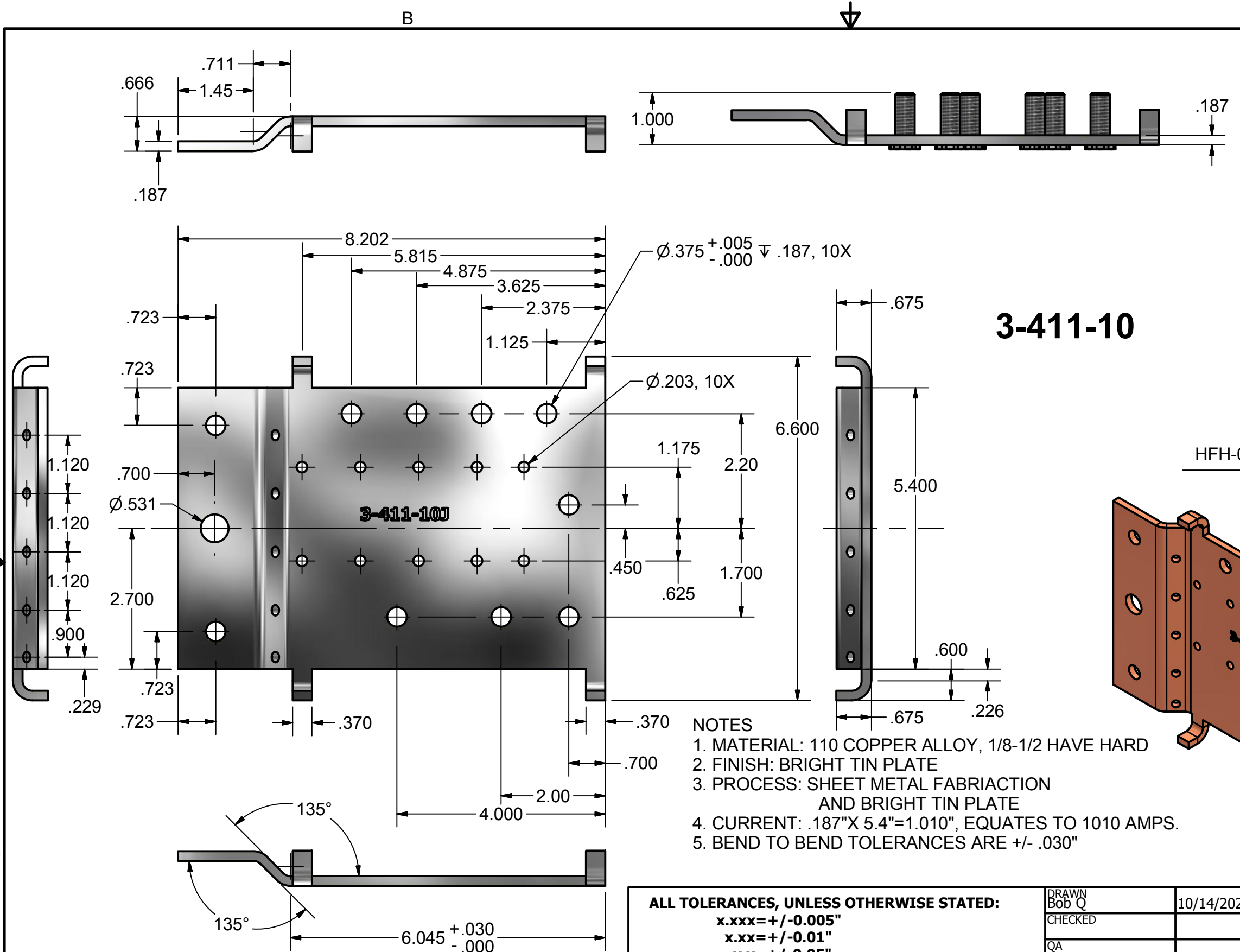


REVISION HISTORY			
REV.	DESCRIPTION OF CHANGE	DATE	SIGN
K	ADDED -3 VERSION PER CUSTOMER DWG.	10/17/22	RAQ
B	MOVED 4 STUDS FOR EASE OF ASSEMBLY, WAS .700", IS .220" ADDED 3 .201" HOLES FOR BUSBAR	11/2/12	RAQ
C	ADDED FOUR EACH 3/8" HOLES FOR EXTRA CONNETIONS	1/29/14	RAQ
D	LOOSENED BEND TOLERANCES AT SUPPLIERS REQUEST	1/6/15	RAQ
E	REDIMENSIONED PART PER SUPPLIER REQUEST.	1/23/15	RAQ
F	SS NUTS SEIZE ON SS STUDS, WAS SS STUDS, IS ZN STUDS	1/11/17	RAQ
G	STUDS WERE 3/4 ARE 1". CREATED -2 FOR 2000 AMP VERSION	11/10/21	RAQ
H	ON THE -2, 3/8" THRU HOLES WERE NORMAL ARE LOOSE, .406"	11/12/21	RAQ
J	ADDED 15 POSITION BUSBAR, 5 .203 HOLES, 3 PLACES.	7/8/22	RAQ

3-411-10




NOTES

1. MATERIAL: 110 COPPER ALLOY, 1/8-1/2 HAVE HARD
2. FINISH: BRIGHT TIN PLATE
3. PROCESS: SHEET METAL FABRIACION AND BRIGHT TIN PLATE
4. CURRENT: .187"X 5.4"=1.010", EQUATES TO 1010 AMPS.
5. BEND TO BEND TOLERANCES ARE +/- .030"

ALL TOLERANCES, UNLESS OTHERWISE STATED: x.xxx=+/-0.005" x.xx=+/-0.01" x.x=+/-0.05"		DRAWN Bob Q	10/14/2022
ALL ANGLES = +/- 1° UNLESS OTHERWISE STATED		CHECKED	
MATERIAL:		QA	
FINISH:		MFG	
PROCESS:		APPROVED	

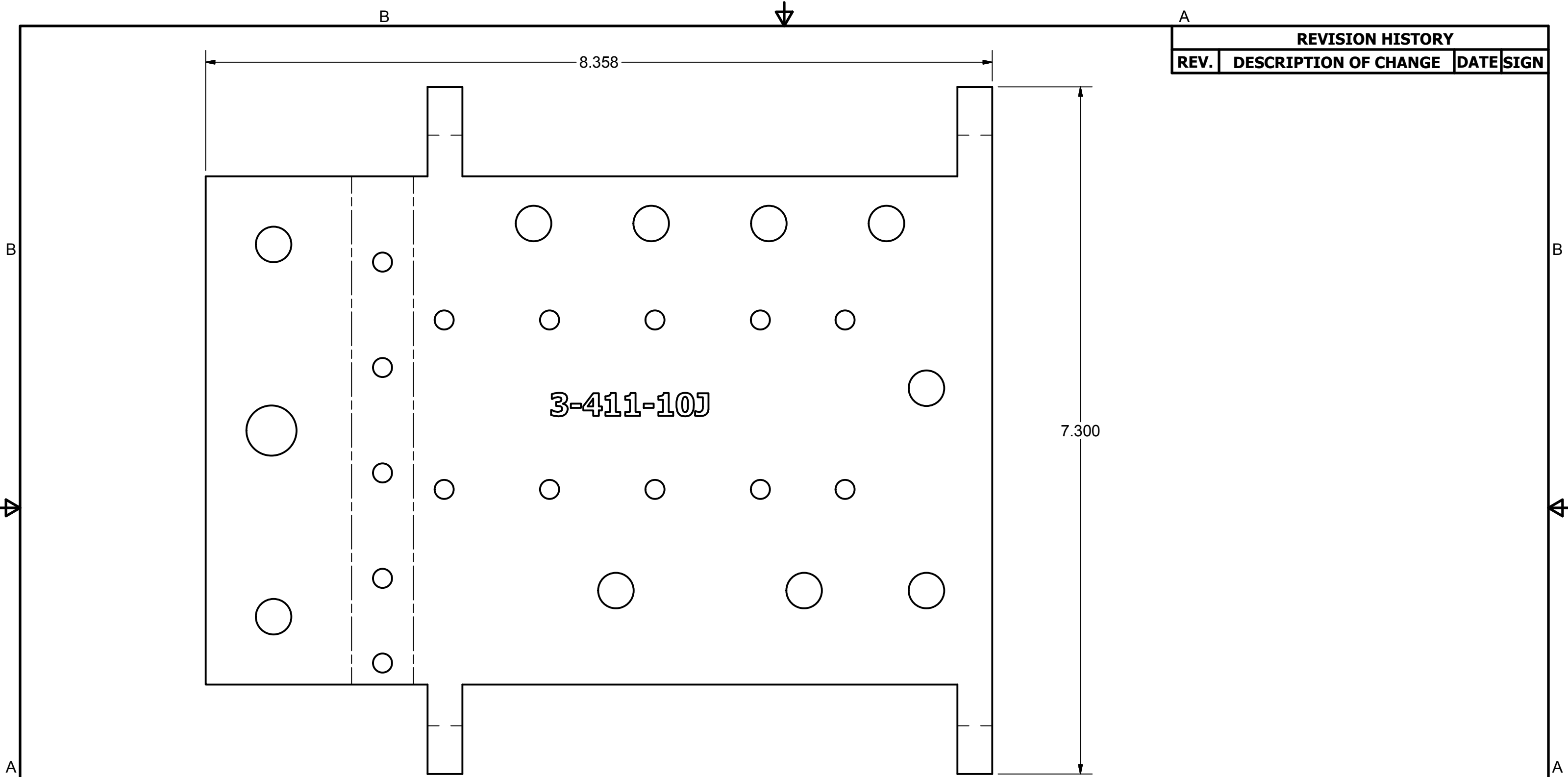
PARTS LIST		
QTY	PART NUMBER	DESCRIPTION
1	3-411-1	MNSMA BATTERY BUSBAR
6	HFH-0616-16ZI	PENN HFH-0616-16ZI STUD

MIDNITE SOLAR, INC 

TITLE
3-411-XX MNSMA BATTERY BUSBAR

SIZE B	PROJECT: SMA	DWG NO 3-411-XX	REV K
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E-FILE:3-411-1 REV J MNSMA BATTERY BUSBAR.ipt SHEET 1 OF 6




REVISION HISTORY

REV.	DESCRIPTION OF CHANGE	DATE	SIGN

3-411-10J

FLAT PATTERN, 1:1

ALL TOLERANCES, UNLESS OTHERWISE STATED: x.xxx=+/-0.005" x.xx=+/-0.01" x.x=+/-0.05"		DRAWN Bob Q	10/14/2022
ALL ANGLES = +/- 1° UNLESS OTHERWISE STATED		CHECKED	
MATERIAL:	STANDARDS:	QA	
FINISH:		MFG	
PROCESS:		APPROVED	

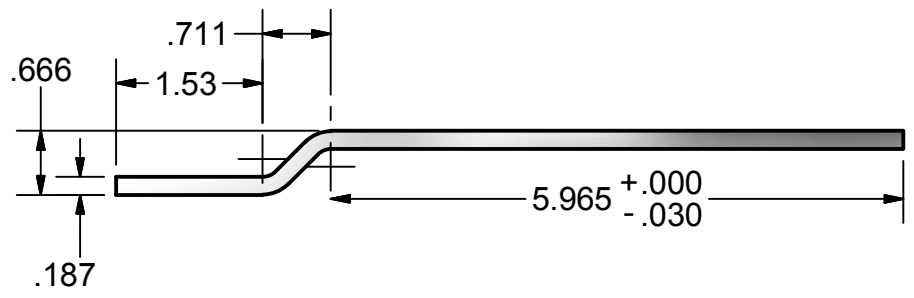
MIDNITE SOLAR, INC 

TITLE
3-411-XX MNSMA BATTERY BUSBAR

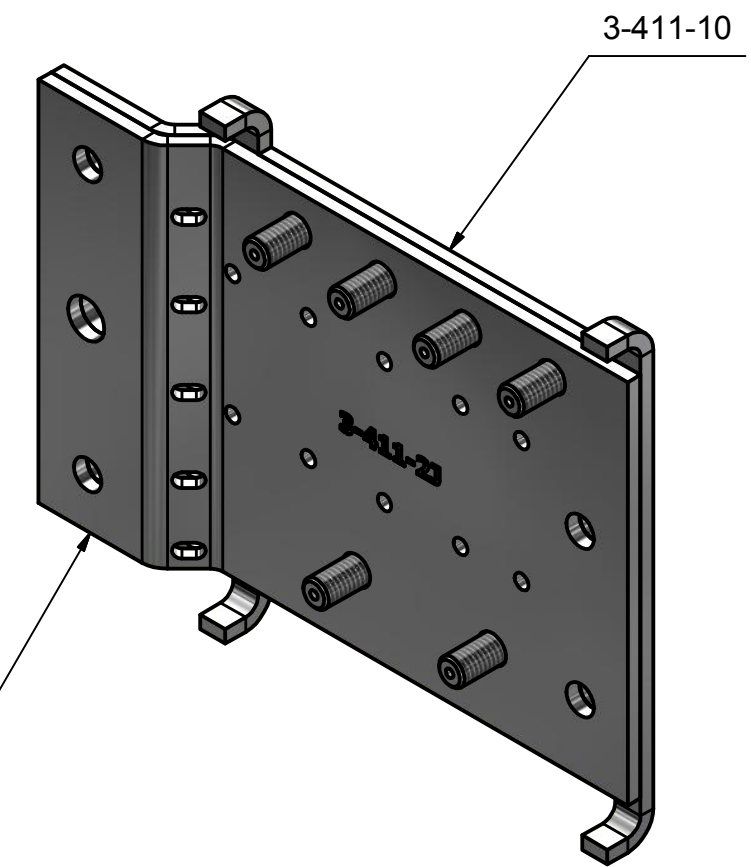
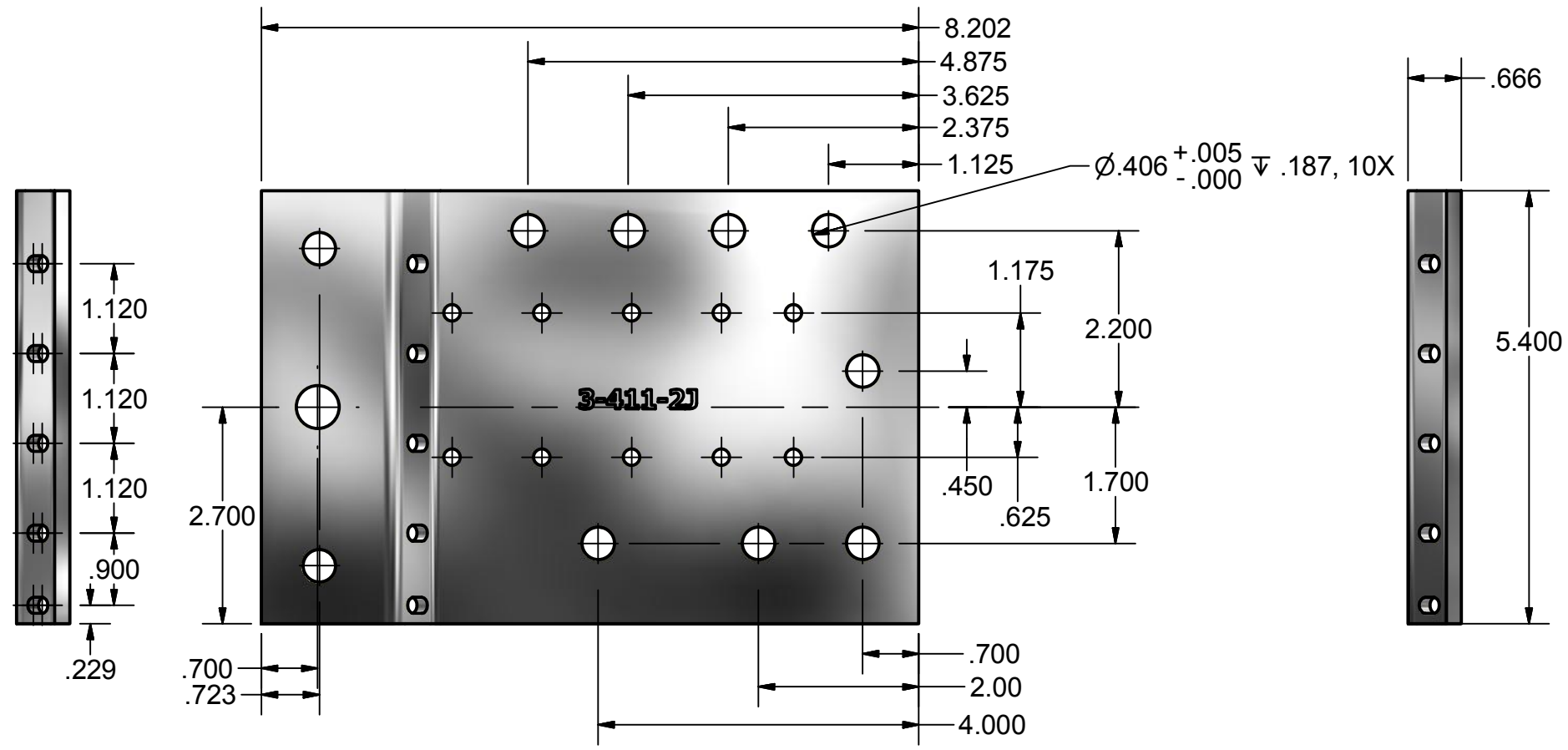
SIZE B	PROJECT: SMA	DWG NO 3-411-XX	REV K
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E-FILE:3-411-1 REV J MNSMA BATTERY BUSBAR.ipt SHEET 2 OF 6

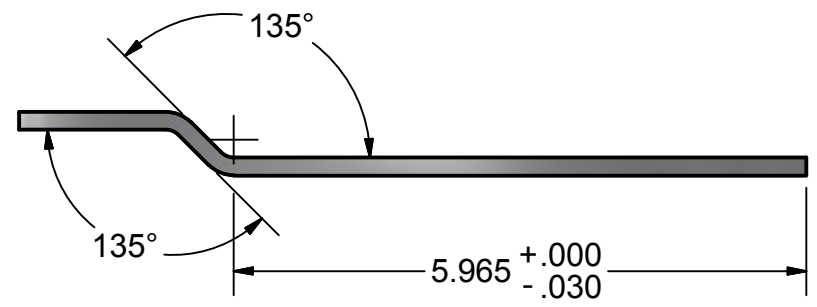
REVISION HISTORY			
REV.	DESCRIPTION OF CHANGE	DATE	SIGN



3-411-2



NOTE THAT THE TWO PART NUMBERS MUST FIT TOGETHER FOR PROPER FUNCTION. SEE +.030/-0.000 AND .000/-0.030 TO HELP WITH FIT.



- NOTES
1. MATERIAL: 110 COPPER ALLOY, 1/8-1/2 HAVE HARD
 2. FINISH: BRIGHT TIN PLATE
 3. PROCESS: SHEET METAL FABRIATION AND BRIGHT TIN PLATE
 4. CURRENT: .187"X 5.4"=1.010", EQUATES TO 1010 AMPS.
 5. BEND TO BEND TOLERANCES ARE +/- .030"

ALL TOLERANCES, UNLESS OTHERWISE STATED: x.xxx=+/-0.005" x.xx=+/-0.01" x.x=+/-0.05" ALL ANGLES =+/- 1° UNLESS OTHERWISE STATED	
MATERIAL:	STANDARDS:
FINISH:	
PROCESS:	

DRAWN Bob Q	10/14/2022
CHECKED	
QA	
MFG	
APPROVED	

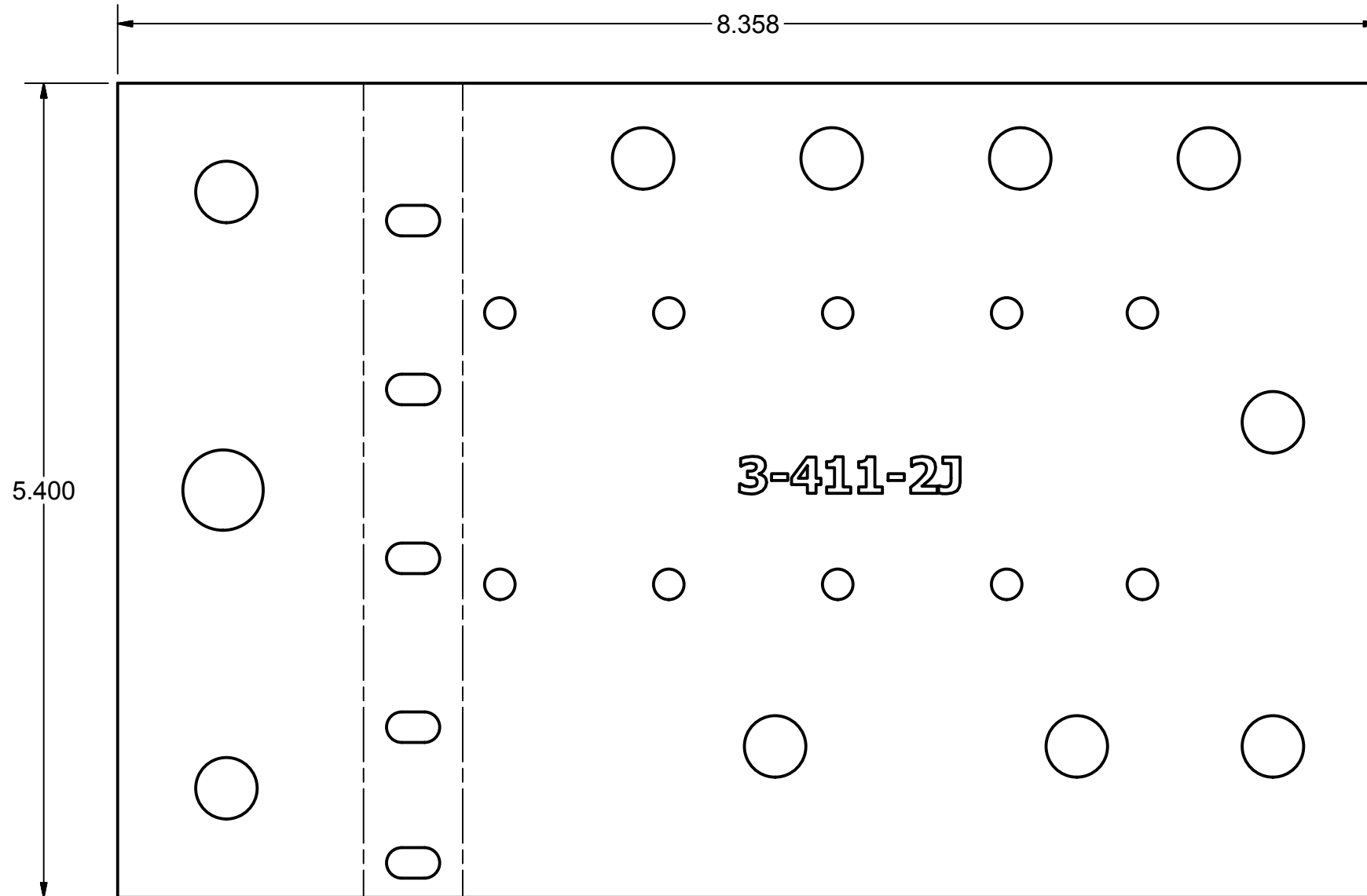
MIDNITE SOLAR, INC

TITLE
3-411-XX MNSMA BATTERY BUSBAR


SIZE B	PROJECT: SMA	DWG NO 3-411-XX	REV K
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E-FILE:3-411-2 REV J MNSMA 2000 AMP BATTERY BUSBAR SHEET 3 OF 6

REVISION HISTORY			
REV.	DESCRIPTION OF CHANGE	DATE	SIGN

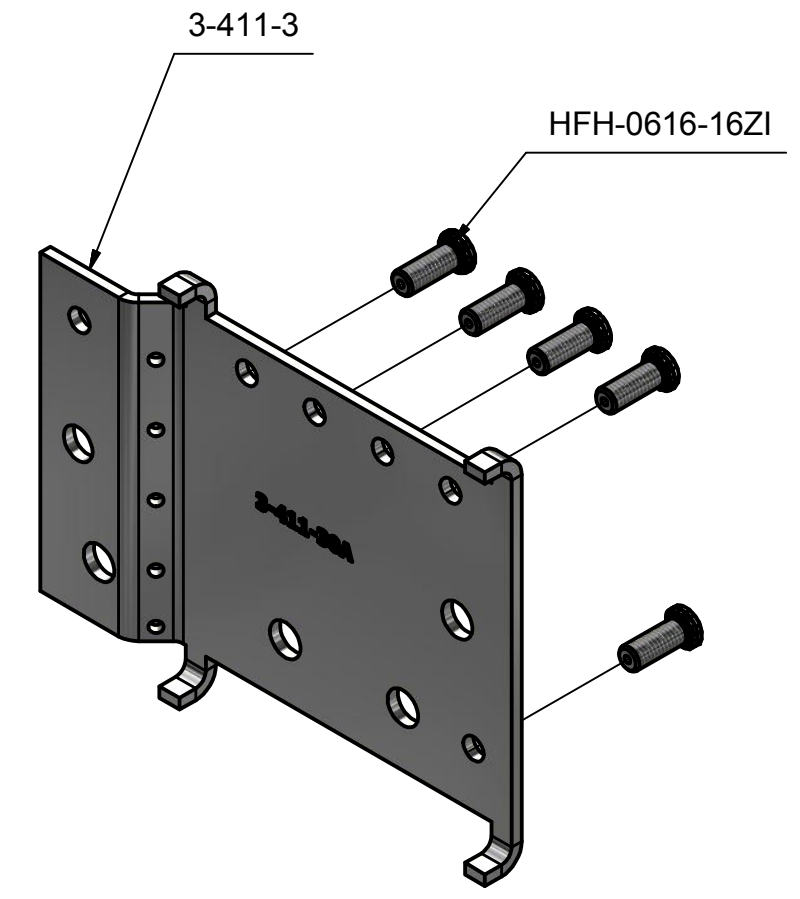
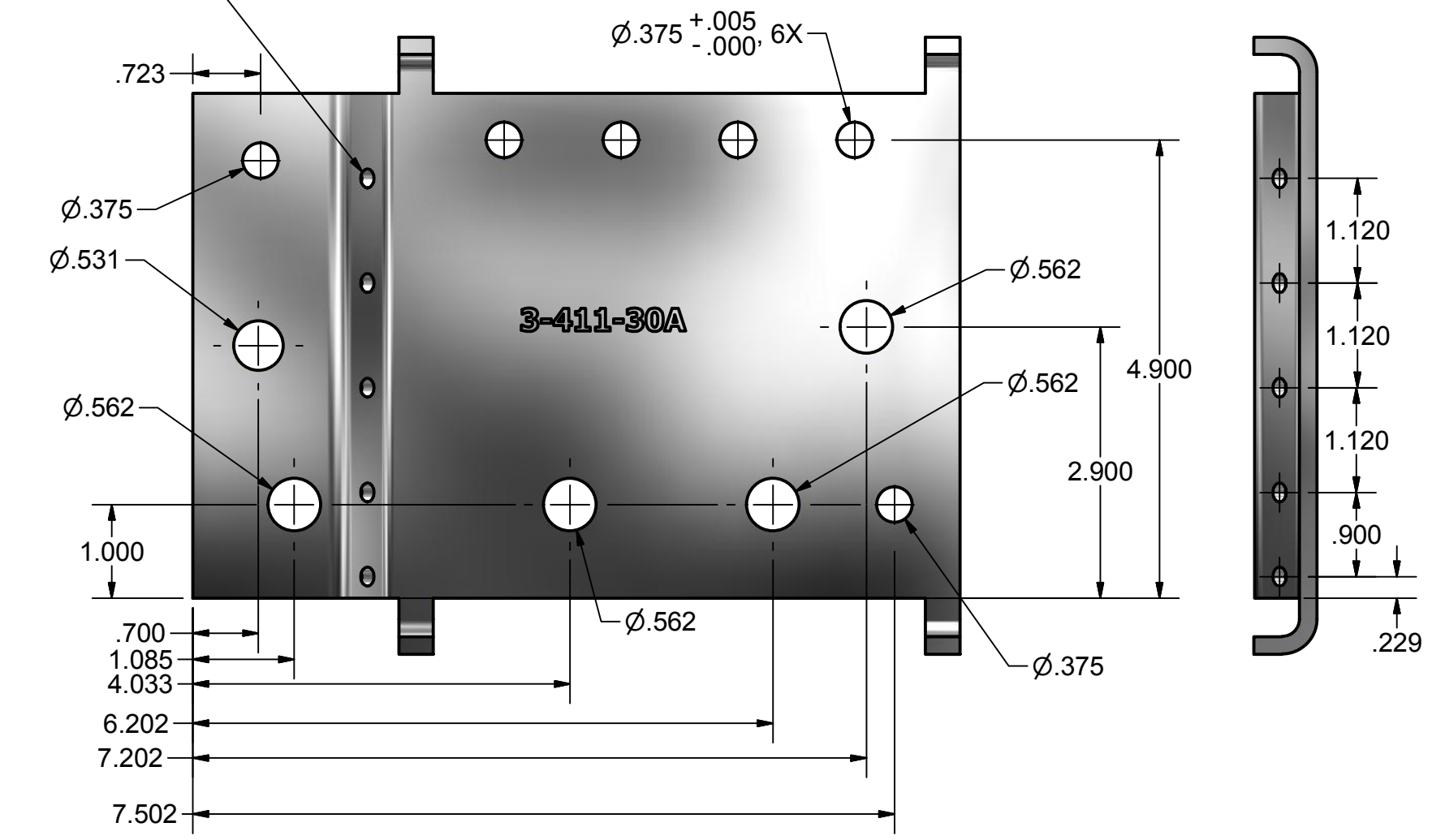
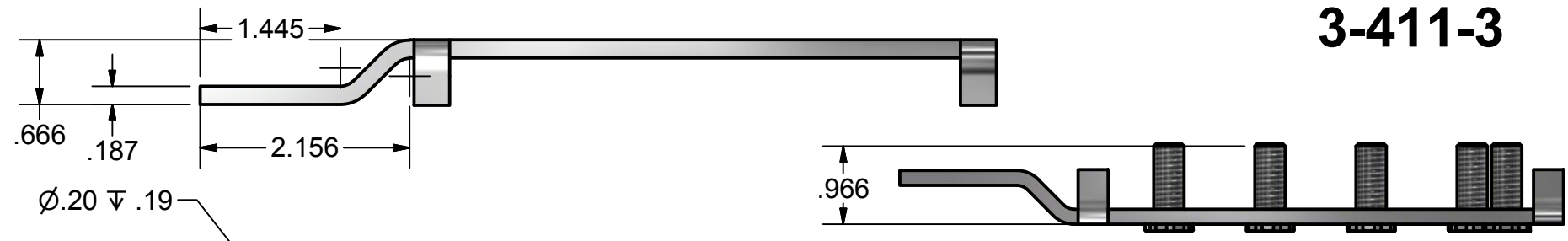


FLAT PATTERN, 1:1

ALL TOLERANCES, UNLESS OTHERWISE STATED: x.xxx= +/-0.005" x.xx= +/-0.01" x.x= +/-0.05" ALL ANGLES = +/- 1° UNLESS OTHERWISE STATED		DRAWN Bob Q 10/14/2022	
MATERIAL:		CHECKED	
FINISH:		QA	
PROCESS:		MFG	
STANDARDS:		APPROVED	
TITLE 3-411-XX MNSMA BATTERY BUSBAR			SIZE B PROJECT: SMA DWG NO 3-411-XX REV K
E-FILE:3-411-2 REV J MNSMA 2000 AMP BATTERY BUSBAR			


REVISION HISTORY			
REV.	DESCRIPTION OF CHANGE	DATE	SIGN

3-411-3



- NOTES**
1. MATERIAL: 110 COPPER ALLOY, 1/8-1/2 HAVE HARD
 2. FINISH: BRIGHT TIN PLATE
 3. PROCESS: SHEET METAL FABRIACTION AND BRIGHT TIN PLATE
 4. CURRENT: .187"X 5.4"=1.010", EQUATES TO 1010 AMPS.
 5. BEND TO BEND TOLERANCES ARE +/- .030"

ALL TOLERANCES, UNLESS OTHERWISE STATED:		DRAWN	10/14/2022
x.xxx= +/-0.005"		Bob Q	
x.xx= +/-0.01"		CHECKED	
x.x= +/-0.05"		QA	
ALL ANGLES = +/- 1° UNLESS OTHERWISE STATED		MFG	
MATERIAL:	STANDARDS:	APPROVED	
FINISH:			
PROCESS:			

MIDNITE SOLAR, INC 

TITLE
3-411-XX MNSMA BATTERY BUSBAR

SIZE	PROJECT:	DWG NO	REV
B	SMA	3-411-XX	K

E-FILE:3-411-3 REV A MNSMA BATTERY BUSBAR.ipt SHEET 5 OF 6

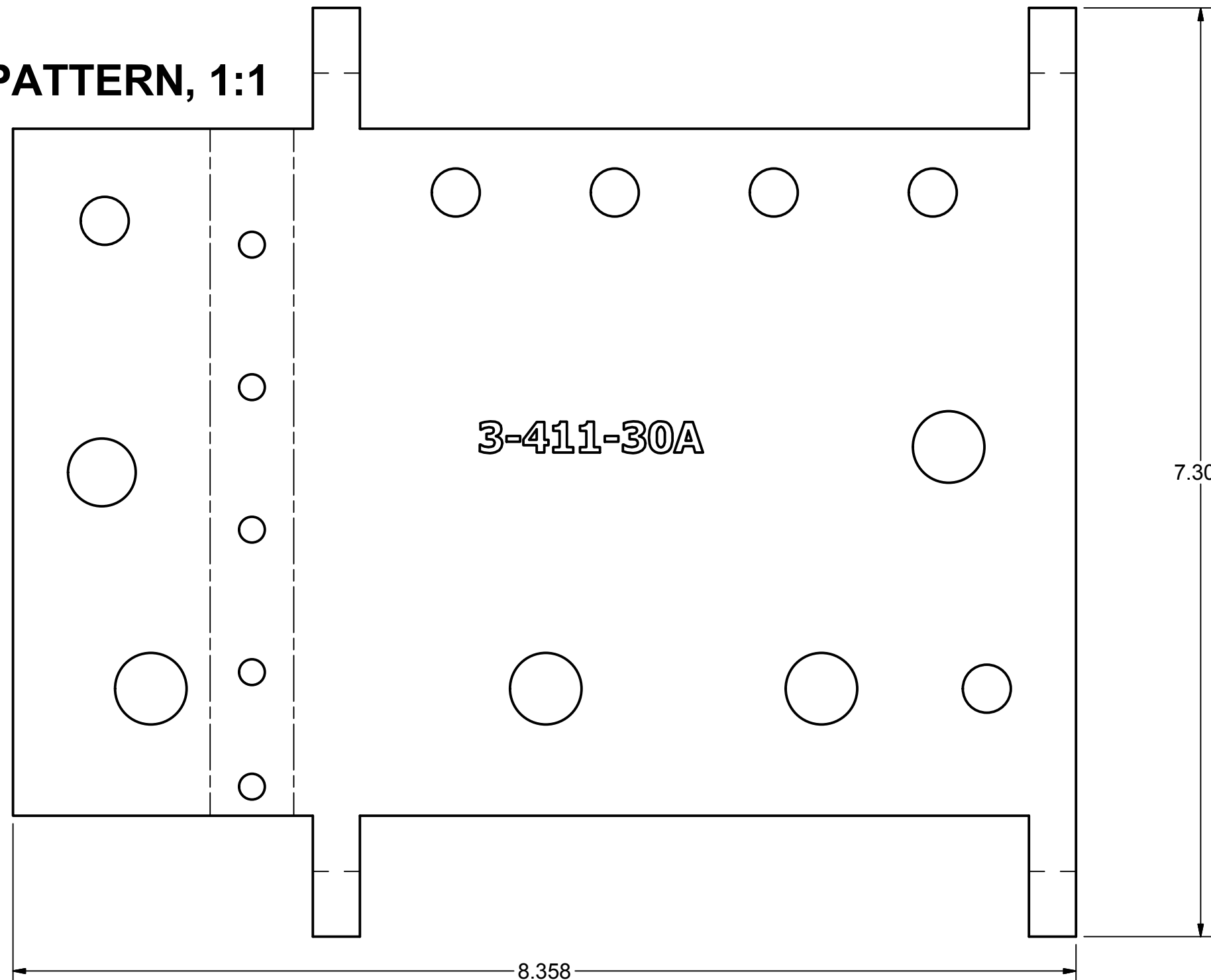
PARTS LIST		
QTY	PART NUMBER	DESCRIPTION
1	3-411-3	MNSMA BATTERY BUSBAR
5	HFH-0616-16ZI	PENN HFH-0616-16ZI STUD

FLAT PATTERN, 1:1


3-411-30A

REVISION HISTORY

REV.	DESCRIPTION OF CHANGE	DATE	SIGN
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ALL TOLERANCES, UNLESS OTHERWISE STATED: x.xxx= +/-0.005" x.xx= +/-0.01" x.x= +/-0.05"		DRAWN Bob Q	10/14/2022
		CHECKED	
		QA	
		MFG	
		APPROVED	
MATERIAL:	STANDARDS:		
FINISH:			
PROCESS:			

MIDNITE SOLAR, INC 

TITLE
3-411-XX MNSMA BATTERY BUSBAR

SIZE B	PROJECT: SMA	DWG NO 3-411-XX	REV K
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E-FILE:3-411-3 REV A MNSMA BATTERY BUSBAR.ipt SHEET 6 OF 6