PHYSICAL

	CARBONITE BLACK SOLO				GRAPHITE		CARBONITE BLACK			CARBONITE ULTRA	Ultrix CARBONITE	
	SOLO	BLACK 109	SOLO 13	BLACK 113	GRAPHITE	GRAPHITE PPC	BLACK	BLACK PLUS	BLACK PLUS 12G	CARBONITE ULTRA	ULTRIX CARBONITE	
SEPARATE RACK FRAME & PANEL	●	●	●	●	●	●	●	●	●	●	●	●
RACK FRAME HEIGHT (RU)	●	1	●	1	4	14.63" (371.50 mm)	2	2	2	1	2 (FR2)	5 (FR5)
RACK FRAME WIDTH	16.20" (411.50 mm)	18.98" (482.10 mm)	16.20" (411.50 mm)	18.98" (482.10 mm)	16.00" (430.00 mm)	17.09" (434.00 mm)	18.93" (480.80 mm)	18.93" (480.80 mm)	18.93" (480.80 mm)	18.98" (482.10 mm)	17.50" (444.5 mm)	17.50" (444.5 mm)
RACK FRAME DEPTH	10.60" (255.50 mm)	10.00" (254.00 mm)	10.60" (255.50 mm)	10.00" (254.00 mm)	23.30" (592.00 mm)	9.05" (230.00 mm)	17.21" (437.10 mm)	17.21" (437.10 mm)	17.21" (437.10 mm)	10.00" (254.00 mm)	7.90" (200.66 mm)	7.90" (200.66 mm)
RACK FRAME WEIGHT	10.00 lbs. (4.54 kg.)	8.00 lbs. (3.63 kg.)	11.00 lbs. (4.99 kg.)	9.00 lbs. (4.08 kg.)	62.00 lbs. (28.12 kg.)	42 lbs. (19.05 kgs.)	15.50 lbs. (7.03 kg.)	15.50 lbs. (7.03 kg.)	15.50 lbs. (7.03 kg.)	13.00 lbs. (5.90 kg.)	12.00 lbs. (5.44 kg.)	14.00 lbs. (6.35 kg.)
POWER CONSUMPTION	57W 4.75A 12VDC	66W 5.50A 12VDC	45W 3.75A 12VDC	48 W 4.00A 12VDC	520W 4.70A 120V	185W 1.5A 120V	120W 2.50A 48VDC	180W 3.75A 48VDC	206W 4.30A 48VDC	114W 7.6A 15VDC	See Note	
INPUT POWER	100 - 120 V, 220 - 240V, 47 - 63 Hz. 1.6 A										See Note	

NOTE: Power requirements and consumption dependent on I/O and SDPE blade complement.

SUPPORTED VIDEO STANDARDS

		CARBONITE BLACK SOLO				GRAPHITE		CARBONITE BLACK			CARBONITE ULTRA	Ultrix CARBONITE	
		SOLO	BLACK 109	SOLO 13	BLACK 113	GRAPHITE	GRAPHITE PPC	BLACK	BLACK PLUS	BLACK PLUS 12G	CARBONITE ULTRA	ULTRIX CARBONITE	
SD	480I /59.94	●	●	●	●	●	●	●	●	●	●	●	●
	576I /50	●	●	●	●	●	●	●	●	●	●	●	●
HD 720P	720P /50	●	●	●	●	●	●	●	●	●	●	●	●
	720P /59.94	●	●	●	●	●	●	●	●	●	●	●	●
HD PSF	1080 PSF /23.98	●	●	●	●	●	●	●	●	●	●	●	●
	1080 PSF /24	●	●	●	●	●	●	●	●	●	●	●	●
	1080 PSF /25	●	●	●	●	●	●	●	●	●	●	●	●
	1080 PSF /29.97	●	●	●	●	●	●	●	●	●	●	●	●
	1080 PSF /30	●	●	●	●	●	●	●	●	●	●	●	●
HD 1080I	1080I /50	●	●	●	●	●	●	●	●	●	●	●	●
	1080I /59.94	●	●	●	●	●	●	●	●	●	●	●	●
HD 1080P	1080P /23.98	●	●	●	●	●	●	●	●	●	●	●	●
	1080P /24	●	●	●	●	●	●	●	●	●	●	●	●
	1080P /25	●	●	●	●	●	●	●	●	●	●	●	●
	1080P /29.97	●	●	●	●	●	●	●	●	●	●	●	●
	1080P /30	●	●	●	●	●	●	●	●	●	●	●	●
	1080P /50	●	●	●	●	●	●	●	●	●	●	●	●
	1080P /59.94	●	●	●	●	●	●	●	●	●	●	●	●
	1080P /60	●	●	●	●	●	●	●	●	●	●	●	●
UHD 2160P	2160P /23.98	●	●	●	●	●	●	●	●	●	●	●	●
	2160P /24	●	●	●	●	●	●	●	●	●	●	●	●
	2160P /25	●	●	●	●	●	●	●	●	●	●	●	●
	2160P /29.97	●	●	●	●	●	●	●	●	●	●	●	●
	2160P /30	●	●	●	●	●	●	●	●	●	●	●	●
	2160P /50	●	●	●	●	●	●	●	●	●	●	●	●
	2160P /59.94	●	●	●	●	●	●	●	●	●	●	●	●
	2160P /60	●	●	●	●	●	●	●	●	●	●	●	●
	SINGLE-LINK 12G	●	●	●	●	●	●	●	●	●	●	●	●
	QUAD-LINK 2SI, 3G LEVEL A	●	●	●	●	●	●	●	●	●	●	●	●

FRAME FEATURES (SD/HD)

	CARBONITE BLACK SOLO				GRAPHITE		CARBONITE BLACK			CARBONITE ULTRA	Ultrix CARBONITE	
	SOLO	BLACK 109	SOLO 13	BLACK 113	GRAPHITE	GRAPHITE PPC	BLACK	BLACK PLUS	BLACK PLUS 12G	CARBONITE ULTRA	ULTRIX CARBONITE	
SDI INPUTS	6	6	12	12	4, 8 or 12	4, 8 or 12	36	36	36	24	22	22
HDMI INPUTS	3	3	1	1	1	1	●	●	●	●	●	●
SDI OUTPUTS	5	5	5	5	6	6	22	25	25	14	22	22
HDMI OUTPUTS	1	1	1	1	2	2	●	●	●	●	●	●
ME BANKS	1	1	1	1	1 or 2	1 or 2	2 or 3	2 or 3	2 or 3	1, 2 or 3	1 or 2 per Switcher (SDPE Blade)	1 or 2 per Switcher (SDPE Blade)
MINIME BANKS	2 (Gen 1)[1]	2 (Gen 1)[1]	2 (Gen 1)[1]	2 (Gen 1)[1]	4 (Gen 1)[1]	4 (Gen 1)[1]	4 (Gen 1)[1]	4 (Gen 1)[1]	4 (Gen 1)[1]	4 (Gen 2)[2]	4 (Gen 2)[2] per Switcher (SDPE Blade)	4 (Gen 2)[2] per Switcher (SDPE Blade)
KEYERS PER ME	5 (4 Full Keyers + 1 Transition Keyer)	5 (4 Full Keyers + 1 Transition Keyer)	5 (4 Full Keyers + 1 Transition Keyer)	5 (4 Full Keyers + 1 Transition Keyer)	5 (4 Full Keyers + 1 Transition Keyer)	5 (4 Full Keyers + 1 Transition Keyer)	5 (4 Full Keyers + 1 Transition Keyer)	5 (4 Full Keyers + 1 Transition Keyer)	5 (4 Full Keyers + 1 Transition Keyer)	5 (4 Full Keyers + 1 Transition Keyer)	7 (6 Full Keyers + 1 Transition Keyer)	7 (6 Full Keyers + 1 Transition Keyer)
KEYERS PER MINIME	2	2	2	2	2	2	2	2	2	2	2	2
2D DVES	2	2	2	2	4	4	4 (3G) or 8 (SD/HD)	8	8	8	12	12
PERSPECTIVE DVE BORDERS	●	●	●	●	●	●	●	●	●	●	●	●
ULTRACHROME CHROMA KEYERS	1	1	1	1	2	2	2	2	2	4	4	4
INPUT FSFC	6	6	6	6	6	6	6	36	36	Up to 24	Up to 22	Up to 22
INPUT COLOUR CORRECTORS/PROC AMPS	●	●	●	●	●	●	●	36	36	Up to 24	Up to 22	Up to 22
OUTPUT FC	●	●	●	●	●	●	●	12	12	Up to 10	●	●
I/O MULTIVIEWERS	●	●	●	●	●	●	●	3	3	Up to 2	Ultriscape	Ultriscape
PRODUCTION MULTIVIEWERS	1	1	1	1	2	2	2	2	2	Up to 2	2	2
MEDIASTORE	4 x video or 2 x video/key	4 x video or 2 x video/key	4 x video or 2 x video/key	4 x video or 2 x video/key	4 x video or 2 x video/key	4 x video or 2 x video/key	4 x video or 2 x video/key	4 x video or 2 x video/key	4 x video or 2 x video/key	4 x video or video/key	4 x video or video/key	4 x video or video/key
AUDIO MEDIASTORE	MediaStore 1 & 2	MediaStore 1 & 2	MediaStore 1 & 2	MediaStore 1 & 2	MediaStore 1 & 2	MediaStore 1 & 2	MediaStore 1 & 2	MediaStore 1 & 2	MediaStore 1 & 2	MediaStore 1 & 2	MediaStore 1 & 2	MediaStore 1 & 2
USB MEDIA PLAYER	●	●	●	●	●	●	●	●	●	●	●	●
AUDIO MIXER	●	●	●	●	●	●	●	●	●	●	Ultrimix	Ultrimix

[1]Gen 1 MiniME Banks provide one DVE Keyer and one full-function keyer.

[2]Gen 2 MiniME Banks provide two full-function keyers.

FRAME FEATURES (UHD)

	CARBONITE BLACK SOLO				GRAPHITE		CARBONITE BLACK			CARBONITE ULTRA	Ultrix CARBONITE	
	SOLO	BLACK 109	SOLO 13	BLACK 113	GRAPHITE	GRAPHITE PPC	BLACK	BLACK PLUS	BLACK PLUS 12G	CARBONITE ULTRA	ULTRIX CARBONITE	
SDI INPUTS	●	●	●	●	●	●	9	9	9	18 Single-Link or 16 Single-Link + 2 Quad-Link	22	22
HDMI INPUTS	●	●	●	●	●	●	●	●	●	●	●	●
SDI OUTPUTS	●	●	●	●	●	●	5	5	5	12	22	22
HDMI OUTPUTS	●	●	●	●	●	●	●	●	●	●	●	●
ME BANKS	●	●	●	●	●	●	1	1	1	1 or 2	1 or 2 per Switcher (SDPE Blade)	1 or 2 per Switcher (SDPE Blade)
MINIME BANKS	●	●	●	●	●	●	2 (Gen 1)[1]	2 (Gen 1)[1]	2 (Gen 1)[1]	2 (Gen 2)[2]	2 (Gen 2)[2] per Switcher (SDPE Blade)	2 (Gen 2)[2] per Switcher (SDPE Blade)
KEYERS PER ME	●	●	●	●	●	●	5 (4 Full Keyers + 1 Transition Keyer)	5 (4 Full Keyers + 1 Transition Keyer)	5 (4 Full Keyers + 1 Transition Keyer)	5 (4 Full Keyers + 1 Transition Keyer)	7 (6 Full Keyers + 1 Transition Keyer)	7 (6 Full Keyers + 1 Transition Keyer)
KEYERS PER MINIME	●	●	●	●	●	●	2	2	2	2	2	2
2D DVES	●	●	●	●	●	●	2	2	2	2	6	6
PERSPECTIVE DVE BORDERS	●	●	●	●	●	●	●	●	●	●	●	●
ULTRACHROME CHROMA KEYERS	●	●	●	●	●	●	2	2	2	2	2	2
INPUT FSFC	●	●	●	●	●	●	●	9	9	Up to 7 + 1 FC	Up to 4	Up to 4
INPUT COLOUR CORRECTORS/PROC AMPS	●	●	●	●	●	●	●	9	9	Up to 8	Up to 4	Up to 4
OUTPUT FC	●	●	●	●	●	●	●	3	3	Up to 4	●	●
I/O MULTIVIEWERS	●	●	●	●	●	●	●	3	3	Up to 1	Ultriscape	Ultriscape
PRODUCTION MULTIVIEWERS	●	●	●	●	●	●	1	1	1	1	1	1
MEDIASTORE	●	●	●	●	●	●	4 x video or 2 video/key	4 x video or 2 video/key	4 x video or 2 video/key	2 x video or video/key	4 x video or video/key	4 x video or video/key
AUDIO MEDIASTORE	●	●	●	●	●	●	MediaStore 1 & 2	MediaStore 1 & 2	MediaStore 1 & 2	MediaStore 1 & 2	MediaStore 1 & 2	MediaStore 1 & 2
USB MEDIA PLAYER	●	●	●	●	●	●	●	●	●	●	●	●
AUDIO MIXER	●	●	●	●	●	●	●	●	●	●	Ultrimix	Ultrimix

[1]Gen 1 MiniME Banks provide one DVE Keyer and one full-function keyer.

[2]Gen 2 MiniME Banks provide two full-function keyers.

SUPPORTED PROTOCOLS

	CARBONITE BLACK SOLO				GRAPHITE		CARBONITE BLACK			CARBONITE ULTRA	Ultrix CARBONITE	
	SOLO	BLACK 109	SOLO 13	BLACK 113	GRAPHITE	GRAPHITE PPC	BLACK	BLACK PLUS	BLACK PLUS 12G	CARBONITE ULTRA	ULTRIX CARBONITE	
INBOUND												
ROSSTALK	●	●	●	●	●	●	●	●	●	●	●	●
OVERDRIVE / CAPRICA	●	●	●	●	●	●	●	●	●	●	●	●
GVG 100	●	●	●	●	●	●	●	●	●	●	●	●
TSL 3.1	●	●	●	●	●	●	●	●	●	●	●	●
OUTBOUND												
AMP	●	●	●	●	●	●	●	●	●	●	●	●
VISCA (SERIAL)	●	●	●	●	●	●	●	●	●	●	●	●
ROSSTALK	●	●	●	●	●	●	●	●	●	●	●	●
TSL 3.1	●	●	●	●	●	●	●	●	●	●	●	●
ROSS CAMBOT	●	●	●	●	●	●	●	●	●	●	●	●
CANON BU	●	●	●	●	●	●	●	●	●	●	●	●
PBUS	●	●	●	●	●	●	●	●	●	●	●	●
YAMAHA 01V96 & DM1000 (SERIAL TO MIDI CONVERTER REQUIRED)	●	●	●	●	●	●	●	●	●	●	●	●
VDCP	●	●	●	●	●	●	●	●	●	●	●	●

PORTS

	CARBONITE BLACK SOLO				GRAPHITE		CARBONITE BLACK			CARBONITE ULTRA	Ultrix CARBONITE	
	SOLO	BLACK 109	SOLO 13	BLACK 113	GRAPHITE	GRAPHITE PPC	BLACK	BLACK PLUS	BLACK PLUS 12G	CARBONITE ULTRA	ULTRIX CARBONITE	
GIGE PORT	1	1	1	1	2 (1 Carbonite, 1 Windows)	2 (1 Carbonite, 1 Windows)	2	2	2	1	Blades & Chassis	Blades & Chassis
TALLY	16	16	16	16	16 (on Audio Breakout Unit)	16 (on Audio Breakout Unit)	34	34	34	24	24	24
GPIO	24	24	24	24	24 (on Audio Breakout Unit)	24 (on Audio Breakout Unit)	34	34	34	24	24	24
RS-422 SERIAL PORT	●	●	●	●	●	●	●	●	●	●	●	●
LTC INPUT	●	●	●	●	●	●	●	●	●	●	●	●
AES INPUT	●	●	●	●	● (on Audio Breakout Unit)	● (on Audio Breakout Unit)	●	●	●	●	●	●
AES OUTPUT	●	●	●	●	● (on Audio Breakout Unit)	● (on Audio Breakout Unit)	●	●	●	●	●	●
REFERENCE INPUT	1	1	1	1	1	1	1	1	1	1	1 (Looping) (on Ultrix frame)	2 (Looping) (on Ultrix frame)
REFERENCE OUTPUT	●	●	●	●	●	●	2	2	2	1	1 (Looping) (on Ultrix frame)	2 (Looping) (on Ultrix frame)

CARBONITE

Carbonite_Matrix_210910_a

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