Figure 3 shows an example of using the card edge controls to access the Embedded Audio processing group menu (along with some of its submenus) to set the routing and signal processing parameters for an embedded audio channel. **(A)** through **(S)** in Figure 3 denote the discrete tasks required in performing the example setup using the card edge controls.

In this example, the following input processing is being performed:

- Embedded Channel 3 is selected as the source for Embedded Channel 1 within Embedded Audio Group 1.
- Gain is increased over unity default by 12.1.
- Phase is inverted.

In this example, the following output processing is being performed:

- The embedded Channel 1 path has been directed to AES Output Channel 1.
- Gain is increased over unity output default by 18.5.
- Phase is normal (non-inverted).

Due to the limited control available when using the built-in card edge control user interface, the navigation into and out of submenus shown in Figure 3 is required to perform the setup described above.

Embedded Audio

Select a top-level menu item (in this example, select **Aud** (embedded audio routing/control))

		Submenu Depth				
		1	2	3	4	
(A)	Embd AES Tone					Press Enter Menu and in this example, select Embd (Embedded Audio Groups). This selects embedded audio function of the Audio processor.
(B)			Grp1 Grp2 Grp3 Grp4			Press Enter Menu again and in this example, select Grp1 (Embedded Audio Group 1). This selects the embedded audio group to be accessed.
(C)				Enbl		Press Enter Menu again and in this example, select Enbl (Enable).
(D)					On Off	Press Enter Menu again and in this example, select On . This sets the selected embedded audio group to Enabled .
(E)			Ch01 Ch02 Ch03 Ch04			Press Exit Menu and in this example, select Ch01 (Destination: Embedded Channel 1). This selects the embedded channel to be accessed.
(F)					Src Gain Pol	Press Enter Menu and select in this example, Src (source for embedded channel 1). This selects the source for the embedded channel.
(G)					Em01 Em02 Em03 ...	Press Enter Menu again and in this example, select Em03 (embedded channel 3 as source for embedded channel 1). This selects embedded channel 3 as the source for embedded channel 1.
(H)					Src Gain Pol	Press Exit Menu and in this example, select Gain (gain adjustment field for selected embedded audio channel).
(I)					(gain value)	Press Enter Menu again and in this example, select a gain value of 12.1 for this channel.
(J)					Src Gain Pol	Press Exit Menu and in this example, select Pol (phase for embedded channel 1).
(K)					Norm Inv	Press Enter Menu again and in this example, select Inv (invert polarity for embedded channel 1). (continued on next page)

Figure 3 Card Edge Controls Setup of Example Embedded Audio Function Setup (sheet 1 of 2)

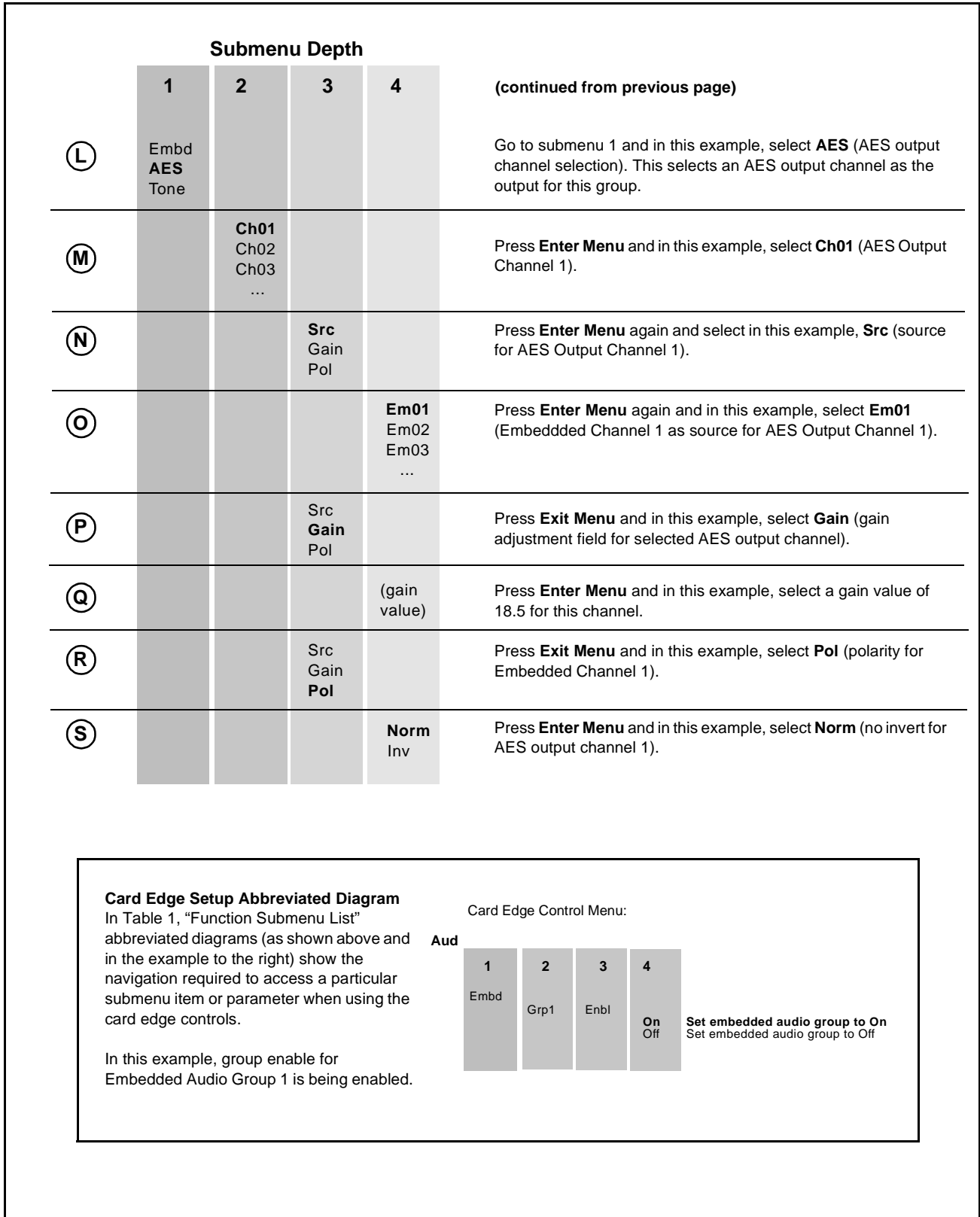


Figure 3 Card Edge Controls Setup of Example Embedded Audio Function (sheet 2 of 2)

Card Edge Display Orientation, Brightness, and Timeout Adjust

The card edge 4-Character Alphanumeric Display can be changed between vertical or horizontal character orientation to suit the mounting position of the card as shown and described below.

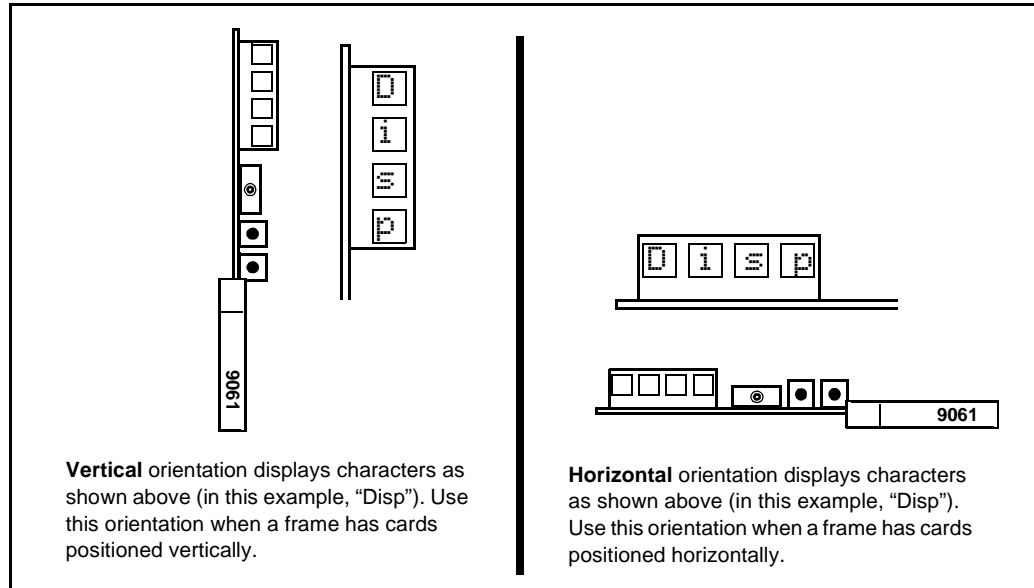
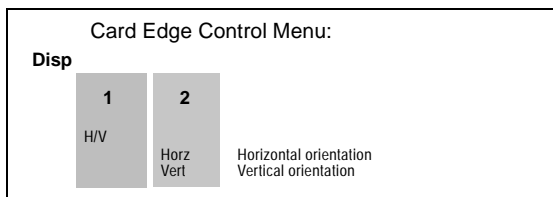


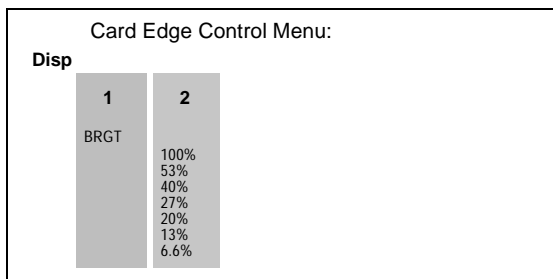
Figure 4 Card Edge Display Orientation

1. Access the **Displ** (Display) menu.
2. Select between Horizontal or Vertical as shown below.



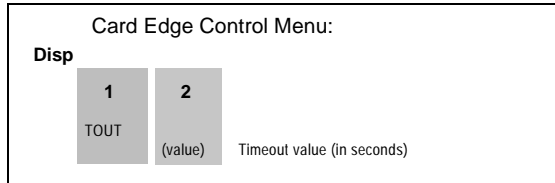
Adjust the display brightness as described below.

1. Access the **Displ** (Display) menu.
2. Select from the relative brightness levels as shown below.



The timeout period from when a menu is entered to when the display times out (reverts to the default card model display) can be adjusted from 5 to 9999 seconds (166.7 minutes) as described below.

1. Access the **Displ** (Display) menu.
2. Use the up/down switch to enter the desired timeout value as shown below.



Checking Card Information

The operating status and software version the card can be checked using the card edge control user interface.

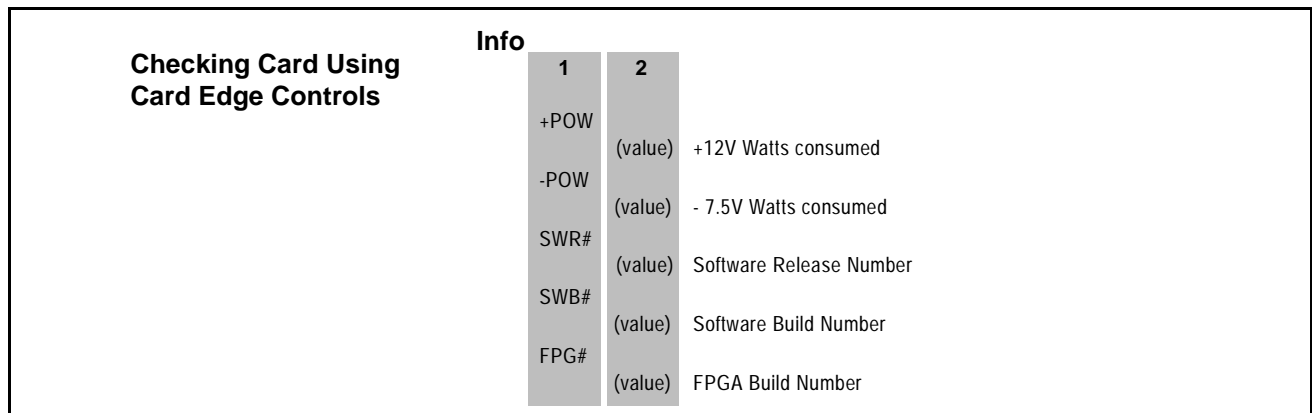


Figure 5 Typical Card Info Utility

Typical Function Submenu List and Descriptions

Table 1 provides abbreviated menu structure charts showing the menu structure for accessing the function/parameter using the card edge controls.

Table 1 Function Submenu List

Video Signal Controls																									
<p>• Input Video Preference</p> <div style="border: 1px solid black; padding: 5px;"> <p>Vid</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">1</td> <td style="width: 50%; text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">Src</td> <td style="text-align: center;">SDIO SDIA ANAO ASDI</td> </tr> <tr> <td></td> <td style="text-align: center;">SDI only SDI over Analog Analog only Analog over SDI</td> </tr> </table> </div>	1	2	Src	SDIO SDIA ANAO ASDI		SDI only SDI over Analog Analog only Analog over SDI	<p>• HD Analog Input Type</p> <div style="border: 1px solid black; padding: 5px;"> <p>Vid</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">Dec</td> <td style="text-align: center;">HDIN</td> <td style="text-align: center;">YPbP GBR</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">YPbPr GBR</td> </tr> </table> </div>	1	2	3	Dec	HDIN	YPbP GBR			YPbPr GBR									
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Src	SDIO SDIA ANAO ASDI																								
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<p>• SD Analog Input Type</p> <div style="border: 1px solid black; padding: 5px;"> <p>Vid</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">Dec</td> <td style="text-align: center;">SDIN</td> <td style="text-align: center;">CVBS Y/C BETA MI SMPT</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">Composite Y/C YPbPr BetaCam YPbPr MI YPbPr SMPTE</td> </tr> </table> </div>	1	2	3	Dec	SDIN	CVBS Y/C BETA MI SMPT			Composite Y/C YPbPr BetaCam YPbPr MI YPbPr SMPTE	<p>• NTSC Contains</p> <div style="border: 1px solid black; padding: 5px;"> <p>Vid</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">Dec</td> <td style="text-align: center;">PED</td> <td style="text-align: center;">0 7.5</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">0 IRE pedestal 7.5 IRE pedestal</td> </tr> </table> </div>	1	2	3	Dec	PED	0 7.5			0 IRE pedestal 7.5 IRE pedestal						
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Audio Input Controls																									
<p>• AES SRC</p> <div style="border: 1px solid black; padding: 5px;"> <p>Aud</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">AES</td> <td style="text-align: center;">SBYP</td> <td style="text-align: center;">AES(n)</td> <td style="text-align: center;">On Off</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Apply to AES pair (1 thru 8) SRC Bypass turned on SRC Bypass turned off</td> </tr> </table> </div>	1	2	3	4	AES	SBYP	AES(n)	On Off				Apply to AES pair (1 thru 8) SRC Bypass turned on SRC Bypass turned off	<p>• AES Passthrough</p> <div style="border: 1px solid black; padding: 5px;"> <p>Aud</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">AES</td> <td style="text-align: center;">PASS</td> <td style="text-align: center;">AES(n)</td> <td style="text-align: center;">On Off</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Apply to AES pair (1 thru 8) Passthrough Disabled Passthrough Enabled</td> </tr> </table> </div>	1	2	3	4	AES	PASS	AES(n)	On Off				Apply to AES pair (1 thru 8) Passthrough Disabled Passthrough Enabled
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Table 1 Function Submenu List — continued


																					
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<p>• Luma Gain</p> <div style="border: 1px solid black; padding: 5px; margin: 5px;"> <p>Vid</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> <td></td> </tr> <tr> <td style="text-align: center;">Proc</td> <td style="text-align: center;">Gain</td> <td style="text-align: center;">(gain value)</td> <td>Luma gain in percent</td> </tr> </table> </div>	1	2	3		Proc	Gain	(gain value)	Luma gain in percent	<p>• Luma Lift</p> <div style="border: 1px solid black; padding: 5px; margin: 5px;"> <p>Vid</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> <td></td> </tr> <tr> <td style="text-align: center;">Proc</td> <td style="text-align: center;">Lift</td> <td style="text-align: center;">(lift value)</td> <td>Luma lift in percent</td> </tr> </table> </div>	1	2	3		Proc	Lift	(lift value)	Luma lift in percent				
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Proc	Lift	(lift value)	Luma lift in percent																		
<p>• Color Gain</p> <div style="border: 1px solid black; padding: 5px; margin: 5px;"> <p>Vid</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> <td></td> </tr> <tr> <td style="text-align: center;">Proc</td> <td style="text-align: center;">Sat</td> <td style="text-align: center;">(sat value)</td> <td>Color gain in percent</td> </tr> </table> </div>	1	2	3		Proc	Sat	(sat value)	Color gain in percent	<p>• Color Phase</p> <div style="border: 1px solid black; padding: 5px; margin: 5px;"> <p>Vid</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> <td></td> </tr> <tr> <td style="text-align: center;">Proc</td> <td style="text-align: center;">Phas</td> <td style="text-align: center;">(phase value)</td> <td>Color phase angle applied in degrees</td> </tr> </table> </div>	1	2	3		Proc	Phas	(phase value)	Color phase angle applied in degrees				
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<p>• Gang Luma and Color Gain</p> <div style="border: 1px solid black; padding: 5px; margin: 5px;"> <p>Vid</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> <td></td> </tr> <tr> <td style="text-align: center;">Proc</td> <td style="text-align: center;">Gang</td> <td style="text-align: center;">On Off</td> <td>Ganging On Ganging Off</td> </tr> </table> </div>	1	2	3		Proc	Gang	On Off	Ganging On Ganging Off	<p>• Black Hard Clip</p> <div style="border: 1px solid black; padding: 5px; margin: 5px;"> <p>Vid</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> <td></td> </tr> <tr> <td style="text-align: center;">Proc</td> <td style="text-align: center;">Clip</td> <td style="text-align: center;">BHCL</td> <td style="text-align: center;">(value)</td> <td>Clip value in percent: 0.1% precision</td> </tr> </table> </div>	1	2	3	4		Proc	Clip	BHCL	(value)	Clip value in percent: 0.1% precision		
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Proc	Gang	On Off	Ganging On Ganging Off																		
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<p>• White Hard Clip</p> <div style="border: 1px solid black; padding: 5px; margin: 5px;"> <p>Vid</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> <td></td> </tr> <tr> <td style="text-align: center;">Proc</td> <td style="text-align: center;">Clip</td> <td style="text-align: center;">WHCL</td> <td style="text-align: center;">(value)</td> <td>Clip value in percent: 0.1% precision</td> </tr> </table> </div>	1	2	3	4		Proc	Clip	WHCL	(value)	Clip value in percent: 0.1% precision	<p>• White Soft Clip</p> <div style="border: 1px solid black; padding: 5px; margin: 5px;"> <p>Vid</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> <td></td> </tr> <tr> <td style="text-align: center;">Proc</td> <td style="text-align: center;">Clip</td> <td style="text-align: center;">WSCL</td> <td style="text-align: center;">(value)</td> <td>Clip value in percent: 0.1% precision</td> </tr> </table> </div>	1	2	3	4		Proc	Clip	WSCL	(value)	Clip value in percent: 0.1% precision
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Proc	Clip	WHCL	(value)	Clip value in percent: 0.1% precision																	
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Table 1 Function Submenu List — continued

<p>• Chroma Saturation Clip</p> <div style="border: 1px solid black; padding: 5px;"> <p>Vid</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">Proc</td> <td style="text-align: center;">Clip</td> <td style="text-align: center;">CSAT</td> <td style="text-align: center;">(value)</td> </tr> </table> <p>Clip value in percent; 0.1% precision</p> </div>	1	2	3	4	Proc	Clip	CSAT	(value)									
1	2	3	4														
Proc	Clip	CSAT	(value)														
<div style="background-color: #333; color: white; padding: 10px; border-radius: 5px; display: inline-block;"> <h2 style="margin: 0;">Color Correction</h2> </div>																	
<p>• Color Corrector</p> <div style="border: 1px solid black; padding: 5px;"> <p>Vid</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">ClrC</td> <td style="text-align: center;">Enbl</td> <td style="text-align: center;">On Off</td> </tr> </table> <p>Color Corrector On Color Corrector Off</p> </div>	1	2	3	ClrC	Enbl	On Off	<p>• Reset to Unity</p> <div style="border: 1px solid black; padding: 5px;"> <p>Vid</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">ClrC</td> <td style="text-align: center;">Unty</td> <td style="text-align: center;">Y?</td> </tr> </table> <p>Move toggle switch in either direction to confirm unity reset. Reject reset by pressing Exit Menu pushbutton.</p> </div>	1	2	3	ClrC	Unty	Y?				
1	2	3															
ClrC	Enbl	On Off															
1	2	3															
ClrC	Unty	Y?															
<p>• Black Adj. (Green – Red – Blue)</p> <div style="border: 1px solid black; padding: 5px;"> <p>Vid</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">ClrC</td> <td style="text-align: center;">OFFS</td> <td style="text-align: center;">GRN BLUE RED</td> <td style="text-align: center;">(value)</td> </tr> </table> <p>Select Green channel Select Blue channel Select Red channel Black (offset/lift) value in percent (0.1% precision)</p> </div>	1	2	3	4	ClrC	OFFS	GRN BLUE RED	(value)	<p>• Gang Black Level Controls</p> <div style="border: 1px solid black; padding: 5px;"> <p>Vid</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">ClrC</td> <td style="text-align: center;">OFFS</td> <td style="text-align: center;">GANG</td> <td style="text-align: center;">On Off</td> </tr> </table> <p>Ganging On Ganging Off</p> </div>	1	2	3	4	ClrC	OFFS	GANG	On Off
1	2	3	4														
ClrC	OFFS	GRN BLUE RED	(value)														
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ClrC	OFFS	GANG	On Off														
<p>• White Adj. (Green – Red – Blue)</p> <div style="border: 1px solid black; padding: 5px;"> <p>Vid</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">ClrC</td> <td style="text-align: center;">GAIN</td> <td style="text-align: center;">GRN BLUE RED</td> <td style="text-align: center;">(value)</td> </tr> </table> <p>Select Green channel Select Blue channel Select Red channel Gain value in percent (0.1% precision)</p> </div>	1	2	3	4	ClrC	GAIN	GRN BLUE RED	(value)	<p>• Gang White Level Controls</p> <div style="border: 1px solid black; padding: 5px;"> <p>Vid</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">ClrC</td> <td style="text-align: center;">GAIN</td> <td style="text-align: center;">GANG</td> <td style="text-align: center;">On Off</td> </tr> </table> <p>Ganging On Ganging Off</p> </div>	1	2	3	4	ClrC	GAIN	GANG	On Off
1	2	3	4														
ClrC	GAIN	GRN BLUE RED	(value)														
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ClrC	GAIN	GANG	On Off														

Table 1 Function Submenu List — continued

<p>• Gamma (Green – Red – Blue)</p> <div style="border: 1px solid black; padding: 5px;"> <p>Vid</p> <table border="1"> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>ClrC</td> <td>GAMA</td> <td>GRN BLUE RED</td> <td>(value)</td> </tr> </table> <p>Select Green channel Select Blue channel Select Red channel</p> <p>Gamma value in percent (0.001% precision)</p> </div>	1	2	3	4	ClrC	GAMA	GRN BLUE RED	(value)	<p>• Gang Gamma Controls</p> <div style="border: 1px solid black; padding: 5px;"> <p>Vid</p> <table border="1"> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>ClrC</td> <td>GAMA</td> <td>GANG</td> <td>On Off</td> </tr> </table> <p>Ganging On Ganging Off</p> </div>	1	2	3	4	ClrC	GAMA	GANG	On Off
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<div style="background-color: #333; color: white; padding: 10px; display: inline-block; font-weight: bold; font-size: 1.2em;">Scaler</div>																	
<p>• Scaler enable</p> <div style="border: 1px solid black; padding: 5px;"> <p>Sclr</p> <table border="1"> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>Enbl</td> <td>On Off</td> </tr> </table> <p>Scaler enabled Scaler bypassed</p> </div>	1	2	Enbl	On Off	<p>• Current Input Format</p> <div style="border: 1px solid black; padding: 5px;"> <p>Sclr</p> <table border="1"> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>In</td> <td>5i-- 525i 6i-- 625i 7p-- 720p 1i-- 1080i 1p-- 1080p</td> </tr> </table> <p>Note: Items shown in column 2 are for reference only. No input control is available in this mode.</p> <p>"--" on display shows frame/field rate (as applicable) in first 2 most significant digits (e.g., "5i59" denotes 525i 59.94 Hz field rate).</p> </div>	1	2	In	5i-- 525i 6i-- 625i 7p-- 720p 1i-- 1080i 1p-- 1080p								
1	2																
Enbl	On Off																
1	2																
In	5i-- 525i 6i-- 625i 7p-- 720p 1i-- 1080i 1p-- 1080p																
<p>• Current Output Format</p> <div style="border: 1px solid black; padding: 5px;"> <p>Sclr</p> <table border="1"> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>Out</td> <td>5i-- 525i 6i-- 625i 7p-- 720p 1i-- 1080i 1p-- 1080p</td> </tr> </table> <p>Note: Items shown in column 2 are for reference only. No output control is available in this mode.</p> <p>"--" on display shows frame/field rate (as applicable) in first 2 most significant digits (e.g., "5i59" denotes 525i 59.94 Hz field rate).</p> </div>	1	2	Out	5i-- 525i 6i-- 625i 7p-- 720p 1i-- 1080i 1p-- 1080p	<p>• SD: Convert To</p> <div style="border: 1px solid black; padding: 5px;"> <p>Sclr</p> <table border="1"> <tr> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>SDIn</td> <td>Out</td> <td>SD 720p 720p 720f 720 film 108i 1080i 108p 1080p 108f 1080 film FREEF Output Follows Reference In</td> </tr> </table> </div>	1	2	3	SDIn	Out	SD 720p 720p 720f 720 film 108i 1080i 108p 1080p 108f 1080 film FREEF Output Follows Reference In						
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<p>• SD: Output Half-rate 720p</p> <div style="border: 1px solid black; padding: 5px;"> <p>Sclr</p> <table border="1"> <tr> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>SDIn</td> <td>H720</td> <td>Yes No</td> </tr> </table> </div>	1	2	3	SDIn	H720	Yes No	<p>• SD: Output PsF</p> <div style="border: 1px solid black; padding: 5px;"> <p>Sclr</p> <table border="1"> <tr> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>SDIn</td> <td>SDSF</td> <td>On Off</td> </tr> </table> </div>	1	2	3	SDIn	SDSF	On Off				
1	2	3															
SDIn	H720	Yes No															
1	2	3															
SDIn	SDSF	On Off															

Table 1 Function Submenu List — continued

<p>• SD: Aspect Ratio Conversion</p> <p>Sclr</p> <table border="1"> <thead> <tr> <th>1</th> <th>2</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>SDIn</td> <td>ARC</td> <td></td> </tr> <tr> <td></td> <td></td> <td>1.0HV 0.75H 1.33H 0.75V 1.33V User AFD</td> </tr> <tr> <td></td> <td></td> <td>1.0HV (No correction) 0.75H (Pillar Box) 1.33H (Horizontal Center Cut) 0.75V (Letter Box) 1.33V (Vertical Center Cut) User Defined Follow AFD Settings</td> </tr> </tbody> </table>	1	2	3	SDIn	ARC				1.0HV 0.75H 1.33H 0.75V 1.33V User AFD			1.0HV (No correction) 0.75H (Pillar Box) 1.33H (Horizontal Center Cut) 0.75V (Letter Box) 1.33V (Vertical Center Cut) User Defined Follow AFD Settings	<p>• SD: User-defined aspect ratio</p> <p>Sclr</p> <table border="1"> <thead> <tr> <th>1</th> <th>2</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>SDIn</td> <td>UsrH</td> <td></td> </tr> <tr> <td></td> <td></td> <td>(H zoom value)</td> </tr> <tr> <td></td> <td></td> <td>H zoom in percent</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>SDIn</td> <td>UsrV</td> <td></td> </tr> <tr> <td></td> <td></td> <td>(V zoom value)</td> </tr> <tr> <td></td> <td></td> <td>V zoom in percent</td> </tr> </tbody> </table>	1	2	3	SDIn	UsrH				(H zoom value)			H zoom in percent							SDIn	UsrV				(V zoom value)			V zoom in percent
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0.75H	Actn	On Off	On Off																						

Table 1 Function Submenu List — continued

<p>• 0.75H Safe Title Area</p> <div style="border: 1px solid black; padding: 5px;"> <p>Over</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> <td></td> </tr> <tr> <td style="text-align: center;">0.75H</td> <td style="text-align: center;">Titr</td> <td style="text-align: center;">On Off</td> <td style="text-align: center;">On Off</td> </tr> </table> </div>	1	2	3		0.75H	Titr	On Off	On Off	<p>• 0.75H Safe Action/Title Area Color</p> <div style="border: 1px solid black; padding: 5px;"> <p>Over</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> <td></td> </tr> <tr> <td style="text-align: center;">0.75H</td> <td style="text-align: center;">Colr</td> <td style="text-align: center;">WHT YELO CYAN GRN MAGE RED BLUE BLAC</td> <td style="text-align: center;">White Yellow Cyan Green Magenta Red Blue Black</td> </tr> </table> </div>	1	2	3		0.75H	Colr	WHT YELO CYAN GRN MAGE RED BLUE BLAC	White Yellow Cyan Green Magenta Red Blue Black
1	2	3															
0.75H	Titr	On Off	On Off														
1	2	3															
0.75H	Colr	WHT YELO CYAN GRN MAGE RED BLUE BLAC	White Yellow Cyan Green Magenta Red Blue Black														
<p>• Center Cross</p> <div style="border: 1px solid black; padding: 5px;"> <p>Over</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> <td></td> </tr> <tr> <td style="text-align: center;">Cros</td> <td style="text-align: center;">Enbl</td> <td style="text-align: center;">On Off</td> <td style="text-align: center;">On Off</td> </tr> </table> </div>	1	2	3		Cros	Enbl	On Off	On Off									
1	2	3															
Cros	Enbl	On Off	On Off														
<p>• Center Cross Color</p> <div style="border: 1px solid black; padding: 5px;"> <p>Over</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> <td></td> </tr> <tr> <td style="text-align: center;">Cros</td> <td style="text-align: center;">Colr</td> <td style="text-align: center;">WHT YELO CYAN GRN MAGE RED BLUE BLAC</td> <td style="text-align: center;">White Yellow Cyan Green Magenta Red Blue Black</td> </tr> </table> </div>	1	2	3		Cros	Colr	WHT YELO CYAN GRN MAGE RED BLUE BLAC	White Yellow Cyan Green Magenta Red Blue Black	<p>• Overlays Follow ARC</p> <div style="border: 1px solid black; padding: 5px;"> <p>Over</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> <td></td> </tr> <tr> <td style="text-align: center;">ARC</td> <td style="text-align: center;">Filw</td> <td style="text-align: center;">On Off</td> <td style="text-align: center;">On Off</td> </tr> </table> </div>	1	2	3		ARC	Filw	On Off	On Off
1	2	3															
Cros	Colr	WHT YELO CYAN GRN MAGE RED BLUE BLAC	White Yellow Cyan Green Magenta Red Blue Black														
1	2	3															
ARC	Filw	On Off	On Off														
<div style="background-color: #333; color: white; padding: 10px; border-radius: 5px; display: inline-block;"> <h2 style="margin: 0;">Framesync</h2> </div>																	
<p>• Framesync Enable</p> <div style="border: 1px solid black; padding: 5px;"> <p>FS</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> <td></td> </tr> <tr> <td style="text-align: center;">FS</td> <td style="text-align: center;">Enbl</td> <td style="text-align: center;">Off Ref1 Ref2 Vin</td> <td style="text-align: center;">Off Reference 1 Reference 2 Input video</td> </tr> </table> </div>	1	2	3		FS	Enbl	Off Ref1 Ref2 Vin	Off Reference 1 Reference 2 Input video	<p>• Vertical Delay Control</p> <div style="border: 1px solid black; padding: 5px;"> <p>FS</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> <td></td> </tr> <tr> <td style="text-align: center;">FS</td> <td style="text-align: center;">ADLY</td> <td style="text-align: center;">(value)</td> <td style="text-align: center;">Offset Value (in lines)</td> </tr> </table> </div>	1	2	3		FS	ADLY	(value)	Offset Value (in lines)
1	2	3															
FS	Enbl	Off Ref1 Ref2 Vin	Off Reference 1 Reference 2 Input video														
1	2	3															
FS	ADLY	(value)	Offset Value (in lines)														
<p>• Horizontal Delay Control</p> <div style="border: 1px solid black; padding: 5px;"> <p>FS</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> <td></td> </tr> <tr> <td style="text-align: center;">FS</td> <td style="text-align: center;">uSOF</td> <td style="text-align: center;">(value)</td> <td style="text-align: center;">Offset Value (in μsec)</td> </tr> </table> </div>	1	2	3		FS	uSOF	(value)	Offset Value (in μ sec)	<p>• Input Video Mode Fixed Delay Control</p> <div style="border: 1px solid black; padding: 5px;"> <p>FS</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> <td></td> </tr> <tr> <td style="text-align: center;">FS</td> <td style="text-align: center;">IVFD</td> <td style="text-align: center;">(value)</td> <td style="text-align: center;">Offset Value</td> </tr> </table> </div>	1	2	3		FS	IVFD	(value)	Offset Value
1	2	3															
FS	uSOF	(value)	Offset Value (in μ sec)														
1	2	3															
FS	IVFD	(value)	Offset Value														

Table 1 Function Submenu List — continued

<p>• Minimum Latency Frames Control</p> <div style="border: 1px solid black; padding: 5px;"> <p>FS</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">FS</td> <td style="text-align: center;">LATF</td> <td style="text-align: center;">(value) Latency (in frames)</td> </tr> </table> </div>	1	2	3	FS	LATF	(value) Latency (in frames)	<p>• Audio Offset from Video Control</p> <div style="border: 1px solid black; padding: 5px;"> <p>FS</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">FS</td> <td style="text-align: center;">LATF</td> <td style="text-align: center;">ADJ (Value in msec)</td> </tr> </table> </div>	1	2	3	FS	LATF	ADJ (Value in msec)												
1	2	3																							
FS	LATF	(value) Latency (in frames)																							
1	2	3																							
FS	LATF	ADJ (Value in msec)																							
<p>• Loss of Input Signal Selection</p> <div style="border: 1px solid black; padding: 5px;"> <p>FS</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">FS</td> <td style="text-align: center;">LOS</td> <td style="text-align: center;">DISO FRFM FRCL</td> </tr> <tr> <td></td> <td></td> <td>Disable output Freeze to last frame Freeze to color</td> </tr> </table> </div>	1	2	3	FS	LOS	DISO FRFM FRCL			Disable output Freeze to last frame Freeze to color	<p>• Framesync LOS Freeze Color</p> <div style="border: 1px solid black; padding: 5px;"> <p>FS</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">FS</td> <td style="text-align: center;">LOSC</td> <td style="text-align: center;">WHT YELO CYAN GRN MAGE RED BLUE GR10</td> </tr> <tr> <td></td> <td></td> <td>Whitet Yellow Cyan Green Magenta Red Blue Gray 10%</td> </tr> </table> </div>	1	2	3	FS	LOSC	WHT YELO CYAN GRN MAGE RED BLUE GR10			Whitet Yellow Cyan Green Magenta Red Blue Gray 10%						
1	2	3																							
FS	LOS	DISO FRFM FRCL																							
		Disable output Freeze to last frame Freeze to color																							
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		Whitet Yellow Cyan Green Magenta Red Blue Gray 10%																							
<p>• Custom Color Hue</p> <div style="border: 1px solid black; padding: 5px;"> <p>FS</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">FS</td> <td style="text-align: center;">CHUE</td> <td style="text-align: center;">(value) Value (in degrees)</td> </tr> </table> </div>	1	2	3	FS	CHUE	(value) Value (in degrees)	<p>• Custom Color Saturation</p> <div style="border: 1px solid black; padding: 5px;"> <p>FS</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">FS</td> <td style="text-align: center;">CSAT</td> <td style="text-align: center;">(value) Value (in %)</td> </tr> </table> </div>	1	2	3	FS	CSAT	(value) Value (in %)												
1	2	3																							
FS	CHUE	(value) Value (in degrees)																							
1	2	3																							
FS	CSAT	(value) Value (in %)																							
<p>• Reset/Resync Framesync</p> <div style="border: 1px solid black; padding: 5px;"> <p>FS</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">FS</td> <td style="text-align: center;">SYN</td> <td style="text-align: center;">Y/N</td> </tr> </table> </div>	1	2	3	FS	SYN	Y/N																			
1	2	3																							
FS	SYN	Y/N																							
<div style="background-color: #333; color: white; padding: 5px; margin-bottom: 5px;"> <p>Embedded Audio Group 1/2</p> </div> <div style="background-color: #333; color: white; padding: 5px;"> <p>Embedded Audio Group 3/4</p> </div>																									
<p>• Group Enable</p> <div style="border: 1px solid black; padding: 5px;"> <p>Aud</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">Embd</td> <td style="text-align: center;">Grp1</td> <td style="text-align: center;">Enbl</td> <td style="text-align: center;">On Off</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Group 1 select (range is group 1 thru group 4) On (enabled) Off (disabled)</td> </tr> </table> </div>	1	2	3	4	Embd	Grp1	Enbl	On Off				Group 1 select (range is group 1 thru group 4) On (enabled) Off (disabled)	<p>• Embedded Channel Source</p> <div style="border: 1px solid black; padding: 5px;"> <p>Aud</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">Embd</td> <td style="text-align: center;">Grp</td> <td style="text-align: center;">Ch(n)</td> <td style="text-align: center;">Src</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Destination channel number Set up to select Source</td> </tr> </table> </div>	1	2	3	4	Embd	Grp	Ch(n)	Src				Destination channel number Set up to select Source
1	2	3	4																						
Embd	Grp1	Enbl	On Off																						
			Group 1 select (range is group 1 thru group 4) On (enabled) Off (disabled)																						
1	2	3	4																						
Embd	Grp	Ch(n)	Src																						
			Destination channel number Set up to select Source																						

Table 1 Function Submenu List — continued

<p>• Embedded Ch 1 thru Ch 16 as Source</p> <table border="1"> <thead> <tr> <th colspan="4">Aud</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr> <td>Emb</td> <td>Grp</td> <td>Ch(n)</td> <td>Src Em(n)</td> </tr> <tr> <td colspan="3"></td> <td>Source: Embedded Channel (1 thru 16)</td> </tr> </tbody> </table>	Aud				1	2	3	4	Emb	Grp	Ch(n)	Src Em(n)				Source: Embedded Channel (1 thru 16)	<p>• AES Ch 1 thru AES Ch 16 as Source</p> <table border="1"> <thead> <tr> <th colspan="4">Aud</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr> <td>Emb</td> <td>Grp</td> <td>Ch(n)</td> <td>Src Ae(n)</td> </tr> <tr> <td colspan="3"></td> <td>Source: AES Channel (1 thru 16)</td> </tr> </tbody> </table>	Aud				1	2	3	4	Emb	Grp	Ch(n)	Src Ae(n)				Source: AES Channel (1 thru 16)
Aud																																	
1	2	3	4																														
Emb	Grp	Ch(n)	Src Em(n)																														
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Emb	Grp	Ch(n)	Src Ae(n)																														
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<p>• Analog Ch 1 thru Ch 8 as Source</p> <table border="1"> <thead> <tr> <th colspan="4">Aud</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr> <td>Emb</td> <td>Grp</td> <td>Ch(n)</td> <td>Src An(n)</td> </tr> <tr> <td colspan="3"></td> <td>Source: Analog Channel (1 thru 8)</td> </tr> </tbody> </table>	Aud				1	2	3	4	Emb	Grp	Ch(n)	Src An(n)				Source: Analog Channel (1 thru 8)	<p>• Down Mix Left or Right as Source</p> <table border="1"> <thead> <tr> <th colspan="4">Aud</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr> <td>Emb</td> <td>Grp</td> <td>Ch(n)</td> <td>Src DM L DM R</td> </tr> <tr> <td colspan="3"></td> <td>Downmix L channel Downmix R channel</td> </tr> </tbody> </table>	Aud				1	2	3	4	Emb	Grp	Ch(n)	Src DM L DM R				Downmix L channel Downmix R channel
Aud																																	
1	2	3	4																														
Emb	Grp	Ch(n)	Src An(n)																														
			Source: Analog Channel (1 thru 8)																														
Aud																																	
1	2	3	4																														
Emb	Grp	Ch(n)	Src DM L DM R																														
			Downmix L channel Downmix R channel																														
<p>• Mono Mix as Source</p> <table border="1"> <thead> <tr> <th colspan="4">Aud</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr> <td>Emb</td> <td>Grp</td> <td>Ch(n)</td> <td>Src Mono</td> </tr> <tr> <td colspan="3"></td> <td>Mono mix selection as source</td> </tr> </tbody> </table>	Aud				1	2	3	4	Emb	Grp	Ch(n)	Src Mono				Mono mix selection as source	<p>• Tone Generator 1 thru 4 as Source</p> <table border="1"> <thead> <tr> <th colspan="4">Aud</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr> <td>Emb</td> <td>Grp</td> <td>Ch(n)</td> <td>Src TG(n)</td> </tr> <tr> <td colspan="3"></td> <td>Source: TG 1 thru 4</td> </tr> </tbody> </table>	Aud				1	2	3	4	Emb	Grp	Ch(n)	Src TG(n)				Source: TG 1 thru 4
Aud																																	
1	2	3	4																														
Emb	Grp	Ch(n)	Src Mono																														
			Mono mix selection as source																														
Aud																																	
1	2	3	4																														
Emb	Grp	Ch(n)	Src TG(n)																														
			Source: TG 1 thru 4																														
<p>• Silence (Mute) as Source</p> <table border="1"> <thead> <tr> <th colspan="4">Aud</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr> <td>Emb</td> <td>Grp</td> <td>Ch(n)</td> <td>Src Off</td> </tr> <tr> <td colspan="3"></td> <td>Channel Silence</td> </tr> </tbody> </table>	Aud				1	2	3	4	Emb	Grp	Ch(n)	Src Off				Channel Silence	<p>• Gain (dB) Control</p> <table border="1"> <thead> <tr> <th colspan="4">Aud</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr> <td>Emb</td> <td>Grp</td> <td>Ch(n)</td> <td>Gain (value)</td> </tr> <tr> <td colspan="3"></td> <td>Gain value (in dB)</td> </tr> </tbody> </table>	Aud				1	2	3	4	Emb	Grp	Ch(n)	Gain (value)				Gain value (in dB)
Aud																																	
1	2	3	4																														
Emb	Grp	Ch(n)	Src Off																														
			Channel Silence																														
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			Gain value (in dB)																														
<p>• Mute Control</p> <table border="1"> <thead> <tr> <th colspan="4">Aud</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr> <td>Emb</td> <td>Grp</td> <td>Ch(n)</td> <td>Mute Off On</td> </tr> <tr> <td colspan="3"></td> <td>Unmuted Muted</td> </tr> </tbody> </table>	Aud				1	2	3	4	Emb	Grp	Ch(n)	Mute Off On				Unmuted Muted	<p>• Phase Control</p> <table border="1"> <thead> <tr> <th colspan="4">Aud</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr> <td>Emb</td> <td>Grp</td> <td>Ch(n)</td> <td>Pol Norm Inv</td> </tr> <tr> <td colspan="3"></td> <td>non-invert invert</td> </tr> </tbody> </table>	Aud				1	2	3	4	Emb	Grp	Ch(n)	Pol Norm Inv				non-invert invert
Aud																																	
1	2	3	4																														
Emb	Grp	Ch(n)	Mute Off On																														
			Unmuted Muted																														
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Emb	Grp	Ch(n)	Pol Norm Inv																														
			non-invert invert																														

Table 1 Function Submenu List — continued

<div style="background-color: #333; color: white; padding: 5px; display: inline-block;">AES Audio Out Pairs 1-4</div> <div style="background-color: #333; color: white; padding: 5px; display: inline-block;">AES Audio Out Pairs 5-8</div>																									
<p>• AES Channel Source</p> <div style="border: 1px solid black; padding: 5px;"> <p>Aud</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%;"></td> </tr> <tr> <td style="text-align: center;">AES</td> <td style="text-align: center;">Ch(n)</td> <td style="text-align: center;">Src</td> <td style="text-align: center;">Destination channel number</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Set up to select Source</td> </tr> </table> </div>	1	2	3		AES	Ch(n)	Src	Destination channel number				Set up to select Source	<p>• Embedded Ch 1 thru Ch 16 as Source</p> <div style="border: 1px solid black; padding: 5px;"> <p>Aud</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">AES</td> <td style="text-align: center;">Ch(n)</td> <td style="text-align: center;">Src</td> <td style="text-align: center;">Em(n)</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Source: Embedded Channel (1 thru 16)</td> </tr> </table> </div>	1	2	3	4	AES	Ch(n)	Src	Em(n)				Source: Embedded Channel (1 thru 16)
1	2	3																							
AES	Ch(n)	Src	Destination channel number																						
			Set up to select Source																						
1	2	3	4																						
AES	Ch(n)	Src	Em(n)																						
			Source: Embedded Channel (1 thru 16)																						
<p>• AES Ch 1 thru AES Ch 16 as Source</p> <div style="border: 1px solid black; padding: 5px;"> <p>Aud</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">AES</td> <td style="text-align: center;">Ch(n)</td> <td style="text-align: center;">Src</td> <td style="text-align: center;">Ae(n)</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Source: AES Ch (1 thru 16)</td> </tr> </table> </div>	1	2	3	4	AES	Ch(n)	Src	Ae(n)				Source: AES Ch (1 thru 16)	<p>• Analog Ch 1 thru Ch 8 as Source</p> <div style="border: 1px solid black; padding: 5px;"> <p>Aud</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">AES</td> <td style="text-align: center;">Ch(n)</td> <td style="text-align: center;">Src</td> <td style="text-align: center;">An(n)</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Source: Analog Channel (1 thru 8)</td> </tr> </table> </div>	1	2	3	4	AES	Ch(n)	Src	An(n)				Source: Analog Channel (1 thru 8)
1	2	3	4																						
AES	Ch(n)	Src	Ae(n)																						
			Source: AES Ch (1 thru 16)																						
1	2	3	4																						
AES	Ch(n)	Src	An(n)																						
			Source: Analog Channel (1 thru 8)																						
<p>• Down Mix Left or Right as Source</p> <div style="border: 1px solid black; padding: 5px;"> <p>Aud</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">AES</td> <td style="text-align: center;">Ch(n)</td> <td style="text-align: center;">Src</td> <td style="text-align: center;">DM L DM R</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Downmix L channel Downmix R channel</td> </tr> </table> </div>	1	2	3	4	AES	Ch(n)	Src	DM L DM R				Downmix L channel Downmix R channel	<p>• Mono Mix as Source</p> <div style="border: 1px solid black; padding: 5px;"> <p>Aud</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">AES</td> <td style="text-align: center;">Ch(n)</td> <td style="text-align: center;">Src</td> <td style="text-align: center;">Mono</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Mono mix selection as source</td> </tr> </table> </div>	1	2	3	4	AES	Ch(n)	Src	Mono				Mono mix selection as source
1	2	3	4																						
AES	Ch(n)	Src	DM L DM R																						
			Downmix L channel Downmix R channel																						
1	2	3	4																						
AES	Ch(n)	Src	Mono																						
			Mono mix selection as source																						
<p>• Tone Generator 1 thru 4 as Source</p> <div style="border: 1px solid black; padding: 5px;"> <p>Aud</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">AES</td> <td style="text-align: center;">Ch(n)</td> <td style="text-align: center;">Src</td> <td style="text-align: center;">TG(n)</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Source: Tone Generator (1 thru 4)</td> </tr> </table> </div>	1	2	3	4	AES	Ch(n)	Src	TG(n)				Source: Tone Generator (1 thru 4)	<p>• Silence (Mute) as Source</p> <div style="border: 1px solid black; padding: 5px;"> <p>Aud</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">AES</td> <td style="text-align: center;">Ch(n)</td> <td style="text-align: center;">Src</td> <td style="text-align: center;">Off</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Channel Silence</td> </tr> </table> </div>	1	2	3	4	AES	Ch(n)	Src	Off				Channel Silence
1	2	3	4																						
AES	Ch(n)	Src	TG(n)																						
			Source: Tone Generator (1 thru 4)																						
1	2	3	4																						
AES	Ch(n)	Src	Off																						
			Channel Silence																						
<p>• Gain (dB) Control</p> <div style="border: 1px solid black; padding: 5px;"> <p>Aud</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">AES</td> <td style="text-align: center;">Ch(n)</td> <td style="text-align: center;">Gain</td> <td style="text-align: center;">(value)</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Gain value (in dB)</td> </tr> </table> </div>	1	2	3	4	AES	Ch(n)	Gain	(value)				Gain value (in dB)	<p>• Mute Control</p> <div style="border: 1px solid black; padding: 5px;"> <p>Aud</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">AES</td> <td style="text-align: center;">Ch(n)</td> <td style="text-align: center;">Mute</td> <td style="text-align: center;">Off On</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Unmuted Muted</td> </tr> </table> </div>	1	2	3	4	AES	Ch(n)	Mute	Off On				Unmuted Muted
1	2	3	4																						
AES	Ch(n)	Gain	(value)																						
			Gain value (in dB)																						
1	2	3	4																						
AES	Ch(n)	Mute	Off On																						
			Unmuted Muted																						
<p>• Phase Control</p> <div style="border: 1px solid black; padding: 5px;"> <p>Aud</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">1</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">3</td> <td style="width: 25%; text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">AES</td> <td style="text-align: center;">Ch(n)</td> <td style="text-align: center;">Pol</td> <td style="text-align: center;">Norm Inv</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">non-invert invert</td> </tr> </table> </div>	1	2	3	4	AES	Ch(n)	Pol	Norm Inv				non-invert invert													
1	2	3	4																						
AES	Ch(n)	Pol	Norm Inv																						
			non-invert invert																						

Table 1 Function Submenu List — continued

Dolby																			
<p>• Metadata Embedding</p> <div style="border: 1px solid black; padding: 5px;"> <p>Aud</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">Dlby</td> <td style="text-align: center;">DMEM</td> <td style="text-align: center;">On Off</td> </tr> <tr> <td colspan="3" style="padding-left: 20px;">Embed metadata Do not embed metadata</td> </tr> </table> </div>	1	2	3	Dlby	DMEM	On Off	Embed metadata Do not embed metadata			<p>• Metadata Output Line</p> <div style="border: 1px solid black; padding: 5px;"> <p>Aud</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">Dlby</td> <td style="text-align: center;">Line</td> <td style="text-align: center;">(value)</td> </tr> <tr> <td colspan="3" style="padding-left: 20px;">Line number (9 thru 41)</td> </tr> </table> </div>	1	2	3	Dlby	Line	(value)	Line number (9 thru 41)		
1	2	3																	
Dlby	DMEM	On Off																	
Embed metadata Do not embed metadata																			
1	2	3																	
Dlby	Line	(value)																	
Line number (9 thru 41)																			
Closed Captioning																			
<p>• Closed Captioning On/Off</p> <div style="border: 1px solid black; padding: 5px;"> <p>CC</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">Enbl</td> <td style="text-align: center;">Off On</td> </tr> <tr> <td colspan="2" style="padding-left: 20px;">Closed Captioning function disabled Closed Captioning function enabled</td> </tr> </table> </div>	1	2	Enbl	Off On	Closed Captioning function disabled Closed Captioning function enabled		<p>• Closed Captioning Source</p> <div style="border: 1px solid black; padding: 5px;"> <p>CC</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">Src</td> <td style="text-align: center;">V-IN SDAN SDI</td> </tr> <tr> <td colspan="2" style="padding-left: 20px;">Input Video as CC source Analog SD as CC source HD/SD-SDI as CC source</td> </tr> </table> </div>	1	2	Src	V-IN SDAN SDI	Input Video as CC source Analog SD as CC source HD/SD-SDI as CC source							
1	2																		
Enbl	Off On																		
Closed Captioning function disabled Closed Captioning function enabled																			
1	2																		
Src	V-IN SDAN SDI																		
Input Video as CC source Analog SD as CC source HD/SD-SDI as CC source																			
<p>• Closed Captioning HD Output Line</p> <div style="border: 1px solid black; padding: 5px;"> <p>CC</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">HDL#</td> <td style="text-align: center;">(value)</td> </tr> <tr> <td colspan="2" style="padding-left: 20px;">HD line number (9 thru 41)</td> </tr> </table> </div>	1	2	HDL#	(value)	HD line number (9 thru 41)														
1	2																		
HDL#	(value)																		
HD line number (9 thru 41)																			
Timecode																			
<p>• Timecode Source Status Displays</p> <div style="border: 1px solid black; padding: 5px;"> <p>TC</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">ALTC</td> <td style="text-align: center;">em(n)</td> </tr> <tr> <td colspan="2" style="padding-left: 20px;">Emb Ch source 01-16</td> </tr> </table> </div>	1	2	ALTC	em(n)	Emb Ch source 01-16		<p>• Incoming ATC Packet Removal Control</p> <div style="border: 1px solid black; padding: 5px;"> <p>TC</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">Rmvl</td> <td style="text-align: center;">Off On</td> </tr> <tr> <td colspan="2" style="padding-left: 20px;">Packet removal disabled Packet removal enabled</td> </tr> </table> </div>	1	2	Rmvl	Off On	Packet removal disabled Packet removal enabled							
1	2																		
ALTC	em(n)																		
Emb Ch source 01-16																			
1	2																		
Rmvl	Off On																		
Packet removal disabled Packet removal enabled																			
<p>• Source Priority</p> <div style="border: 1px solid black; padding: 5px;"> <p>TC</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">PRI(n)</td> <td style="text-align: center;">None SWIT ATCL ATCV ALTC</td> </tr> <tr> <td colspan="2" style="padding-left: 20px;">Priority (1 thru 4) No source selected SDI_VITC ATC_LTC ATC_VITC Audio LTC</td> </tr> </table> </div>	1	2	PRI(n)	None SWIT ATCL ATCV ALTC	Priority (1 thru 4) No source selected SDI_VITC ATC_LTC ATC_VITC Audio LTC		<p>• SD VITC Waveform Insertion Control</p> <div style="border: 1px solid black; padding: 5px;"> <p>TC</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">SDVC</td> <td style="text-align: center;">Off On</td> </tr> <tr> <td colspan="2" style="padding-left: 20px;">SD VITC timecode insertion disabled SD VITC timecode insertion enabled</td> </tr> </table> </div>	1	2	SDVC	Off On	SD VITC timecode insertion disabled SD VITC timecode insertion enabled							
1	2																		
PRI(n)	None SWIT ATCL ATCV ALTC																		
Priority (1 thru 4) No source selected SDI_VITC ATC_LTC ATC_VITC Audio LTC																			
1	2																		
SDVC	Off On																		
SD VITC timecode insertion disabled SD VITC timecode insertion enabled																			

Table 1 Function Submenu List — continued

<p>• VITC Waveform Output Line</p> <div style="border: 1px solid black; padding: 5px;"> <p>TC</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">1</td> <td style="width: 50%; text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">VITO</td> <td style="text-align: center;">(value)</td> </tr> </table> <p>VITC output 1 line number only (6 thru 22)</p> </div>	1	2	VITO	(value)	<p>• SD ATC Insertion Control</p> <div style="border: 1px solid black; padding: 5px;"> <p>TC</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">1</td> <td style="width: 50%; text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">SDAT</td> <td style="text-align: center;">Off On</td> </tr> </table> <p>SD ATC_VITC timecode insertion disabled SD ATC_VITC timecode insertion enabled</p> </div>	1	2	SDAT	Off On
1	2								
VITO	(value)								
1	2								
SDAT	Off On								
<p>• HD ATC_VITC Insertion Control</p> <div style="border: 1px solid black; padding: 5px;"> <p>TC</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">1</td> <td style="width: 50%; text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">HFVC</td> <td style="text-align: center;">Off On</td> </tr> </table> <p>HD ATC_VITC timecode insertion disabled HD ATC_VITC timecode insertion enabled</p> </div>	1	2	HFVC	Off On	<p>• HD ATC_LTC Insertion Control</p> <div style="border: 1px solid black; padding: 5px;"> <p>TC</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">1</td> <td style="width: 50%; text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">HDLT</td> <td style="text-align: center;">Off On</td> </tr> </table> <p>HD ATC LTC timecode insertion disabled HD ATC LTC timecode insertion enabled</p> </div>	1	2	HDLT	Off On
1	2								
HFVC	Off On								
1	2								
HDLT	Off On								
<p>• ATC_VITC Legacy Support Control</p> <div style="border: 1px solid black; padding: 5px;"> <p>TC</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">1</td> <td style="width: 50%; text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">AVLS</td> <td style="text-align: center;">Off On</td> </tr> </table> <p>ATC VITC legacy support disabled ATC VITC legacy support enabled</p> </div>	1	2	AVLS	Off On					
1	2								
AVLS	Off On								
<div style="background-color: #444; color: white; padding: 10px; border-radius: 5px; display: inline-block;"> <h2 style="margin: 0;">Tone Generator</h2> </div>									
<p>• Frequency Selection Lists</p> <div style="border: 1px solid black; padding: 5px;"> <p>Aud</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">1</td> <td style="width: 33%; text-align: center;">2</td> <td style="width: 33%; text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">Tone</td> <td style="text-align: center;">TG1 ... TG4</td> <td style="text-align: center;">50 ... 16K</td> </tr> </table> <p>Select Tone Generator (1 thru 4)</p> <p>Select frequency for selected tone generator (in Hz)</p> </div>	1	2	3	Tone	TG1 ... TG4	50 ... 16K			
1	2	3							
Tone	TG1 ... TG4	50 ... 16K							

Table 1 Function Submenu List — continued

Presets			
• Preset Save and Load			
Prst			
	1	2	3
Slect	Pr#		Select preset number for save or load
Save	...		
	Y/N?		Save selected preset number Y/N
Load	Y/N?		Load into selected preset number Y/N
Fact	Y/N?		Revert to factory preset
SALP	#		Load preset as Advanced Setup for Analog video
SSLP	#		Load preset as Advanced Setup for SDI video



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