

# DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION FACILITIES DEVELOPMENT DIVISION

### APPLICATION FOR HCAI SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0524

CERTIFICATION FREAFFROVAL (USF)	AFFLICATION #. 03F-0324
HCAI Special Seismic Certification Preapproval (OSP)	
Type: New X Renewal	
Manufacturer Information	
Manufacturer: Xtralis (a division of Honeywell)	
Manufacturer's Technical Representative: Matthew Brewer	
Mailing Address: 12 Clintonville Rd, Northford, CT 06472	
Telephone: (385) 414-9325 Email: Matthew.Brewe	r@Honeywell.com
Product Information	MD
Product Name: Electrical Control Panels on Life Safety/Critical Branch	
Product Type: Fire Protection & Security Panels	2
Product Model Number: See Attachment	
General Description: Enclosures contain tubing, batteries, circuit board, assembly, smoke sensor assembly, volumetric ch	
Mounting Description: Rigid wall mounted or flexible wall mounted	
Tested Seismic Enhancements: None DATE: TOTE/2022	1100
Applicant Information	- Her
Applicant Company Name: Dynamic Certification Laboratories	
Contact Person: Kelly Laplace	
Mailing Address: 1315 Greg Parkway #109, Sparks, NV 89431	
Telephone: (775) 358-5085 Email: Kelly@shaketes	st.com
Title: Business Manager	

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California Licensed Structural Engineer Respons	ible for the Engineering and Test Report(s)
Company Name: THE VMC GROUP	
Name: Kenneth Tarlow	California License Number: S2851
Mailing Address: 980 9th Street, 16th Floor, Sacramento	, CA 95814
Telephone: (832) 627-2214 Email:	ken.tarlow@thevmcgroup.com
Certification Method	
GR-63-Core X ICC-ES AC156	□ IEEE 344 □ IEEE 693 □ NEBS 3
Other (Please Specify):	
FOR	CODECO
Testing Laboratory	Mp.
Company Name: DYNAMIC CERTIFICATION LABORAT	ORY (DCL)
Contact Person: Kelly Laplace	
Mailing Address: 1315 Greg St., Ste 109, Sparks NV 894	37-0524 m
Telephone: (775) 358-5085	Kelly@shaketest.com
DATE:	10/12/2022 S
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#### Seismic Parameters

Desig	n Basis of Equipment or Components	(Fp/Wp) = <u>1.88</u>								
	SDS (Design spectral response accele	eration at short period, g) = $2.5$								
	ap (Amplification factor) =	2.5								
	Rp (Response modification factor) =	6.0								
	$\Omega_0$ (System overstrength factor) =	1.5								
	Ip (Importance factor) =	1.5								
	z/h (Height ratio factor) =	1								
	Natural frequencies (Hz) = See Attachment									
	Overall dimensions and weight =	See Attachment								
		JED FOR								
HCAI	Approval (For Office Use Only) -	Approval Expires on 10/12/2028	The second							
Date:	10/12/2022	OSP-0524	1 G							
Name	: Mohammad Karim		Title:	Supervisor, Health Facilities						
Specia	al Seismic Certification Valid Up to: St	os (g) = 2.5	z/h =	1						
Condit	ion of Approval (if applicable):	DATE: 10/12/2022	<b>No</b>							
		PRVIA BUILDING COD	402							

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## Special Seismic Certification Table 1 - Certified Components - Aspirated Detector Units



DCL Project Number:	91922-2201 LABORATORIES,LLC										
Manufacturer:	Xtralis										
Product Line:	Aspirated Detector Units										
Mounting Configuration:	Rigid and Flexible Wall Mount										
Test Levels:	S <sub>DS</sub> = 2.50g, z/h=1.0										
		N	lax. Dimensions (i	Max. Weight							
Model Number	Manufacturer	Depth	Width	Height	(lb.)	Unit					
VER-A40-40-STX		5.30	13.90	13.40	12	UUT2a,b					
VEA-040-STX	Xtralis	5.20	13.90	13.20	21	UUT4a,b					
VEA-040-A00		5.33	13.90	13.20	22	UUT3a,b					
VEA-040-A10		5.33	13.90	13.20	23	UUT1a,b					

# Special Seismic Certification Table 2 - Certified Components - Battery Backed Power Supplies

DCL Project Number:	91922-2201					
Manufacturer:	Xtralis		VIII VIII VIII VIII			
Product Line:	Battery Backed Power Supplies	DSP-052	1	5		
Mounting Configuration:	Rigid and Flexible Wall Mount	JSP-052	+	T		
Test Levels:	S <sub>DS</sub> = 2.50g, z <mark>/h=1.</mark> 0					
	BY:M	ohammad 🛚	lax. Dimensions (i	n)	Max. Weight	
Model Number	Manufacturer	Depth	Width	Height	(lb.)	Unit
VPS-VEA-115UL-1	Xtralis DATE	• 1(5,752/2)	22 17.50	13.25	60	UUT5a,b
VPS-VEA-115UL-2		5.75	20.00	13.25	62	UUT6a,b

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### Special Seismic Certification Table 3 - Certified Subcomponents - Aspirated Detector Units - Enclosures



 DCL Project Number:
 91922-2201

 Certified seismic level :
 Snc = 2.50g. z/h=1.0

Model Number Ma	Manufacturer	Material Nema Rating		Max. Loaded	Unit				
	Manufacturer		Nema Kating	Depth	Width	Height	Weight (lb)	Unit	
LF46415				5.30	13.90	13.40	12	UUT2a,b	
LF46414	Xtralis	Aluminum, polycarbonate and ABS	Aluminum, polycarbonate and ABS	1	5.20	13.90	13.20	21	UUT4a,b
LF46412	Atrails	plastic	1	5.33	13.90	13.20	22	UUT3a,b	
LF46413	LF46413			5.33	13.90	13.20	23	UUT1a,b	

OCL Project Number:	91922-2201	L'I		Y.
Certified seismic level :	S <sub>DS</sub> = 2.50g, z/h=1.0			
Model Number	Manufacturer	Material	OSP_0524	Unit
Driscoplex 2500 Driscoplex 2600	Performance Pipe	Polyethylene	4mm Tube	UUT1,3,4 a, UUT1,3,4 a,

922-2201			
<sub>s</sub> = 2.50g, z/h=1.0			
Manufacturer	Material	Description	Unit
Ytralis	Nylon	See below	UUT1,3,4 a,b
Atrails	Nylon	B III See Delow G	UUT1,3,4 a,b
	<sub>s</sub> = 2.50g, z/h=1.0	s = 2.50g, z/h=1.0 Manufacturer Material	s = 2.50g, z/h=1.0 Manufacturer Material Description

\* x=0,1 for 4mm and 6mm version, W=White or B=Black, yy=none for single and 22 = pack of 22

\*\* x=2,3 for 4mm and 6mm surface mount version, W=White or B=Black, yy=none for single and 22 = pack of 22

#### **Special Seismic Certification** Table 6 - Certified Subcomponents - Aspirated Detector Units - Other Subcomponents DCL Project Number: 91922-2201 Certified seismic level : S<sub>DS</sub> = 2.50g, z/h=1.0 Model Number Manufacturer Material Unit Poly Carbonate UUT1,3,4 a,b Rotary Valve Assembly Xtralis Pump Assembly **Xtralis** EPDM, Polybutylene terephthalate (PBT), steel galvanized UUT1,3,4 a,b Polycarbonate Smoke Sensor Assembly Xtralis UUT1,3,4 a,b Volumetric Chamber Xtralis Polycarbonate UUT1,3,4 a,b Assembly Firepanel Module Tray Xtralis Polycarbonate UUT2 a,b

### Special Seismic Certification Table 7 - Certified Subcomponents - Battery Backed Power Supplies - Enclosures





### **Special Seismic Certification** Table 10 - Tested Units

(( CERTIFICATION LABORATORIES,LLC

DCL Project Number: 91922-2201

Manufacturer:

Xtralis

Product Line: Aspirated Detector Units and Battery Backed Power Supplies

Mounting Configuration: Rigid and Flexible Wall Mount Tost Loval  $250\sigma \frac{1}{2}/h-10$ c

Test Levels:	S <sub>DS</sub> = 2.50g, z/h=1.0					
Product Line:	Model Number		Dimensions (in)	Max. Operating	Unit	
	Woder Wumber	Depth	Width	Height	Weight (lb)	onit
	VER-A40-40-STX	5.30	13.90	13.40	12	UUT2a,b
Aspirated Dectector Units	VEA-040-STX	5.20	13.90	13.20	21	UUT4a,b
Aspirated Dectector Onits	VEA-040-A00	5.33	13.90	13.20	22	UUT3a,b
	VEA-040-A10	5.33	13.90	13.20	23	UUT1a,b
Battery Backed Power	VPS-VEA-115UL-1	5.75	17.50	13.25	60	UUT5a,b
Supplies	VPS-VEA-115UL-2	5.75	20.00	13.25	62	UUT6a,b
					• • •	



# UUT1a,b **UNIT UNDER TEST (UUT) Summary Sheet**



#### **DCL Project Number:**

91922-2201

Manufacturer: Xtralis

Product Line: Aspirated detector units

Model Number: VEA-040-A10

Product Construction Summary:

Aluminum, polycarbonate and ABS plastic enclosure, NEMA 1

#### **Options / Component Summary:**

Tubing, sample points, rotary valve assembly, pump assembly, smoke sensor assembly, volumetric chamber assembly

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

			דטט	r Propertie	25			
Operating Weight (lb)	L.	Dimensio	ons (inche		Lowest Natural Frequency (Hz)			
	Depth	Wi	dth		eight	Front-Back	Side-Side	Vertical
23	5.33	13	.90	05 <sub>f</sub>	3.20	N/A1	N/A	N/A
			Seismic 1	Test Parar	neters			
Building Code	Test <mark>Criteria</mark>	Sds (g)	Me/nar	nmpad	Aflx-H (g)	Arig <mark>-H (g)</mark>	Aflx-V (g)	Arig-V (g)
CBC 2022	ICC-E <mark>S AC15</mark> 6	2.50	1.0	1.5	4.00	3.00	1.67	0.67

#### Unit Mounting Description:

DATE: 10/12/2022 UUT1a,b was attached to the shake table interface fixture with six 1032 screws with nylon nuts. For UUT1a, the fixture was bolted directly to the shake table. For UUT1b, the fixture was attached to the shake table with spring isolators.



# UUT2a,b **UNIT UNDER TEST (UUT) Summary Sheet**



#### **DCL Project Number:**

#### 91922-2201

Manufacturer: Xtralis

Product Line: Aspirated detector units

Model Number: VER-A40-40-STX Product Construction Summary:

Aluminum, polycarbonate and ABS plastic enclosure, NEMA 1

Options / Component Summary:

Firepanel module tray

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

1		דטט	Propertie	es			
X	Dimensi	ons (inche		Lowest Natural Frequency (Hz)			
Depth	Wi	dth		eight	Front-Back	Side-Side	Vertical
5.30	13	.90001	13.40		N/A	N/A	N/A
		Seismic 1	Test Parar	neters			
Test <mark>Criteri</mark> a	Sds (g)	Me/har	nmpad	Aflx-H (g)	Arig <mark>-H (g)</mark>	Aflx-V (g)	Arig-V (g)
ICC-E <mark>S AC15</mark> 6	2.50	1.0	1.5	4.00	3 <mark>.00</mark>	1.67	0.67
	5.30 Test Criteria	Depth Wi 5.30 13 Test Criteria Sds (g)	Dimensions (inches Depth Width 5.30 13.90 Seismic T Test Criteria Sds (g) Z/h a	Dimensions (inches)       Depth     Width       5.30     13.90       Seismic Test Parar       Test Criteria       Sds (g)     Z/h	Depth     Width     Height       5.30     13.90     13.40       Seismic Test Parameters       Test Criteria     Sds (g)     Z/h     Ip     Aflx-H (g)	Dimensions (inches)     Lowest I       Depth     Width     Height     Front-Back       5.30     13.90     13.40     N/A       Seismic Test Parameters       Test Criteria     Sds (g)     N/A	Dimensions (inches)     Lowest Natural Freque       Depth     Width     Height     Front-Back     Side-Side       5.30     13.90     13.40     N/A     N/A       Seismic Test Parameters       Test Criteria     Sds (g)     Mz/h

#### Unit Mounting Description:

DATE: 10/12/2022 UUT2a,b was attached to the shake table interface fixture with six 1032 screws with nylon nuts. For UUT2a, the fixture was bolted directly to the shake table. For UUT2b, the fixture was attached to the shake table with spring isolators.



# UUT3a,b **UNIT UNDER TEST (UUT) Summary Sheet**



#### **DCL Project Number:**

91922-2201

Manufacturer: Xtralis

Product Line: Aspirated detector units

Model Number: VEA-040-A00 Product Construction Summary:

Aluminum, polycarbonate and ABS plastic enclosure, NEMA 1

#### **Options / Component Summary:**

Tubing, sample points, rotary valve assembly, pump assembly, smoke sensor assembly, volumetric chamber assembly

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

1		דטט	Propertie	es			
K	Dimensi	ons (inche		Lowest Natural Frequency (Hz)			
Depth	Wi	dth		eight	Front-Back	Side-Side	Vertical
5.33	13	.90001	-0513.20		N/A	N/A	N/A
		Seismic 1	Test Parar	neters			
Test <mark>Criteri</mark> a	Sds (g)	Me/har	nmpad	Aflx-H (g)	Arig <mark>-H (g)</mark>	Aflx-V (g)	Arig-V (g)
ICC-E <mark>S AC15</mark> 6	2.50	1.0	1.5	4.00	3 <mark>.00</mark>	1.67	0.67
	5.33 Test Criteria	Depth Wi 5.33 13 Test Criteria Sds (g)	Dimensions (inches Depth Width 5.33 13.90 Seismic T Test Criteria Sds (g) Z/h a	Dimensions (inches)       Depth     Width       5.33     13.90       Seismic Test Parar       Test Criteria       Sds (g)     Z/h	Depth     Width     Height       5.33     13.90     13.20       Seismic Test Parameters       Test Criteria     Sds (g)     Z/h     Ip     Aflx-H (g)	Dimensions (inches)     Lowest I       Depth     Width     Height     Front-Back       5.33     13.90     13.20     N/A       Seismic Test Parameters       Test Criteria     Sds (g)     Vz/h	Dimensions (inches)     Lowest Natural Freque       Depth     Width     Height     Front-Back     Side-Side       5.33     13.90     13.20     N/A     N/A       Seismic Test Parameters       Test Criteria     Sds (g)     Mz/h

#### Unit Mounting Description:

DATE: 10/12/2022 UUT3a,b was attached to the shake table interface fixture with six 1032 screws with nylon nuts. For UUT3a, the fixture was bolted directly to the shake table. For UUT3b, the fixture was attached to the shake table with spring isolators.



# UUT4a,b **UNIT UNDER TEST (UUT) Summary Sheet**



#### **DCL Project Number:**

91922-2201

Manufacturer: Xtralis

Product Line: Aspirated detector units

VEA-040-STX Model Number:

Product Construction Summary:

Aluminum, polycarbonate and ABS plastic enclosure, NEMA 1

**Options / Component Summary:** 

Tubing, sample points, rotary valve assembly, pump assembly, smoke sensor assembly, volumetric chamber assembly

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

1		UUT	<sup>•</sup> Propertie	es			
K	Dimensio	ons (inches	Lowest Natural Frequency (Hz)				
Depth	Width		Height		Front-Back	Side-Side	Vertical
5.20	13	.90051	13.20		N/A	N/A	N/A
		Seismic 1	est Parar	neters			
Test <mark>Criteri</mark> a	Sds (g)	Me/nar	nmpad	Aflx-H (g)	Arig <mark>-H (g)</mark>	Aflx-V (g)	Arig-V (g)
ICC-E <mark>S AC15</mark> 6	2.50	1.0	1.5	4.00	3.00	1.67	0.67
	5.20 Test Criteria	Depth Wi 5.20 13 Test Criteria Sds (g)	Dimensions (inches Depth Width 5.20 13.90 Seismic T Test Criteria Sds (g) Z/h a	Dimensions (inches)       Depth     Width       5.20     13.90       Seismic Test Paran       Test Criteria       Sds (g)     Z/h	Depth     Width     Height       5.20     13.90     13.20       Seismic Test Parameters       Test Criteria     Sds (g)     Z/h     Ipp     Aflx-H (g)	Dimensions (inches)     Lowest       Depth     Width     Height     Front-Back       5.20     13.90     13.20     N/A       Seismic Test Parameters       Test Criteria     Sds (g)     N/A	Dimensions (inches)     Lowest Natural Freque       Depth     Width     Height     Front-Back     Side-Side       5.20     13.90     13.20     N/A     N/A       Seismic Test Parameters       Test Criteria     Sds (g)     Z/h     Ip     Aflx-H (g)     Arig-H (g)     Aflx-V (g)

#### Unit Mounting Description:

DATE: 10/12/2022 UUT4a,b was attached to the shake table interface fixture with six 1032 screws with nylon nuts. For UUT4a, the fixture was bolted directly to the shake table. For UUT4b, the fixture was attached to the shake table with spring isolators.



# UUT5a,b **UNIT UNDER TEST (UUT) Summary Sheet**



**DCL Project Number:** 

91922-2201

Manufacturer: Xtralis

Battery backed power supplies Product Line:

Model Number: VPS-VEA-115UL-1

Product Construction Summary:

Galvanized carbon steel enclosure

**Options / Component Summary:** 

12V batteries and circuit board

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

			וטט	T Propertie	es			
Operating Weight (lb)	14	Dimensi	ons (inche	Lowest Natural Frequency (Hz)				
	Depth	Width		Height		Front-Back	Side-Side	Vertical
60	5.75	17.50		7-00 <sub>1</sub>	.3.25	N/A	N/A	N/A
			Seismic	Test Parar	neters			
Building Code	Test <mark>Criteria</mark>	Sds (g)	Mz/har	nmpad	Aflx-H (g)	Arig <mark>-H (g)</mark>	Aflx-V (g)	Arig-V (g)
CBC 2022	ICC-E <mark>S AC15</mark> 6	2.50	1.0	1.5	4.00	3.00	1.67	0.67

#### Unit Mounting Description:

Unit Mounting Description: UUT5a,b was attached to the shake table interface fixture with four 1/4" diameter Grade 5 bolts. For UUT5a, the fixture was bolted directly to the shake table. For UUT5b, the fixture was attached to the shake table with spring isolators.



# UUT6a,b **UNIT UNDER TEST (UUT) Summary Sheet**



**DCL Project Number:** 

91922-2201

Manufacturer: Xtralis

Product Line: Battery backed power supplies

Model Number: VPS-VEA-115UL-2

Product Construction Summary:

Galvanized carbon steel enclosure

**Options / Component Summary:** 

12V batteries and circuit board

Note: The UUT was operational before and after shaking and was full of operating content during the tests. The structural integrity of the component attachment system and force-resisting systems was maintained.

		נטט	r Propertie	es			
1 y	Dimensio	ons (inche	Lowest Natural Frequency (Hz)				
Depth	Width		Height		Front-Back	Side-Side	Vertical
5.75	20.00		-0013.25		N/A1	N/A	N/A
		Seismic	Test Parar	neters			
Test <mark>Criteri</mark> a	Sds (g)	Me/har	nmpad	Aflx-H (g)	Arig <mark>-H (g)</mark>	Aflx-V (g)	Arig-V (g)
ICC-ES AC156	2.50	1.0	1.5	4.00	3.00	1.67	0.67
	5.75 Test Criteria	Depth Win 5.75 20. Test Criteria Sds (g)	Dimensions (inche Depth Width 5.75 20.00 Seismic Test Criteria Sds (g) Mz/h a	Dimensions (inches)       Depth     Width       5.75     20.00       Seismic Test Parar       Test Criteria	Depth     Width     Height       5.75     20.00     13.25       Seismic Test Parameters       Test Criteria     Sds (g)     Z/h     Ip     Aflx-H (g)	Dimensions (inches)     Lowest I       Depth     Width     Height     Front-Back       5.75     20.00     13.25     N/A       Seismic Test Parameters       Test Criteria     Sds (g)     M z/h	Dimensions (inches)     Lowest Natural Freque       Depth     Width     Height     Front-Back     Side-Side       5.75     20.00     13.25     N/A     N/A       Seismic Test Parameters       Test Criteria     Sds (g)     Z/h     Ip     Aflx-H (g)     Arig-H (g)     Aflx-V (g)

#### Unit Mounting Description:

Unit Mounting Description: UUT6a,b was attached to the shake table interface fixture with four 1/4" diameter Grade 5 bolts. For UUT6a, the fixture was bolted directly to the shake table. For UUT6b, the fixture was attached to the shake table with spring isolators.

