APPLICATION FOR HCAI SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0576

HCAI Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: Konica Minolta

Manufacturer's Technical Representative: Carson Thomas

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

Telephone: (800) 366-5343 Email: carson.thomas@conicaminolta.com

Product Information

Product Name: Fluoroscopy and Radiography Systems

Product Type: NA

Product Model Number: Varies, see Attachment A

General Description: Universal digital radiography medical diagnostic system

Mounting Description: See Attachment

Tested Seismic Enhancements: None

Applicant Information

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

Contact Person: Katie Braman

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

Telephone: (541) 526-1947 Email: kbraman@structint.com

Title: Program Manager

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

Company Name: STRUCTURAL INTEGRITY ASSOCIATES, INC.

Name: Andrew Coughlin California License Number: S6082

Mailing Address: 5215 Hellyer Ave, Suite 101, San Jose, CA 95138-1025

Telephone: (415) 635-8461 Email: acoughlin@structint.com

Certification Method

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

☐ Other (Please Specify):

Testing Laboratory

Company Name: ENVIRONMENTAL TESTING LABORATORIES, INC. (ETL)

Contact Person: Jeremy Lange

Mailing Address: 11034 Indian Trail, Dallas TX 75229-3513

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

Seismic Parameters

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

S_{DS} (Design spectral response acceleration at short period, g) = 2.00; z/h = 1; 2.50; z/h = 0

a_p (Amplification factor) = See Attachment

R_p (Response modification factor) = See Attachment

Ω_0 (System overstrength factor) = See Attachment

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 09/20/2028

Date: 9/20/2022

Name: Mohammad Karim Title: Supervisor, Health Facilities

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

1800261-CR-001-R2

TRU COMPLIANCE

Manufacturer: Konica Minolta
Model Line: KDR

TABLE 1

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 2022 ***Seismic Certification Limits:*** S_{DS}= ***2.0 g*** ***z/h=1.0*** S_{DS}= ***2.5 g*** ***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	7
	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

SPECIAL SEISMIC CERTIFICATION
CERTIFIED SUBCOMPONENT MATRIX

1800261-CR-001-R2

TRU COMPLIANCE

Manufacturer: Konica Minolta
Model Line: KDR

Table Description: Radiograph System Components

TABLE 2

Building Code: CBC 2022

Seismic Certification Limits: S_{DS} = 2.0 g z/h = 1.0; S_{DS} = 2.5 g z/h = 0.0; I_P = 1.5

Model Line (Manufacturer)	Model	Dimension (in)			Weight (lb)	Material	Notes	UUT
		Depth	Width	Height				
X-Ray Tube/ Housing (Varian)	RAD-14/Diamond	-	5.6 ø	18.26	50	Carbon Steel	300kHU	1
	RAD-60/Sapphire	-	5.26 ø	18.24	50	Carbon Steel	400kHU	2
Collimator (Ralco)	R225 DHHS (303B)	9.6	11.1	8.5	26	Carbon Steel	2-Knob	1
	R225 DHHS (303C)	9.6	11.1	8.5	28	Carbon Steel	3-Knob	2
DAP Sensor (Konica Minolta)	VacuDAP 158 00 13	7	7	0.25	0.65	Carbon Steel		2
Universal Bucky Stand (Konica Minolta)	SU-45XX	63.0	79.1	74.5	932	Carbon Steel		1
Universal Bucky Stand (Konica Minolta)	SU-40XX	63.0	79.1	74.5	941	Carbon Steel		2

UNIT UNDER TEST (UUT) SUMMARY SHEET

1800261-CR-001-R2

Manufacturer: Konica Minolta

Model Line: KDR

UUT	Unit Description	Report Number	Testing Lab	Year Tested	ISO 17025 Accredited?	S_{DS}	z/h	I_P
1	U-Arm SU-45XX	14889, Rev. 1	ETL-Dallas	2018	Yes	2.0 2.5	1.0 0.0	1.5
2	U-Arm SU-40XX	14889, Rev. 1	ETL-Dallas	2018	Yes	2.0 2.5	1.0 0.0	1.5
3	High Voltage Generator Sedecal SHF-415 (40kW)	14889, Rev. 1	ETL-Dallas	2018	Yes	2.0 2.5	1.0 0.0	1.5
4	High Voltage Generator Sedecal SHF-835 (80kW)	14889, Rev. 1	ETL-Dallas	2018	Yes	2.0 2.5	1.0 0.0	1.5
5	High Voltage Generator CMP200-DR (40kW)	14889, Rev. 1	ETL-Dallas	2018	Yes	2.0 2.5	1.0 0.0	1.5
6	High Voltage Generator CMP200-DR (80kW)	14889, Rev. 1	ETL-Dallas	2018	Yes	2.0 2.5	1.0 0.0	1.5
7	Dell PC 3420	14889, Rev. 1	ETL-Dallas	2018	Yes	2.0 2.5	1.0 0.0	1.5
8	Dell PC 3620	14889, Rev. 1	ETL-Dallas	2018	Yes	2.0 2.5	1.0 0.0	1.5
9	UPS APC-BE600M1	14889, Rev. 1	ETL-Dallas	2018	Yes	2.0 2.5	1.0 0.0	1.5
10	Dell Keyboard	14889, Rev. 1	ETL-Dallas	2018	Yes	2.0 2.5	1.0 0.0	1.5
11	Sedecal Mini Console	14889, Rev. 1	ETL-Dallas	2018	Yes	2.0 2.5	1.0 0.0	1.5
12	KDR IF Box	14889, Rev. 1	ETL-Dallas	2018	Yes	2.0 2.5	1.0 0.0	1.5
13	ELO Touch Monitor	14889, Rev. 1	ETL-Dallas	2018	Yes	2.0 2.5	1.0 0.0	1.5
14	CPI Mini Console	14889, Rev. 1	ETL-Dallas	2018	Yes	2.0 2.5	1.0 0.0	1.5

Notes:

UNIT UNDER TEST (UUT) SUMMARY SHEET

1800261-CR-001-R2

UUT 1

Manufacturer:	Konica Minolta		
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

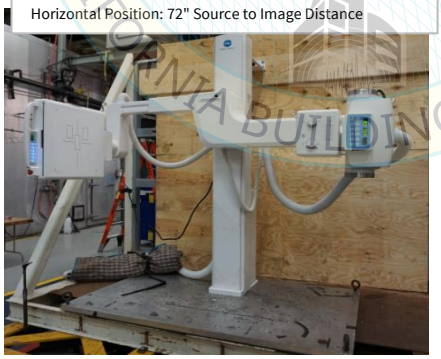
Building Code	Test Criteria	S_{DS} (g)	z/h	I_P	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
CBC 2022	ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.67	0.67
		2.5	0.0	1.5				

Test Mounting Details:

Configuration #1

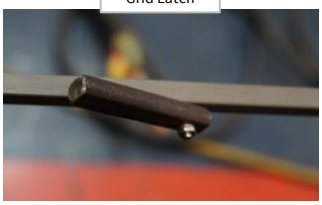
Configuration #2

Horizontal Position: 72" Source to Image Distance



Mounting

Grid Latch



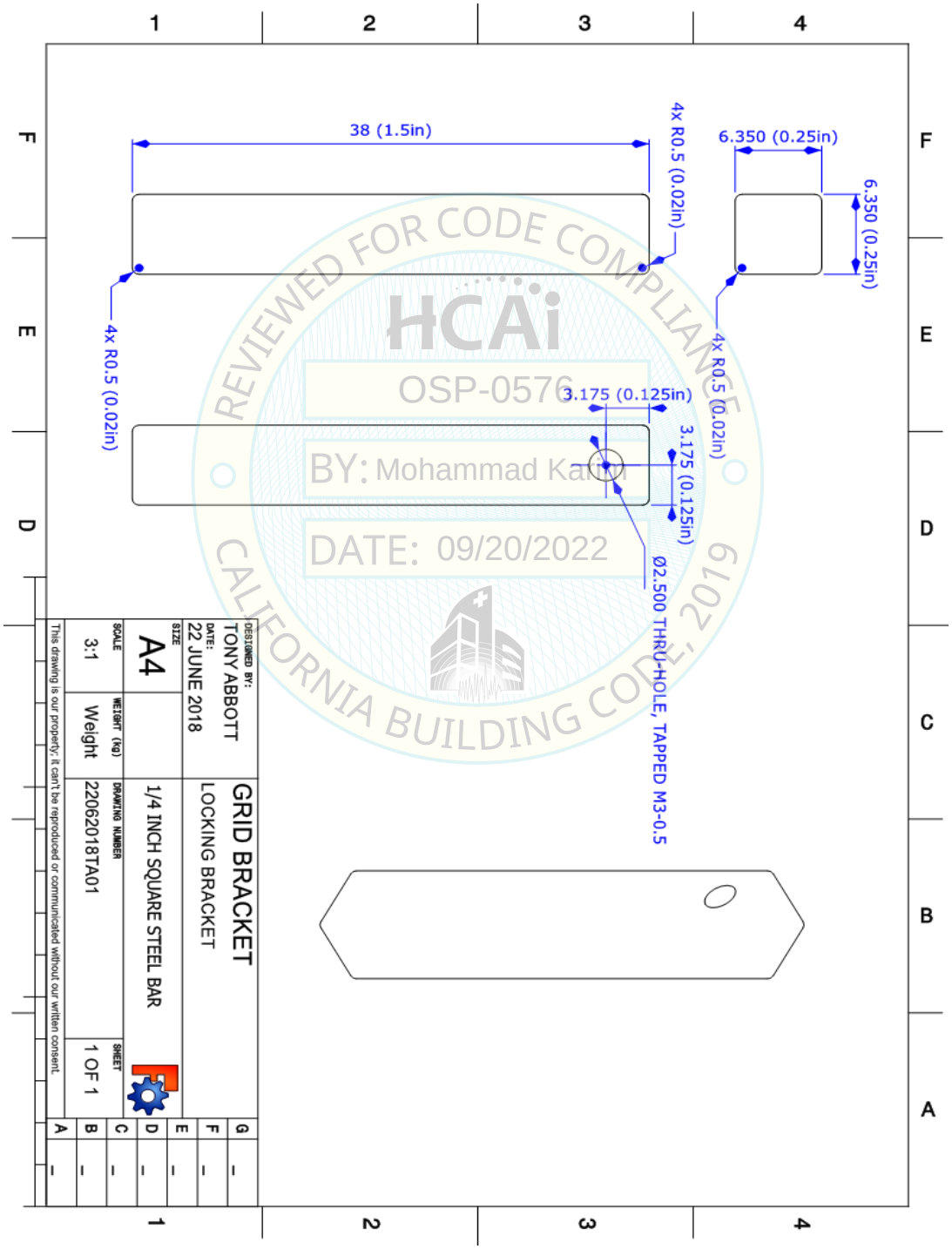
UUT 1 was base/wall mounted - rigid to the table and wall fixture. The UUT was mounted to the shake table with four 1/2"-13 x 1" Grade 5 hex bolts and flat washers. All bolts were torqued to 60ft-lbs. The manufacturer provided a slotted wall mount bracket which was attached to the wall fixture with four #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" x0.25" 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 ¾" 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.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1800261-CR-001-R2

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

Custom Grid Latch Details (page 1 of 2):

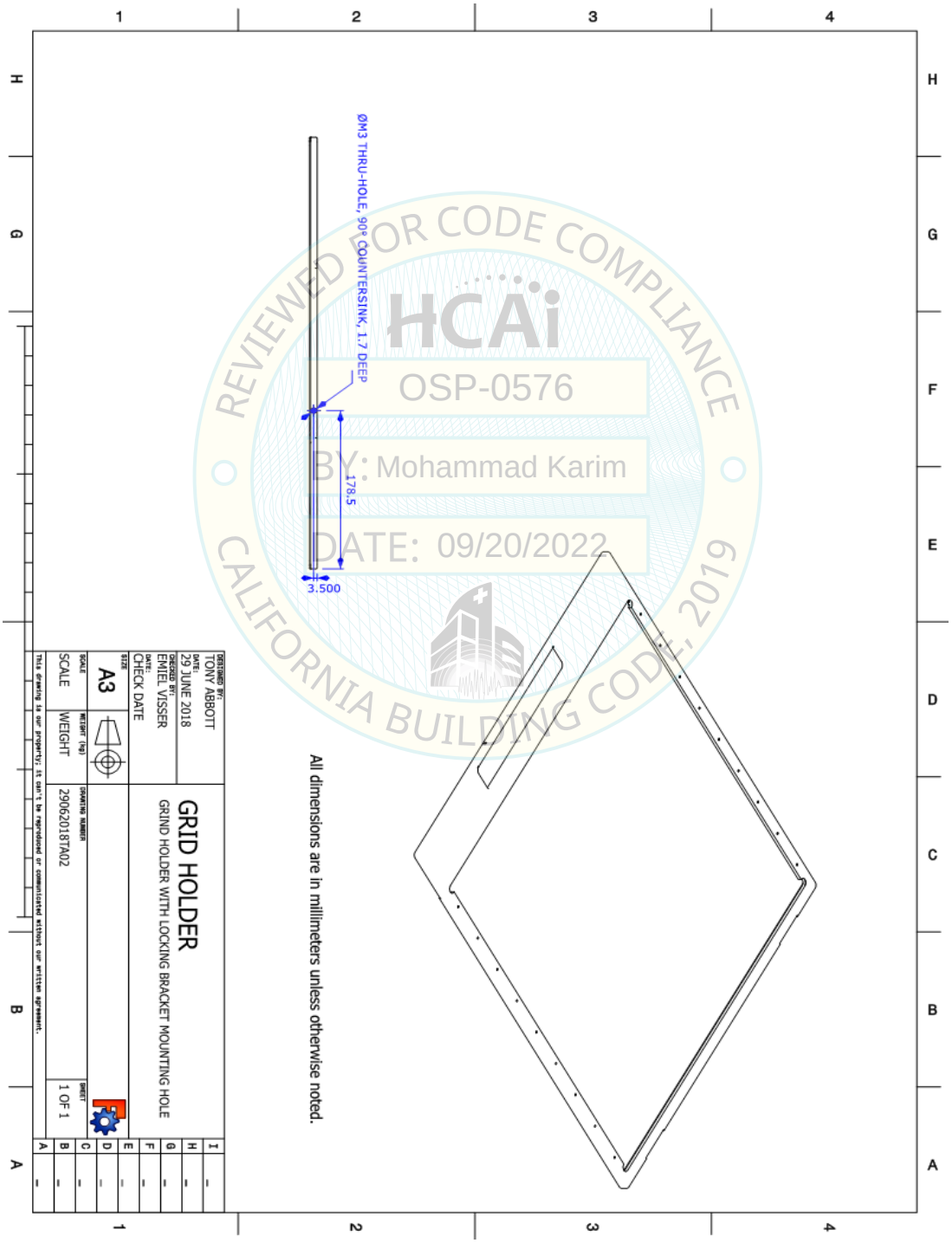


UNIT UNDER TEST (UUT) SUMMARY SHEET

1800261-CR-001-R2

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

Custom Grid Latch Details (page 2 of 2):



UNIT UNDER TEST (UUT) SUMMARY SHEET

1800261-CR-001-R2

UUT 2

Manufacturer:	Konica Minolta		
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 2022	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:

Configuration #1

Vertical Posistion: 40" Source to Image Distance

Configuration #2

Horizontal Posistion: 72" Source to Image Distance

Mounting

Grid Latch

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" x0.25" 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 ¾" 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.

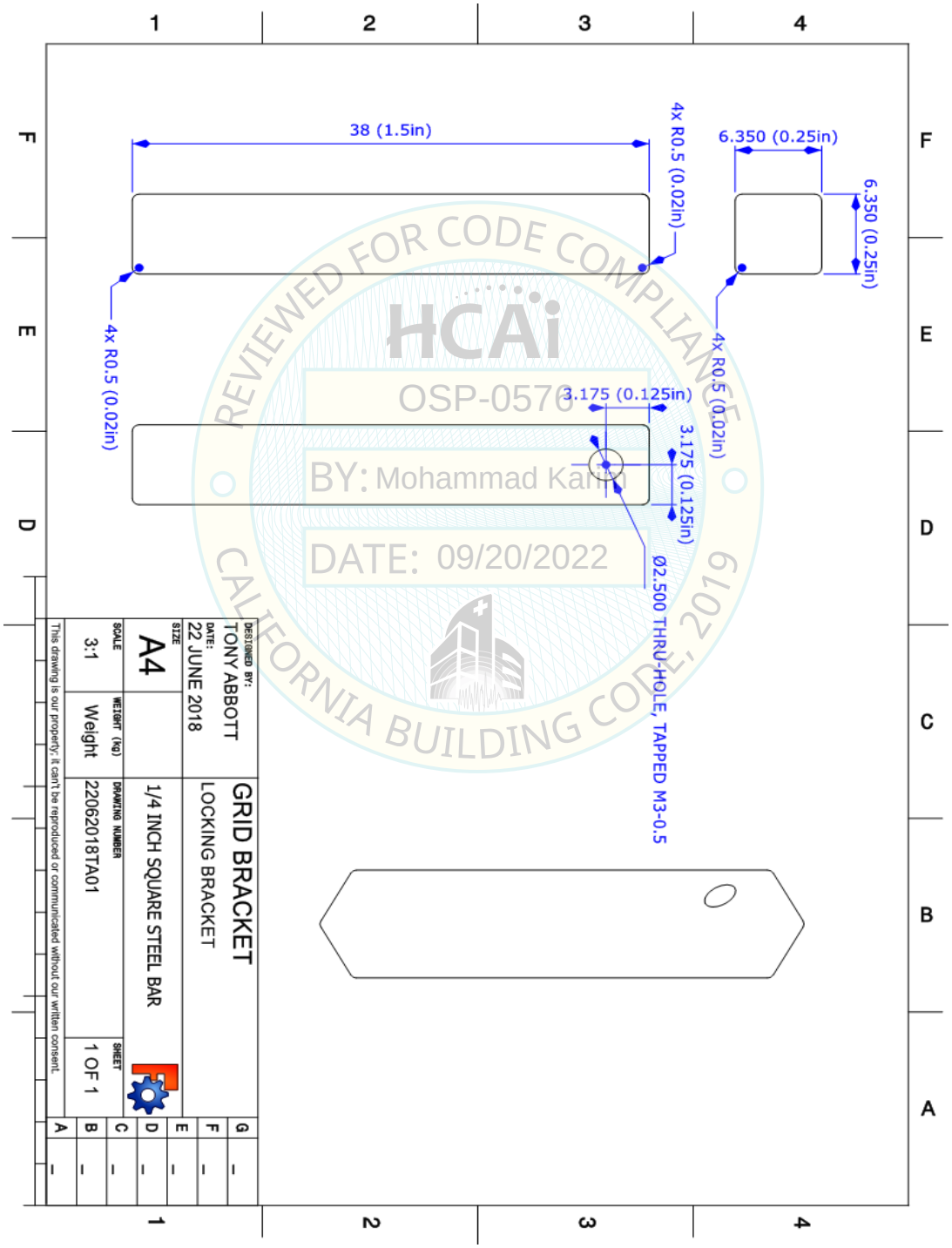
UNIT UNDER TEST (UUT) SUMMARY SHEET

1800261-CR-001-R2

UUT 2

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

Custom Grid Latch Details (page 1 of 2):



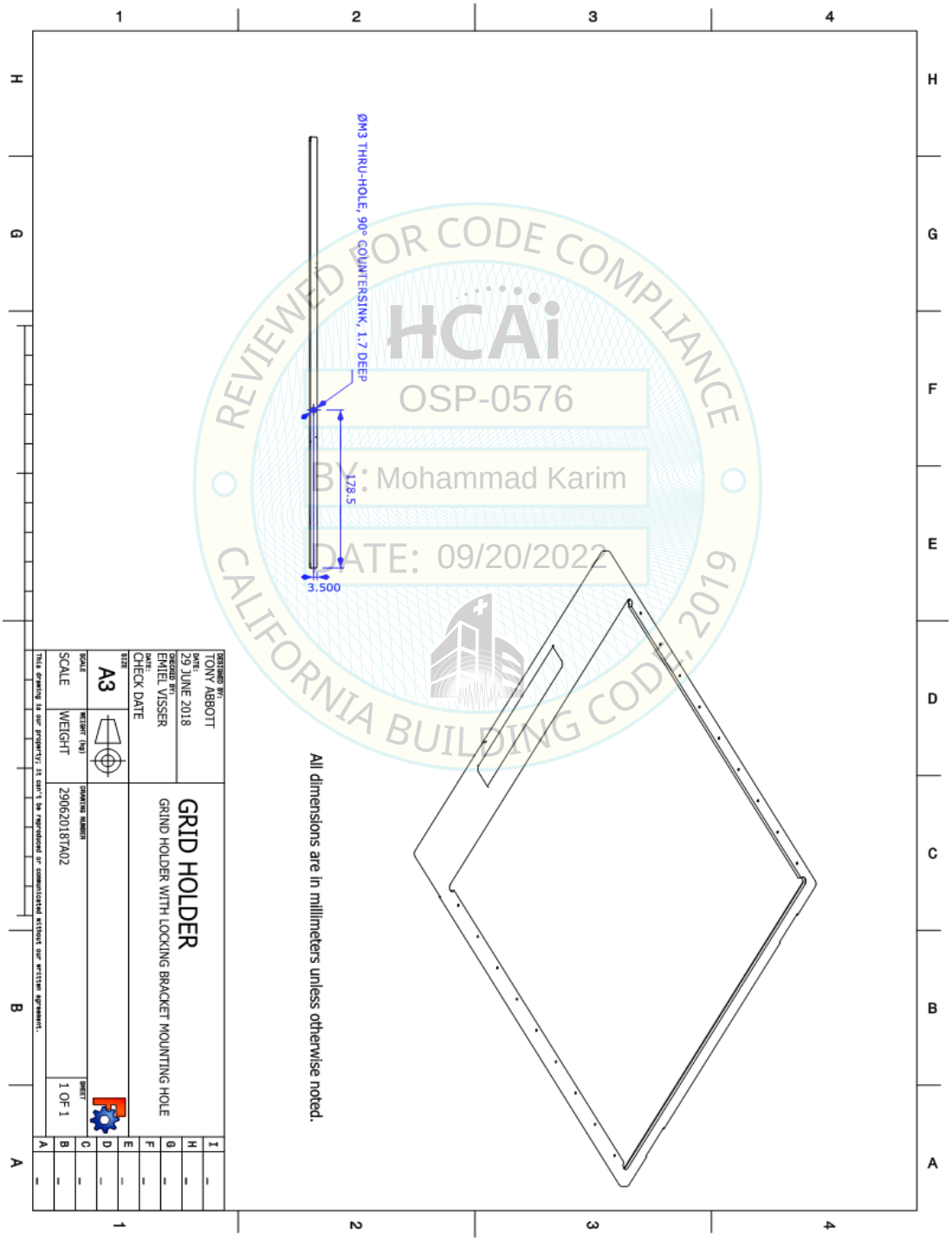
UNIT UNDER TEST (UUT) SUMMARY SHEET

1800261-CR-001-R2

UUT 2

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

Custom Grid Latch Details (page 2 of 2):



UNIT UNDER TEST (UUT) SUMMARY SHEET

1800261-CR-001-R2

UUT 3

Manufacturer: Konica Minolta
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 2022	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

1800261-CR-001-R2

UUT 4

Manufacturer: Konica Minolta
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

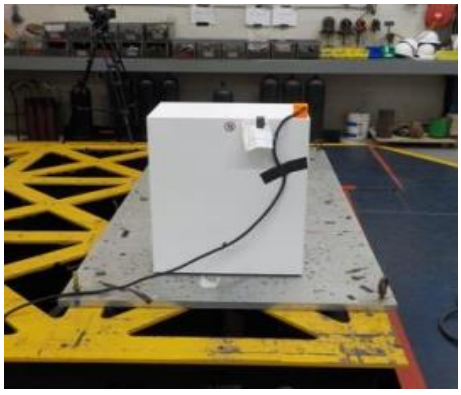
UUT Properties

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 2022	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

1800261-CR-001-R2

UUT 5

Manufacturer:	Konica Minolta		
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

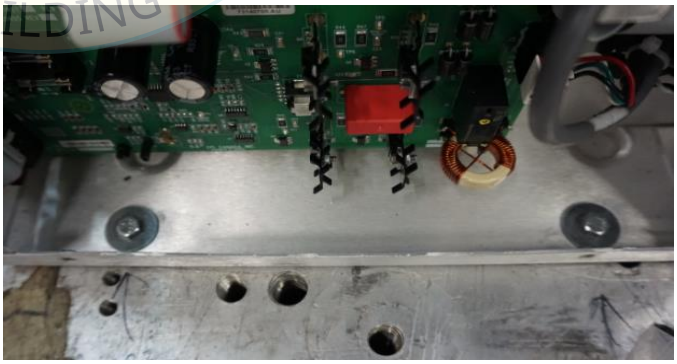
UUT Properties

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 2022	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

1800261-CR-001-R2

UUT 6

Manufacturer:	Konica Minolta		
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 2022	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

1800261-CR-001-R2

UUT 7

Manufacturer: Konica Minolta
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.

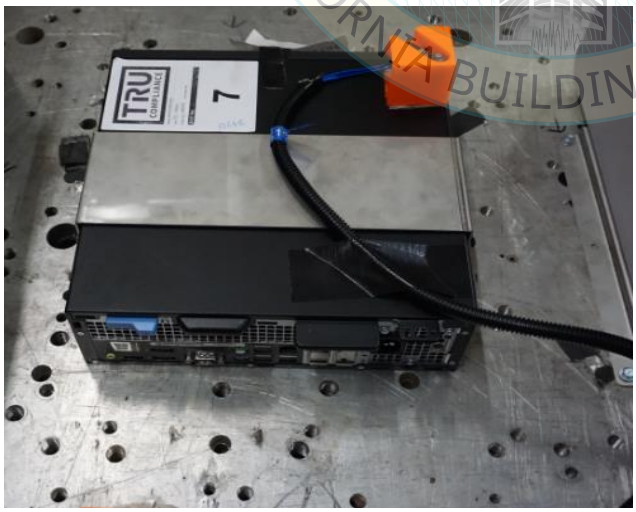
UUT Properties

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 2022	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.

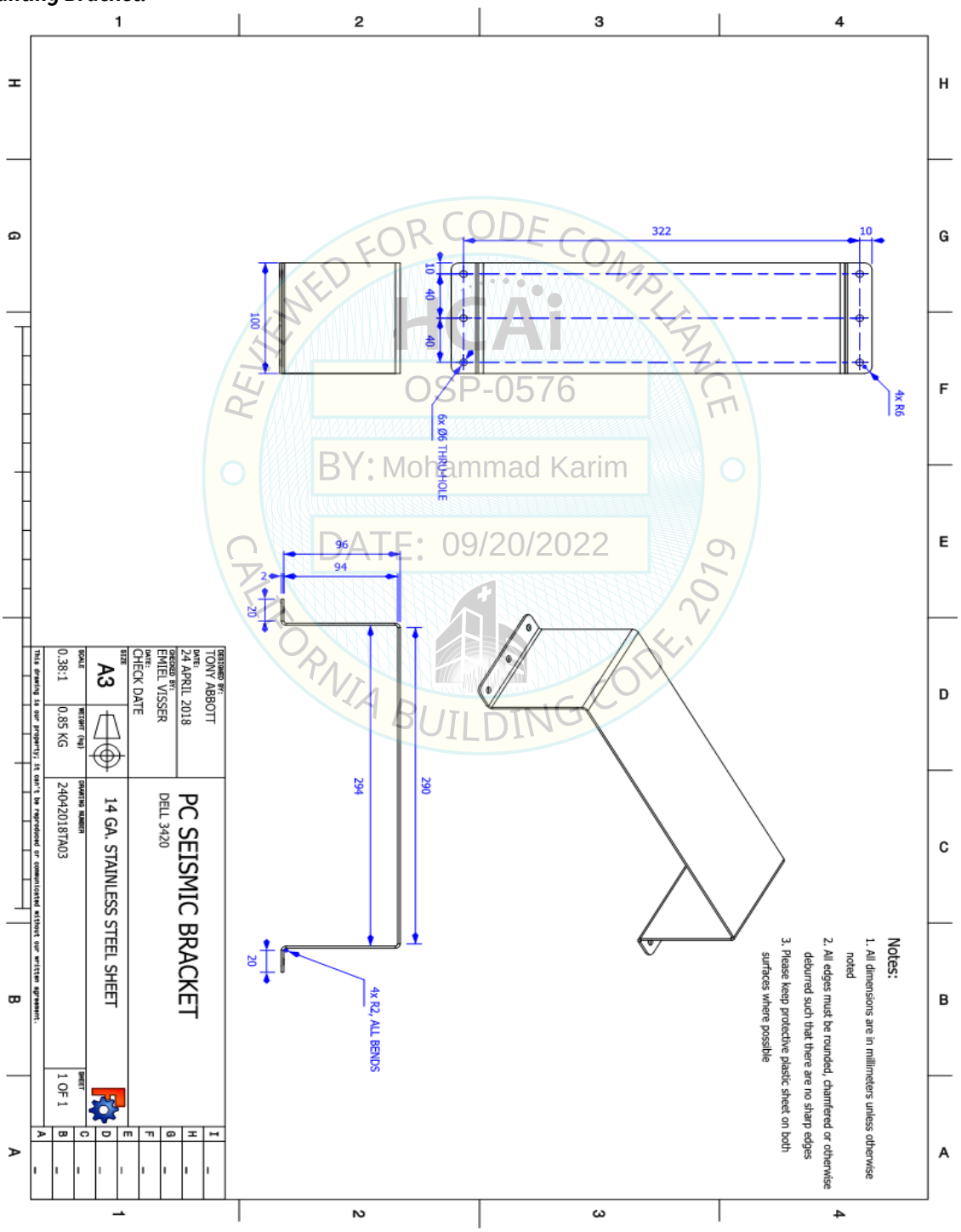
UNIT UNDER TEST (UUT) SUMMARY SHEET

1800261-CR-001-R2

UUT 7

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

Custom Mounting Bracket:



UNIT UNDER TEST (UUT) SUMMARY SHEET

1800261-CR-001-R2

UUT 8

Manufacturer:	Konica Minolta		
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. ☒

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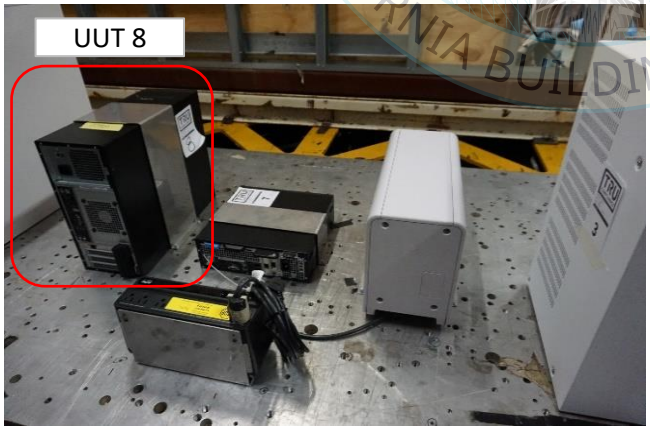
UUT Properties

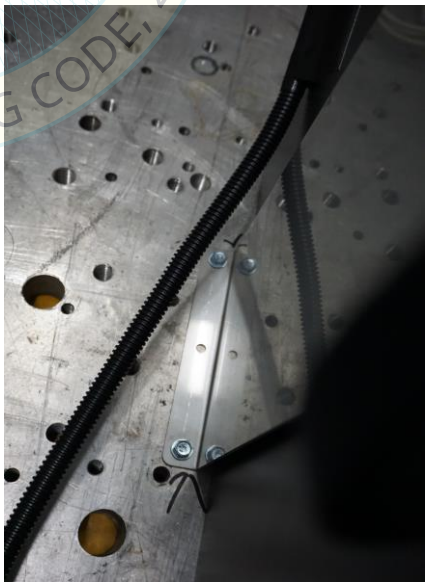
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
16.5	17.12	6.88	14.17	>33.3	19.85	>33.33

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 2022	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:





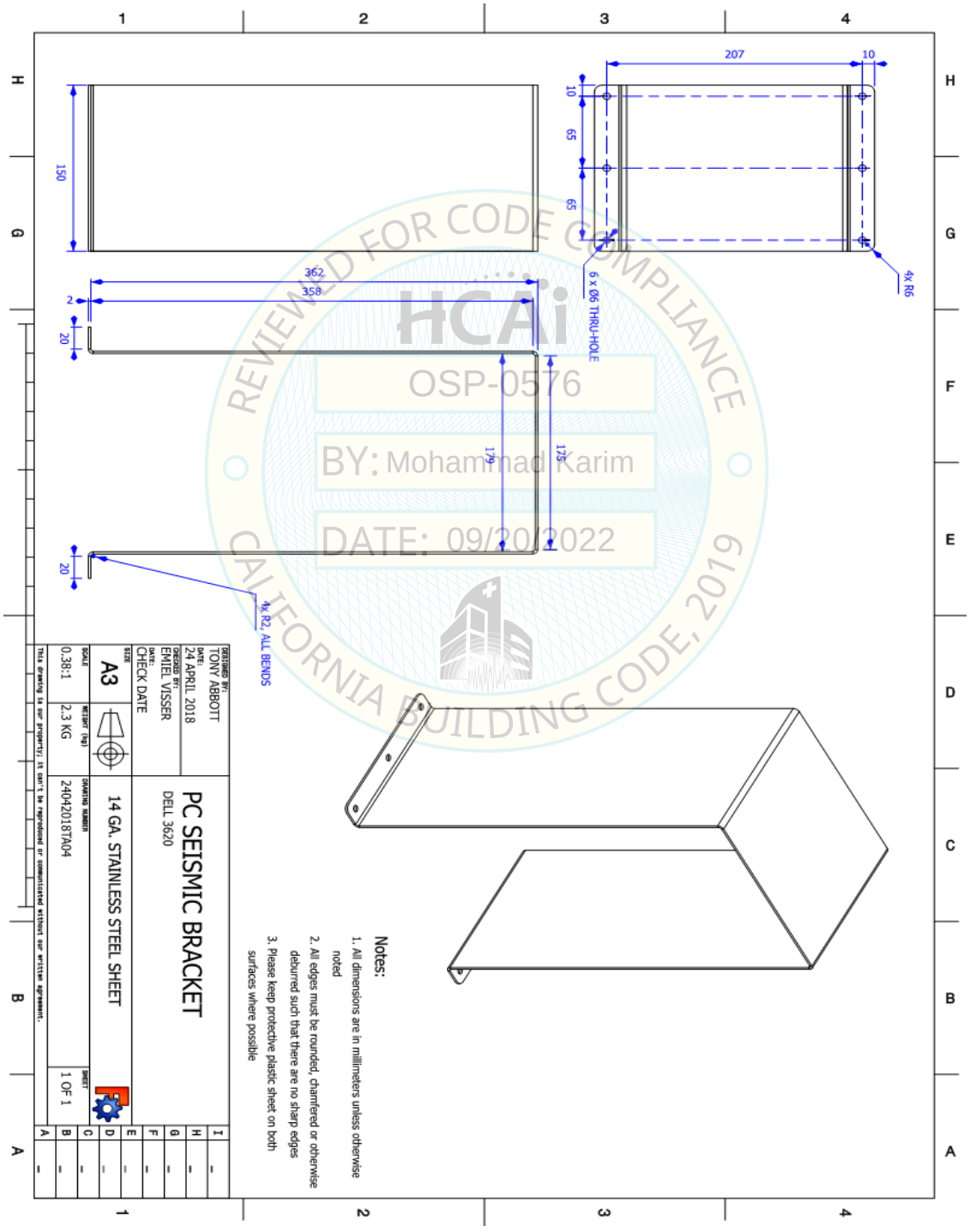
UUT 8 was base mounted – rigid to the table with a custom stainless-steel sheet metal mounting bracket and four #14 x 1-1/2" self-tapping screws. Mounting holes were located at the four corners of the bracket.
Unit maintained structural integrity and remained functional per manufacturer requirement after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

UNIT UNDER TEST (UUT) SUMMARY SHEET

1800261-CR-001-R2

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

Custom Mounting Bracket:



UNIT UNDER TEST (UUT) SUMMARY SHEET

1800261-CR-001-R2

UUT 9

Manufacturer:	Konica Minolta		
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. ☒

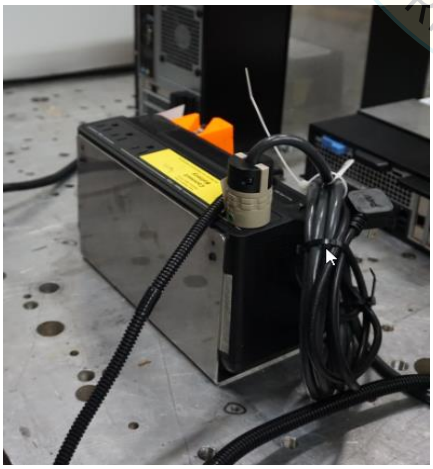
UUT Properties

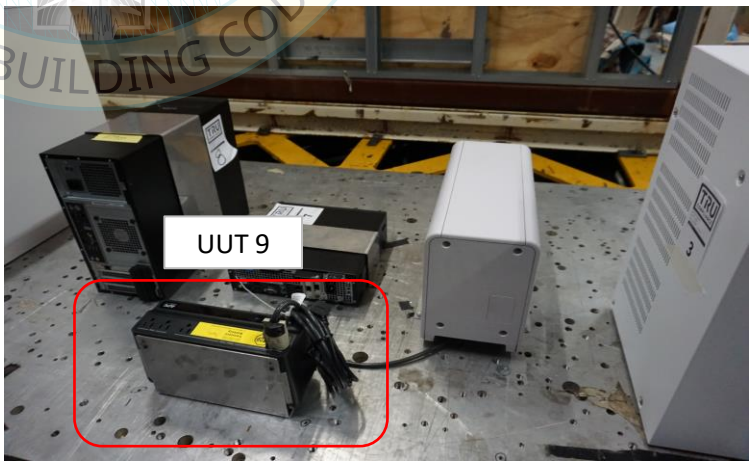
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
10.5	4.13	10.79	5.47	26.78	38.02	28.07

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 2022	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:





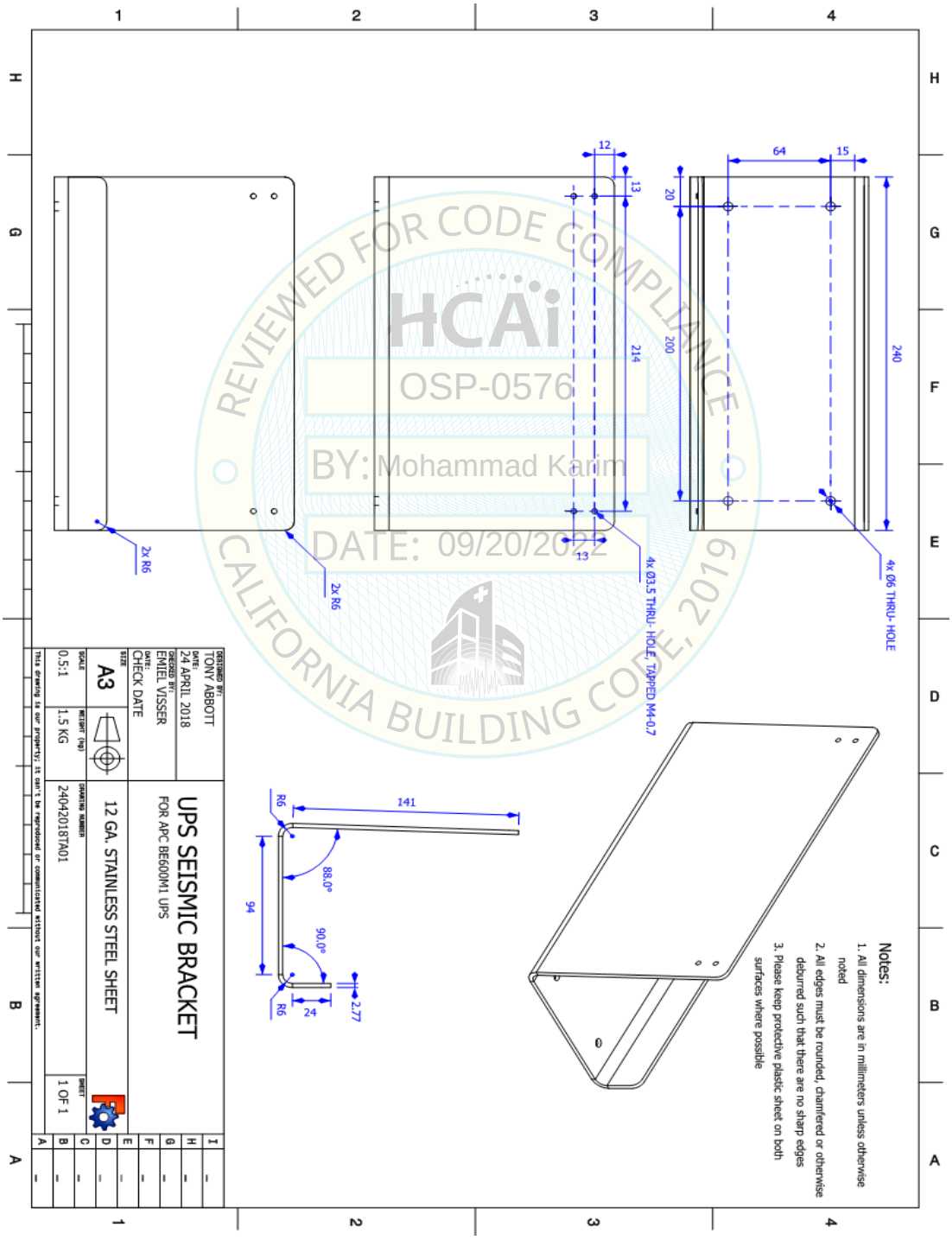
UUT 9 was base mounted – rigid to the table with a custom stainless-steel sheet metal mounting bracket and four #14 x 1-1/2" self-tapping screws. Mounting holes were located at the four corners of the bracket. Four M4-0.7 x 6mm Class 10.9 button head screws were used to secure UUT 9 to the bracket.
Unit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

UNIT UNDER TEST (UUT) SUMMARY SHEET

1800261-CR-001-R2

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

Custom Mounting Bracket:



UNIT UNDER TEST (UUT) SUMMARY SHEET

1800261-CR-001-R2

UUT 10

Manufacturer:	Konica Minolta		
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 2022	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

1800261-CR-001-R2

UUT 11

Manufacturer: Konica Minolta
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 2022	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

1800261-CR-001-R2

UUT 12

Manufacturer:	Konica Minolta		
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.

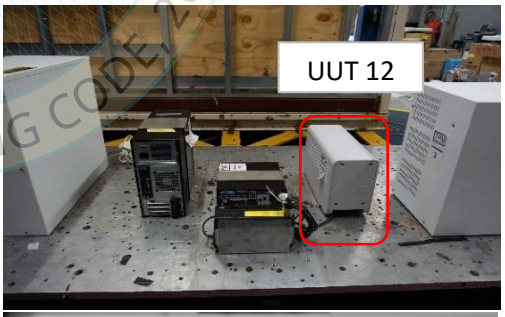
UUT Properties

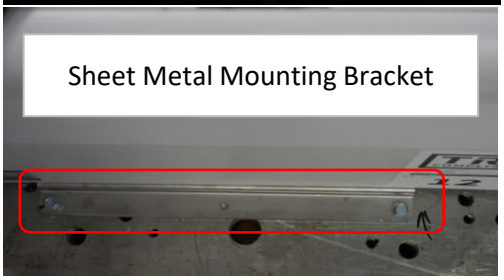
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
30	18.3	7.5	11.5	16.36	21.93	17.18

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 2022	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.

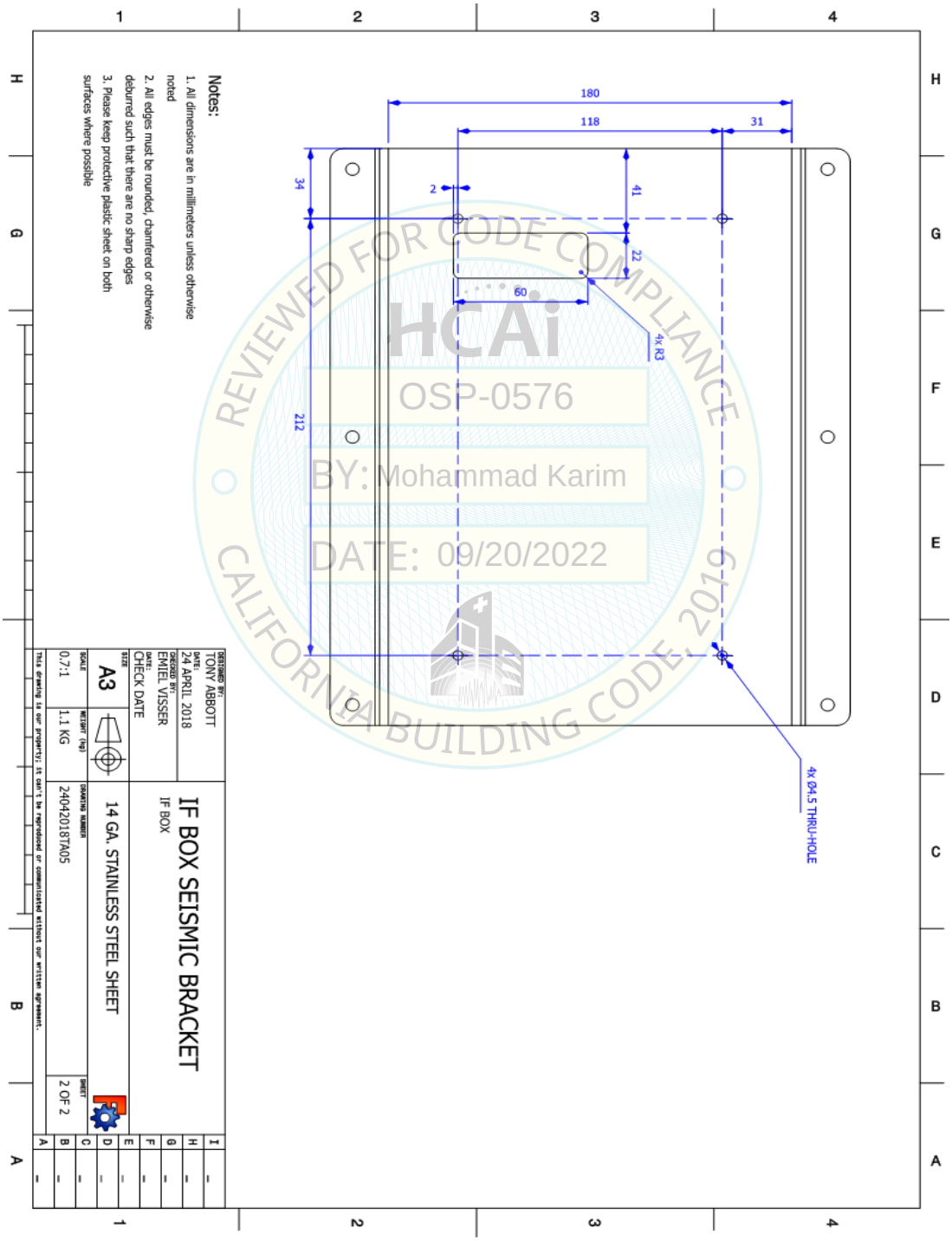
UNIT UNDER TEST (UUT) SUMMARY SHEET

1800261-CR-001-R2

UUT 12

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

Custom Mounting Bracket:



UNIT UNDER TEST (UUT) SUMMARY SHEET

1800261-CR-001-R2

UUT 13

Manufacturer:	Konica Minolta		
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. ☒

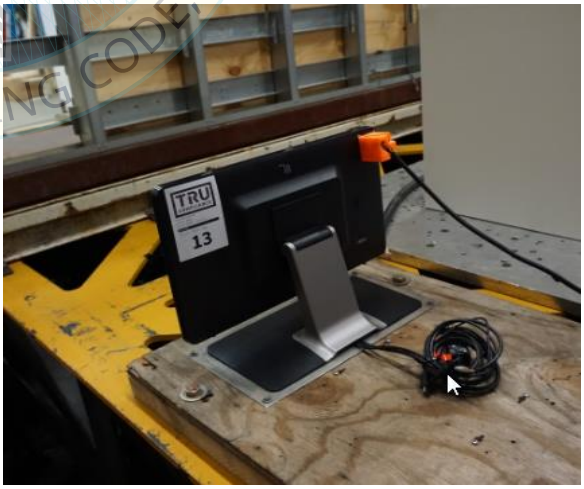
UUT Properties

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 2022	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.

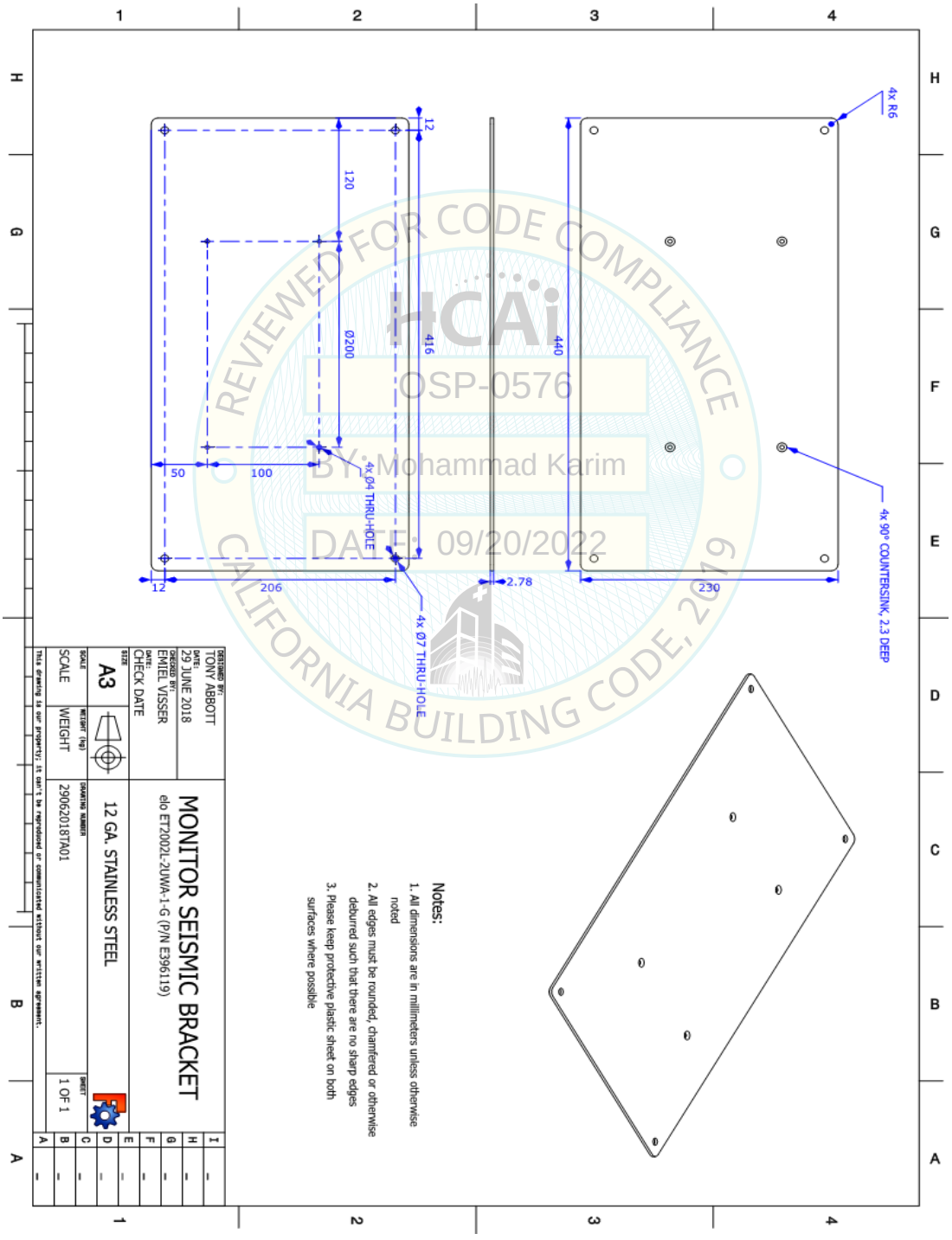
[1]Dimensions include monitor stand.

UNIT UNDER TEST (UUT) SUMMARY SHEET

1800261-CR-001-R2

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

Custom Mounting Bracket:



UNIT UNDER TEST (UUT) SUMMARY SHEET

1800261-CR-001-R2

UUT 14

Manufacturer:	Konica Minolta		
Model Line:	KDR		
Model Number:	CPI Console	***Serial Number:***	n/a

Product Construction Summary:

CPI mini console for use with CPI high voltage generators.

Options/Subcomponent Summary:

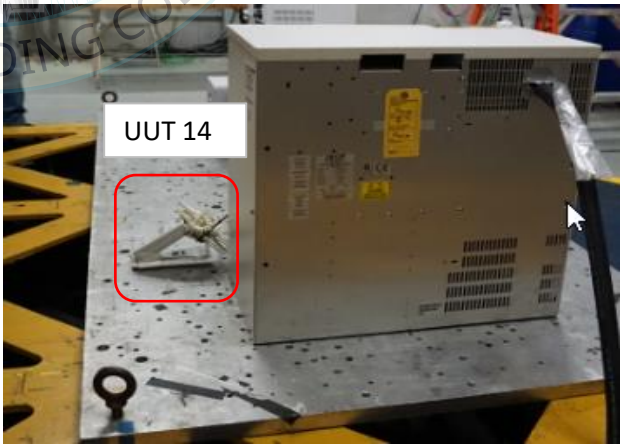
UUT Properties

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 2022	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.