



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR HCAI SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0793

HCAI Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Arista Networks

Manufacturer's Technical Representative: Alika Hirano

Mailing Address: 5453 Great America Parkway, Santa Clara, CA 95054

Telephone: (510) 332-1549

Email: ahirano@arista.com

Product Information

Product Name: Internal Communication Servers and Routers

Product Type: Servers & Routers

Product Model Number: Cognitive Campus Switches: 722XP Series PoE Switches

General Description: Rack mounted (2-post) networking equipment

Mounting Description: Rigid, Mounted within a Rigid Floor Mounted Rack

Tested Seismic Enhancements: None

Applicant Information

Applicant Company Name: Manwill Engineering LLC

Contact Person: Derek Manwill

Mailing Address: PO Box 1194, Bend, OR 97709

Telephone: (541) 241-2102

Email: derek@manwillse.com

Title: President





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California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)

Company Name: MANWILL ENGINEERING LLC

Name: Derek Manwill California License Number: S6266

Mailing Address: PO Box 1194, Bend, OR 97709

Telephone: (541) 241-2102 Email: derek@manwillse.com

Certification Method

GR-63-Core ICC-ES AC156 IEEE 344 IEEE 693 NEBS 3

Other (Please Specify): _____

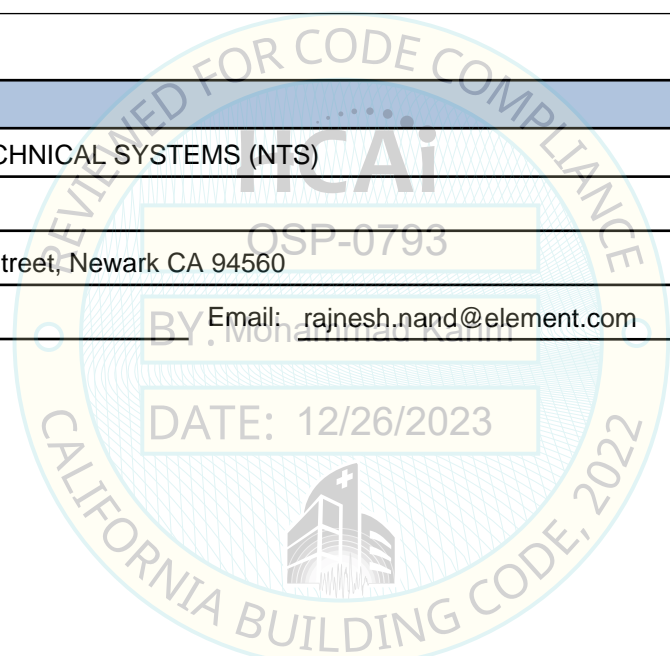
Testing Laboratory

Company Name: NATIONAL TECHNICAL SYSTEMS (NTS)

Contact Person: Rajnish Nand

Mailing Address: 38995 Cherry Street, Newark CA 94560

Telephone: (510) 578-3500 Email: rajnish.nand@element.com





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Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) = 1.44 (SDS=2.00, z/h=1), 1.13 (SDS=2.50, z/h=0)

SDS (Design spectral response acceleration at short period, g) = 2.00 (z/h=1), 2.50 (z/h=0)

a_p (Amplification factor) = 1.0

R_p (Response modification factor) = 2.5

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height ratio factor) = 1 and 0

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

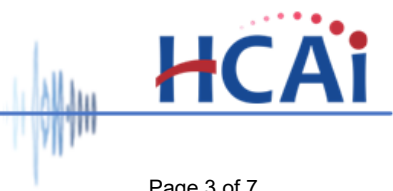
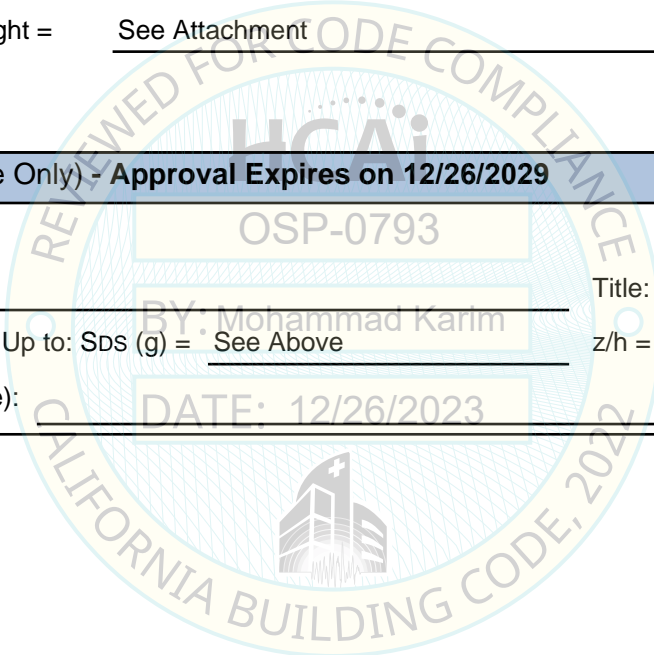
HCAI Approval (For Office Use Only) - Approval Expires on 12/26/2029

Date: 12/26/2023

Name: Mohammad Aliaari Title: Senior Structural Engineer

Special Seismic Certification Valid Up to: SDS (g) = See Above z/h = See Above

Condition of Approval (if applicable): DATE: 12/26/2023



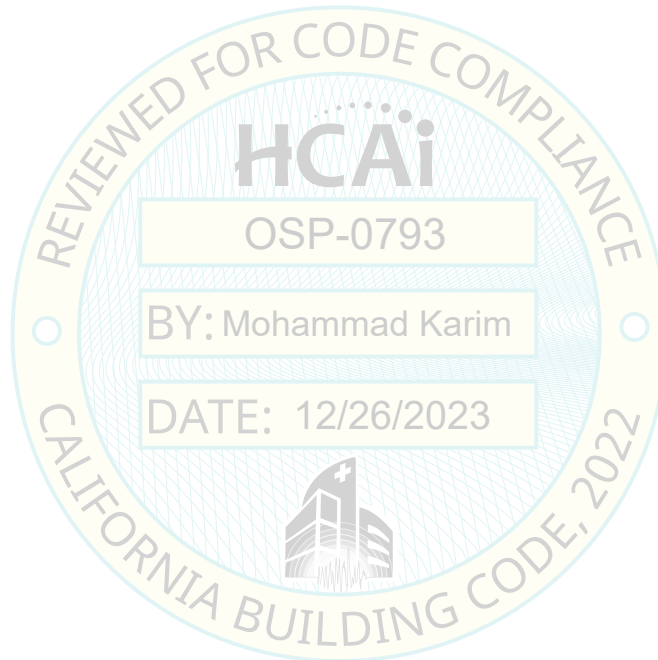
ARISTA NETWORKS
Cognitive Campus Switches: 722XP Series PoE Switches

TABLE 1

Model Number	Dimensions (in)			Max. Wt. (lb)	Description / Notes	Basis
	Depth	Width	Height			
Server Rack for Mounting Equipment						
Chatsworth Rack 13853-X03	15.0	24.0	84.0	508	Wt. incl. rack, vert C.G.=44.7in	UUT 1
Mounting: Rigid floor mounted Chatsworth 13853-X03 rack. Use identical rack with a C.G. less than the listed C.G. above.				Seismic Levels:	$S_{DS} = 2.00g$ for $z/h = 1$ $S_{DS} = 2.50g$ for $z/h = 0$	$I_p = 1.5$

Product Construction: Carbon steel rack. Frame only, doors/panels/accessories of the rack are not certified.

Options/Subcomponents: Rack may contain any combination of subcomponents listed in Table 2. Total weight and C.G. must be less than values listed above.

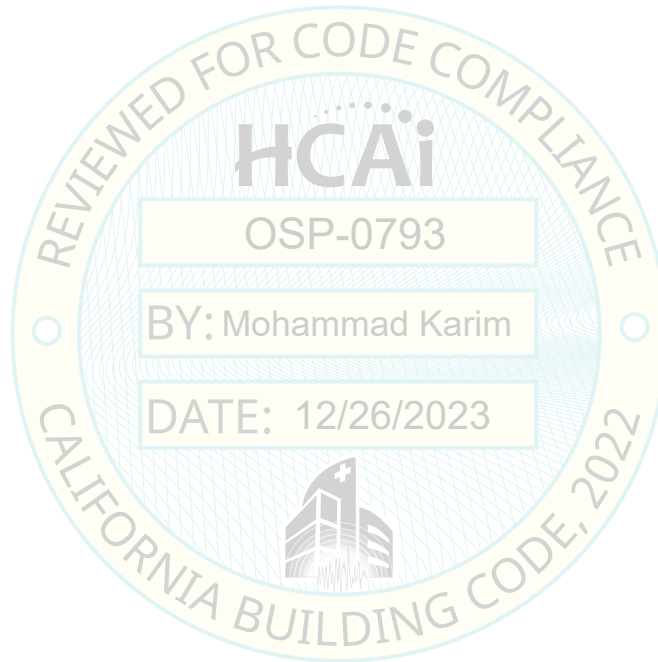


ARISTA NETWORKS
Cognitive Campus Switches: 722XP Series PoE Switches

TABLE 2. SUBCOMPONENTS

Model Number	Dimensions (in)			Max. Wt. (lb)	Description / Notes	Basis
	Depth	Width	Height			
Type: Cognitive Campus Switches: 722XP Series PoE Switches - Mfr: Arista Networks						
CCS-722XPM-48Y4	14.5	17.5	1.8	15	48 x 10M-1GbE @ 30W	UUT 1
CCS-722XPM-48ZY8	16.8	17.5	1.8	17	48 x mGig (100M-2.5Gb) @ 60W	UUT 1
Mounting: Mounted within unit.				Seismic Levels:	$S_{DS} = 2.00g$ for $z/h = 1$ $S_{DS} = 2.50g$ for $z/h = 0$	$I_p = 1.5$

Construction/Options: Model number uniquely identifies manufacturer, materials, and configuration of subcomponents.



UUT 1

Manufacturer: Arista Networks
 Model number: Chatsworth Rack 13853-X03
 Unit function: Servers & Routers
 Serial number: N/A

Dimensions (in)			Weight (lb)	Res. Freq. (Hz)		
Depth	Width	Height		F-B	S-S	V
15.0	24.0	84.0	508	17.0	8.8	12.7

Code & criteria: 2022 CBC, ICC-ES AC156

Test laboratory: Element – Newark

Report: 23107TR1.0 (dated 12-18-23), tested on 12-14-23

S _{DS} (g)	z/h	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
2.00	1	3.20	2.40	1.68	0.68
2.50	0				

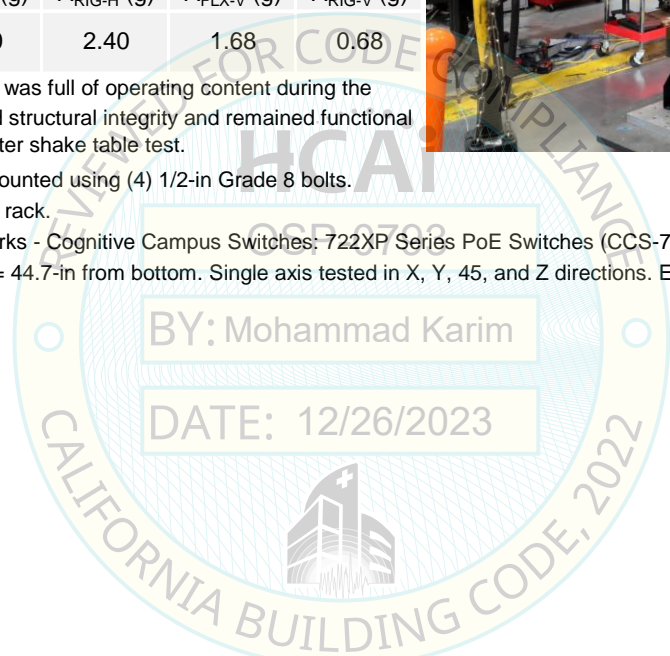
Importance Factor, I_p = 1.5: Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

Mounting: Rigid floor mounted using (4) 1/2-in Grade 8 bolts.

Construction: Carbon steel rack.

Subcomponents: Arista Networks - Cognitive Campus Switches: 722XP Series PoE Switches (CCS-722XPM-48Y4, CCS-722XPM-48ZY8).

Testing notes: C.G. of unit = 44.7-in from bottom. Single axis tested in X, Y, 45, and Z directions. Each switch mounts to rail with (4) 1/4-in screws.



UUT 1 - RACK CONFIGURATION

RU	Subcomponent	Weight, lb	CG, in
N/A	Added weight	25	86.0
45			
44	CCS-722XPM-48Y4	15	80.8
43			
42	CCS-722XPM-48ZY8	17	77.3
41			
40			
39			
38			
37			
36			
35	Added weight	88	60.6
34			
33			
32			
31			
30			
29			
28			
27			
26			
25	Added weight	88	41.4
24			
23			
22			
21			
20			
19			
18			
17			
16			
15			
14			
13			
12			
11	Added weight	108	18.6
10			
9			
8			
7			
6			
5			
4			
3			
2			
1			



CG of unit = 44.7 inches from bottom. Total height = 84in.