

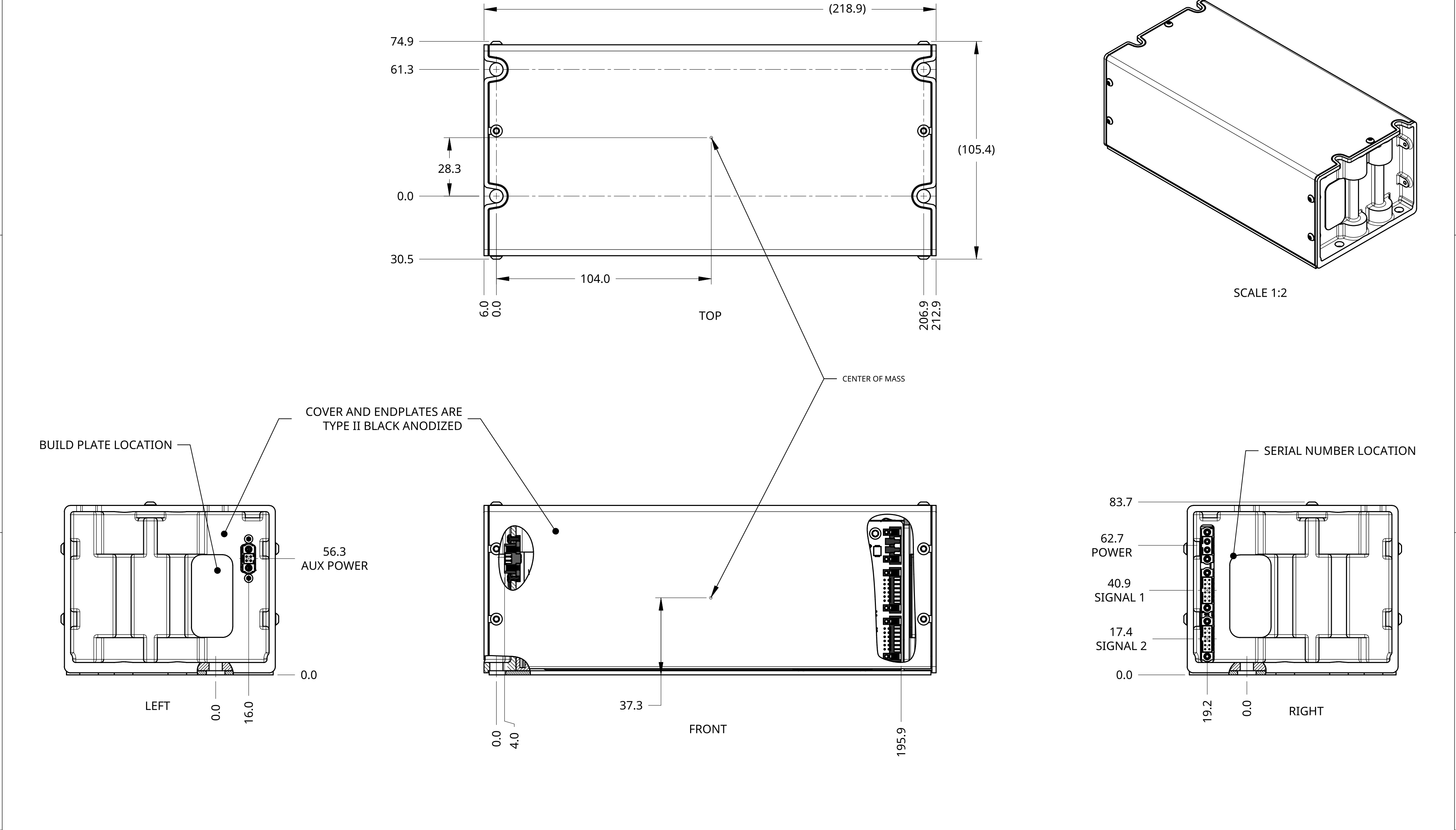
MASS MOMENTS OF INERTIA (g mm²)	
Lxx	8.793E+06
Lxy	-7.433E+06
Lxz	-1.002E+07
Lyx	-7.433E+06
Lyy	4.166E+07
Lyx	-2.652E+06
Lzx	-1.002E+07
Lzy	-2.652E+06
Lzz	4.043E+07

NOTES:

- MOUNT BATTERY PACK ACCORDING TO APPROPRIATE THREAD-DEPTH AND TORQUE PER FASTENER AND MATING MATERIAL.
- EXTERIOR SURFACES MATTE FINISH AND ANODIZED PER NASA/JSC PRC-5006, TYPE II, CLASS 2, COLOR BLACK.
- PACK MASS IS A CONSERVATIVE ESTIMATE; PRECISE VALUE TBD.

OUTPUT CONNECTORS		
CONNECTOR	BOARD HEADER TYPE	MATING CONNECTOR TYPE
POWER	HARWIN M80-5000000M5-02-PM3-00-00	HARWIN M80-4000000F1-02-PF5-00-000
SIGNAL1	HARWIN M80-5401205	HARWIN M80-4801205
SIGNAL2	HARWIN M80-5401205	HARWIN M80-4801205
AUX POWER	HARWIN M80-5C10405MU	HARWIN M80-4800405

REVISIONS			
Revision	Revision description	Date approved	Approver
01	SPECIFY EXTERNAL COATINGS; REMOVED EXTERNAL TIM	2026-06-10	Jay Manley
04	UPDATE TO THERMAL STRAP DESIGN, ADDED COOLPLATE TIM TO BOM	2026-08-26	Luke Bouttell
05	UPDATE BMS REV UPDATE AUX HARNESS REV	2026-09-17	Luke Bouttell
06	ADDED LABEL ARTWORK DRAWINGS	2026-10-08	Luke Bouttell
UNLESS OTHERWISE SPECIFIED: - DIMENSIONS ARE IN MILLIMETERS - TOLERANCE TO STANDARD: ISO 2768-MK - SURFACE FINISH: 3.2		MP SPACE PTY LTD	
CONFIDENTIAL. DO NOT SHARE NOR DISTRIBUTE WITHOUT CONSENT.		THIRD ANGLE PROJECTION	
DO NOT SCALE DRAWING		TITLE	
BREAK ALL SHARP EDGES AND REMOVE BURRS		TLA PACK2 8S3P-8X3 21700 PACK2V2-8S3P-21700	
MATERIAL	FINISH	SIZE	DWG NO.
SEE BOM	--	C	10000100-01-00
SCALE		3:4	WEIGHT
			2550 g ±15g
		SHEET	1 of 3
		REV.	06



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		SHEET	1 of 3
		REV.	06

4

3

2

1

D

D

C

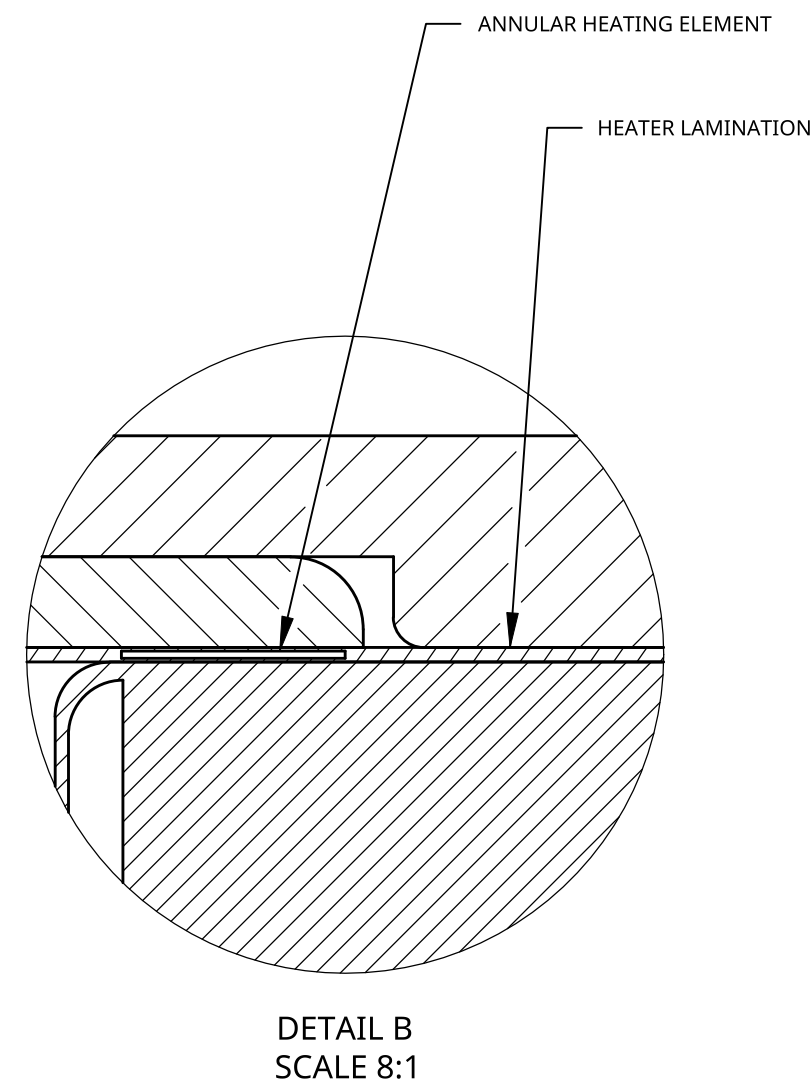
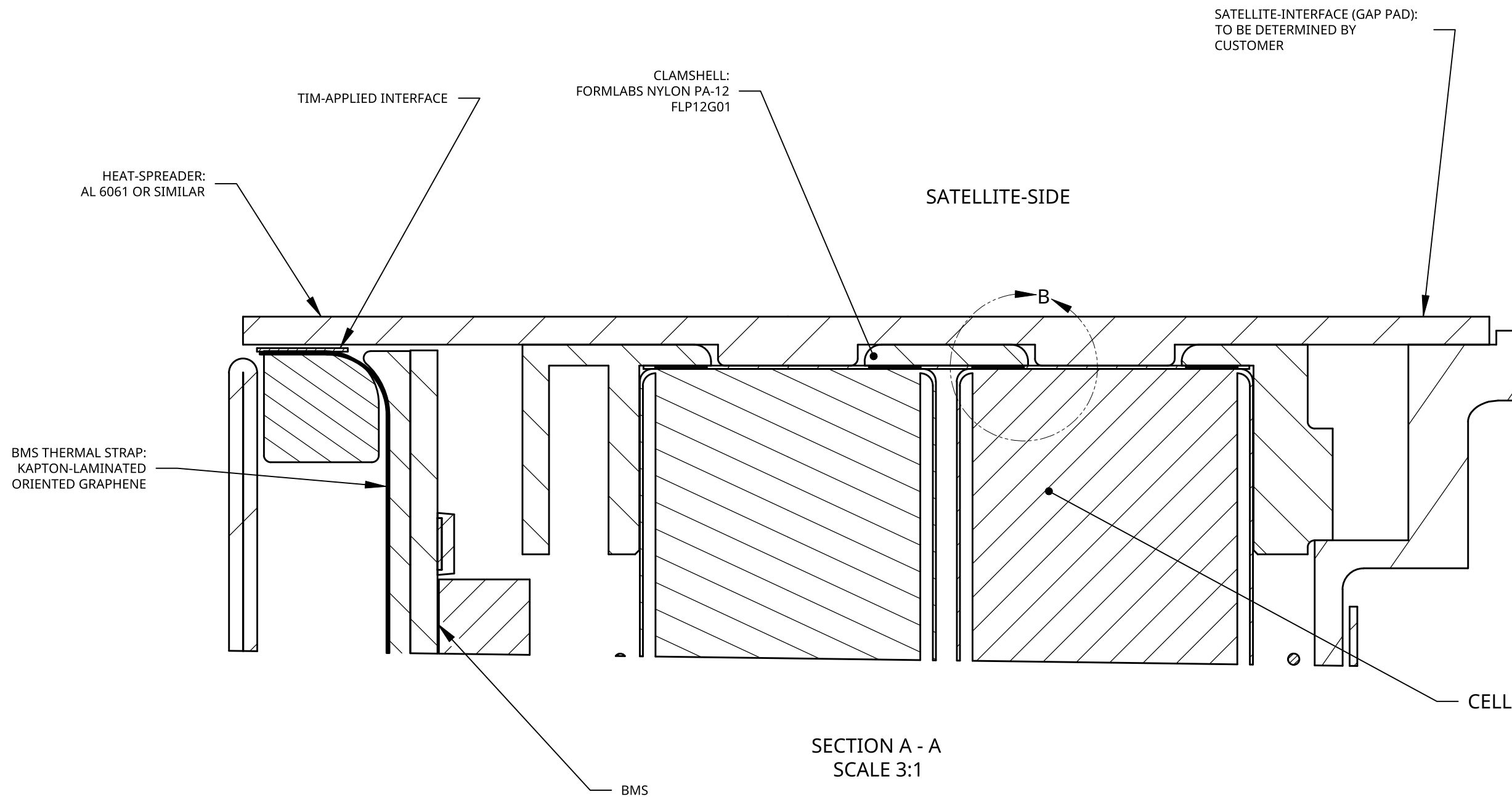
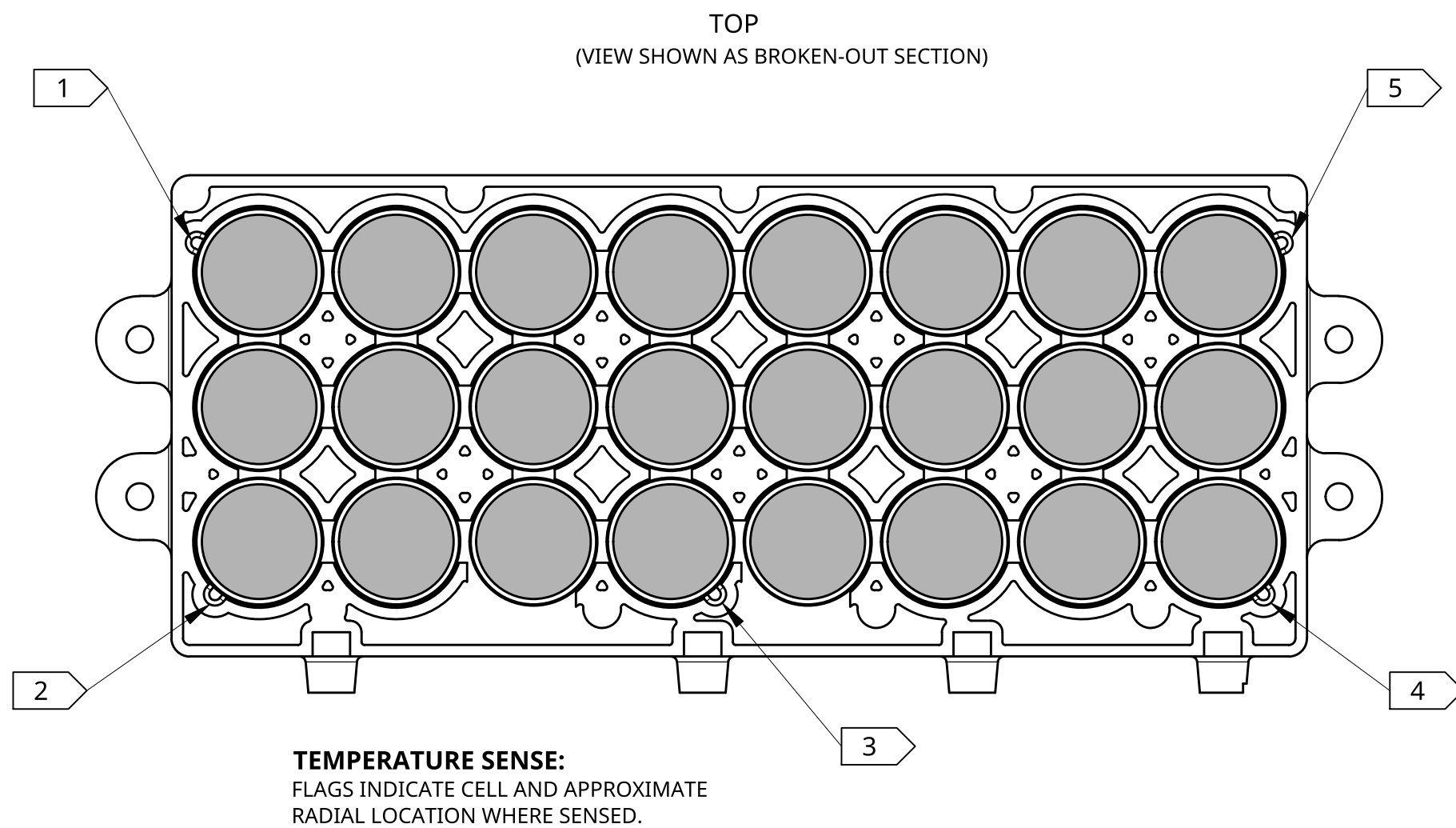
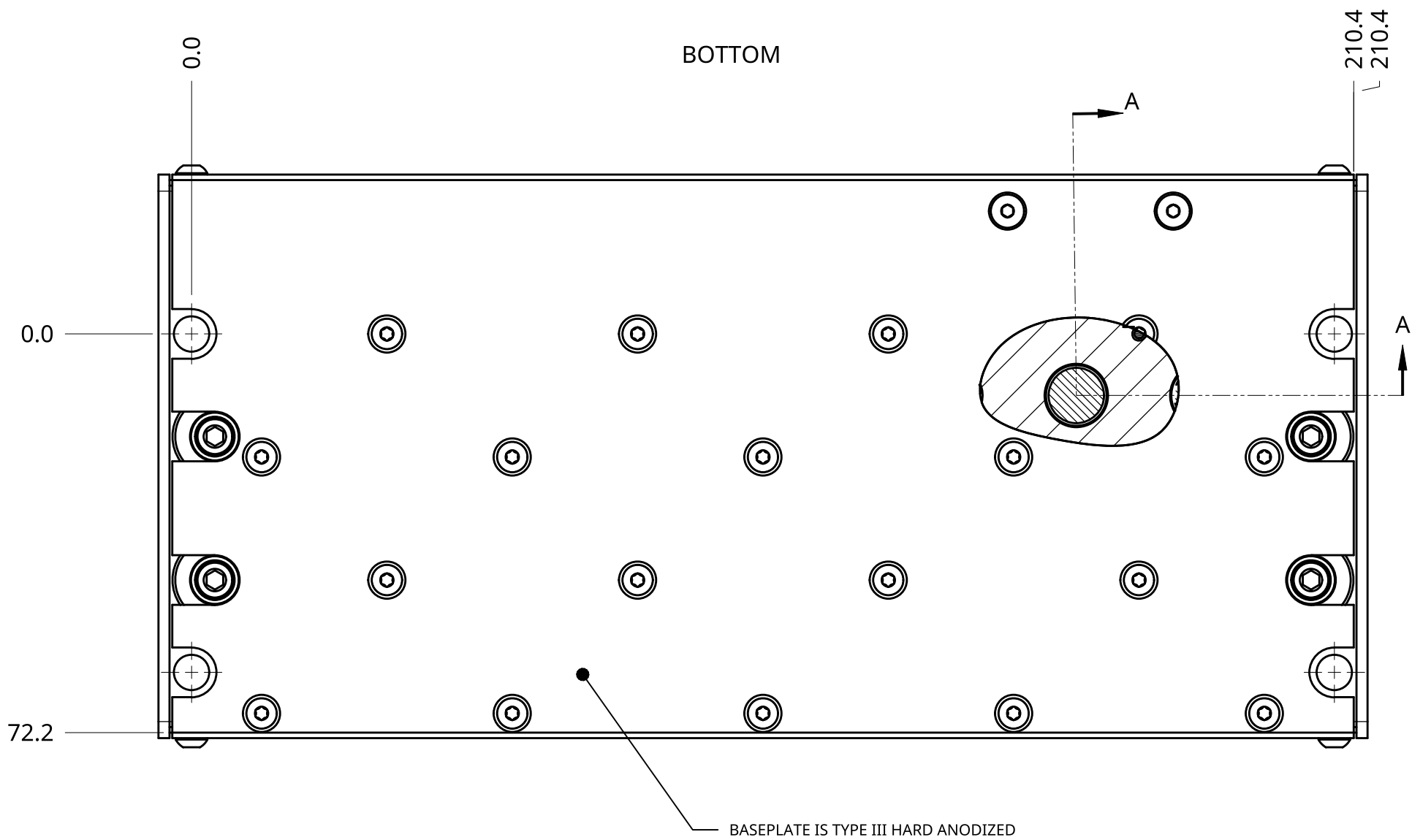
C

B

B

A

A



REVISIONS				
See sheet 1				
MP SPACE PTY LTD				
TITLE				
ASSEMBLY				
TLA PACK2 8S3P-8X3 21700				
PACK2V2-8S3P-21700				
SIZE	DWG NO.	REV.		
C	10000100-01-00	06		
SCALE	1:1	WEIGHT	2550 G	SHEET 2 of 3

D

C

B

A

D

C

B

A

Parameter	Value	Units	Notes
Cell & Interconnect Nominal Resistance	58.3	mΩ	Estimated terminal-to-terminal at 50 % SoC, 23 °C using 10 s DCIR pulse. Use +40% for worst-case modelling. Provided for energy / power efficiency modelling.
BMS Power-Path Resistance	4.2	mΩ	Includes FETs, sense shunt, and contactors. Adds linearly to cell/interconnect resistance. Use +20 % for worst-case. Provided for energy / power efficiency modelling. (Measured at Ambient Temperature)
Power Dissipation - Steady state	2.6	W	at 0.5C-rate continuous discharge
Power Dissipation - Max	90.2	W	38A during charge at 10 degree C.
Thermal Capacitance	2150	J/K	Estimated ±1% margin. Cells comprise 71% of thermal capacitance; additional 10% is well-coupled heat-spreader and endplates.
Heater Power	72	W	Heater is designed to deliver ~3 watts per cell of heater power at nominal pack voltage. Actual power varies with cell voltage and cell temp.
Current Transient Capability	38	A	Maximum discharge current permitted provided cell temperatures stay ≤ 55 °C. Spacecraft thermal model to verify pulse length vs. thermal capacity.

REVISIONS

See sheet 1

MP SPACE PTY LTD

TITLE

ASSEMBLY

TLA PACK2 8S3P-8X3 21700

PACK2V2-8S3P-21700

SIZE

C

DWG NO.

10000100-01-00

REV.

06

SCALE

WEIGHT

2550 G

SHEET

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