7.6 Specifications for Puma

Specifications apply to all Pumas except as noted for specific models: Puma X, Puma XP and Puma UXP.

Mechanical

Specification	Maximum	Minimum	Typical	Notes
Outside dimensions				
Width	40"			1016 mm
Height	44.75"			1137 mm
Depth	30.5"			775 mm
Weight, fully assembled	160 lbs			72.7 kg
chassis without screen				
glass screen only				
Shipping weight				
Stacking				
Horizontal	Unlimited			
Vertical	4			Higher walls may need additional support
Orientation	20°			Tilt of top surface plane on any axis
Chassis color			Black	
Ventilation requirement		0" at rear		Ventilation thru vertical chimneys
Screen size				Aspect ratio 4×3 (1.33)
Diagonal	50"			1270 mm
Width	40"			1016 mm
Height	30"			762 mm
Mullion, SCN-5250-GV, -GC (glass)			0.070"	1.5 mm
screen-to-screen gap			0.160"	4.0 mm
Mullion, SCN-5250-AG (acrylic)			0.020"	0.5 mm
screen-to-screen gap			0.070"	1.7 mm

Electrical and Heat

Specification	Maximum	Minimum	Typical	Notes
Video input amplitude				
Separate RGB analog	1.0 V p-p	0.5 V p-p	0.7 V p-p	75 ohm termination
Composite analog	5.0 V p-p		0.3 V p-p	75 ohm termination
TTL H and V sync	5.0 V	2.5 V	3.5 V	TTL at 330 ohm termination
Input connectors				
15-pin D-sub female				Analog 1, Analog 2, In and Out
DVI				Digital In and Out; DVI standard
BNC (optional)				Composite video
4-pin DIN (optional)				S-Video In and Out
RJ45				RS232 In and Out
Frequency, vertical	120 Hz	56 Hz		

Electrical and Heat

Specification	Maximum	Minimum	Typical	Notes
Frequency, horizontal	91.1 kHz	31.47 kHz		
Dot clock	165 MHz			
AC requirements				
Line voltage 115 V range	120 V	100 V		45–65 Hz auto-ranging, power factor corrected
230 V range	240 V	200 V		
Line current				
115 V, 2 lamps			4.3 A	
115V, 1 lamp			2.6 A	
230 V, 2 lamps			2.2 A	
230 V, 1 lamp			1.3 A	
Power				
2 lamps			500 W	
1 lamp			300 W	
Heat, BTUs per hour				
2 lamps			1700	
1 lamp			1020	

Optical

Specification	Maximum	Minimum	Typical	Notes
Image position	+1 pixel	–1 pixel	0 pixel	
Rotation	– ½ pixel	+½ pixel	0 pixel	
Pincushion/Barrel	–1 pixel	+1 pixel	0 pixel	
Keystoning	–1 pixel	+1 pixel	0 pixel	
Focus/Aberration				No objectionable defocusing or chromatic aberration at distance of 1.5 screen diagonals by a 20/20 vision viewer
Screen, High-contrast glass				Screen type SCN-5010-GC
Gain			1.7±10%	
Viewing cone, 2 gain, H & V			70°	±35°
Viewing cone, 5 gain, H & V			90°	±45°
Brightness (all available lamps)				
Puma X			62 fL	
Puma XP			124 fL	
Puma UXP			96 fL	
Quality View Metric (QVM)[1]			450	
Screen, Wide-view glass				Screen type SCN-5010-GV
Gain			1.0±10%	
Viewing angle, 2 gain, H & V			80°	±40°
Viewing angle, 5 gain, H & V			135°	±67.5°
Brightness (all available lamps)				
Puma X			36 fL	
Puma XP			72 fL	

Optical

Specification	Maximum	Minimum	Typical	Notes
Puma UXP			57	
Quality View Metric (QVM)[1]			990	
Screen, High-gain acrylic				Screen type SCN-5010-AG
Gain			4.0	
Viewing cone, 2 gain, H			46°	±23°
Viewing cone, 2 gain, V				
Viewing cone, 5 gain, H			46°	±23°
Viewing cone, 5 gain, V				
Brightness (all available lamps)				
Puma X			158 fL	
Puma XP			316 fL	
Puma UXP			251 fL	
Quality View Metric (QVM)[1]			280	
Brightness uniformity, any screen			> 75%	ANSI 13-point standard, with 2 lamps
Contrast ratio			>1200:1	Dark room
Resolution, Puma X & XP				1204 × 768 pixels
Resolution, Puma UXP				1600 × 1200 pixels
Lamp life, median 200W high pressure mercury			8000[2]	Hours

1. Clarity's Quality Viewing Metric (QVM) is a comprehensive measure of image quality. It combines the effects of brightness, contrast and ambient light to yield a more meaningful measurement for evaluating perceived image quality. See technology notes on image quality at www.ClarityVisual.com/technotes.
2. Median lamp life means 50% of large sample of lamps are still operational after 8000 hours of use.

Environmental

Specification		Maximum	Minimum	Typical	Notes
Temperature	operating	40° C, 95° F	0° C, 32° F		All performance specifications are maintained within this temperature range
	non-operating	60° C, 140° F	–10° C, 14° F		
Altitude (barometric pressure)		10,000 ft			Above sea level, or equivalent barometric pressure
Humidity		80% R.H.	20% R.H.		40° C non-condensing