

MultiCam Storage Formats Documentation Addendum

May 24, 2007

WARNING

EURESYS S.A. shall retain all rights, title and interest in the hardware or the software, documentation and trademarks of EURESYS S.A.

All the names of companies and products mentioned in the documentation may be the trademarks of their respective owners.

The licensing, use, leasing, loaning, translation, reproduction, copying or modification of the hardware or the software, marks or documentation of EURESYS S.A. contained in this documentation, is not allowed without prior notice.

EURESYS S.A. may modify the product specifications or change the information given in this documentation at any time, in its discretion, and without prior notice.

EURESYS S.A. shall not be liable for any loss of or damage to revenues, profits, goodwill, data, information systems or other special, incidental, indirect, consequential or punitive damages of any kind arising in connection with the use of the hardware or the software of EURESYS S.A. or resulting of omissions or errors in this documentation

TABLE OF CONTENTS

Table of Contents.....	3
1 Classification	7
2 Monochrome	8
2.1 Y8.....	8
2.2 Y10.....	8
2.3 Y12.....	9
2.4 Y14.....	9
2.5 Y16.....	10
3 Three packed Y U V components.....	11
3.1 YUV411 (Y41P).....	11
3.2 YUV422 (Y42P).....	11
3.3 YUV444 (IYU2)	12
4 Three planar Y U V components	13
4.1 YUV411PL (Y41B).....	13
4.2 YUV422PL (Y42B).....	14
4.3 YUV444PL	15
4.4 YUV422PL-Dec (I420, IYUV, YV12).....	16
4.5 YUV411PL-Dec (YUV9, YVU9)	17
5 Three packed R G B components.....	18
5.1 RGB15	18
5.2 RGB16	18
5.3 RGB10_10_10.....	19
5.4 RGB10_12_10.....	19
5.5 RGB24	20
6 Three planar R G B components	21
6.1 RGB24PL	21
6.2 RGB30PL	22
6.3 RGB36PL	23

6.4	RGB42PL	24
6.5	RGB48PL	25
7	Four packed R G B + α components	26
7.1	RGB32 (ARGB32)	26
7.2	RGB64 (ARGB64)	26
8	Four packed R G B + Y components	27
8.1	YRGB32	27
8.2	YRGB64	27
9	Three packed R G B + Y components	28
9.1	RGB15Y8	28
9.2	RGB16Y8	29
9.3	RGB24Y8	30
9.4	RGB24Y10	31
9.5	RGB24Y12	32
9.6	RGB24Y14	33
9.7	RGB24Y16	34
10	Three planar R G B + Y8 components	35
10.1	RGB24PLY8	35
10.2	RGB30PLY8	36
10.3	RGB36PLY8	37
10.4	RGB42PLY8	38
10.5	RGB48PLY8	39
11	Three planar R G B + Y10 components	40
11.1	RGB24PLY10	40
11.2	RGB30PLY10	41
11.3	RGB36PLY10	42
11.4	RGB42PLY10	43
11.5	RGB48PLY10	44
12	Three planar R G B + Y12 components	45

12.1	RGB24PLY12	45
12.2	RGB30PLY12	46
12.3	RGB36PLY12	47
12.4	RGB42PLY12	48
12.5	RGB48PLY12	49
13	Three planar R G B + Y14 components	50
13.1	RGB24PLY14	50
13.2	RGB30PLY14	51
13.3	RGB36PLY14	52
13.4	RGB42PLY14	53
13.5	RGB48PLY14	54
14	Three planar R G B + Y16 components	55
14.1	RGB24PLY16	55
14.2	RGB30PLY16	56
14.3	RGB36PLY16	57
14.4	RGB42PLY16	58
14.5	RGB48PLY16	59
15	Bayer CFA	60
15.1	BAYER8	60
15.2	BAYER10	60
15.3	BAYER12	61
15.4	BAYER14	61
15.5	BAYER16	62
16	Raw data	63
16.1	RAW8	63
16.2	RAW10	63
16.3	RAW12	64
16.4	RAW14	64
16.5	RAW16	65

17	Compressed video streams	66
17.1	DX50	66
17.2	MP4S	66

1 CLASSIFICATION

The table below lists all the storage format classes available in MultiCam.

For each class, the column named "*Applicable ColorFormat values*" lists all the values of the channel parameter `ColorFormat` that belongs to this class.

Storage format class	Applicable <code>ColorFormat</code> values	Description
Monochrome	Y8 Y10 Y12 Y14 Y16	One single data plane containing luminance component.
Three packed Y U V components	YUV411 YUV422 YUV444 Y41P Y42P IYU2	One single data plane containing luminance Y and both chrominance U & V components in a packed format.
Three planar Y U V components	YUV411PL YUV422PL Y41B Y42B YUV411PL_DEC YUV422PL_DEC YUV9 YVU9 I420 IYUV YV12	Three data planes containing luminance Y and both chrominance U & V components.
Three packed R G B components	RGB15 RGB16 RGB24 RGB10_10_10 RGB_10_12_10	One single data plane containing red, green, and blue color components in a packed format.
Three planar R G B components	RGB24PL RGB30PL RGB36PL RGB42PL RGB48PL	Three data planes containing respectively red, green, and blue color components.
Four packed R G B + α components	ARGB32 ARGB64	One single data plane containing red, green, blue color components and an alpha key in a packed format.
Four packed R G B + Y components	YRGB32 YRGB64	One single data plane containing red, green, blue color components and luminance component in a packed format.
Three packed R G B + Y components	RGB15Y8 RGB16Y8 RGB24Y8 RGB24Y10 RGB24Y12 RGB24Y14 RGB24Y16	Two data planes; the first one containing red, green, and blue color components in a packed format; the second containing the luminance component.
Three planar R G B + Y components	RGB24PLY8 RGB24PLY10 RGB24PLY12 RGB24PLY14 RGB24PLY16 RGB30PLY8 RGB30PLY10 RGB30PLY12 RGB30PLY14 RGB30PLY16 RGB36PLY8 RGB36PLY10 RGB36PLY12 RGB36PLY14 RGB36PLY16 RGB42PLY8 RGB42PLY10 RGB42PLY12 RGB42PLY14 RGB42PLY16 RGB48PLY8 RGB48PLY10 RGB48PLY12 RGB48PLY14 RGB48PLY16	Four data planes containing respectively red, green, blue, and luminance components.
Bayer CFA	BAYER8 BAYER10 BAYER12 BAYER14 BAYER16	One single data plane containing raw BAYER CFA data.
Raw data	RAW8 RAW10 RAW12 RAW14 RAW16	One single data plane containing raw data.
Compressed video streams	DX50 MP4S	One compressed video stream

2 MONOCHROME

2.1 Y8

ColorFormat	FourCC	Storage type	Storage requirement
Y8	Y800	N/A	1 Byte/pixel

Spatial sampling periods			Spatial map				Plane assignment																																							
<table border="1"> <thead> <tr> <th>Component</th> <th>Horizontal</th> <th>Vertical</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>1</td> <td>1</td> </tr> </tbody> </table>			Component	Horizontal	Vertical	Y	1	1	<table border="1"> <tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr> <tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr> <tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr> <tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr> </table>				Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	<table border="1"> <thead> <tr> <th>Plane#</th> <th>Plane name</th> <th>Storage requirement</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Y</td> <td>1 Byte/pixel</td> </tr> <tr> <td>1</td> <td>-</td> <td>-</td> </tr> <tr> <td>2</td> <td>-</td> <td>-</td> </tr> <tr> <td>3</td> <td>-</td> <td>-</td> </tr> </tbody> </table>			Plane#	Plane name	Storage requirement	0	Y	1 Byte/pixel	1	-	-	2	-	-	3	-	-
Component	Horizontal	Vertical																																												
Y	1	1																																												
Y	Y	Y	Y																																											
Y	Y	Y	Y																																											
Y	Y	Y	Y																																											
Y	Y	Y	Y																																											
Plane#	Plane name	Storage requirement																																												
0	Y	1 Byte/pixel																																												
1	-	-																																												
2	-	-																																												
3	-	-																																												

Plane 0	Memory layout																															
Word 0	Pixel 3: Y				Pixel 2: Y				Pixel 1: Y				Pixel 0: Y																			
Byte#	3				2				1				0																			
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

2.2 Y10

ColorFormat	FourCC	Storage type	Storage requirement
Y10	N/A	N/A	2 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment																																							
<table border="1"> <thead> <tr> <th>Component</th> <th>Horizontal</th> <th>Vertical</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>1</td> <td>1</td> </tr> </tbody> </table>			Component	Horizontal	Vertical	Y	1	1	<table border="1"> <tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr> <tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr> <tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr> <tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr> </table>				Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	<table border="1"> <thead> <tr> <th>Plane#</th> <th>Plane name</th> <th>Storage requirement</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Y</td> <td>2 Bytes/pixel</td> </tr> <tr> <td>1</td> <td>-</td> <td>-</td> </tr> <tr> <td>2</td> <td>-</td> <td>-</td> </tr> <tr> <td>3</td> <td>-</td> <td>-</td> </tr> </tbody> </table>			Plane#	Plane name	Storage requirement	0	Y	2 Bytes/pixel	1	-	-	2	-	-	3	-	-
Component	Horizontal	Vertical																																												
Y	1	1																																												
Y	Y	Y	Y																																											
Y	Y	Y	Y																																											
Y	Y	Y	Y																																											
Y	Y	Y	Y																																											
Plane#	Plane name	Storage requirement																																												
0	Y	2 Bytes/pixel																																												
1	-	-																																												
2	-	-																																												
3	-	-																																												

Plane 0	Memory layout																															
Word 0	"0000 00"				Pixel 1: Y				"0000 00"				Pixel 0: Y																			
Byte#	3				2				1				0																			
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

2.3 Y12

ColorFormat	FourCC	Storage type	Storage requirement
Y12	N/A	N/A	2 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment																																							
<table border="1"> <thead> <tr> <th>Component</th> <th>Horizontal</th> <th>Vertical</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>1</td> <td>1</td> </tr> </tbody> </table>			Component	Horizontal	Vertical	Y	1	1	<table border="1"> <tbody> <tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr> <tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr> <tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr> <tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr> </tbody> </table>				Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	<table border="1"> <thead> <tr> <th>Plane#</th> <th>Plane name</th> <th>Storage requirement</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Y</td> <td>2 Bytes/pixel</td> </tr> <tr> <td>1</td> <td>-</td> <td>-</td> </tr> <tr> <td>2</td> <td>-</td> <td>-</td> </tr> <tr> <td>3</td> <td>-</td> <td>-</td> </tr> </tbody> </table>			Plane#	Plane name	Storage requirement	0	Y	2 Bytes/pixel	1	-	-	2	-	-	3	-	-
Component	Horizontal	Vertical																																												
Y	1	1																																												
Y	Y	Y	Y																																											
Y	Y	Y	Y																																											
Y	Y	Y	Y																																											
Y	Y	Y	Y																																											
Plane#	Plane name	Storage requirement																																												
0	Y	2 Bytes/pixel																																												
1	-	-																																												
2	-	-																																												
3	-	-																																												

Plane 0	Memory layout																															
Word 0	"0000"				Pixel 1: Y								"0000"				Pixel 0: Y															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

2.4 Y14

ColorFormat	FourCC	Storage type	Storage requirement
Y14	N/A	N/A	2 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment																																							
<table border="1"> <thead> <tr> <th>Component</th> <th>Horizontal</th> <th>Vertical</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>1</td> <td>1</td> </tr> </tbody> </table>			Component	Horizontal	Vertical	Y	1	1	<table border="1"> <tbody> <tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr> <tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr> <tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr> <tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr> </tbody> </table>				Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	<table border="1"> <thead> <tr> <th>Plane#</th> <th>Plane name</th> <th>Storage requirement</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Y</td> <td>2 Bytes/pixel</td> </tr> <tr> <td>1</td> <td>-</td> <td>-</td> </tr> <tr> <td>2</td> <td>-</td> <td>-</td> </tr> <tr> <td>3</td> <td>-</td> <td>-</td> </tr> </tbody> </table>			Plane#	Plane name	Storage requirement	0	Y	2 Bytes/pixel	1	-	-	2	-	-	3	-	-
Component	Horizontal	Vertical																																												
Y	1	1																																												
Y	Y	Y	Y																																											
Y	Y	Y	Y																																											
Y	Y	Y	Y																																											
Y	Y	Y	Y																																											
Plane#	Plane name	Storage requirement																																												
0	Y	2 Bytes/pixel																																												
1	-	-																																												
2	-	-																																												
3	-	-																																												

Plane 0	Memory layout																															
Word 0	"00"		Pixel 1: Y								"00"		Pixel 0: Y																			
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

2.5 Y16

ColorFormat	FourCC	Storage type	Storage requirement
Y16	N/A	N/A	2 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment																																							
<table border="1"> <thead> <tr> <th>Component</th> <th>Horizontal</th> <th>Vertical</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>1</td> <td>1</td> </tr> </tbody> </table>			Component	Horizontal	Vertical	Y	1	1	<table border="1"> <tbody> <tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr> <tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr> <tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr> <tr><td>Y</td><td>Y</td><td>Y</td><td>Y</td></tr> </tbody> </table>				Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	<table border="1"> <thead> <tr> <th>Plane#</th> <th>Plane name</th> <th>Storage requirement</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Y</td> <td>2 Bytes/pixel</td> </tr> <tr> <td>1</td> <td>-</td> <td>-</td> </tr> <tr> <td>2</td> <td>-</td> <td>-</td> </tr> <tr> <td>3</td> <td>-</td> <td>-</td> </tr> </tbody> </table>			Plane#	Plane name	Storage requirement	0	Y	2 Bytes/pixel	1	-	-	2	-	-	3	-	-
Component	Horizontal	Vertical																																												
Y	1	1																																												
Y	Y	Y	Y																																											
Y	Y	Y	Y																																											
Y	Y	Y	Y																																											
Y	Y	Y	Y																																											
Plane#	Plane name	Storage requirement																																												
0	Y	2 Bytes/pixel																																												
1	-	-																																												
2	-	-																																												
3	-	-																																												

Plane 0	Memory layout																															
Word 0	Pixel 1: Y																Pixel 0: Y															
Byte#	3				2				1				0																			
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

3 THREE PACKED Y U V COMPONENTS

3.1 YUV411 (Y41P)

ColorFormat	FourCC	Storage type	Storage requirement
YUV411 Y41P	Y41P	PACKED	1.5 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	YC	Y	Y	Y	Plane#	Plane name	Storage requirement
Y	1	1	YC	Y	Y	Y	0	YUV	1.5 Bytes/pixel
U (Cb)	4	1	YC	Y	Y	Y	1	-	-
V (Cr)	4	1	YC	Y	Y	Y	2	-	-
			YC	Y	Y	Y	3	-	-

Plane 0	Memory layout																															
Word 2	Pixel 7: Y				Pixel 6: Y				Pixel 5: Y				Pixel 4: Y																			
Word 1	Pixel 3: Y				Pixel 4: V(Cr)				Pixel 2: Y				Pixel 4: U(Cb)																			
Word 0	Pixel 1: Y				Pixel 0: V(Cr)				Pixel 0: Y				Pixel 0: U(Cb)																			
Byte#	3				2				1				0																			
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

3.2 YUV422 (Y42P)

ColorFormat	FourCC	Storage type	Storage requirement
YUV422 Y42P	Y42P	PACKED	2 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	YC	Y	YC	Y	Plane#	Plane name	Storage requirement
Y	1	1	YC	Y	YC	Y	0	YUV	2 Bytes/pixel
U (Cb)	2	1	YC	Y	YC	Y	1	-	-
V (Cr)	2	1	YC	Y	YC	Y	2	-	-
			YC	Y	YC	Y	3	-	-

Plane 0	Memory layout																															
Word 0	Pixel 0: V(Cr)				Pixel 1: Y				Pixel 0: U(Cb)				Pixel 0: Y																			
Byte#	3				2				1				0																			
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

3.3 YUV444 (IYU2)

ColorFormat	FourCC	Storage type	Storage requirement
YUV444 IYU2	IYU2	PACKED	3 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	YC	YC	YC	YC	Plane#	Plane name	Storage requirement
Y	1	1	YC	YC	YC	YC	0	YUV	3 Bytes/pixel
U (Cb)	1	1	YC	YC	YC	YC	1	-	-
V (Cr)	1	1	YC	YC	YC	YC	2	-	-
			YC	YC	YC	YC	3	-	-

Plane 0	Memory layout																															
Word 0	Pixel 3: V(Cr)								Pixel 3: Y								Pixel 3: U(Cb)								Pixel 2: V(Cr)							
Word 0	Pixel 2: Y								Pixel 2: U(Cb)								Pixel 1: V(Cr)								Pixel 1: Y							
Word 0	Pixel 1: U(Cb)								Pixel 0: V(Cr)								Pixel 0: Y								Pixel 0: U(Cb)							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

4 THREE PLANAR Y U V COMPONENTS

4.1 YUV411PL (Y41B)

ColorFormat	FourCC	Storage type	Storage requirement
YUV411PL Y41B	Y41B	PLANAR	1.5 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	YC	Y	Y	Y	Plane#	Plane name	Storage requirement
Y	1	1	YC	Y	Y	Y	0	Y	1 Byte/pixel
U (Cb)	4	1	YC	Y	Y	Y	1	U	0.25 Byte/pixel
V (Cr)	4	1	YC	Y	Y	Y	2	V	0.25 Byte/pixel
			YC	Y	Y	Y	3	-	-

Plane 0	Memory layout																															
Word 3	Pixel 15: Y								Pixel 14: Y								Pixel 13: Y								Pixel 12: Y							
Word 2	Pixel 11: Y								Pixel 10: Y								Pixel 9: Y								Pixel 8: Y							
Word 1	Pixel 7: Y								Pixel 6: Y								Pixel 5: Y								Pixel 4: Y							
Word 0	Pixel 3: Y								Pixel 2: Y								Pixel 1: Y								Pixel 0: Y							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	Pixel 12: U (Cb)								Pixel 8: U (Cb)								Pixel 4: U (Cb)								Pixel 0: U (Cb)							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	Pixel 12: V (Cr)								Pixel 8: V (Cr)								Pixel 4: V (Cr)								Pixel 0: V (Cr)							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

4.2 YUV422PL (Y42B)

ColorFormat	FourCC	Storage type	Storage requirement
YUV422PL Y42B	Y42B	PLANAR	2 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	YC	Y	YC	Y	Plane#	Plane name	Storage requirement
Y	1	1	YC	Y	YC	Y	0	Y	1 Byte/pixel
U (Cb)	2	1	YC	Y	YC	Y	1	U	0.5 Byte/pixel
V (Cr)	2	1	YC	Y	YC	Y	2	V	0.5 Byte/pixel
			YC	Y	YC	Y	3	-	-

Plane 0	Memory layout																															
Word 0	Pixel 3: Y								Pixel 2: Y								Pixel 1: Y								Pixel 0: Y							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	Pixel 3: U (Cb)								Pixel 2: U (Cb)								Pixel 1: U (Cb)								Pixel 0: U (Cb)							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	Pixel 3: V (Cr)								Pixel 2: V (Cr)								Pixel 1: V (Cr)								Pixel 0: V (Cr)							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

4.3 YUV444PL

ColorFormat	FourCC	Storage type	Storage requirement
YUV444PL	N/A	PLANAR	3 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	YC	YC	YC	YC	Plane#	Plane name	Storage requirement
Y	1	1	YC	YC	YC	YC	0	Y	1 Byte/pixel
U (Cb)	1	1	YC	YC	YC	YC	1	U	1 Byte/pixel
V (Cr)	1	1	YC	YC	YC	YC	2	V	1 Byte/pixel
			YC	YC	YC	YC	3	-	-

Plane 0	Memory layout																															
Word 0	Pixel 3: Y								Pixel 2: Y								Pixel 1: Y								Pixel 0: Y							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	Pixel 3: U (Cb)								Pixel 2: U (Cb)								Pixel 1: U (Cb)								Pixel 0: U (Cb)							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	Pixel 3: V (Cr)								Pixel 2: V (Cr)								Pixel 1: V (Cr)								Pixel 0: V (Cr)							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

4.4 YUV422PL-DEC (I420, IYUV, YV12)

ColorFormat	FourCC	Storage type	Storage requirement
YUV422PL_Dec I420 IYUV YV12	I420, IYUV, YV12	PLANAR	1.5 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	YC	Y	YC	Y	Plane#	Plane name	Storage requirement
Y	1	1	Y	Y	Y	Y	0	Y	1 Byte/pixel
U (Cb)	2	2	YC	Y	YC	Y	1	U	0.25 Byte/pixel
V (Cr)	2	2	Y	Y	Y	Y	2	V	0.25 Byte/pixel
							3	-	-

Plane 0	Memory layout																															
Word 1	Pixel 7: Y								Pixel 6: Y								Pixel 5: Y								Pixel 4: Y							
Word 0	Pixel 3: Y								Pixel 2: Y								Pixel 1: Y								Pixel 0: Y							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	Pixel 6: U (Cb)								Pixel 4: U (Cb)								Pixel 2: U (Cb)								Pixel 0: U (Cb)							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	Pixel 6: V (Cr)								Pixel 4: V (Cr)								Pixel 2: V (Cr)								Pixel 0: V (Cr)							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

4.5 YUV411PL-DEC (YUV9, YVU9)

ColorFormat	FourCC	Storage type	Storage requirement
YUV411PL_Dec YUV9 YVU9	YUV9, YVU9	PLANAR	1.125 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	YC	Y	Y	Y	Plane#	Plane name	Storage requirement
Y	1	1	Y	Y	Y	Y	0	Y	1 Byte/pixel
U (Cb)	4	4	Y	Y	Y	Y	1	U	0.0625 Byte/pixel
V (Cr)	4	4	Y	Y	Y	Y	2	V	0.0625 Byte/pixel
			Y	Y	Y	Y	3	-	-

Plane 0	Memory layout																															
Word 2	Pixel 15: Y								Pixel 14: Y								Pixel 13: Y								Pixel 12: Y							
Word 2	Pixel 11: Y								Pixel 10: Y								Pixel 9: Y								Pixel 8: Y							
Word 1	Pixel 7: Y								Pixel 6: Y								Pixel 5: Y								Pixel 4: Y							
Word 0	Pixel 3: Y								Pixel 2: Y								Pixel 1: Y								Pixel 0: Y							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	Pixel 12: U (Cb)								Pixel 8: U (Cb)								Pixel 4: U (Cb)								Pixel 0: U (Cb)							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	Pixel 12: V (Cr)								Pixel 8: V (Cr)								Pixel 4: V (Cr)								Pixel 0: V (Cr)							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

5 THREE PACKED R G B COMPONENTS

5.1 RGB15

ColorFormat	FourCC	Storage type	Storage requirement
RGB15	BI_RGB, RGB	PACKED	2 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	RGB	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	-	-
B	1	1	RGB	RGB	RGB	RGB	2	-	-
			RGB	RGB	RGB	RGB	3	-	-

Plane 0	Memory layout																															
Word 0	0	Pixel 1: R				Pixel 1: G				Pixel 1: B				0	Pixel 0: R				Pixel 0: G				Pixel 0: B									
Byte#	3				2				1				0																			
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

5.2 RGB16

ColorFormat	FourCC	Storage type	Storage requirement
RGB16	BI_RGB, RGB	PACKED	2 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	RGB	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	-	-
B	1	1	RGB	RGB	RGB	RGB	2	-	-
			RGB	RGB	RGB	RGB	3	-	-

Plane 0	Memory layout																															
Word 0	Pixel 1: R				Pixel 1: G				Pixel 1: B				Pixel 0: R				Pixel 0: G				Pixel 0: B											
Byte#	3				2				1				0																			
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

5.3 RGB10_10_10

ColorFormat	FourCC	Storage type	Storage requirement
RGB10_10_10	N/A	PACKED	4 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	RGB	4 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	-	-
B	1	1	RGB	RGB	RGB	RGB	2	-	-
			RGB	RGB	RGB	RGB	3	-	-

Plane 0	Memory layout																															
Word 0	"00"			Pixel 0: R										Pixel 0: G										Pixel 0: B								
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

5.4 RGB10_12_10

ColorFormat	FourCC	Storage type	Storage requirement
RGB10_12_10	N/A	PACKED	4 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	RGB	4 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	-	-
B	1	1	RGB	RGB	RGB	RGB	2	-	-
			RGB	RGB	RGB	RGB	3	-	-

Plane 0	Memory layout																															
Word 0	Pixel 0: R										Pixel 0: G										Pixel 0: B											
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

5.5 RGB24

ColorFormat	FourCC	Storage type	Storage requirement
RGB24	BI_RGB, RGB	PACKED	3 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	RGB	3 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	-	-
B	1	1	RGB	RGB	RGB	RGB	2	-	-
			RGB	RGB	RGB	RGB	3	-	-

Plane 0	Memory layout																															
Word 2	Pixel 3: R								Pixel 3: G								Pixel 3: B								Pixel 2: R							
Word 1	Pixel 2: G								Pixel 2: B								Pixel 1: R								Pixel 1: G							
Word 0	Pixel 1: B								Pixel 0: R								Pixel 0: G								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

6 THREE PLANAR R G B COMPONENTS

6.1 RGB24PL

ColorFormat	FourCC	Storage type	Storage requirement
RGB24PL	N/A	PLANAR	3 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	1 Byte/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	1 Byte/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	1 Byte/pixel
			RGB	RGB	RGB	RGB	3	-	-

Plane 0	Memory layout																															
Word 0	Pixel 3: R								Pixel 2: R								Pixel 1: R								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	Pixel 3: G								Pixel 2: G								Pixel 1: G								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	Pixel 3: B								Pixel 2: B								Pixel 1: B								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

6.2 RGB30PL

ColorFormat	FourCC	Storage type	Storage requirement
RGB30PL	N/A	PLANAR	6 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	-	-

Plane 0	Memory layout																															
Word 0	"0000 00"								Pixel 1: R								"0000 00"								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	"0000 00"								Pixel 1: G								"0000 00"								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	"0000 00"								Pixel 1: B								"0000 00"								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

6.3 RGB36PL

ColorFormat	FourCC	Storage type	Storage requirement
RGB36PL	N/A	PLANAR	6 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	-	-

Plane 0	Memory layout																															
Word 0	"0000"								Pixel 1: R								"0000"								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	"0000"								Pixel 1: G								"0000"								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	"0000"								Pixel 1: B								"0000"								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

6.4 RGB42PL

ColorFormat	FourCC	Storage type	Storage requirement
RGB42PL	N/A	PLANAR	6 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	-	-

Plane 0	Memory layout																															
Word 0	"00"							Pixel 1: R								"00"							Pixel 0: R									
Byte#	3							2								1							0									
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	"00"							Pixel 1: G								"00"							Pixel 0: G									
Byte#	3							2								1							0									
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	"00"							Pixel 1: B								"00"							Pixel 0: B									
Byte#	3							2								1							0									
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

6.5 RGB48PL

ColorFormat	FourCC	Storage type	Storage requirement
RGB48PL	N/A	PLANAR	6 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	-	-

Plane 0	Memory layout																															
Word 0	Pixel 1: R																Pixel 0: R															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	Pixel 1: G																Pixel 0: G															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	Pixel 1: B																Pixel 0: B															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

7 FOUR PACKED R G B + α COMPONENTS

7.1 [RGB32 \(ARGB32\)](#)

ColorFormat	FourCC	Storage type	Storage requirement
RGB32 (ARGB32)	BI_RGB, RGB	PACKED	4 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	ARGB	4 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	-	-
B	1	1	RGB	RGB	RGB	RGB	2	-	-
			RGB	RGB	RGB	RGB	3	-	-

Plane 0	Memory layout																															
Word 0	"0000 0000"								Pixel 0: B								Pixel 0: G								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

7.2 [RGB64 \(ARGB64\)](#)

ColorFormat	FourCC	Storage type	Storage requirement
RGB64 (ARGB64)	N/A	PACKED	8 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	ARGB	8 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	-	-
B	1	1	RGB	RGB	RGB	RGB	2	-	-
			RGB	RGB	RGB	RGB	3	-	-

Plane 0	Memory layout																															
Word 1	"0000 0000 0000 0000"																Pixel 0: B															
Word 0	Pixel 0: G																Pixel 0: R															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

8 FOUR PACKED R G B + Y COMPONENTS

8.1 YRGB32

ColorFormat	FourCC	Storage type	Storage requirement
YRGB32	N/A	PACKED	4 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	YRGB	4 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	-	-
B	1	1	RGB	RGB	RGB	RGB	2	-	-
			RGB	RGB	RGB	RGB	3	-	-

Plane 0	Memory layout																															
Word 0	Pixel 0: Y				Pixel 0: B				Pixel 0: G				Pixel 0: R																			
Byte#	3				2				1				0																			
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

8.2 YRGB64

ColorFormat	FourCC	Storage type	Storage requirement
YRGB64	N/A	PACKED	8 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	YRGB	8 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	-	-
B	1	1	RGB	RGB	RGB	RGB	2	-	-
			RGB	RGB	RGB	RGB	3	-	-

Plane 0	Memory layout																															
Word 1	Pixel 0: Y								Pixel 0: B																							
Word 0	Pixel 0: G								Pixel 0: R																							
Byte#	3				2				1				0																			
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

9 THREE PACKED R G B + Y COMPONENTS

9.1 RGB15Y8

ColorFormat	FourCC	Storage type	Storage requirement
RGB15Y8	N/A	PACKED	3 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	RGB	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	Y	1 Byte/pixel
B	1	1	RGB	RGB	RGB	RGB	2	-	-
			RGB	RGB	RGB	RGB	3	-	-

Plane 0	Memory layout																																					
Word 0	0	Pixel 1: R						Pixel 1: G						Pixel 1: B						0	Pixel 0: R						Pixel 0: G						Pixel 0: B					
Byte#	3						2						1						0																			
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0						

Plane 1	Memory layout																															
Word 0	Pixel 3: Y								Pixel 2: Y								Pixel 1: Y								Pixel 0: Y							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

9.2 RGB16Y8

ColorFormat	FourCC	Storage type	Storage requirement
RGB16Y8	N/A	PACKED	3 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	YRGB	YRGB	YRGB	YRGB	Plane#	Plane name	Storage requirement
R	1	1	YRGB	YRGB	YRGB	YRGB	0	RGB	2 Bytes/pixel
G	1	1	YRGB	YRGB	YRGB	YRGB	1	Y	1 Byte/pixel
B	1	1	YRGB	YRGB	YRGB	YRGB	2	-	-
			YRGB	YRGB	YRGB	YRGB	3	-	-

Plane 0	Memory layout																																															
Word 0	Pixel 1: R								Pixel 1: G								Pixel 1: B								Pixel 0: R								Pixel 0: G								Pixel 0: B							
Byte#	3								2								1								0																							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0																

Plane 1	Memory layout																																							
Word 0	Pixel 3: Y								Pixel 2: Y								Pixel 1: Y								Pixel 0: Y															
Byte#	3								2								1								0															
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0								

9.3 RGB24Y8

ColorFormat	FourCC	Storage type	Storage requirement
RGB24Y8	N/A	PACKED	4 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	YRGB	YRGB	YRGB	YRGB	Plane#	Plane name	Storage requirement
R	1	1	YRGB	YRGB	YRGB	YRGB	0	RGB	3 Bytes/pixel
G	1	1	YRGB	YRGB	YRGB	YRGB	1	Y	1 Byte/pixel
B	1	1	YRGB	YRGB	YRGB	YRGB	2	-	-
			YRGB	YRGB	YRGB	YRGB	3	-	-

Plane 0	Memory layout																															
Word 2	Pixel 3: R								Pixel 3: G								Pixel 3: B								Pixel 2: R							
Word 1	Pixel 2: G								Pixel 2: B								Pixel 1: R								Pixel 1: G							
Word 0	Pixel 1: B								Pixel 0: R								Pixel 0: G								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	Pixel 3: Y								Pixel 2: Y								Pixel 1: Y								Pixel 0: Y							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

9.4 RGB24Y10

ColorFormat	FourCC	Storage type	Storage requirement
RGB24Y10	N/A	PACKED	5 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	YRGB	YRGB	YRGB	YRGB	Plane#	Plane name	Storage requirement
R	1	1	YRGB	YRGB	YRGB	YRGB	0	RGB	3 Bytes/pixel
G	1	1	YRGB	YRGB	YRGB	YRGB	1	Y	2 Bytes/pixel
B	1	1	YRGB	YRGB	YRGB	YRGB	2	-	-
			YRGB	YRGB	YRGB	YRGB	3	-	-

Plane 0	Memory layout																															
Word 2	Pixel 3: R								Pixel 3: G								Pixel 3: B								Pixel 2: R							
Word 1	Pixel 2: G								Pixel 2: B								Pixel 1: R								Pixel 1: G							
Word 0	Pixel 1: B								Pixel 0: R								Pixel 0: G								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	"0000 00"								Pixel 1: Y								"0000 00"								Pixel 0: Y							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

9.5 RGB24Y12

ColorFormat	FourCC	Storage type	Storage requirement
RGB24Y12	N/A	PACKED	5 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	YRGB	YRGB	YRGB	YRGB	Plane#	Plane name	Storage requirement
R	1	1	YRGB	YRGB	YRGB	YRGB	0	RGB	3 Bytes/pixel
G	1	1	YRGB	YRGB	YRGB	YRGB	1	Y	2 Bytes/pixel
B	1	1	YRGB	YRGB	YRGB	YRGB	2	-	-
			YRGB	YRGB	YRGB	YRGB	3	-	-

Plane 0	Memory layout																															
Word 2	Pixel 3: R								Pixel 3: G								Pixel 3: B								Pixel 2: R							
Word 1	Pixel 2: G								Pixel 2: B								Pixel 1: R								Pixel 1: G							
Word 0	Pixel 1: B								Pixel 0: R								Pixel 0: G								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	"0000"				Pixel 1: Y																"0000"				Pixel 0: Y							
Byte#	3				2																1				0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

9.6 RGB24Y14

ColorFormat	FourCC	Storage type	Storage requirement
RGB24Y14	N/A	PACKED	5 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	YRGB	YRGB	YRGB	YRGB	Plane#	Plane name	Storage requirement
R	1	1	YRGB	YRGB	YRGB	YRGB	0	RGB	3 Bytes/pixel
G	1	1	YRGB	YRGB	YRGB	YRGB	1	Y	2 Bytes/pixel
B	1	1	YRGB	YRGB	YRGB	YRGB	2	-	-
			YRGB	YRGB	YRGB	YRGB	3	-	-

Plane 0	Memory layout																															
Word 2	Pixel 3: R								Pixel 3: G								Pixel 3: B								Pixel 2: R							
Word 1	Pixel 2: G								Pixel 2: B								Pixel 1: R								Pixel 1: G							
Word 0	Pixel 1: B								Pixel 0: R								Pixel 0: G								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																																	
Word 0	"00"	Pixel 1: Y																"00"	Pixel 0: Y															
Byte#	3								2								1								0									
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0		

9.7 RGB24Y16

ColorFormat	FourCC	Storage type	Storage requirement
RGB24Y16	N/A	PACKED	5 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	YRGB	YRGB	YRGB	YRGB	Plane#	Plane name	Storage requirement
R	1	1	YRGB	YRGB	YRGB	YRGB	0	RGB	3 Bytes/pixel
G	1	1	YRGB	YRGB	YRGB	YRGB	1	Y	2 Bytes/pixel
B	1	1	YRGB	YRGB	YRGB	YRGB	2	-	-
			YRGB	YRGB	YRGB	YRGB	3	-	-

Plane 0	Memory layout																															
Word 2	Pixel 3: R								Pixel 3: G								Pixel 3: B								Pixel 2: R							
Word 1	Pixel 2: G								Pixel 2: B								Pixel 1: R								Pixel 1: G							
Word 0	Pixel 1: B								Pixel 0: R								Pixel 0: G								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	Pixel 1: Y																Pixel 0: Y															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

10 THREE PLANAR R G B + Y8 COMPONENTS

10.1 RGB24PLY8

ColorFormat	FourCC	Storage type	Storage requirement
RGB24PLY8	N/A	PLANAR	4 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	1 Byte/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	1 Byte/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	1 Byte/pixel
			RGB	RGB	RGB	RGB	3	Y	1 Byte/pixel

Plane 0	Memory layout																															
Word 0	Pixel 3: R								Pixel 2: R								Pixel 1: R								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	Pixel 3: G								Pixel 2: G								Pixel 1: G								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	Pixel 3: B								Pixel 2: B								Pixel 1: B								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	Pixel 3: Y								Pixel 2: Y								Pixel 1: Y								Pixel 0: Y							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

10.2 RGB30PLY8

ColorFormat	FourCC	Storage type	Storage requirement
RGB30PLY8	N/A	PLANAR	7 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	Y	1 Byte/pixel

Plane 0	Memory layout																															
Word 0	"0000 00"								Pixel 1: R								"0000 00"								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	"0000 00"								Pixel 1: G								"0000 00"								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	"0000 00"								Pixel 1: B								"0000 00"								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	Pixel 3: Y								Pixel 2: Y								Pixel 1: Y								Pixel 0: Y							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

10.3 RGB36PLY8

ColorFormat	FourCC	Storage type	Storage requirement
RGB36PLY8	N/A	PLANAR	7 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	Y	1 Byte/pixel

Plane 0	Memory layout																															
Word 0	"0000"								Pixel 1: R								"0000"								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	"0000"								Pixel 1: G								"0000"								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	"0000"								Pixel 1: B								"0000"								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	Pixel 3: Y								Pixel 2: Y								Pixel 1: Y								Pixel 0: Y							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

10.4 RGB42PLY8

ColorFormat	FourCC	Storage type	Storage requirement
RGB42PLY8	N/A	PLANAR	7 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	Y	1 Byte/pixel

Plane 0	Memory layout																															
Word 0	"00"				Pixel 1: R								"00"				Pixel 0: R															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	"00"				Pixel 1: G								"00"				Pixel 0: G															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	"00"				Pixel 1: B								"00"				Pixel 0: B															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	Pixel 3: Y								Pixel 2: Y								Pixel 1: Y								Pixel 0: Y							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

10.5 RGB48PLY8

ColorFormat	FourCC	Storage type	Storage requirement
RGB48PLY8	N/A	PLANAR	7 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	Y	1 Byte/pixel

Plane 0	Memory layout																															
Word 0	Pixel 1: R																Pixel 0: R															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	Pixel 1: G																Pixel 0: G															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	Pixel 1: B																Pixel 0: B															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	Pixel 3: Y								Pixel 2: Y								Pixel 1: Y								Pixel 0: Y							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

11 THREE PLANAR R G B + Y10 COMPONENTS

11.1 RGB24PLY10

ColorFormat	FourCC	Storage type	Storage requirement
RGB24PLY10	N/A	PLANAR	5 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	1 Byte/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	1 Byte/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	1 Byte/pixel
			RGB	RGB	RGB	RGB	3	Y	2 Bytes/pixel

Plane 0	Memory layout																															
Word 0	Pixel 3: R								Pixel 2: R								Pixel 1: R								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	Pixel 3: G								Pixel 2: G								Pixel 1: G								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	Pixel 3: B								Pixel 2: B								Pixel 1: B								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	"0000 00"								Pixel 1: Y								"0000 00"								Pixel 0: Y							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

11.2 RGB30PLY10

ColorFormat	FourCC	Storage type	Storage requirement
RGB30PLY10	N/A	PLANAR	8 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	Y	2 Bytes/pixel

Plane 0	Memory layout																															
Word 0	"0000 00"								Pixel 1: R								"0000 00"								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	"0000 00"								Pixel 1: G								"0000 00"								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	"0000 00"								Pixel 1: B								"0000 00"								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	"0000 00"								Pixel 1: Y								"0000 00"								Pixel 0: Y							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

11.3 RGB36PLY10

ColorFormat	FourCC	Storage type	Storage requirement
RGB36PLY10	N/A	PLANAR	8 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	Y	2 Bytes/pixel

Plane 0	Memory layout																															
Word 0	"0000"								Pixel 1: R								"0000"								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	"0000"								Pixel 1: G								"0000"								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	"0000"								Pixel 1: B								"0000"								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	"0000 00"								Pixel 1: Y								"0000 00"								Pixel 0: Y							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

11.4 RGB42PLY10

ColorFormat	FourCC	Storage type	Storage requirement
RGB42PLY10	N/A	PLANAR	8 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	Y	2 Bytes/pixel

Plane 0	Memory layout																															
Word 0	"00"								Pixel 1: R								"00"								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	"00"								Pixel 1: G								"00"								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	"00"								Pixel 1: B								"00"								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	"0000 00"								Pixel 1: Y								"0000 00"								Pixel 0: Y							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

11.5 RGB48PLY10

ColorFormat	FourCC	Storage type	Storage requirement
RGB48PLY10	N/A	PLANAR	8 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	Y	2 Bytes/pixel

Plane 0	Memory layout																															
Word 0	Pixel 1: R																Pixel 0: R															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	Pixel 1: G																Pixel 0: G															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	Pixel 1: B																Pixel 0: B															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	"0000 00"				Pixel 1: Y												"0000 00"				Pixel 0: Y											
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

12 THREE PLANAR R G B + Y12 COMPONENTS

12.1 RGB24PLY12

ColorFormat	FourCC	Storage type	Storage requirement
RGB24PLY12	N/A	PLANAR	5 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	1 Byte/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	1 Byte/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	1 Byte/pixel
			RGB	RGB	RGB	RGB	3	Y	2 Bytes/pixel

Plane 0	Memory layout																															
Word 0	Pixel 3: R								Pixel 2: R								Pixel 1: R								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	Pixel 3: G								Pixel 2: G								Pixel 1: G								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	Pixel 3: B								Pixel 2: B								Pixel 1: B								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	"0000"			Pixel 1: Y								"0000"			Pixel 0: Y																	
Byte#	3			2								1			0																	
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

12.2 RGB30PLY12

ColorFormat	FourCC	Storage type	Storage requirement
RGB30PLY12	N/A	PLANAR	8 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	Y	2 Bytes/pixel

Plane 0	Memory layout																															
Word 0	"0000 00"								Pixel 1: R								"0000 00"								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	"0000 00"								Pixel 1: G								"0000 00"								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	"0000 00"								Pixel 1: B								"0000 00"								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	"0000"				Pixel 1: Y												"0000"				Pixel 0: Y											
Byte#	3				2												1				0											
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

12.3 RGB36PLY12

ColorFormat	FourCC	Storage type	Storage requirement
RGB36PLY12	N/A	PLANAR	8 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	Y	2 Bytes/pixel

Plane 0	Memory layout																															
Word 0	"0000"								Pixel 1: R								"0000"								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	"0000"								Pixel 1: G								"0000"								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	"0000"								Pixel 1: B								"0000"								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	"0000"								Pixel 1: Y								"0000"								Pixel 0: Y							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

12.4 RGB42PLY12

ColorFormat	FourCC	Storage type	Storage requirement
RGB42PLY12	N/A	PLANAR	8 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	Y	2 Bytes/pixel

Plane 0	Memory layout																															
Word 0	"00"								Pixel 1: R								"00"								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	"00"								Pixel 1: G								"00"								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	"00"								Pixel 1: B								"00"								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	"0000"								Pixel 1: Y								"0000"								Pixel 0: Y							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

12.5 RGB48PLY12

ColorFormat	FourCC	Storage type	Storage requirement
RGB48PLY12	N/A	PLANAR	8 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	Y	2 Bytes/pixel

Plane 0	Memory layout																															
Word 0	Pixel 1: R																Pixel 0: R															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	Pixel 1: G																Pixel 0: G															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	Pixel 1: B																Pixel 0: B															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																																	
Word 0	"0000"	Pixel 1: Y																"0000"	Pixel 0: Y															
Byte#	3								2								1								0									
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0		

13 THREE PLANAR R G B + Y14 COMPONENTS

13.1 RGB24PLY14

ColorFormat	FourCC	Storage type	Storage requirement
RGB24PLY14	N/A	PLANAR	5 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	1 Byte/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	1 Byte/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	1 Byte/pixel
			RGB	RGB	RGB	RGB	3	Y	2 Bytes/pixel

Plane 0	Memory layout																															
Word 0	Pixel 3: R								Pixel 2: R								Pixel 1: R								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	Pixel 3: G								Pixel 2: G								Pixel 1: G								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	Pixel 3: B								Pixel 2: B								Pixel 1: B								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	"00"	Pixel 1: Y														"00"	Pixel 0: Y															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

13.2 RGB30PLY14

ColorFormat	FourCC	Storage type	Storage requirement
RGB30PLY14	N/A	PLANAR	8 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	Y	2 Bytes/pixel

Plane 0	Memory layout																															
Word 0	"0000 00"								Pixel 1: R								"0000 00"								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	"0000 00"								Pixel 1: G								"0000 00"								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	"0000 00"								Pixel 1: B								"0000 00"								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																																			
Word 0	"00"		Pixel 1: Y																"00"		Pixel 0: Y															
Byte#	3								2								1								0											
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0				

13.3 RGB36PLY14

ColorFormat	FourCC	Storage type	Storage requirement
RGB36PLY14	N/A	PLANAR	8 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	Y	2 Bytes/pixel

Plane 0	Memory layout																															
Word 0	"0000"			Pixel 1: R																"0000"			Pixel 0: R									
Byte#	3			2																1			0									
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	"0000"			Pixel 1: G																"0000"			Pixel 0: G									
Byte#	3			2																1			0									
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	"0000"			Pixel 1: B																"0000"			Pixel 0: B									
Byte#	3			2																1			0									
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	"00"		Pixel 1: Y																"00"		Pixel 0: Y											
Byte#	3		2																1		0											
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

13.4 RGB42PLY14

ColorFormat	FourCC	Storage type	Storage requirement
RGB42PLY14	N/A	PLANAR	8 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	Y	2 Bytes/pixel

Plane 0	Memory layout																															
Word 0	"00"								Pixel 1: R								"00"								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	"00"								Pixel 1: G								"00"								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	"00"								Pixel 1: B								"00"								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	"00"								Pixel 1: Y								"00"								Pixel 0: Y							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

13.5 RGB48PLY14

ColorFormat	FourCC	Storage type	Storage requirement
RGB48PLY14	N/A	PLANAR	8 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	Y	2 Bytes/pixel

Plane 0	Memory layout																															
Word 0	Pixel 1: R																Pixel 0: R															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	Pixel 1: G																Pixel 0: G															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	Pixel 1: B																Pixel 0: B															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																																	
Word 0	"00"	Pixel 1: Y																"00"	Pixel 0: Y															
Byte#	3								2								1								0									
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0		

14 THREE PLANAR R G B + Y16 COMPONENTS

14.1 RGB24PLY16

ColorFormat	FourCC	Storage type	Storage requirement
RGB24PLY16	N/A	PLANAR	5 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	1 Byte/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	1 Byte/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	1 Byte/pixel
			RGB	RGB	RGB	RGB	3	Y	2 Bytes/pixel

Plane 0	Memory layout																															
Word 0	Pixel 3: R								Pixel 2: R								Pixel 1: R								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	Pixel 3: G								Pixel 2: G								Pixel 1: G								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	Pixel 3: B								Pixel 2: B								Pixel 1: B								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	Pixel 1: Y																Pixel 0: Y															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

14.2 RGB30PLY16

ColorFormat	FourCC	Storage type	Storage requirement
RGB30PLY16	N/A	PLANAR	8 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	Y	2 Bytes/pixel

Plane 0	Memory layout																															
Word 0	"0000 00"								Pixel 1: R								"0000 00"								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	"0000 00"								Pixel 1: G								"0000 00"								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	"0000 00"								Pixel 1: B								"0000 00"								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	Pixel 1: Y																Pixel 0: Y															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

14.3 RGB36PLY16

ColorFormat	FourCC	Storage type	Storage requirement
RGB36PLY16	N/A	PLANAR	8 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	Y	2 Bytes/pixel

Plane 0	Memory layout																															
Word 0	"0000"								Pixel 1: R								"0000"								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	"0000"								Pixel 1: G								"0000"								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	"0000"								Pixel 1: B								"0000"								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	Pixel 1: Y																Pixel 0: Y															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

14.4 RGB42PLY16

ColorFormat	FourCC	Storage type	Storage requirement
RGB42PLY16	N/A	PLANAR	8 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	Y	2 Bytes/pixel

Plane 0	Memory layout																															
Word 0	"00"								Pixel 1: R								"00"								Pixel 0: R							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	"00"								Pixel 1: G								"00"								Pixel 0: G							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	"00"								Pixel 1: B								"00"								Pixel 0: B							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	Pixel 1: Y																Pixel 0: Y															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

14.5 RGB48PLY16

ColorFormat	FourCC	Storage type	Storage requirement
RGB48PLY16	N/A	PLANAR	8 Bytes/pixel

Spatial sampling periods			Spatial map				Plane assignment		
Component	Horizontal	Vertical	RGB	RGB	RGB	RGB	Plane#	Plane name	Storage requirement
R	1	1	RGB	RGB	RGB	RGB	0	R	2 Bytes/pixel
G	1	1	RGB	RGB	RGB	RGB	1	G	2 Bytes/pixel
B	1	1	RGB	RGB	RGB	RGB	2	B	2 Bytes/pixel
			RGB	RGB	RGB	RGB	3	Y	2 Bytes/pixel

Plane 0	Memory layout																															
Word 0	Pixel 1: R																Pixel 0: R															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 1	Memory layout																															
Word 0	Pixel 1: G																Pixel 0: G															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 2	Memory layout																															
Word 0	Pixel 1: B																Pixel 0: B															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Plane 3	Memory layout																															
Word 0	Pixel 1: Y																Pixel 0: Y															
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

15 BAYER CFA

15.1 BAYER8

ColorFormat	FourCC	Storage type	Storage requirement
BAYER8	N/A	N/A	1 Byte/pixel

Spatial sampling periods	Spatial map [ImageColorRegistration]	Plane assignment																											
N/A	<table border="1"> <tr> <td>[GB]</td> <td>[BG]</td> </tr> <tr> <td>G B</td> <td>B G</td> </tr> <tr> <td>R G</td> <td>G R</td> </tr> <tr> <td>[RG]</td> <td>[GR]</td> </tr> <tr> <td>R G</td> <td>G R</td> </tr> <tr> <td>G B</td> <td>B G</td> </tr> </table>	[GB]	[BG]	G B	B G	R G	G R	[RG]	[GR]	R G	G R	G B	B G	<table border="1"> <thead> <tr> <th>Plane#</th> <th>Plane name</th> <th>Storage requirement</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>BAYER</td> <td>1 Byte/pixel</td> </tr> <tr> <td>1</td> <td>-</td> <td>-</td> </tr> <tr> <td>2</td> <td>-</td> <td>-</td> </tr> <tr> <td>3</td> <td>-</td> <td>-</td> </tr> </tbody> </table>	Plane#	Plane name	Storage requirement	0	BAYER	1 Byte/pixel	1	-	-	2	-	-	3	-	-
[GB]	[BG]																												
G B	B G																												
R G	G R																												
[RG]	[GR]																												
R G	G R																												
G B	B G																												
Plane#	Plane name	Storage requirement																											
0	BAYER	1 Byte/pixel																											
1	-	-																											
2	-	-																											
3	-	-																											

Plane 0	Memory layout																															
Word 0	Pixel 3								Pixel 2								Pixel 1								Pixel 0							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

15.2 BAYER10

ColorFormat	FourCC	Storage type	Storage requirement
BAYER10	N/A	N/A	2 Bytes/pixel

Spatial sampling periods	Spatial map	Plane assignment																											
N/A	<table border="1"> <tr> <td>[GB]</td> <td>[BG]</td> </tr> <tr> <td>G B</td> <td>B G</td> </tr> <tr> <td>R G</td> <td>G R</td> </tr> <tr> <td>[RG]</td> <td>[GR]</td> </tr> <tr> <td>R G</td> <td>G R</td> </tr> <tr> <td>G B</td> <td>B G</td> </tr> </table>	[GB]	[BG]	G B	B G	R G	G R	[RG]	[GR]	R G	G R	G B	B G	<table border="1"> <thead> <tr> <th>Plane#</th> <th>Plane name</th> <th>Storage requirement</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>BAYER</td> <td>2 Bytes/pixel</td> </tr> <tr> <td>1</td> <td>-</td> <td>-</td> </tr> <tr> <td>2</td> <td>-</td> <td>-</td> </tr> <tr> <td>3</td> <td>-</td> <td>-</td> </tr> </tbody> </table>	Plane#	Plane name	Storage requirement	0	BAYER	2 Bytes/pixel	1	-	-	2	-	-	3	-	-
[GB]	[BG]																												
G B	B G																												
R G	G R																												
[RG]	[GR]																												
R G	G R																												
G B	B G																												
Plane#	Plane name	Storage requirement																											
0	BAYER	2 Bytes/pixel																											
1	-	-																											
2	-	-																											
3	-	-																											

Plane 0	Memory layout																															
Word 0	"0000 00"								Pixel 1								"0000 00"								Pixel 0							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

15.3 BAYER12

ColorFormat	FourCC	Storage type	Storage requirement
BAYER12	N/A	N/A	2 Bytes/pixel

Spatial sampling periods	Spatial map	Plane assignment																											
N/A	<table border="1"> <tr> <td>[GB]</td> <td>[BG]</td> </tr> <tr> <td>G B</td> <td>B G</td> </tr> <tr> <td>R G</td> <td>G R</td> </tr> <tr> <td>[RG]</td> <td>[GR]</td> </tr> <tr> <td>R G</td> <td>G R</td> </tr> <tr> <td>G B</td> <td>B G</td> </tr> </table>	[GB]	[BG]	G B	B G	R G	G R	[RG]	[GR]	R G	G R	G B	B G	<table border="1"> <thead> <tr> <th>Plane#</th> <th>Plane name</th> <th>Storage requirement</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>BAYER</td> <td>2 Bytes/pixel</td> </tr> <tr> <td>1</td> <td>-</td> <td>-</td> </tr> <tr> <td>2</td> <td>-</td> <td>-</td> </tr> <tr> <td>3</td> <td>-</td> <td>-</td> </tr> </tbody> </table>	Plane#	Plane name	Storage requirement	0	BAYER	2 Bytes/pixel	1	-	-	2	-	-	3	-	-
[GB]	[BG]																												
G B	B G																												
R G	G R																												
[RG]	[GR]																												
R G	G R																												
G B	B G																												
Plane#	Plane name	Storage requirement																											
0	BAYER	2 Bytes/pixel																											
1	-	-																											
2	-	-																											
3	-	-																											

Plane 0	Memory layout																															
Word 0	"0000"				Pixel 1								"0000"				Pixel 0															
Byte#	3				2								1				0															
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

15.4 BAYER14

ColorFormat	FourCC	Storage type	Storage requirement
BAYER14	N/A	N/A	2 Bytes/pixel

Spatial sampling periods	Spatial map	Plane assignment																											
N/A	<table border="1"> <tr> <td>[GB]</td> <td>[BG]</td> </tr> <tr> <td>G B</td> <td>B G</td> </tr> <tr> <td>R G</td> <td>G R</td> </tr> <tr> <td>[RG]</td> <td>[GR]</td> </tr> <tr> <td>R G</td> <td>G R</td> </tr> <tr> <td>G B</td> <td>B G</td> </tr> </table>	[GB]	[BG]	G B	B G	R G	G R	[RG]	[GR]	R G	G R	G B	B G	<table border="1"> <thead> <tr> <th>Plane#</th> <th>Plane name</th> <th>Storage requirement</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>BAYER</td> <td>2 Bytes/pixel</td> </tr> <tr> <td>1</td> <td>-</td> <td>-</td> </tr> <tr> <td>2</td> <td>-</td> <td>-</td> </tr> <tr> <td>3</td> <td>-</td> <td>-</td> </tr> </tbody> </table>	Plane#	Plane name	Storage requirement	0	BAYER	2 Bytes/pixel	1	-	-	2	-	-	3	-	-
[GB]	[BG]																												
G B	B G																												
R G	G R																												
[RG]	[GR]																												
R G	G R																												
G B	B G																												
Plane#	Plane name	Storage requirement																											
0	BAYER	2 Bytes/pixel																											
1	-	-																											
2	-	-																											
3	-	-																											

Plane 0	Memory layout																															
Word 0	"00"		Pixel 1								"00"		Pixel 0																			
Byte#	3		2								1		0																			
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

15.5 BAYER16

ColorFormat	FourCC	Storage type	Storage requirement
BAYER16	N/A	N/A	2 Bytes/pixel

Spatial sampling periods	Spatial map				Plane assignment		
N/A	[GB]		[BG]		Plane#	Plane name	Storage requirement
	G B		B G		0	BAYER	2 Bytes/pixel
	R G		G R		1	-	-
	[RG]		[GR]		2	-	-
	R G		G R		3	-	-
	G B		B G				

Plane 0	Memory layout																															
Word 0	Pixel 1																Pixel 0															
Byte#	3				2				1				0																			
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

16 RAW DATA

16.1 RAW8

ColorFormat	FourCC	Storage type	Storage requirement
RAW8	N/A	N/A	1 Byte/data

Spatial sampling periods	Spatial map	Plane assignment		
N/A	N/A	Plane#	Plane name	Storage requirement
		0	RAW	1 Byte/data
		1	-	-
		2	-	-
		3	-	-

Plane 0	Memory layout																															
Word 0	Data 3								Data 2								Data 1								Data 0							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

16.2 RAW10

ColorFormat	FourCC	Storage type	Storage requirement
RAW10	N/A	N/A	2 Bytes/data

Spatial sampling periods	Spatial map	Plane assignment		
N/A	N/A	Plane#	Plane name	Storage requirement
		0	RAW	2 Bytes/data
		1	-	-
		2	-	-
		3	-	-

Plane 0	Memory layout																															
Word 0	"0000 00"								Data 1								"0000 00"								Data 0							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

16.3 RAW12

ColorFormat	FourCC	Storage type	Storage requirement
RAW12	N/A	N/A	2 Bytes/data

Spatial sampling periods	Spatial map	Plane assignment		
N/A	N/A	Plane#	Plane name	Storage requirement
		0	RAW	2 Bytes/data
		1	-	-
		2	-	-
		3	-	-

Plane 0	Memory layout																															
Word 0	"0000"				Data 1																"0000"				Data 0							
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

16.4 RAW14

ColorFormat	FourCC	Storage type	Storage requirement
RAW14	N/A	N/A	2 Bytes/data

Spatial sampling periods	Spatial map	Plane assignment		
N/A	N/A	Plane#	Plane name	Storage requirement
		0	RAW	2 Bytes/data
		1	-	-
		2	-	-
		3	-	-

Plane 0	Memory layout																															
Word 0	"00"		Data 1																"00"		Data 0											
Byte#	3								2								1								0							
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

16.5 RAW16

ColorFormat	FourCC	Storage type	Storage requirement
RAW16	N/A	N/A	2 Bytes/data

Spatial sampling periods	Spatial map	Plane assignment		
N/A	N/A	Plane#	Plane name	Storage requirement
		0	RAW	2 Bytes/data
		1	-	-
		2	-	-
		3	-	-

Plane 0	Memory layout																															
Word 0	Data 1																Data 0															
Byte#	3				2				1				0																			
Bit#	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

17 COMPRESSED VIDEO STREAMS

17.1 DX50

ColorFormat	FourCC	Storage type	Storage requirement
DX50	DX50	Compressed video stream	Variable

This video stream format is compatible with DivX 5.0 codec DX50.

17.2 MP4S

ColorFormat	FourCC	Storage type	Storage requirement
MP4S	MP4S	Compressed video stream	Variable

This video stream format is compatible with Microsoft MPEG-4 codec MP4S.

COPYRIGHT EURESYS S.A.

2007