

# Cheetah

## Digital Specifications

### Inputs / Outputs for Coax

Connector Type	75 Ohm
Return Loss	>15dB from 5MHz to 1.5GHz >10dB, 1.5GHz to 3GHz
Input cable equalization	SMPTE 259M - 300m SMPTE 292M - 100m SMPTE 424M - 80m Based on Belden 1694a or equal
Output Signal Level	800mV, p-p, +/-10%
Output Signal Polarity	Non-inverted

### Inputs/Outputs for Fiber

Connector Type	Dual Optical SFP (small form factor pluggable) Compliance with ITU-T G.957
Connector Style	LC
Input Data Rates	143 Mbps to 1.5Gbps - ASI/SD/HD 143 Mbps to 3.0Gbps - SD/HD/3G
Optical Input wavelength	Singlemode ( 1310 optimal)
Input Power	-20dBm (min) -1dBm (max)
Output Data Rates	143 Mbps to 3.0Gbps Auto reclocking to SMPTE 259M, 292M 424M. Bypass mode - 143Mb to 3Gbps
Output Power	-9dBm (min) -3dBm (max)
Optical Loss Budget	Approx. 9dB assumes two optical connections over a 10Km singlemode fiber
Jitter	< 0.2UI, p-p, SMPTE 259M, 292M <0.3UI, p-p, SMPTE 424M compliant with RP-184
Fiber Transmission Specifications	IEC 61754-20-1
Typical Operating Distances	9/125u ( 10Km / 6.25 miles) 50/125u (400m / 1200 feet) 62.5/125u (200m / 600feet)

NOTE: Operating distances are approximate only. Cable loss and other interconnects can affect the total light loss between a TX and RX path. These are only estimates and may not reflect the actual lengths achievable.

## Digital Signal Performance

Inputs / Outputs for Coax	
Re-clocking	Auto-detect compliant with SMPTE 259M, 292M, 424M
Rise/Fall Time	< 600 ps, +/- 10%   SMPTE 259M < 270 ps,   SMPTE 292M < 135ps,   SMPTE 424M
Overshoot	< 10% of amplitude ( max.)
Alignment Jitter	< 0.2UI , 100kHz to 150MHz < 0.3UI, 150MHz to 300MHz
Timing Jitter	<1.0UI from 10Hz to 100kHz   SMPTE 259/292 < 2.0UI from 10Hz to 100kHz   SMPTE 424M
Operational Mode Selections	AUTO - detects correct signal type MANUAL - force to a specific format BYPASS - allow signals to pass w/o reclocking
Data Rates Supported	143Mbps to 3.0Gbps

## Environmental

Cooling	Forced air front to back
Operating Temperature	0-40 degrees (C)
Operating Humidity	10-90% non-condensing

## AC power connections

64NE / XE	IEC - 60320 connector 95VAC to 240VAC, 47-63Hz Maximum watts per frame - 600W
128NE / XE	IEC - 60320 connector 95VAC to 240VAC, 47-63Hz Maximum watts per fame - 1200W
144NE	IEC - 60320 connector 95VAC to 240VAC, 47-63Hz Maximum watts per from - 450W
288 / 256	pigtails (195VAC to 240VAC Maximum watts per frame - 1200W
512XR / 256CX / 288XR	pigtails ( 95VAC to 240VAC) max watts per frame 2000W
512CH / 576XR / 864XR / 1024XR 1152XR	pigtails ( 95VAC to 240VAC) max watts per frame 6000W

## Safety and Conformance

FCC, CE, UL, RoHS/WEEE	
Warranty	3 years parts and labor

## Control and Interfaces

panel communications	RS-485 / 3 pin detachable
control communications	RS-232 / 422 / Ethernet
connector type	9 pin D-SUB, RJ-45
control system	PESA 3500PRO, PERC2000
Third Party Interfaces	use PESA CPU Link
Network Software	Cattrax Network Software Cattrax Web (PERC2000 only)
Number of Panels per frame	600

## Mechanical

4RU FRAME	Dimensions 19.00W X 7.00H X 21.00D 482.6mm X 177.8mm X 533.4mm 64NE, 64NE-3G, 144NE
6RU FRAME	19.00W X 10.50H X 21.00D 482.6mm X 266.7mm X 533.4mm 64XE
7RU FRAME	19.00W X 12.25H X 21.00D 482.6mm X 311.15mm X 533.4mm 128NE
11RU FRAME	19.00W X 19.25H X 21.00D 482.6mm X 488.95mm X 533.4mm 128XE
18RU FRAME	19.00W X 31.50H X 23.00D 482.6mm X 800.1mm X 584.2mm 288XR / 288XE / 256CH
27RU FRAME	19.00W X 47.25H X 23.00D 482.6mm X 1200mm X 584.2mm 576XR / 512CX / 512CH
41RU FRAME	19.00W X 71.75H X 23.00D 482.6mm X 1822mm X 584.2mm 512XE / 512CH / 864XR / 1024XR/ 1152XR