



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

**APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)**

OFFICE USE ONLY

APPLICATION #: OSP – 0576-10

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☒ New ☐ Renewal

Manufacturer Information

Manufacturer: Konica Minolta

Manufacturer's Technical Representative: Tony Abbott

Mailing Address: 2217 U.S. Hwy 70 East, Garner, NC 27529

Telephone: (919) 792 - 6420

Email: anthony.abbott@conicaminolta.com

Product Information

Product Name: KDR

Product Type: Digital Radiography System

Product Model Number: Varies, see Attachment A

(List all unique product identification numbers and/or part numbers)

General Description: Universal digital radiography medical diagnostic system

Mounting Description: Varies, see Attachment A

Applicant Information

Applicant Company Name: TRU Compliance, by Structural Integrity Associates, Inc.

Contact Person: Andrew M. Coughlin, SE

Mailing Address: 5215 Hellyer Ave., Suite 210, San Jose, CA 95138

Telephone: 844-878-0200

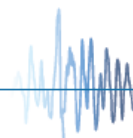
Email: acoughlin@structint.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2016.

Signature of Applicant:  Date: 8/13/2018

Title: Director, TRU Compliance Company Name: TRU Compliance, by Structural Integrity Associates, Inc.

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"





**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
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California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)

Company Name: TRU Compliance, by Structural Integrity Associates, Inc.

Name: Andrew M. Coughlin California License Number: S6082

Mailing Address: 5215 Hellyer Ave., Suite 210, San Jose, CA 95138

Telephone: 844-878-0200 Email: acoughlin@structint.com

Supports and Attachments Preapproval

☐ Supports and attachments are preapproved under OPM-
(Separate application for OSHPD Preapproval of Manufacturer's Certification (OPM) of Supports and attachments is required)

☒ Supports and attachments are not preapproved

Certification Method

☒ Testing in accordance with: ☒ ICC-ES AC156

☐ Other (Please Specify): OSP-0576-10

BY: Ali Sumer

DATE: 04/08/2019

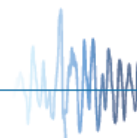
Testing Laboratory

Company Name: Environmental Testing Laboratory

Contact Name: Jeremy Lange

Mailing Address: 11034 Indian Trail, Dallas, TX 75229

Telephone: (972) 247-9657 Email: jeremy@etldallas.com





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Seismic Parameters

Design in accordance with ASCE 7-10 Chapter 13: ☒ Yes ☐ No

Design Basis of Equipment or Components (F_p/W_p) = See Attachment A

S_{DS} (Design spectral response acceleration at short period, g) = 2.0g (z/h=1), 2.5g(z/h=0)

a_p (In-structure equipment or component amplification factor) = See Attachment A

R_p (Equipment or component response modification factor) = See Attachment A

Ω_0 (System overstrength factor) = See Attachment A

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1.0 (S_{DS} = 2.0g), 0 (S_{DS} = 2.5g)

Equipment or Component Natural Frequencies (Hz) = See Attachment A

Overall dimensions and weight (or range thereof) = See Attachment A

Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15: ☐ Yes ☒ No

Design Basis of Equipment or Components (V/W) = _____

S_{DS} (Design spectral response acceleration at short period, g) = _____

S_{D1} (Design spectral response acceleration at 1 second period, g) = _____

R (Response modification coefficient) = OSP-0576-10

Ω_0 (System overstrength factor) = _____

C_d (Deflection amplification factor) = BY: Ali Sumer

I_p (Importance factor) = 1.5

Height to Center of Gravity above base = DATE: 04/08/2019

Equipment or Component Natural Frequencies (Hz) = _____

Overall dimensions and weight (or range thereof) = _____

Tank(s) designed in accordance with ASME BPVC, 2015: ☐ Yes ☒ No

List of Attachments Supporting Special Seismic Certification

☒ Test Report(s) ☐ Drawings ☐ Calculations ☒ Manufacturer's Catalog

☒ Other(s) (Please Specify): Attachment A

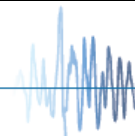
OSHDP Approval (For Office Use Only) – Approval Expires on December 31, 2022

Signature:  Date: April 8, 2019

Print Name: Ali Sumer Title: DSE

Special Seismic Certification Valid Up to : S_{DS} (g) = See Above z/h = See Above

Condition of Approval (if applicable): _____



SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

TRU PROJECT NO. 1800261



Manufacturer: Konica Minolta						TABLE 1										
Model Line: KDR																
Certified Product Construction Summary: U-Arms- carbon steel, Generators- carbon steel skins, High Voltage Generators- carbon steel																
Certified Options Summary: UUT 2 tested with DAP Sensor																
Mounting Configuration: See mounting notes for mounting details. Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.																
Building Code: CBC 2016		Seismic Certification Limits:				$S_{DS}= 2.0 g \quad z/h=1.0$ $S_{DS}= 2.5 g \quad z/h=0.0$		$I_p= 1.5$								
Model Line	Model	Dimensions (in)			Weight (lb)	F_p/W_p	z/h	a_p	R_p	Ω_0	UUT					
		Depth	Width	Height												
KDR Radiograph System ¹	SU-45XX	63	79.1	74.5	852	3.6	1	2.5	2.5	2	1					
	SU-40XX	63	79.1	74.5	852	1.5	0				2					
High Voltage Generator ²	SHF-415	15	23	27	145.7	1.5 1.13	1 0	2.5	6	2	3					
	SHF-515	15	23	27	209						Interp.					
	SHF-525	15	23	27	209						Interp.					
	SHF-545	15	23	27	209						Interp.					
	SHF-645	15	23	27	209						Interp.					
	SHF-835	15	23	27	217						4					
	CMP200-DR 40kW	13.5	25.5	24.3	112						5					
	CMP200-DR 50kW	13.5	25.5	24.3	125						Interp.					
	CMP200-DR 65kW	13.5	25.5	24.3	125						Interp.					
	CMP200-DR 80kW	13.5	25.5	24.3	135.5						6					
	PC (DELL) ²	3420	11.49	3.64	11.41						13.88	1.44 1.13	1 0	1	2.5	2
3620		17.12	6.88	14.17	11.68	8										
UPS (APC) ²	BE600M1	4.13	10.79	5.47	7.7	9										
Keyboard ⁴	Dell-KB216	5	17.4	0.8	1	10										
Sedecal Mini Console ⁴	A6517-05	5.12	5.82	1.81	1.3	11										
IF Box ²	KDR Interface Unit 2	18.25	7.5	11.5	25.5	12										
Touch Monitor ²	ET2002L	8.35	15.35	16.9	15.5	13										
CPI Mini Console ³	CPI Console	12.3	10.9	3.7	6	14										
Mounting Notes: ¹ Base/wall mounted-rigid, ² Base mounted-rigid, ³ Wall mounted-rigid, ⁴ Velcro mounted																

Mounting Notes: ¹ Base/wall mounted-rigid, ² Base mounted-rigid, ³ Wall mounted-rigid, ⁴ Velcro mounted

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TRU PROJECT NO. 1800261

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UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261



Manufacturer: Konica Minolta

Model Line: KDR

UUT	Unit Description	Report Number	Testing Laboratory	S _{DS}	z/h	I _p
1	U-Arm SU-45XX	14889, Rev. 1	ETL-Dallas	2.0 2.5	1 0	1.5
2	U-Arm SU-40XX	14889, Rev. 1	ETL-Dallas	2.0 2.5	1 0	1.5
3	High Voltage Generator Sedecal SHF-415 (40kW)	14889, Rev. 1	ETL-Dallas	2.0 2.5	1 0	1.5
4	High Voltage Generator Sedecal SHF-835 (80kW)	14889, Rev. 1	ETL-Dallas	2.0 2.5	1 0	1.5
5	High Voltage Generator CMP200-DR (40kW)	14889, Rev. 1	ETL-Dallas	2.0 2.5	1 0	1.5
6	High Voltage Generator CMP200-DR (80kW)	14889, Rev. 1	ETL-Dallas	2.0 2.5	1 0	1.5
7	Dell PC 3420	14889, Rev. 1	ETL-Dallas	2.0 2.5	1 0	1.5
8	Dell PC 3620	14889, Rev. 1	ETL-Dallas	2.0 2.5	1 0	1.5
9	UPS APC-BE600M1	14889, Rev. 1	ETL-Dallas	2.0 2.5	1 0	1.5
10	Dell Keyboard	14889, Rev. 1	ETL-Dallas	2.0 2.5	1 0	1.5
11	Sedecal Mini Console	14889, Rev. 1	ETL-Dallas	2.0 2.5	1 0	1.5
12	KDR IF Box	14889, Rev. 1	ETL-Dallas	2.0 2.5	1 0	1.5
13	ELO Touch Monitor	14889, Rev. 1	ETL-Dallas	2.0 2.5	1 0	1.5
14	CPI Mini Console	14889, Rev. 1	ETL-Dallas	2.0 2.5	1 0	1.5

Notes:

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261



Manufacturer:	Konica Minolta	UUT 1
Model Line:	KDR	
Model Number:	SU-45XX	
		Serial Number: SU451712002

Product Construction Summary:

U-Arm and stand are constructed of carbon steel.

Options/Subcomponent Summary:

Konica Minolta U-Arm Stand (KDR AU 45XX) with Ralco Collimator (model R225 DHHS -303B) and Varian X-ray tube/ housing (model RAD-14/Diamond), and custom latch made by Konica Minolta for grid, see next page. ☒

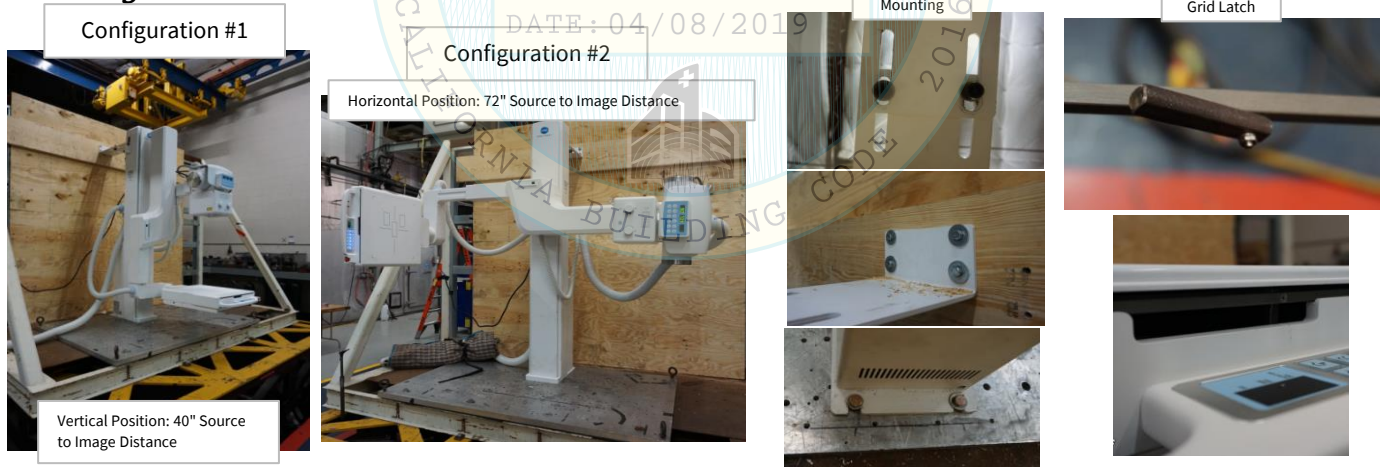
UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz) Configuration#1		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
852	63	79.1	74.5	N/A	N/A	N/A
				Lowest Natural Frequency (Hz) Configuration#2		
				Front-Back	Side-Side	Vertical
				N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.67	0.67
		2.5	0.0	1.5				

Test Mounting Details:



UUT 1 was base/wall mounted - rigid to the table and wall fixture. The UUT was mounted to the shake table with four 1/2"-13 x 1" Grade 5 hex bolts and flat washers. All bolts were torqued to 60ft-lbs. The manufacturer provided a slotted wall mount bracket which was attached to the wall fixture with four #14 hex head lag bolts and washers. The slotted wall bracket was adjusted to twenty inches from wall to the base and fixed into position with two M14 x 50mm Class 12.9 socket head bolts, four flat washers and two split-lock washers. The bolts were torqued to 60 ft-lbs.

The grid became displaced during the resonant frequency search. A latch was constructed from a piece of hardened steel (dimensions: 0.25" x 0.25" x 1.5") and the grid handle was drilled, tapped and countersunk for a 4-40 fastener. The latch was fastened to the grid handle with a 4-40 x 3/4" 18-8 stainless steel flathead Phillips screw along with a split washer and nut. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

Contents were included in testing per operating conditions.

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UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261



Manufacturer: Konica Minolta

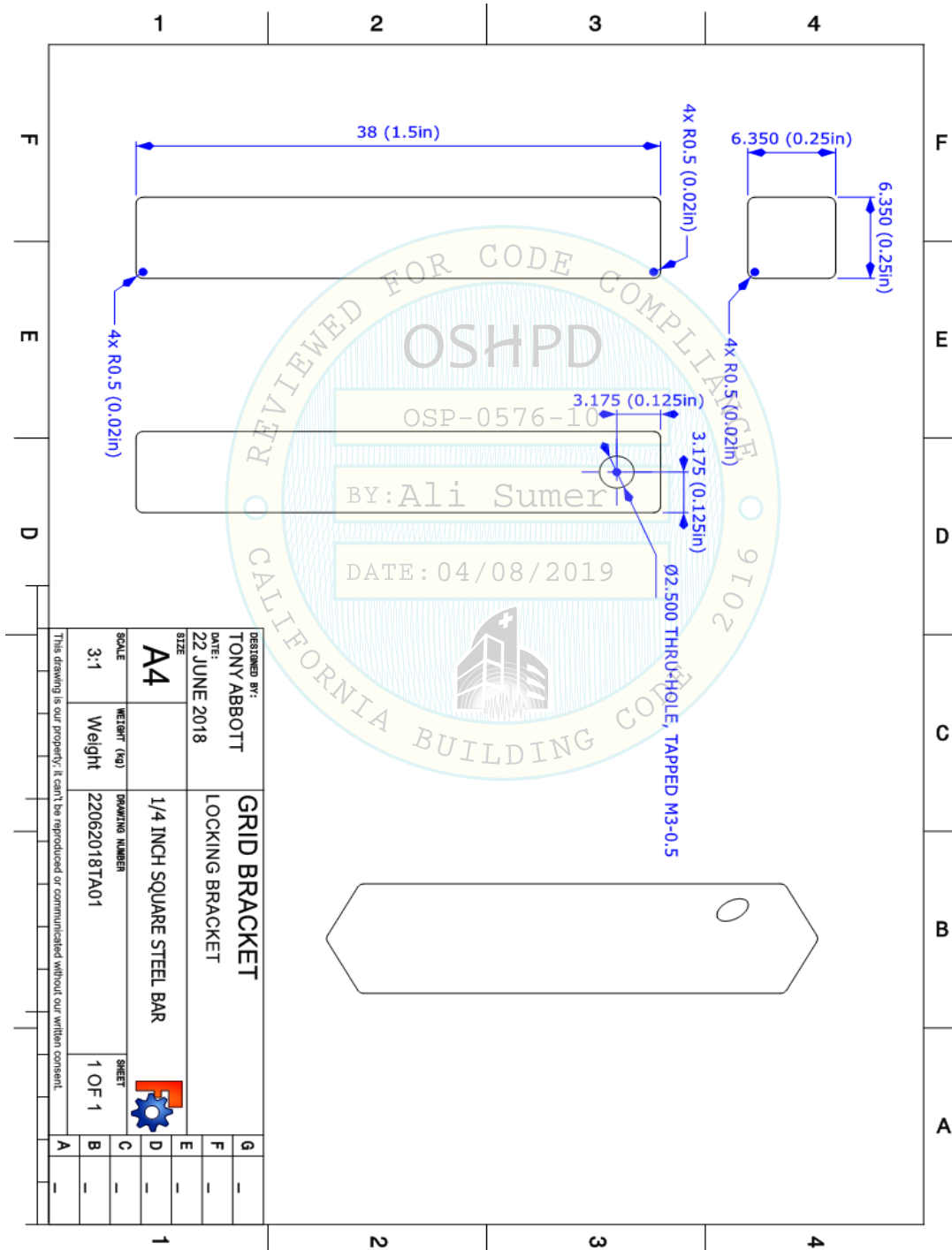
Model Line: KDR

Model Number: SU-45XX

Serial Number: SU451712002

UUT 1

Custom Grid Latch Details (page 1 of 2):



UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261



Manufacturer: Konica Minolta

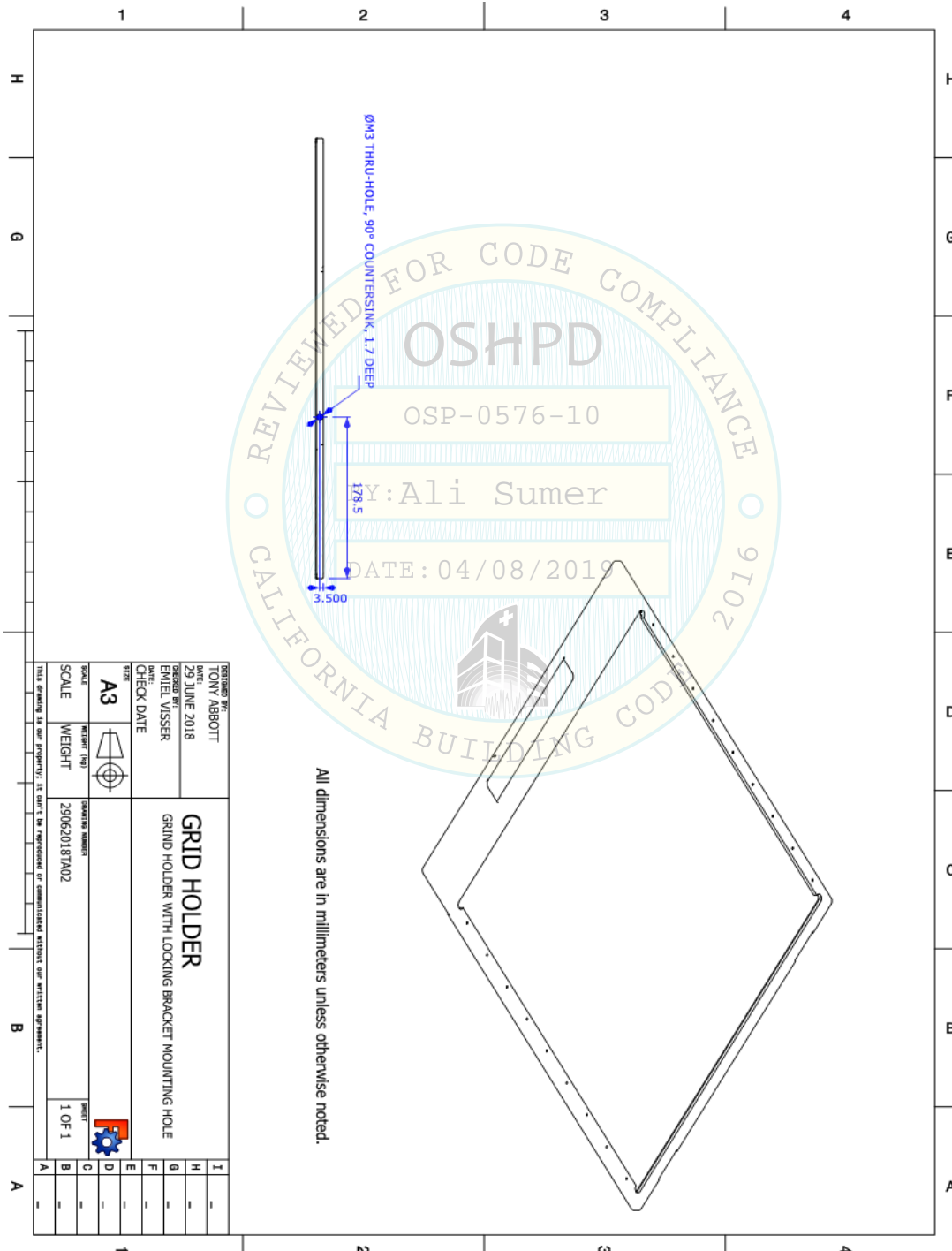
Model Line: KDR

Model Number: SU-45XX

Serial Number: SU451712002

UUT 1

Custom Grid Latch Details (page 2 of 2):



All dimensions are in millimeters unless otherwise noted.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261



Manufacturer:	Konica Minolta	UUT 2
Model Line:	KDR	
Model Number:	SU-40XX	
		Serial Number: SU41803036

Product Construction Summary:

U-Arm and stand are constructed of carbon steel.

Options/Subcomponent Summary:

Konica Minolta U-Arm Stand (KDR AU 40XX) with Ralco Collimator (model R225 DHHS 303C), Varian X-ray tube/ housing (model RAD-60/Sapphire), touchscreen, and custom latch made by Konica Minolta for grid, see next page.

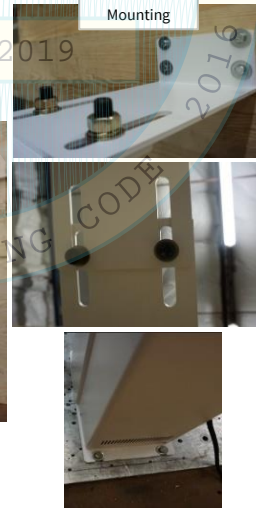
UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz) Configuration#1		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
852	63	79.1	74.5	N/A	N/A	N/A
				Lowest Natural Frequency (Hz) Configuration#2		
				Front-Back	Side-Side	Vertical
				N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.67	0.67
		2.5	0.0	1.5				

Test Mounting Details:



UUT 2 was base/wall mounted - rigid to the table and wall fixture. The UUT was mounted to the shake table with four 1/2"-13 x 1" Grade 5 hex bolts and flat washers. All bolts were torqued to 60ft-lbs. The manufacturer provided a slotted wall mount bracket which was attached to the wall fixture with four #14 hex head lag bolts and washers. The slotted wall bracket was adjusted to twenty inches from wall to the base and fixed into position with two M14 x 50mm Class 12.9 socket head bolts, four flat washers and two split-lock washers. The bolts were torqued to 60 ft-lbs.

The grid became displaced during the resonant frequency search. A latch was constructed from a piece of hardened steel (dimensions: 0.25" x 0.25" x 1.5") and the grid handle was drilled, tapped and countersunk for a 4-40 fastener. The latch was fastened to the grid handle with a 4-40 x 3/4" 18-8 stainless steel flathead Phillips screw along with a split washer and nut. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

Contents were included in testing per operating conditions.

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TRU PROJECT NO. 1800261



Serial Number: SU41803036

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UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261



Manufacturer: Konica Minolta

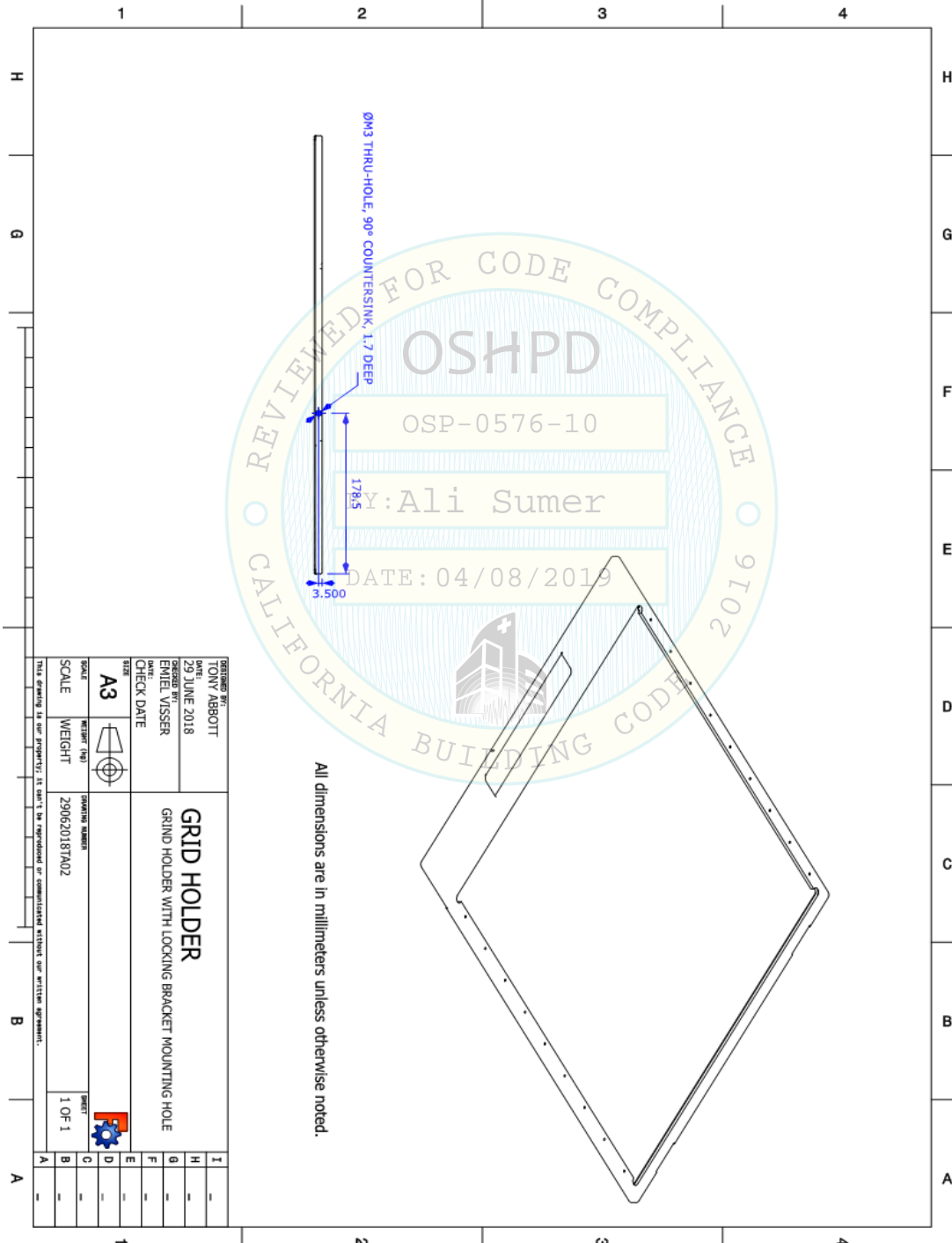
Model Line: KDR

Model Number: SU-40XX

Serial Number: SU41803036

UUT 2

Custom Grid Latch Details (page 2 of 2):



UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261



Manufacturer:	Konica Minolta	UUT 3
Model Line:	KDR	
Model Number:	SHF-415	
Serial Number:		G-76238

Product Construction Summary:
Carbon steel skin

Options/Subcomponent Summary:
Sedecal 40 kW High Voltage Generator

UUT Properties									
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)					
	Depth	Width	Height	Front-Back	Side-Side	Vertical			
147.5	14.5	17.5	21.5	22.63	>33.33	23.21			
UUT Highest Passed Seismic Run Information									
Building Code		Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016		ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.67	0.67
			2.5	0.0	1.5				

Test Mounting Details:



UUT 3 was base mounted - rigid to the table with three 1/4"-20 x 1-1/2" Grade 5 bolts and flat washers. Mounting holes were located inside the generator housing at each corner.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261



Manufacturer:	Konica Minolta	UUT 4
Model Line:	KDR	
Model Number:	SHF-835	
Serial Number:		G-78084

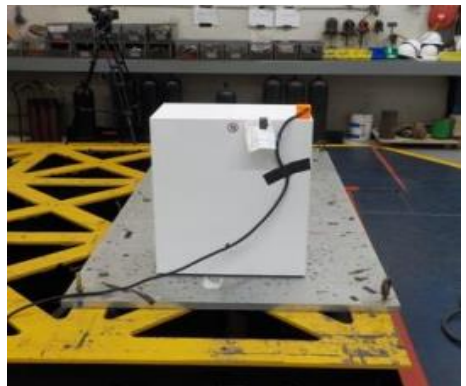
Product Construction Summary:
Carbon steel skin

Options/Subcomponent Summary:
Sedecal 80 kW High Voltage Generator

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
208	15	23	27	22.81	18.32	26.73

UUT Highest Passed Seismic Run Information								
Building Code	Test Criteria	S_{DS} (g)	z/h	I_p	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.67	0.67
		2.5	0.0	1.5				

Test Mounting Details:



UUT 4 was base mounted – rigid to the table with three 1/4"-20 x 1-1/2" Grade 5 bolts and flat washers. Mounting holes were located inside the generator housing at each corner.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261



Manufacturer:	Konica Minolta	UUT 5
Model Line:	KDR	
Model Number:	CMP200-DR VAW2556RS-G3	
Serial Number:		COD31220E18

Product Construction Summary:
Carbon steel skin

Options/Subcomponent Summary:
CPI 40 kW High Voltage Generator

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
112	13.7	25.7	24.3	>33.33	29.19	>33.33

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S_{DS} (g)	z/h	I_p	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
CBC 2016	ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.67	0.67	
		2.5	0.0	1.5					

Test Mounting Details:



UUT 5 was base mounted – rigid to the table with four 1/4"-20 x 1-1/2" Grade 5 bolts and flat washers. Mounting holes were located inside the generator housing at each corner.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261



Manufacturer:	Konica Minolta	UUT 6
Model Line:	KDR	
Model Number:	VZW255	
Serial Number:		CPD31216E18

Product Construction Summary:
Carbon steel skin

Options/Subcomponent Summary:
CPI 80 kW High Voltage Generator

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
135.5	13.7	25.7	24.3	27.21	>33.3	>33.3

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S_{DS} (g)	z/h	I_p	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
CBC 2016	ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.67	0.67	
		2.5	0.0	1.5					

Test Mounting Details:



UUT 6 was base mounted – rigid to the table with four 1/4"-20 x 1-1/2" Grade 5 bolts and flat washers. Mounting holes were located inside the generator housing at each corner.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261



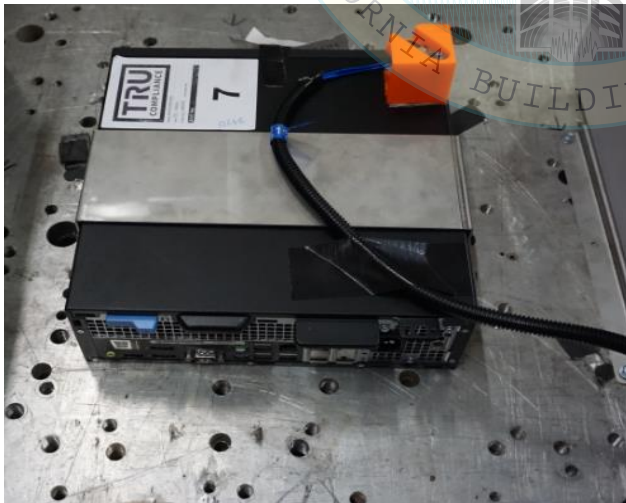
Manufacturer:	Konica Minolta	UUT 7
Model Line:	KDR	
Model Number:	Dell 3420	
Serial Number:		759B9N2

Product Construction Summary:
Carbon steel and plastic skin.

Options/Subcomponent Summary:
Custom mounting bracket made by Konica Minolta, see next page.

UUT Properties									
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)					
	Depth	Width	Height	Front-Back	Side-Side	Vertical			
12	11.49	3.34	11.41	>33.33	>33.33	>33.33			
UUT Highest Passed Seismic Run Information									
Building Code		Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016		ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.67	0.67
			2.5	0.0	1.5				

Test Mounting Details:



UUT 7 was base mounted – rigid to the table with a custom stainless-steel sheet metal mounting bracket and four #14 x 1-1/2" self-tapping screws. Mounting holes were located at the four corners of the bracket.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261



Manufacturer: Konica Minolta

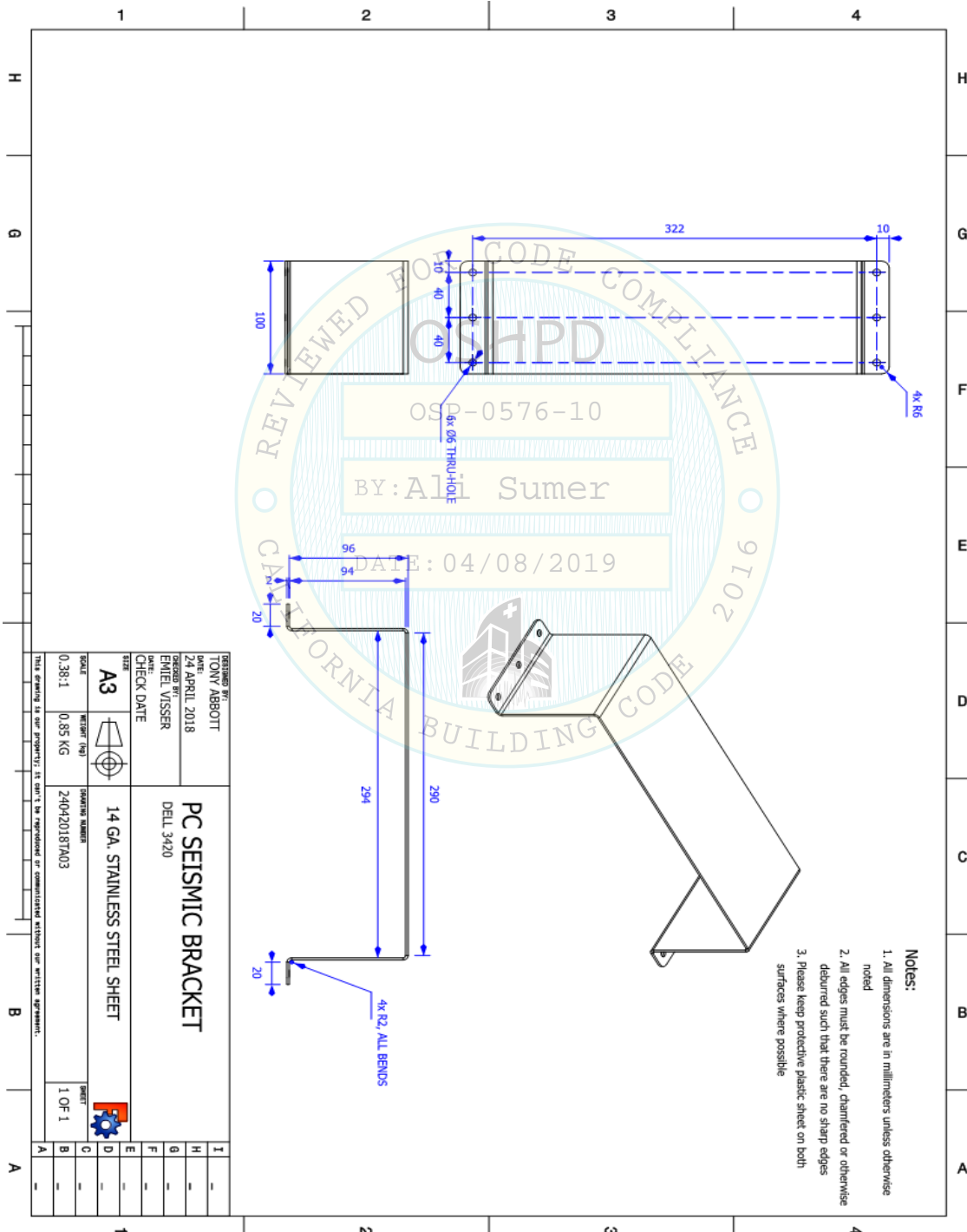
Model Line: KDR

Model Number: Dell 3420

Serial Number: 759B9N2

UUT 7

Custom Mounting Bracket:



UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261



Manufacturer:	Konica Minolta	UUT 8
Model Line:	KDR	
Model Number:	Dell 3620	
		Serial Number: 7X5CGK2

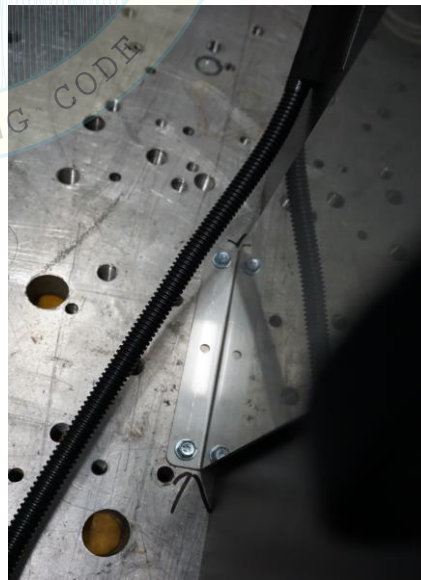
Product Construction Summary:
Carbon steel and plastic skin.

Options/Subcomponent Summary:
Custom mounting bracket made by Konica Minolta, see next page. ☒
☒
☒
☒

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
16.5	17.12	6.88	14.17	>33.3	19.85	>33.33

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S_{DS} (g)	z/h	I_p	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
CBC 2016	ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.67	0.67	
		2.5	0.0	1.5					

Test Mounting Details:



UUT 8 was base mounted – rigid to the table with a custom stainless-steel sheet metal mounting bracket and four #14 x 1-1/2" self-tapping screws. Mounting holes were located at the four corners of the bracket.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

TRU PROJECT NO. 1800261



Serial Number: 7X5CGK2

Notes:

1. All dimensions are in millimeters unless otherwise noted
2. All edges must be rounded, chamfered or otherwise deburred such that there are no sharp edges
3. Please keep protective plastic sheet on both surfaces where possible

DESIGNED BY: JUNY ABBOTT	DATE: 24 APRIL 2018	PROJECT: PC SEISMIC BRACKET	SCALE: 0.38:1	WESPERT (IN) 2.3 KG	SHAWING NUMBER 240420187M04	SHEET 1 OF 1
CHECKED BY: EMIEL VISSER	DATE: CHECK DATE	DEL: 3620				
14 GA. STAINLESS STEEL SHEET						

Notes:

1. All dimensions are in millimeters unless otherwise noted
2. All edges must be rounded, chamfered or otherwise deburred such that there are no sharp edges
3. Please keep protective plastic sheet on both surfaces where possible

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261



Manufacturer:	Konica Minolta	UUT 9
Model Line:	KDR	
Model Number:	UPS BE600M1	
		Serial Number: 4B17P50P06778

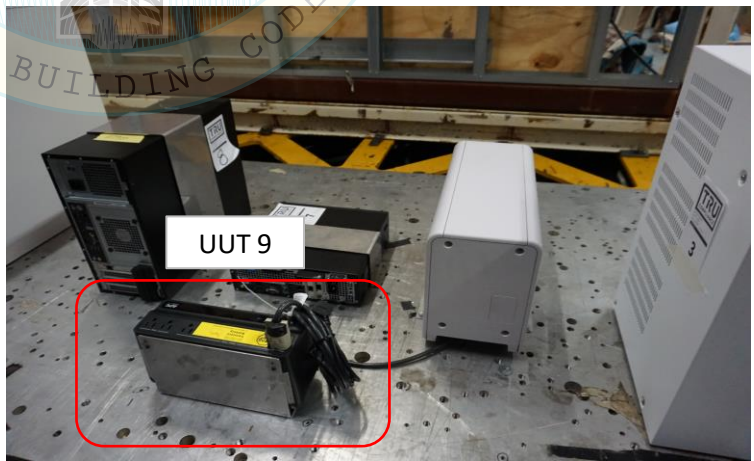
Product Construction Summary:
Carbon steel and plastic skin.

Options/Subcomponent Summary:
Custom mounting bracket made by Konica Minolta, see next page. ☒

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
10.5	4.13	10.79	5.47	26.78	38.02	28.07

UUT Highest Passed Seismic Run Information									
Building Code	Test Criteria	S_{DS} (g)	z/h	I_p	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
CBC 2016	ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.67	0.67	
		2.5	0.0	1.5					

Test Mounting Details:



UUT 9 was base mounted – rigid to the table with a custom stainless-steel sheet metal mounting bracket and four #14 x 1-1/2" self-tapping screws. Mounting holes were located at the four corners of the bracket. Four M4-0.7 x 6mm Class 10.9 button head screws were used to secure UUT 9 to the bracket.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

TRU PROJECT NO. 1800261



Serial Number: 4B17P50P06778

NOTES:

1. All dimensions are in millimeters unless otherwise noted
2. All edges must be rounded, chamfered or otherwise deburred such that there are no sharp edges
3. Please keep protective plastic sheet on both surfaces where possible

FRONT VIEW DIMENSIONS:

- Overall width: 240
- Overall height: 214
- Top flange width: 64
- Top flange height: 15
- Bottom flange width: 20
- Bottom flange height: 12
- Side flange width: 13
- Side flange height: 13
- 4x Ø13 THRU-HOLE, TOPPED M4-0.7
- 4x Ø6 THRU-HOLE
- 2x R6

SIDE VIEW DIMENSIONS:

- Overall width: 141
- Overall height: 94
- Top flange width: 2.77
- Top flange height: 24
- Bottom flange width: 24
- Bottom flange height: 2.77
- Side flange width: 86
- Side flange height: 86
- 88.0°
- 90.0°
- 2x R6

TITLE BLOCK:

DESIGNED BY: TONY ABBOTT	DATE: 24 APRIL 2018	PROJECT NAME: UPS SEISMIC BRACKET FOR APC BE600M1 UPS
DRAWN BY: EMIEL VISSER	CHECK DATE:	QUANTITY: 240x2018T01
SIZE: A3	SCALE: 1:5	WEIGHT (KG): 1.5
12 GA. STAINLESS STEEL SHEET		
SHEET: 1 OF 1		

Page 22 of 29

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261



Manufacturer:	Konica Minolta	UUT 10
Model Line:	KDR	
Model Number:	Dell Keyboard	
Serial Number:		KB126T

Product Construction Summary:
Plastic

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
1	5	17.4	0.8	>33.33	>33.3	>33.3

UUT Highest Passed Seismic Run Information								
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.67	0.67
		2.5	0.0	1.5				

Test Mounting Details:



UUT 10 was mounted to the shake table with two 1" x 3.75" strips of 3M Dual Lock Reclosable Fastener (P/N TB3550). Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261



Manufacturer:	Konica Minolta	UUT 11
Model Line:	KDR	
Model Number:	A6517-05	
		Serial Number: GN-78070

Product Construction Summary:
Sedecal Mini console for use for Sedecal High Voltage Generators, plastic and carbon steel.

Options/Subcomponent Summary:

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
2	5.12	5.82	1.81	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information								
Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.67	0.67
		2.5	0.0	1.5				

Test Mounting Details:



UUT 11 was wall mounted – rigid to the wall fixture with four #14 x 1-1/2" self-tapping screws.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261



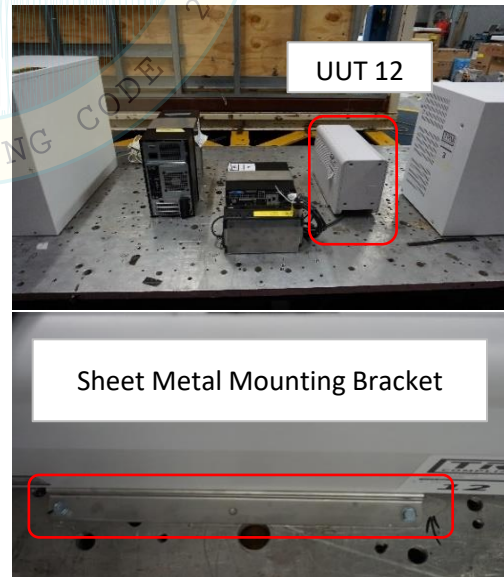
Manufacturer:	Konica Minolta	UUT 12
Model Line:	KDR	
Model Number:	IF Box-KDR Interface Unit	
		Serial Number: A9KY-00277

Product Construction Summary:
Carbon steel and plastic skin.

Options/Subcomponent Summary:
Custom mounting bracket made by Konica Minolta, see next page. ☒

UUT Properties										
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)						
	Depth	Width	Height	Front-Back	Side-Side	Vertical				
30	18.3	7.5	11.5	16.36	21.93	17.18				
UUT Highest Passed Seismic Run Information										
Building Code		Test Criteria		S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016		ICC-ES AC156		2.0	1.0	1.5	3.2	2.4	1.67	0.67
				2.5	0.0	1.5				

Test Mounting Details:



UUT 12 was base mounted - rigid to the table with a custom stainless-steel sheet metal mounting bracket and four #14 x 1-1/2" self-tapping screws. Mounting holes were located at the four corners of the bracket. Four M4-0.7 x 6mm Class 10.9 button head screws were used to secure UUT 12 to the bracket.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261

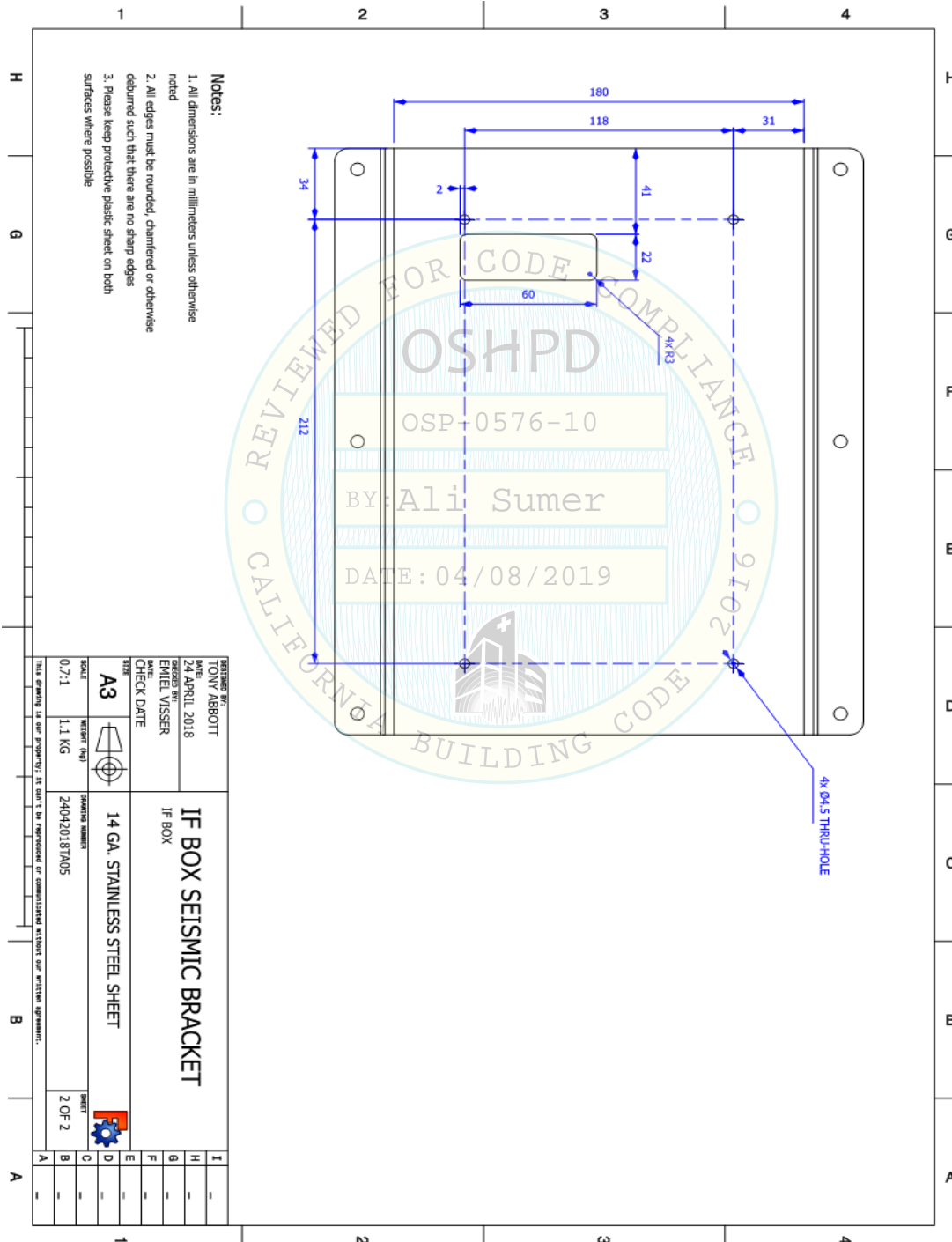


Manufacturer: Konica Minolta
Model Line: KDR
Model Number: IF Box-KDR Interface Unit

Serial Number: A9KY-00277

UUT 12

Custom Mounting Bracket:



UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261



Manufacturer:	Konica Minolta	UUT 13
Model Line:	KDR	
Model Number:	elo Monitor -E396119	
Serial Number:		H173025601

Product Construction Summary:
Enclosure black plastic, touch screen with PCAP

Options/Subcomponent Summary:
Custom mounting bracket made by Konica Minolta. ☑

UUT Properties									
Weight (lb)	Dimension (in) ¹			Lowest Natural Frequency (Hz)					
	Depth	Width	Height	Front-Back	Side-Side	Vertical			
15.5	7.61	13.87	19.22	12.10	16.58	17.28			
UUT Highest Passed Seismic Run Information									
Building Code		Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016		ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.67	0.67
			2.5	0.0	1.5				

Test Mounting Details:



UUT 13 was base mounted - rigid to the table with a custom stainless-steel sheet metal mounting bracket and four #14 x 1-1/2" self-tapping screws. Mounting holes were located at the four corners of the bracket. Four M4-0.7 x 6mm Class 10.9 button head screws were used to secure UUT 13 to the bracket.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

¹Dimensions include monitor stand.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261

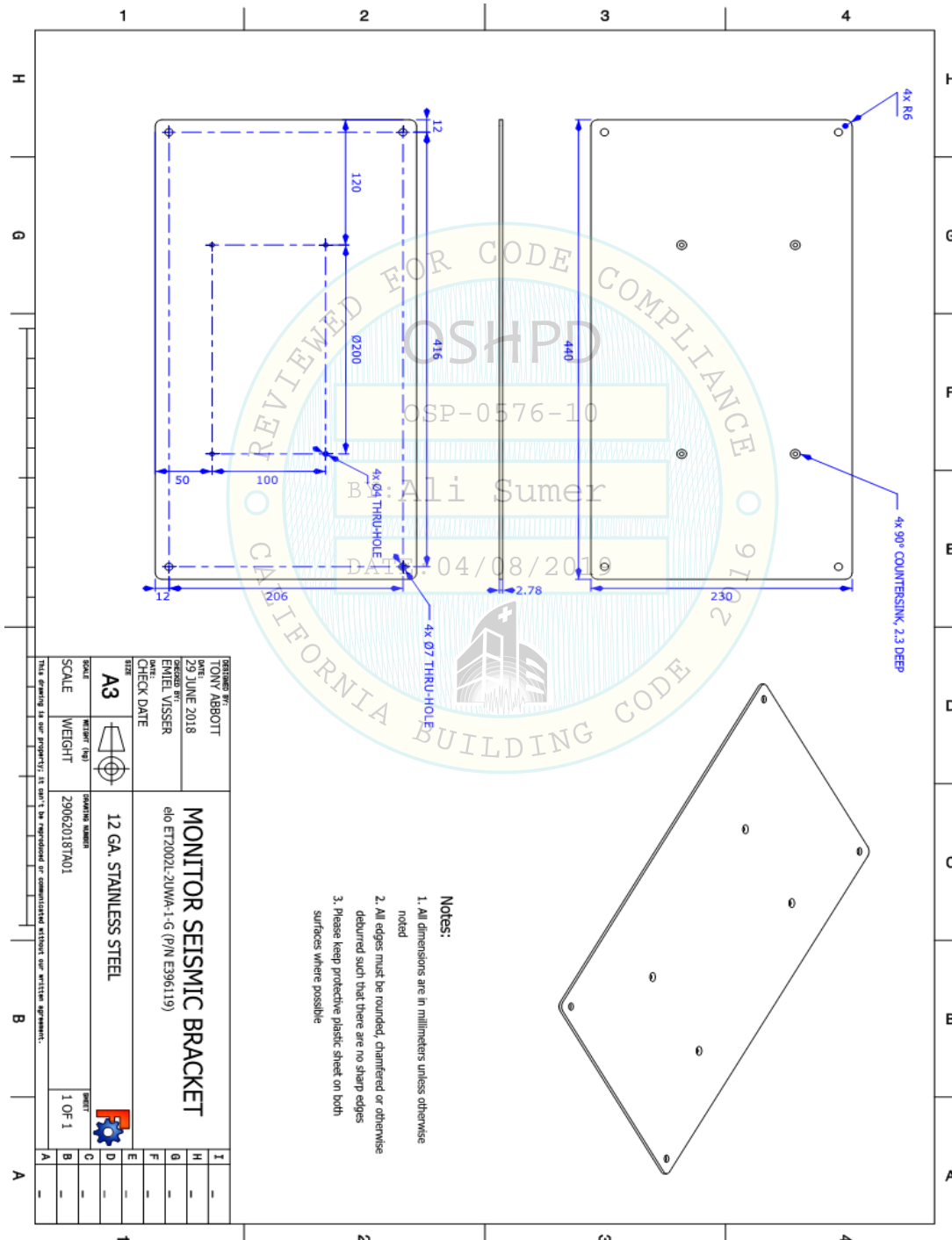


Manufacturer: Konica Minolta
Model Line: KDR
Model Number: elo Monitor -E396119

Serial Number: H173025601

UUT 13

Custom Mounting Bracket:



UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1800261



Manufacturer: Konica Minolta

Model Line: KDR

Model Number: CPI Console

Serial Number: n/a

UUT 14

Product Construction Summary:

CPI mini console for use with CPI high voltage generators.

Options/Subcomponent Summary:

UUT Properties

Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
1.5	7	4	3.7	>33.33	>33.33	>33.33

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.67	0.67
		2.5	0.0	1.5				

Test Mounting Details:



The console bracket base of UUT 14 was mounted to the shake table with two 1" x 4" strips of 3M Dual Lock Reclosable Fastener (P/N TB3550). The mini console of UUT 14 was attached to the bracket with one 1" x 3" strip of 3M Dual Lock Reclosable Fastener. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test. Contents were included in testing per operating conditions.