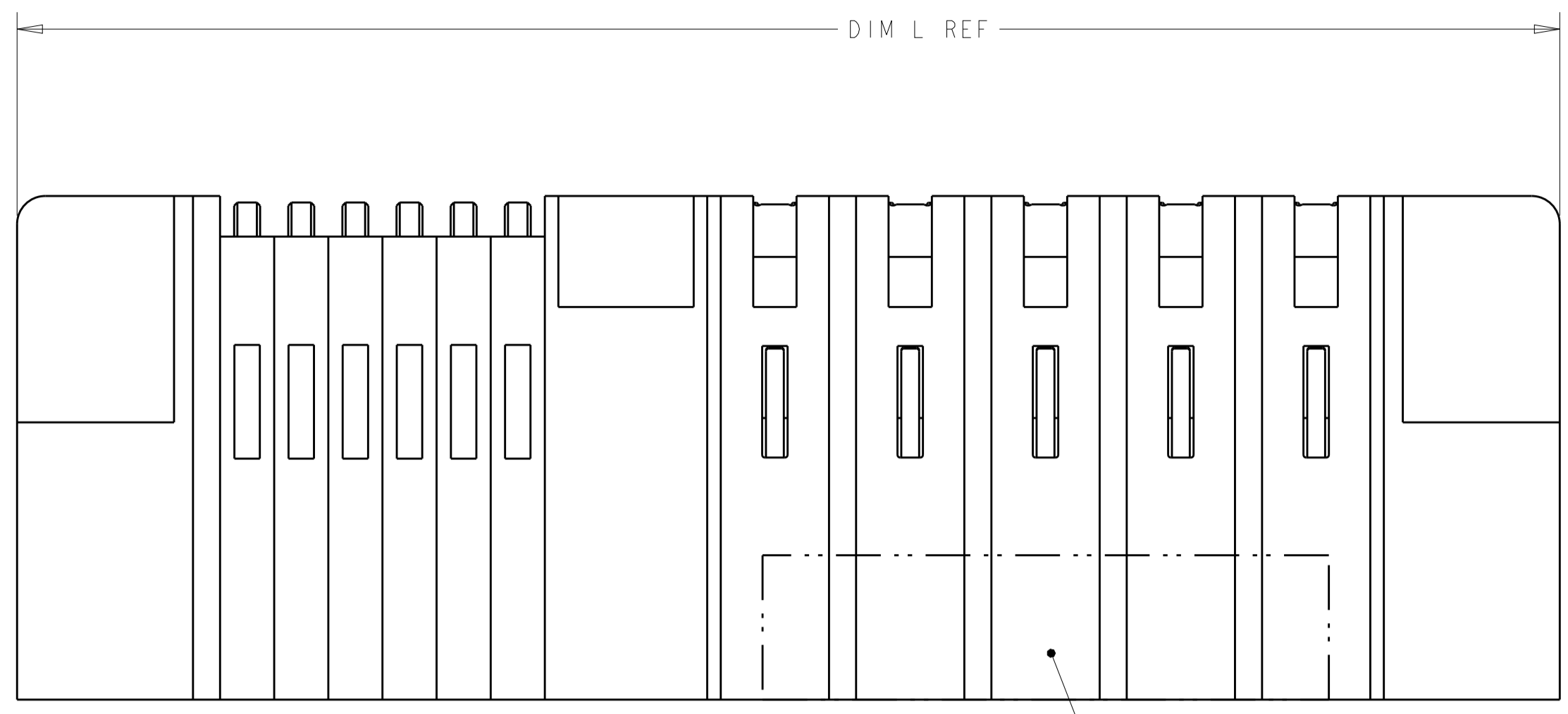
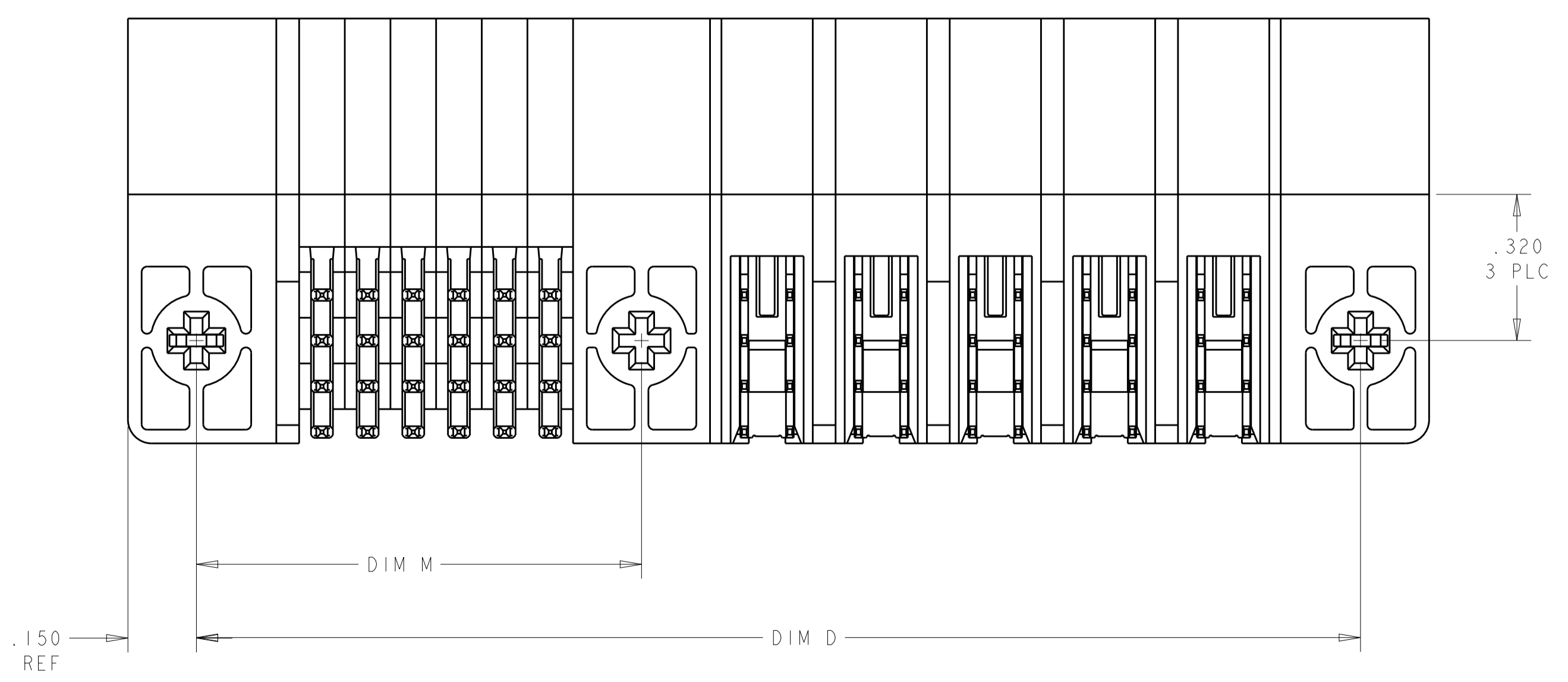
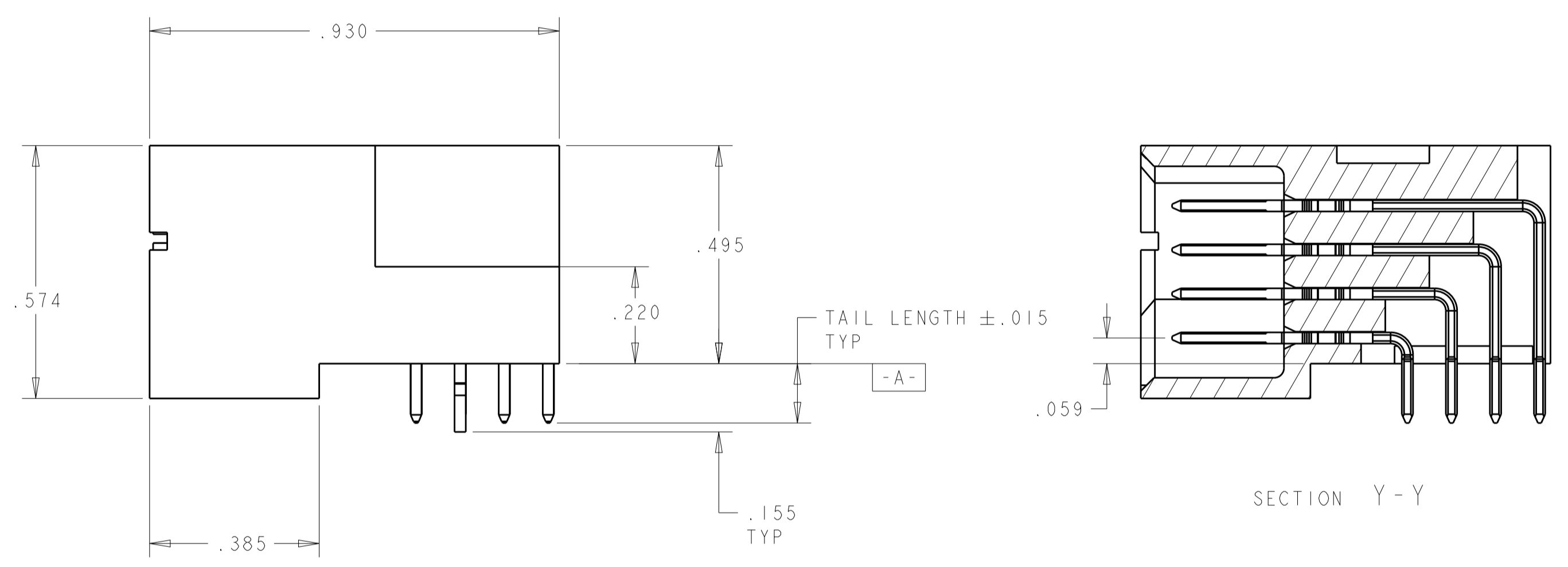
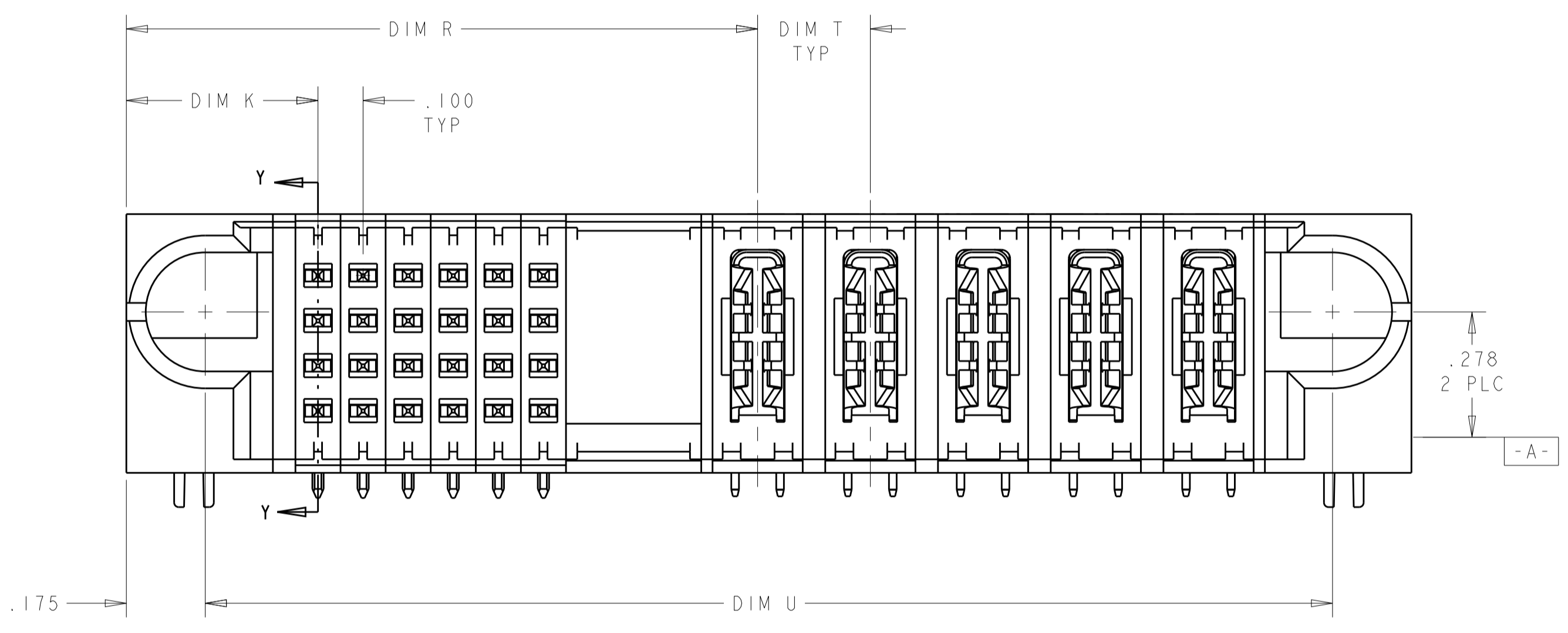


LOC	DIST	REVISIONS					
		P	LTN	DESCRIPTION	DATE	DWN	APVD
ES	00	F		REV PER ECR-10-019262	16SEP2010	IL	SZ
		F1		ADDED THE DASH NUMBER -10	13JAN2012	ML	SZ
		F2		ADDED NEW DASH NUMBER 2-4	22JAN2013	CZ	SZ



1. CENTER MODULE OPTION AVAILABLE
2. "AMP", PART NUMBER, AND DATECODE TO BE MARKED IN AREA SHOWN.
3. MATERIAL:  
HOUSING - GLASS FILLED HIGH TEMP THERMO PLASTIC, UL94 V-0  
SIGNAL CONTACT - COPPER ALLOY  
POWER CONTACT - HIGH CONDUCTIVITY COPPER ALLOY
4. CONTACT PLATING:  
NOBLE METAL PLATED ON THE CONTACT FUNCTIONAL AREA OF POWER AND SIGNAL CONTACTS.
5. MECHANICAL CONNECTOR KEEP OUT ZONE.
6. DATUM AND BASIC DIMENSIONS ESTABLISHED BY CUSTOMER.
7. PCB-ALL HOLE DIAMETERS ARE FINISHED HOLE SIZES.
8. PCB- .0453±.0010 DRILLED HOLES PLATED WITH .0003 MIN Sn OVER .001 TO .003 CU PLATING TO ACHIEVE A .040±.003 DIA HOLE
9. VARIABLE DIMENSION, SEE SHEET 2
10. FOR DETAIL DIMENSION ,PLEASE REFER TO TABLE



DIM U	DIM T	DIM M	DIM R	DIM D	DIM K	DIM L	DESCRIPTION	PART NUMBER
2.400	.250	-	1.050	2.450	.375	2.750	24S + 6P	2-6450121-4
2.000	-	-	-	2.050	.375	2.350	68S	2-6450121-2
1.100	-	-	-	1.150	.375	1.450	32S	2-6450121-1
6.075	.200	-	1.375	6.125	.375	6.425	36S + 24P	2-6450121-0
4.025	10	-	2.125	4.075	.375	4.375	60S + 8P	1-6450121-9
2.925	.200	-	1.025	2.975	.375	3.275	24S + 10P	1-6450121-8
2.400	.250	-	1.050	2.450	.375	2.750	24S + 6P	1-6450121-6
1.700	.250	-	.850	1.750	.375	2.050	16S+4P	1-6450121-5
3.325	-	-	-	3.375	.400	3.675	120S	1-6450121-3
4.400	.250	-	1.050	4.450	.375	4.750	24S + 14P	1-6450121-2
1.900	.250	-	1.050	1.950	.375	2.250	24S + 4P	1-6450121-1
1.800	.250	-	.950	1.850	.375	2.150	20S + 4P	1-6450121-0
1.800	.250	-	.950	1.850	.375	2.150	20S + 4P	6450121-4
1.850	.300	-	1.125	1.900	.375	2.200	24S + 3ACP	6450121-3
2.400	.250	-	1.050	2.450	.375	2.750	24S + 6P	6450121-2
3.800	9	-	.900	3.850	.400	4.150	12S + 11P	6450121-1

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: INCHES

TOLERANCES UNLESS OTHERWISE SPECIFIED:

0 PLC	±
1 PLC	±.01
2 PLC	±.005
3 PLC	±.0020
4 PLC	±.0020
ANGLES	±.0020

MATERIAL: 3 FINISH: 4

THIS DRAWING IS A CONTROLLED DOCUMENT. DWN: R. GRZYBOWSKI 02FEB05 CHK: M. PERCHERKE 02FEB05 APVD: M. PERCHERKE

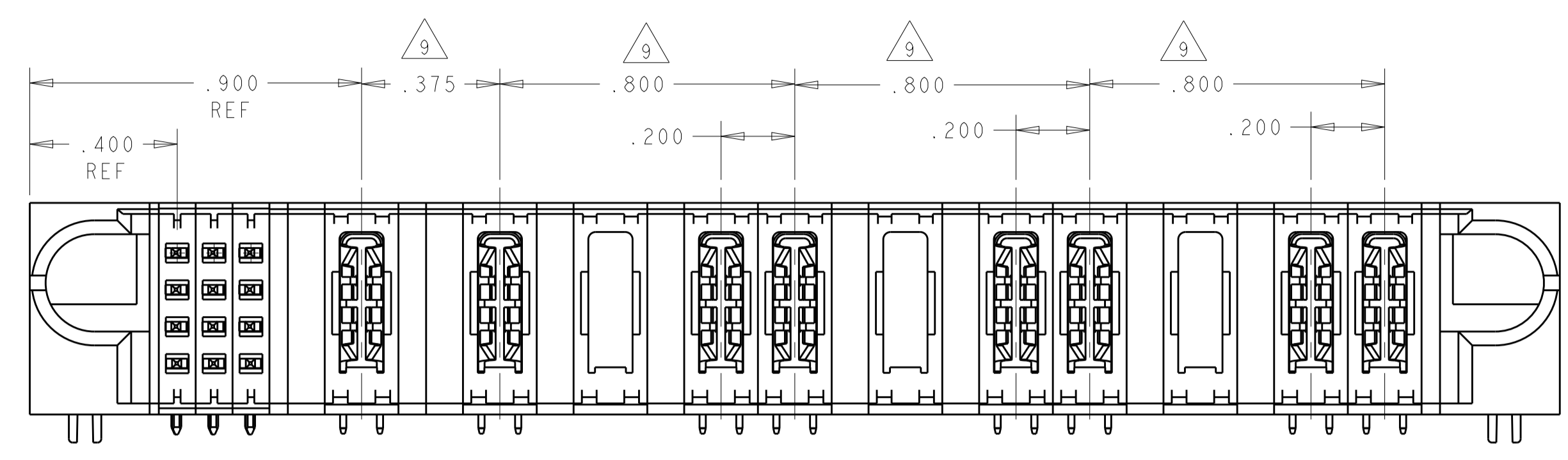
NAME: RIGHT ANGLE HEADER ASSY W/GUIDES MULTI-BEAM XL

PRODUCT SPEC: 108-1973 APPLICATION SPEC: 114-13038

SIZE: A1 CAGE CODE: 6450121 DRAWING NO: 100779

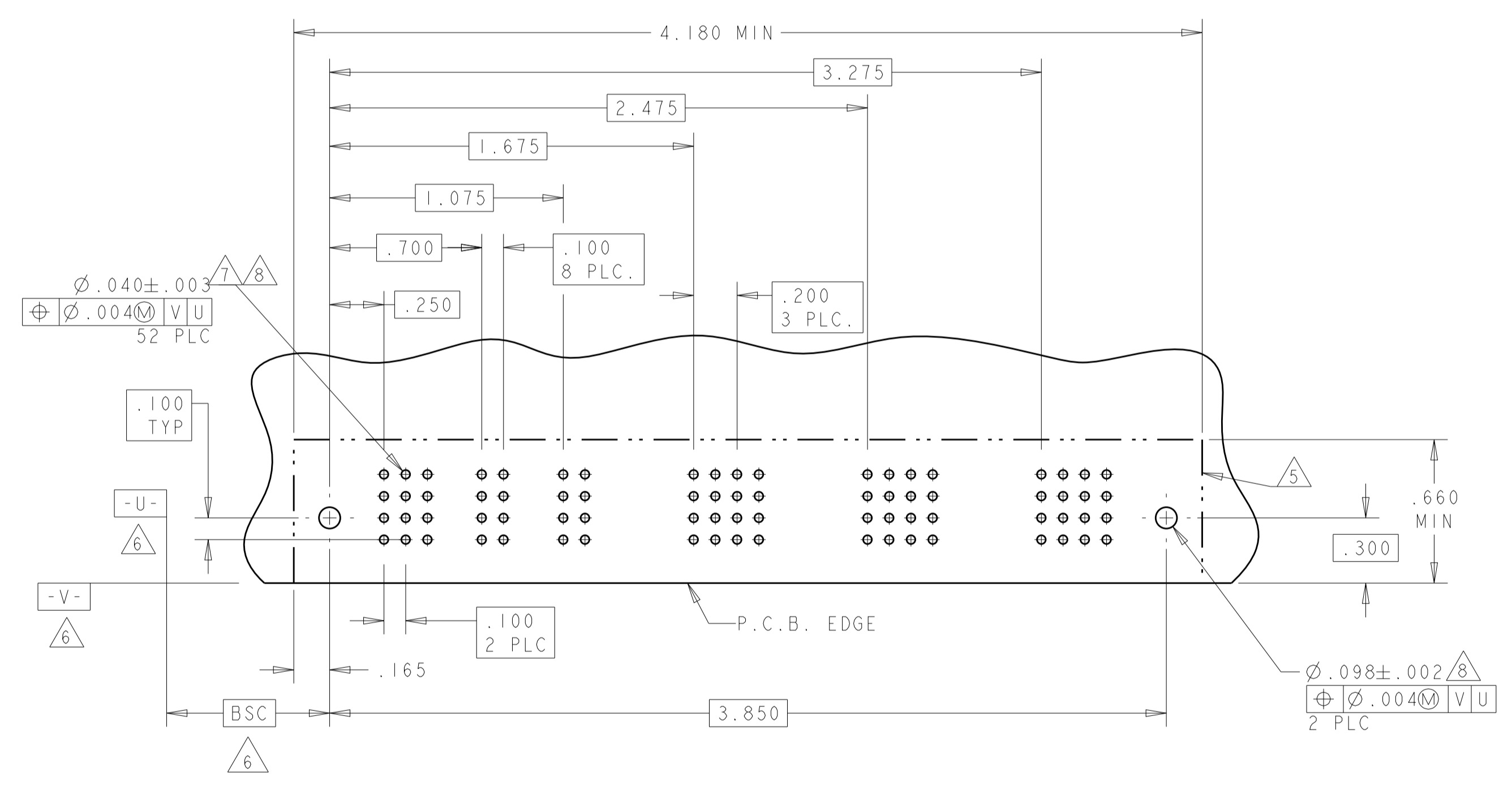
RESTRICTED TO: 1 OF 9 REV: F4

LOC	DIST	REVISIONS			
ES	00	REV	DATE	BY	APPV
		1	SEE SHEET 1		



SCALE 3:1

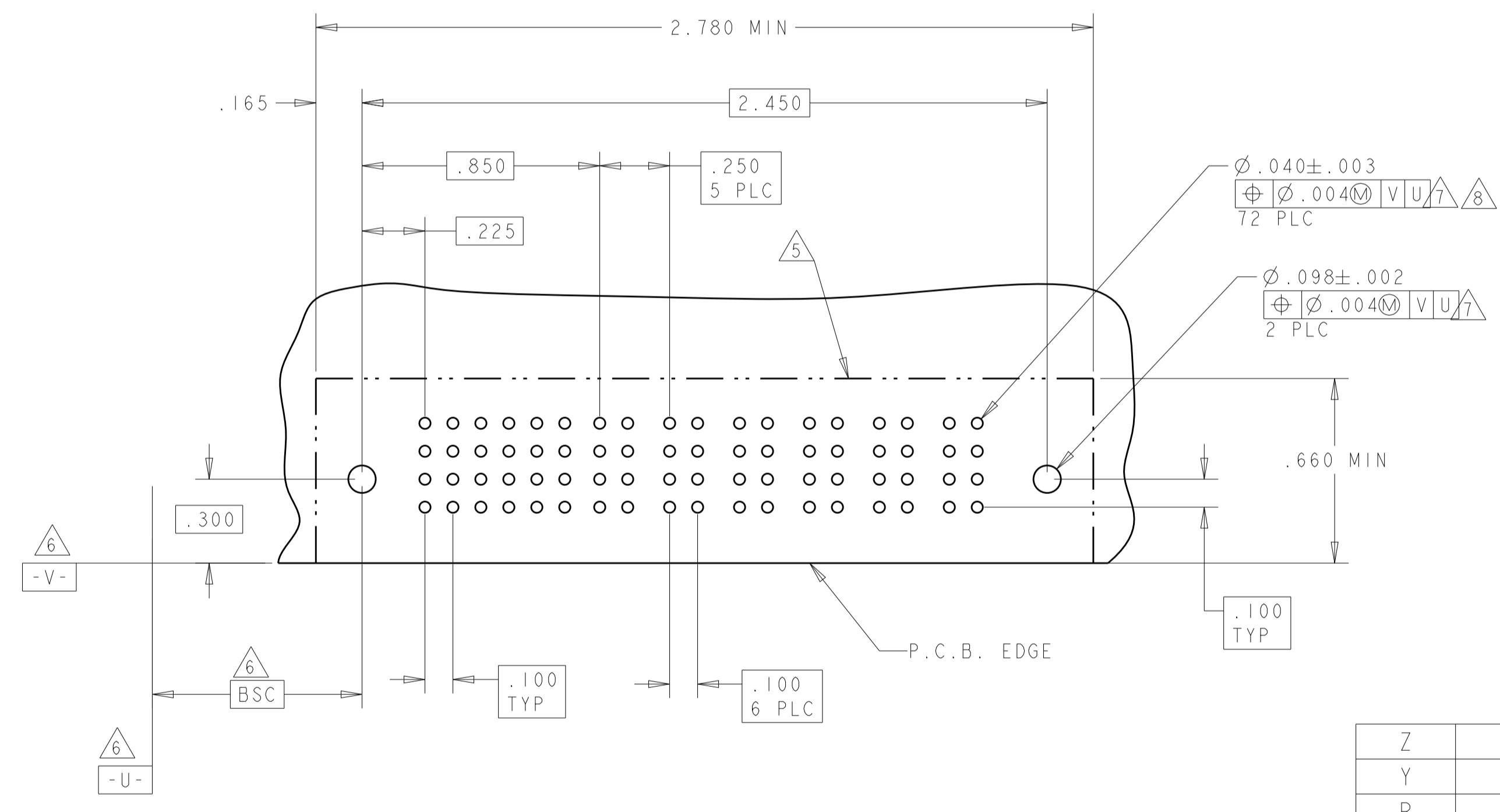
PART NUMBER	ROWS	SIGNAL			POWER							HD			
		1	2	3	P1	P2	P3	P4	P5	P6	P7		P8	P9	P10
6450121-1	D C B A	J	J	J	PM	PM		PM	PM		PM	PM		PM	PM
		K	K	K											
		N	N	N											
		S	S	S											
12S + 11P															



PART NUMBER	ROWS	SIGNAL						POWER						HD
		1	2	3	4	5	6	P1	P2	P3	P4	P5	P6	
6450121-2	D C B A	J	J	J	J	J	J	PM	PM	PM	PM	PM	PM	
		K	K	K	K	K	K							
		N	N	N	N	N	N							
		S	S	S	S	S	S							
24S + 6P														

PART NUMBER	ROWS	SIGNAL						POWER						HD
		1	2	3	4	5	6	P1	P2	P3	P4	P5	P6	
2-6450121-4	D C B A	J	J	J	J	J	J		PM	PM	PM	PM		
		K	K	K	K	K	K							
		N	N	N	N	N	N							
		S	S	S	S	S	S							
24S + 6P														

NO CONTACTS LOADED



6450121-2 & 2-6450121-4 RECOMMENDED PCB LAYOUT

Z	STD	.090	D
Y	STD	.090	C
R	STD	.090	B
O	STD	.090	A
E	MLBF	.135	D
F	MLBF	.135	C
G	MLBF	.135	B
H	MLBF	.135	A
J	STD	.135	D
K	STD	.135	C
N	STD	.135	B
S	STD	.135	A
CODE	MATING SEQUENCE	TAIL LENGTH	ROW
SIGNAL CONTACT			

CODE	TAIL LENGTH
PA	.090
PM	.135
CODE	TAIL LENGTH
POWER CONTACT	

THIS DRAWING IS A CONTROLLED DOCUMENT.		OWN: R. GRZYBOWSKI 02FEB05	TE Connectivity
DIMENSIONS: INCHES		CHK: M. PERCHERKE 02FEB05	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD: M. PERCHERKE	NAME: RIGHT ANGLE HEADER ASSY W/GUIDES MULTI-BEAM XL
0 PLC ±.010		PRODUCT SPEC: 108-1973	
1 PLC ±.005		APPLICATION SPEC: 114-13038	SIZE: A100779
2 PLC ±.0020		FINISH: *	CAGE CODE: 6450121
MATERIAL:		WEIGHT:	RESTRICTED TO:
CUSTOMER DRAWING		SCALE: N/A	SHEET 2 OF 9 REV: F4

LOC		DIST		REVISIONS			
ES	00	P	LTN	DESCRIPTION	DATE	OWN	APVD
				SEE SHEET 1			

PART NUMBER	ROWS	SIGNAL						POWER		
		1	2	3	4	5	6	P1	P2	P3
6450121-3	D	J	J	J	J	J	J	PM	PM	PM
	C	K	K	K	K	K	K			
	B	N	N	N	N	N	N			
	A	S	S	S	S	S	S			

24S + 3ACP

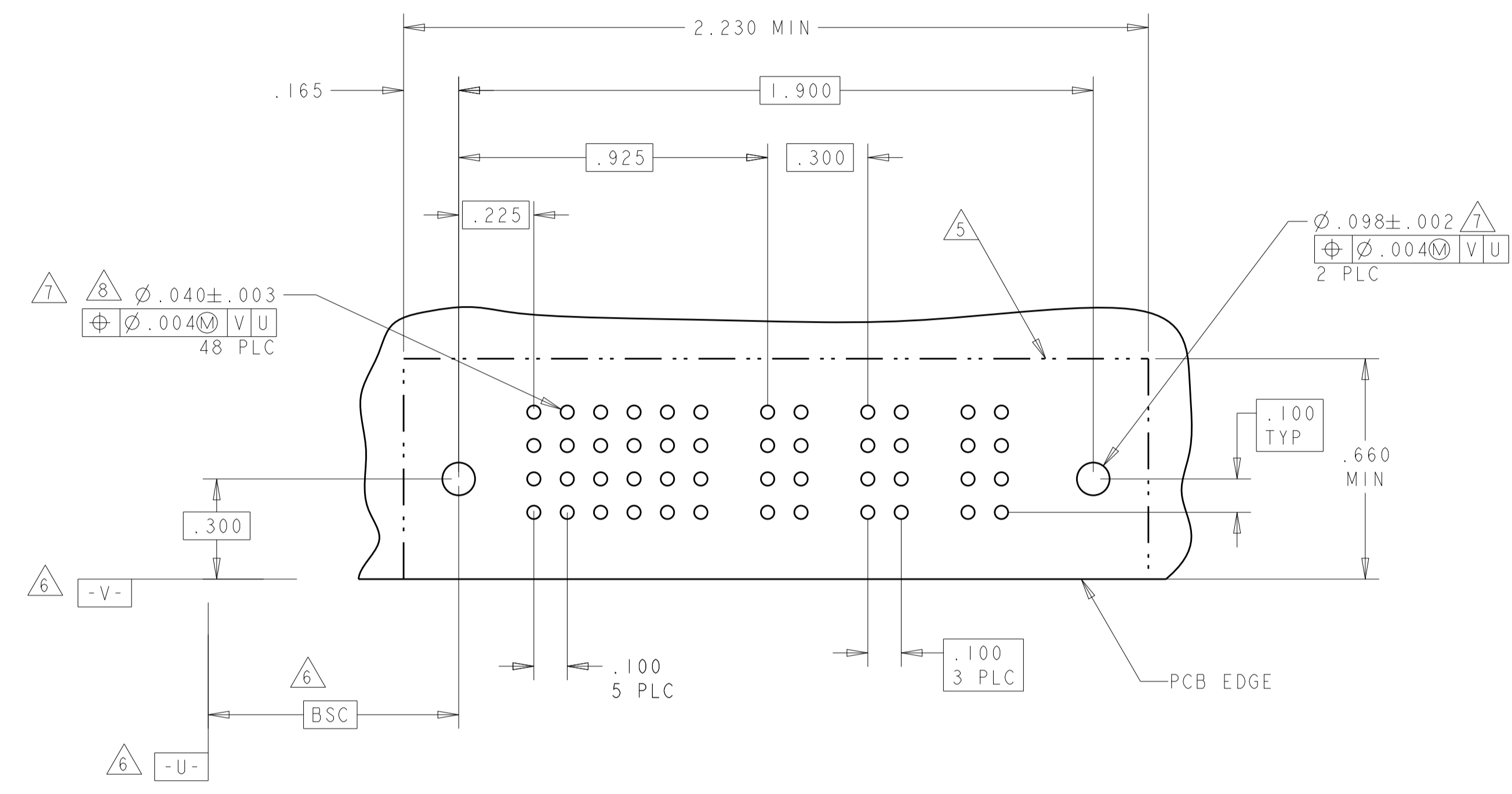
PART NUMBER	ROWS	SIGNAL					POWER			
		1	2	3	4	5	P1	P2	P3	P4
6450121-4	D	J	J	J	J	J	PM	PM	PM	PM
	C	K	K	K	K	K				
	B	N	N	N	N	N				
	A	S	S	S	S	S				

20S + 4P

PART NUMBER	ROWS	SIGNAL					POWER			
		1	2	3	4	5	P1	P2	P3	P4
I-6450121-0	D	J	J	J	J	J	PM	PM	PM	PM
	C	K	K	K	K	K				
	B	N	N	N	N	N				
	A	S	S	S	S	S				

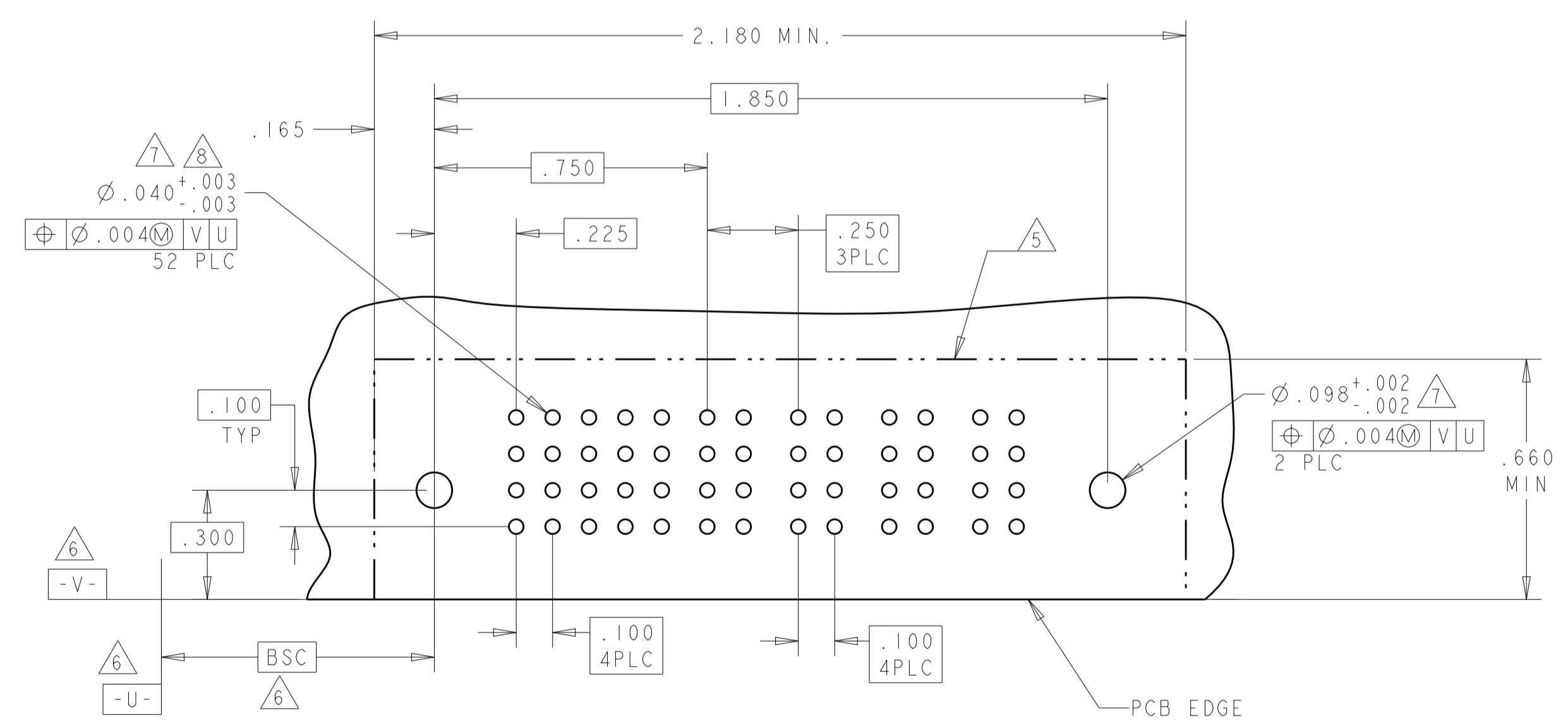
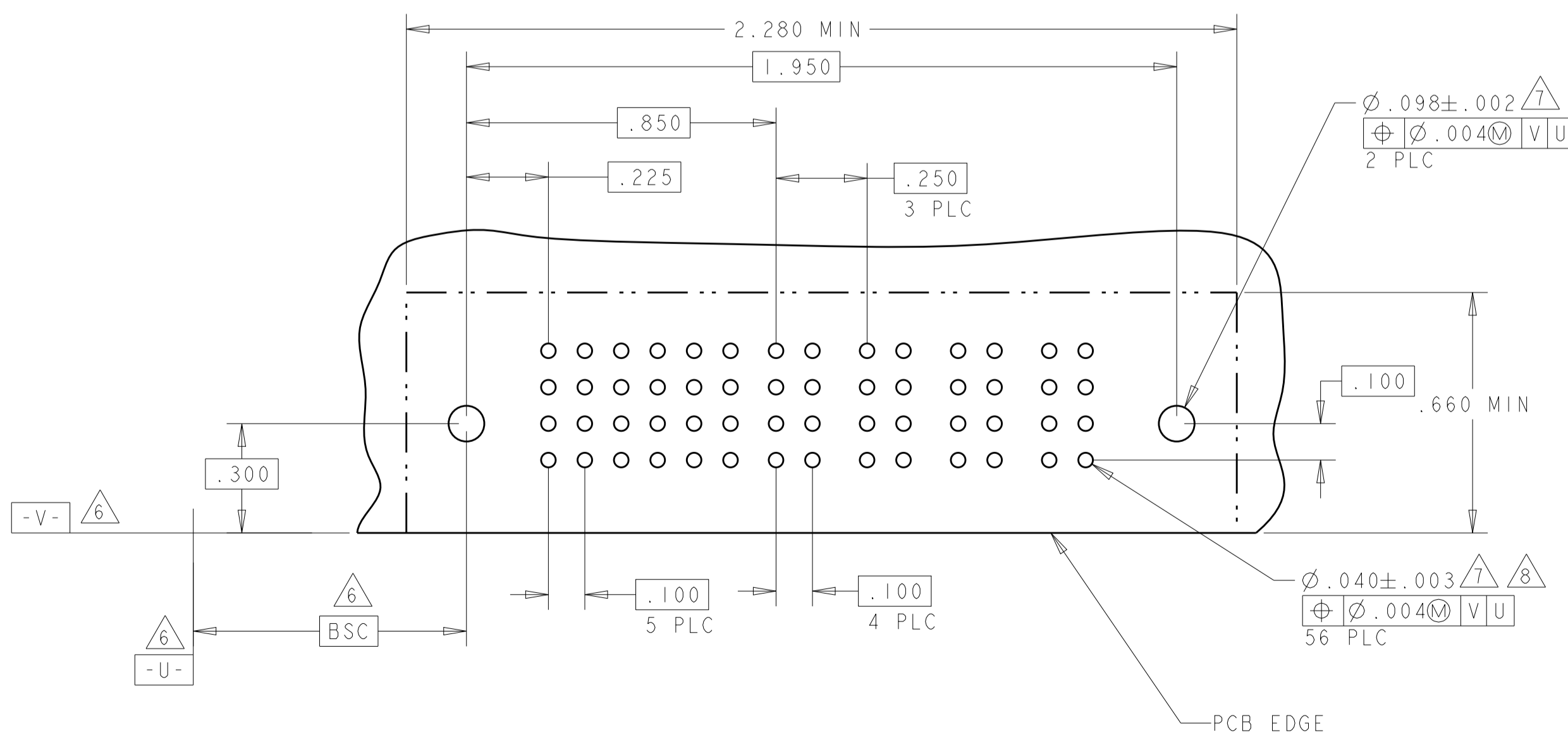
20S + 4P

NO CONTACT LOADED



PART NUMBER	ROWS	SIGNAL						POWER			
		1	2	3	4	5	6	P1	P2	P3	P4
I-6450121-1	D	J	J	J	J	J	J	PM	PM	PM	PM
	C	K	K	K	K	K	K				
	B	N	N	N	N	N	N				
	A	S	S	S	S	S	S				

24S + 4P

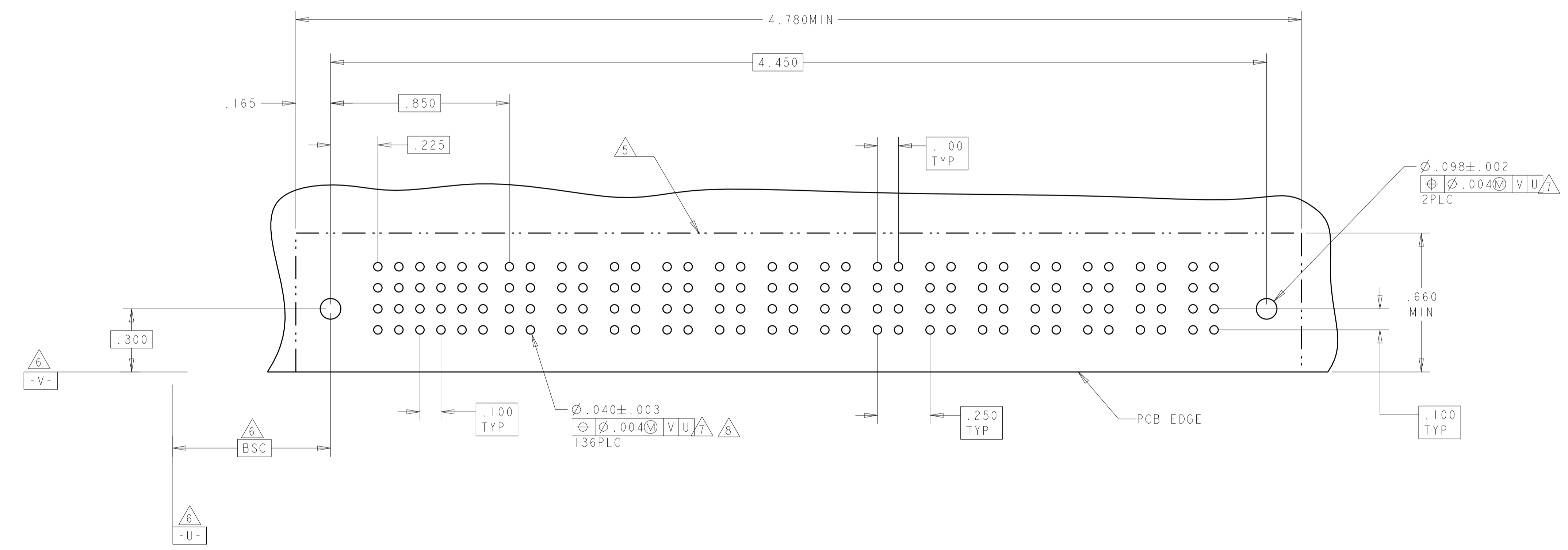


PCB LAYOUT FOR P/N: 6450121-4, I-6450121-0

THIS DRAWING IS A CONTROLLED DOCUMENT.		OWN: R. GRZYBOWSKI 02FEB05	TE Connectivity
DIMENSIONS: INCHES		CHK: M. PERCHERKE 02FEB05	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD: M. PERCHERKE	NAME: RIGHT ANGLE HEADER ASSY W/GUIDES MULTI-BEAM XL
0 PLC ±.01 1 PLC ±.01 2 PLC ±.01 3 PLC ±.005 4 PLC ±.002 ANGLES ±.020		PRODUCT SPEC: 108-1973	SIZE: 114-13038
MATERIAL: FINISH:		APPLICATION SPEC: 114-13038	RESTRICTED TO: A100779
		WEIGHT: CUSTOMER DRAWING	SCALE: N/A SHEET 3 OF 9 REV: F.4

LOC	DIST	REVISIONS					
ES	00	P	LTN	DESCRIPTION	DATE	DMN	APVD
		-		SEE SHEET 1			

PART NUMBER	ROWS	SIGNAL						POWER																	
		1	2	3	4	5	6	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14				
1-6450121-2	D	J	J	J	J	J	J	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM		
	C	K	K	K	K	K	K																		
	B	N	N	N	N	N	N																		
	A	S	S	S	S	S	S																		
24S + 14P																									



THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: INCHES	TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ±. 1 PLC ±.01 2 PLC ±.01 3 PLC ±.005 4 PLC ±.0020 ANGLES ±7°	FINISH	FINISH
-----------------------	---	--------	--------

OWN: R. GRZYBOWSKI 02FEB05	CHK: M. PERCHERKE 02FEB05	APVD: M. PERCHERKE	NAME: RIGHT ANGLE HEADER ASSY W/GUIDES MULTI-BEAM XL
PRODUCT SPEC: 108-1973		APPLICATION SPEC: 114-13038	
MATERIAL: -		WEIGHT: -	
CUSTOMER DRAWING		SCALE: N/A SHEET 4 OF 9 REV: F.4	

SIZE: A1 CAGE CODE: 100779 DRAWING NO: 6450121 RESTRICTED TO: -

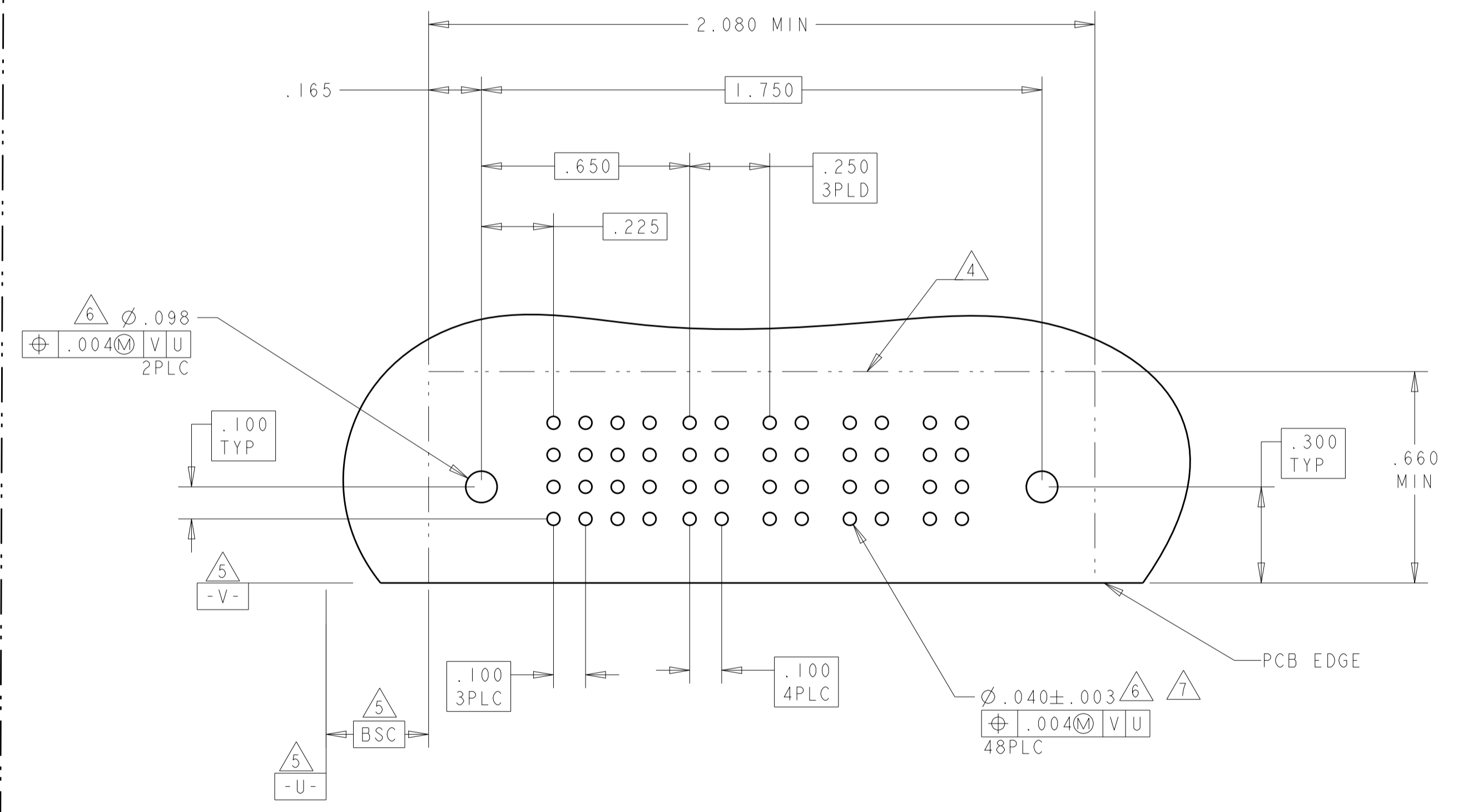
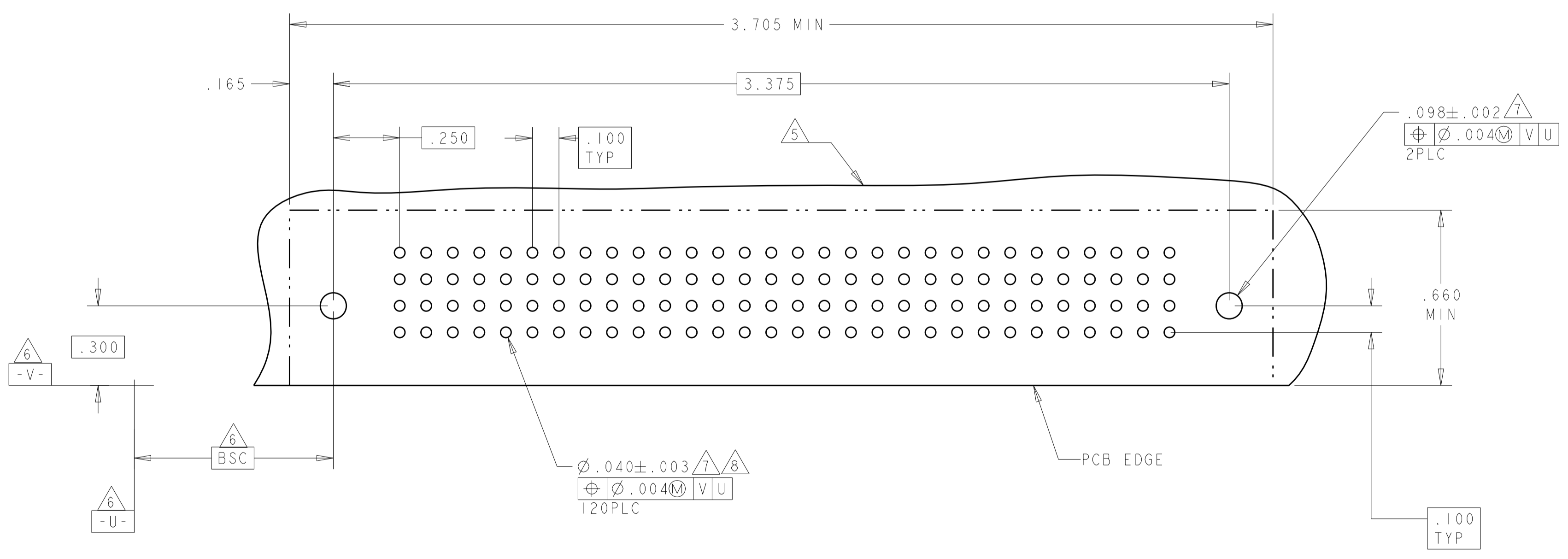
LOC		DIST		REVISIONS			
ES	00	P	LTN	DESCRIPTION	DATE	OWN	APVD
		-		SEE SHEET 1			

PART NUMBER	ROWS	SIGNAL																													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1-6450121-3	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	J	
	C	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F		
	B	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G		
	A	S	S	H	H	H	H	H	H	H	H	H	S	S	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	

NO CONTACTS LOADED

PART NUMBER	ROWS	SIGNAL				POWER			
		1	2	3	4	P1	P2	P3	P4
1-6450121-5	D	J	J	J	J				
	C	K	K	K	K	PM	PM	PM	PM
	B	N	N	N	N				
	A	S	S	S	S				

16S + 4P



THIS DRAWING IS A CONTROLLED DOCUMENT.		OWN: R. GRZYBOWSKI 02FEB05	TE Connectivity
DIMENSIONS: INCHES		CHK: M. PERCHERKE 02FEB05	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD: M. PERCHERKE	NAME: RIGHT ANGLE HEADER ASSY W/GUIDES MULTI-BEAM XL
0 PLC ± .01	1 PLC ± .01	PRODUCT SPEC: 108-1973	SIZE: 114-13038
2 PLC ± .005	3 PLC ± .005	APPLICATION SPEC: 114-13038	RESTRICTED TO: A100779C=6450121
4 PLC ± .0020	ANGLES ± .0020	WEIGHT: -	SCALE: N/A SHEET 5 OF 9 REV: F4
MATERIAL: -	FINISH: -	CUSTOMER DRAWING	

LOC	DIST	REV	DATE	BY	APPV
ES	00				

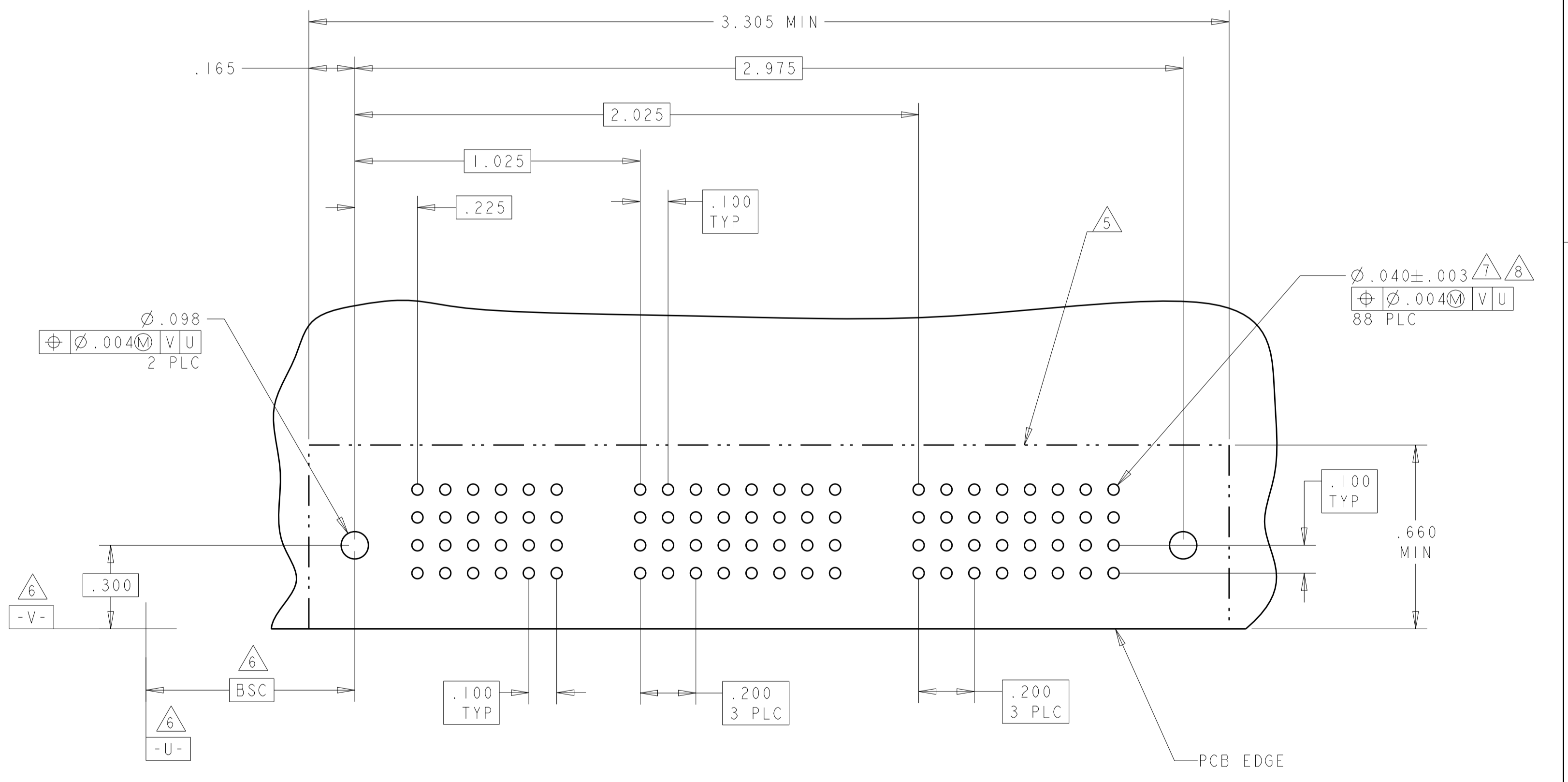
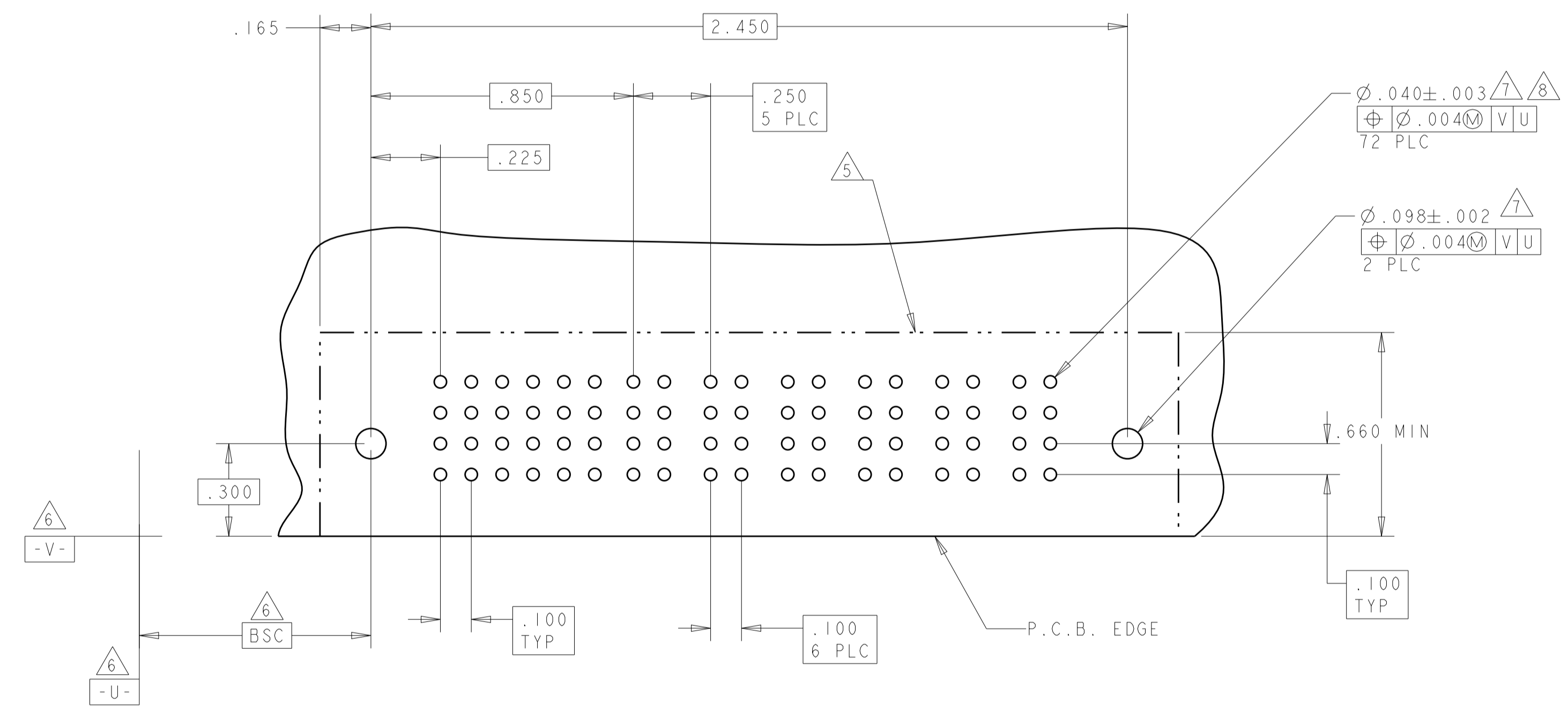
  

REVISIONS		DATE	BY	APPV
1	SEE SHEET 1			

PART NUMBER	ROWS	SIGNAL						POWER					
		1	2	3	4	5	6	P1	P2	P3	P4	P5	P6
1-6450121-6	D C B A	J	J	J	J	J	J	PM	PM	PM	PM	PM	PM
		K	K	K	K	K	K						
		N	N	N	N	N	G						
		S	S	S	S	S							
24S + 6P													

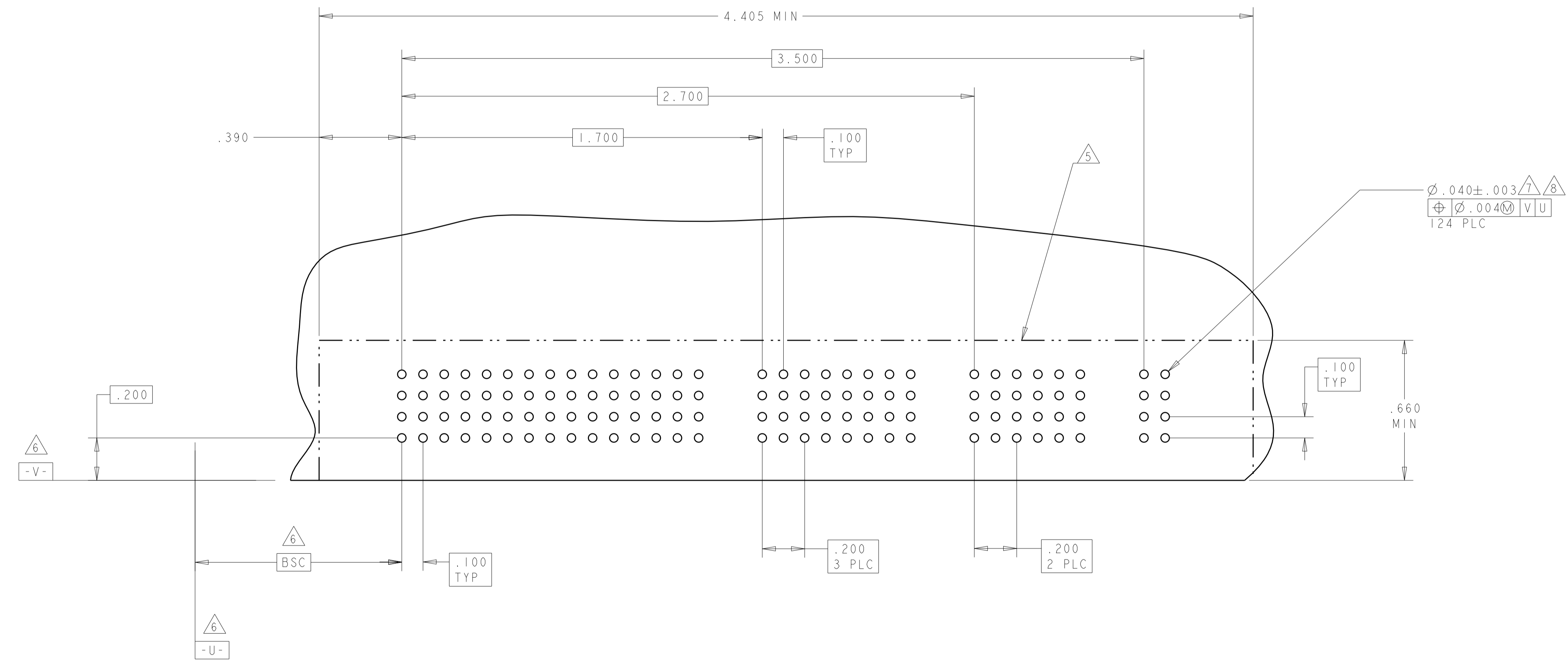
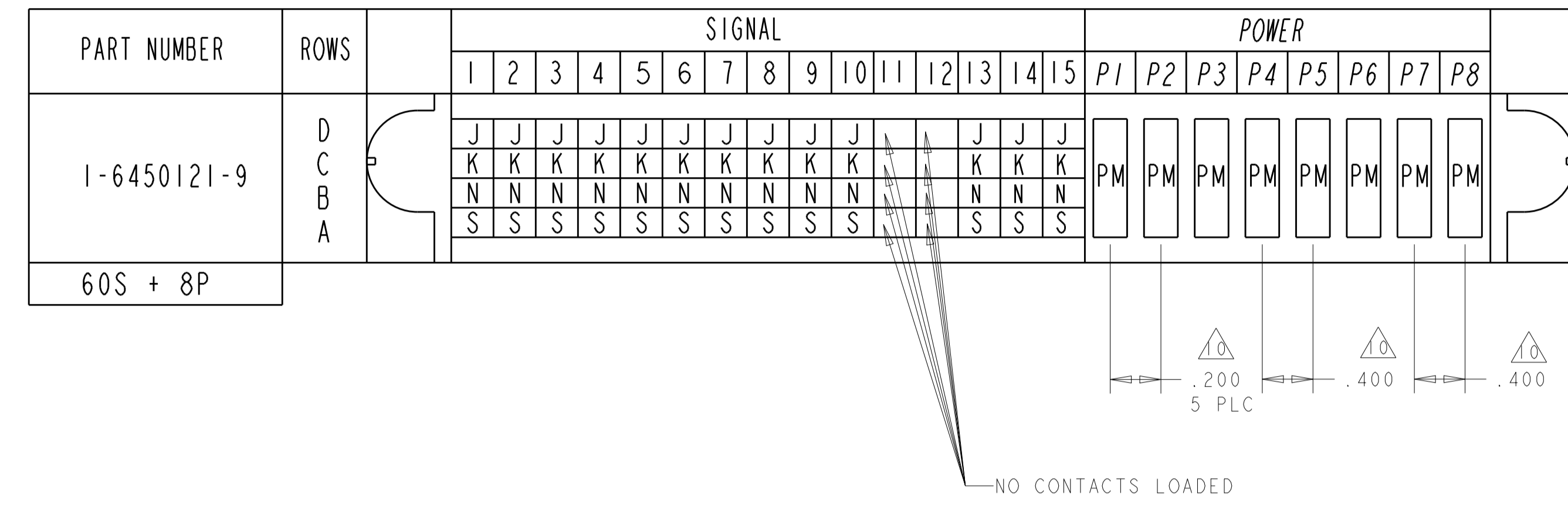
PART NUMBER	ROWS	SIGNAL						POWER										
		1	2	3	4	5	6	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	
1-6450121-8	D C B A	J	J	J	J	J	J											
		K	K	K	K	K	K	PM	PM	PM	PM							
		N	N	N	N	N	S											
		S	S	S	S													
24S + 10P																		

NO CONTACTS LOADED



THIS DRAWING IS A CONTROLLED DOCUMENT.		OWN: R. GRZYBOWSKI 02FEB05	 TE Connectivity
DIMENSIONS: INCHES		CHK: M. PERCHERKE 02FEB05	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD: M. PERCHERKE	NAME: RIGHT ANGLE HEADER ASSY W/GUIDES MULTI-BEAM XL
0 PLC ±.01		PRODUCT SPEC: 108-1973	SIZE: CAGE CODE DRAWING NO: A100779C=6450121
1 PLC ±.01		APPLICATION SPEC: 114-13038	RESTRICTED TO: -
2 PLC ±.01		WEIGHT: -	SCALE: N/A
3 PLC ±.005		CUSTOMER DRAWING	SHEET 6 OF 9
4 PLC ±.0020			REV: F.4
ANGLES: ±.2°			

LOC		DIST		REVISIONS			
ES	00	P	LTN	DESCRIPTION	DATE	DMN	APVD
-	-	-	-	SEE SHEET 1	-	-	-



THIS DRAWING IS A CONTROLLED DOCUMENT. DWN: R. GRZYBOWSKI 02FEB05  
 CHK: M. PERCHERKE 02FEB05  
 APVD: M. PERCHERKE

TE CONNECTIVITY

NAME: RIGHT ANGLE HEADER ASSY W/GUIDES MULTI-BEAM XL

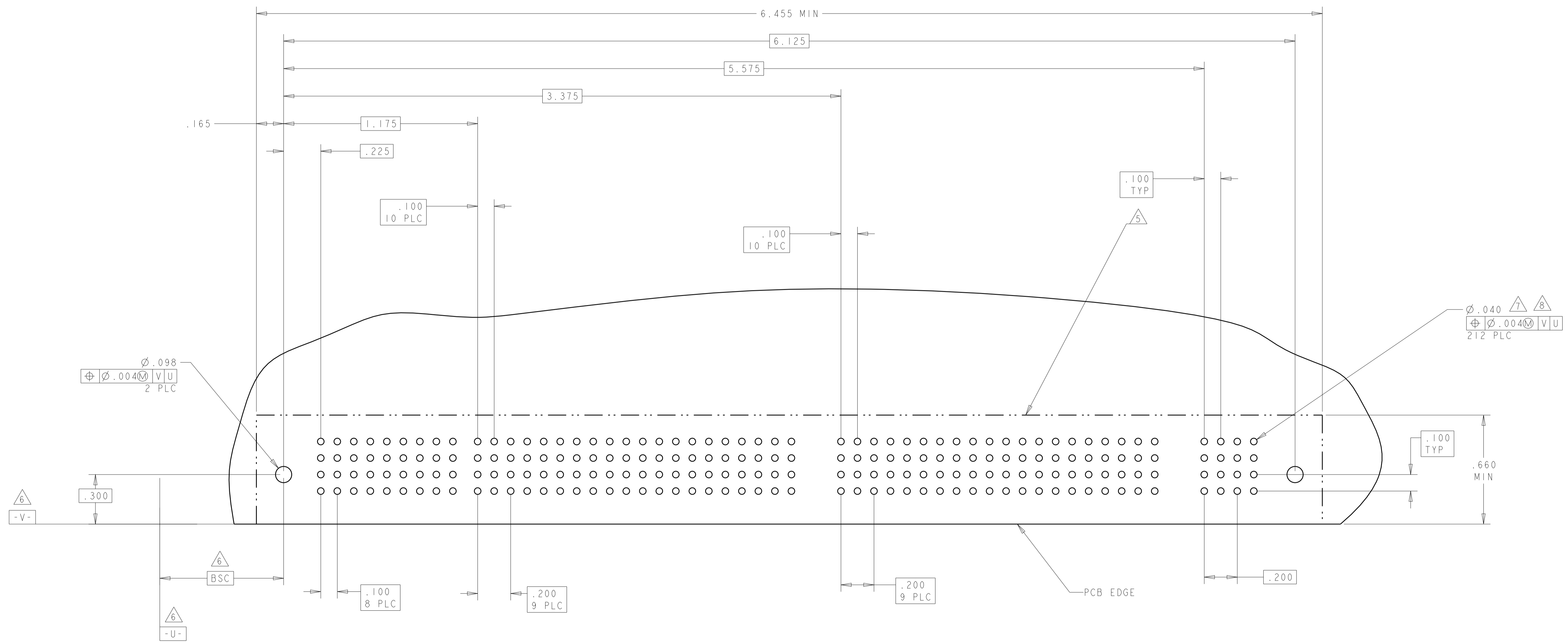
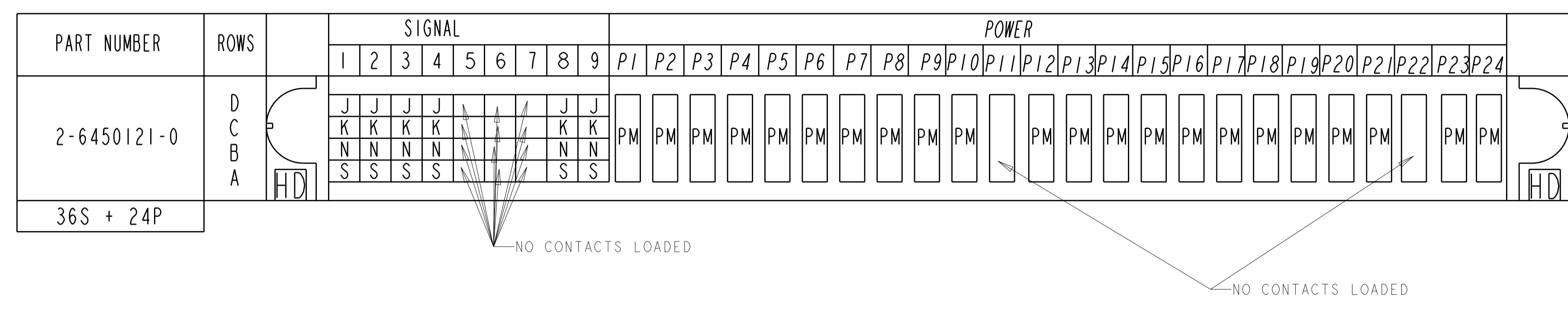
PRODUCT SPEC: 108-1973  
 APPLICATION SPEC: 114-13038

SIZE: A1 CAGE CODE: 6450121 DRAWING NO: 100779  
 WEIGHT: -

MATERIAL: - FINISH: -

CUSTOMER DRAWING SCALE: N/A SHEET 7 OF 9 REV: F.4

LOC		DIST		REVISIONS			
ES	00	P	LTN	DESCRIPTION	DATE	DMN	APVD
		-		SEE SHEET 1			



THIS DRAWING IS A CONTROLLED DOCUMENT.		DMN R. GRZYBOWSKI	02FEB05		TE Connectivity
DIMENSIONS: INCHES		CHK M. PERCHERKE	02FEB05		NAME RIGHT ANGLE HEADER ASSY W/GUIDES MULTI-BEAM XL
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD M. PERCHERKE		PRODUCT SPEC	
0 PLC ±.01		PRODUCT SPEC		108-1973	
1 PLC ±.01		APPLICATION SPEC		114-13038	
2 PLC ±.005		RESTRICTED TO		A100779C=6450121	
3 PLC ±.002		SCALE		N/A	
4 PLC ±.0020		SHEET		8 OF 9	
ANGLES ±.0020		REV		F.4	
FINISH		CUSTOMER DRAWING			



LOC	DIST	REVISIONS			
P	LTN	DESCRIPTION	DATE	DWN	APVD
-	-	SEE SHEET 1	-	-	-

PART NUMBER	ROWS	SIGNAL							
		1	2	3	4	5	6	7	8
2-6450121-1	D	J	J	J	J	J	J	J	J
	C	K	K	K	K	K	K	K	K
	B	N	N	N	N	N	N	N	N
	A	S	S	S	S	S	S	S	S

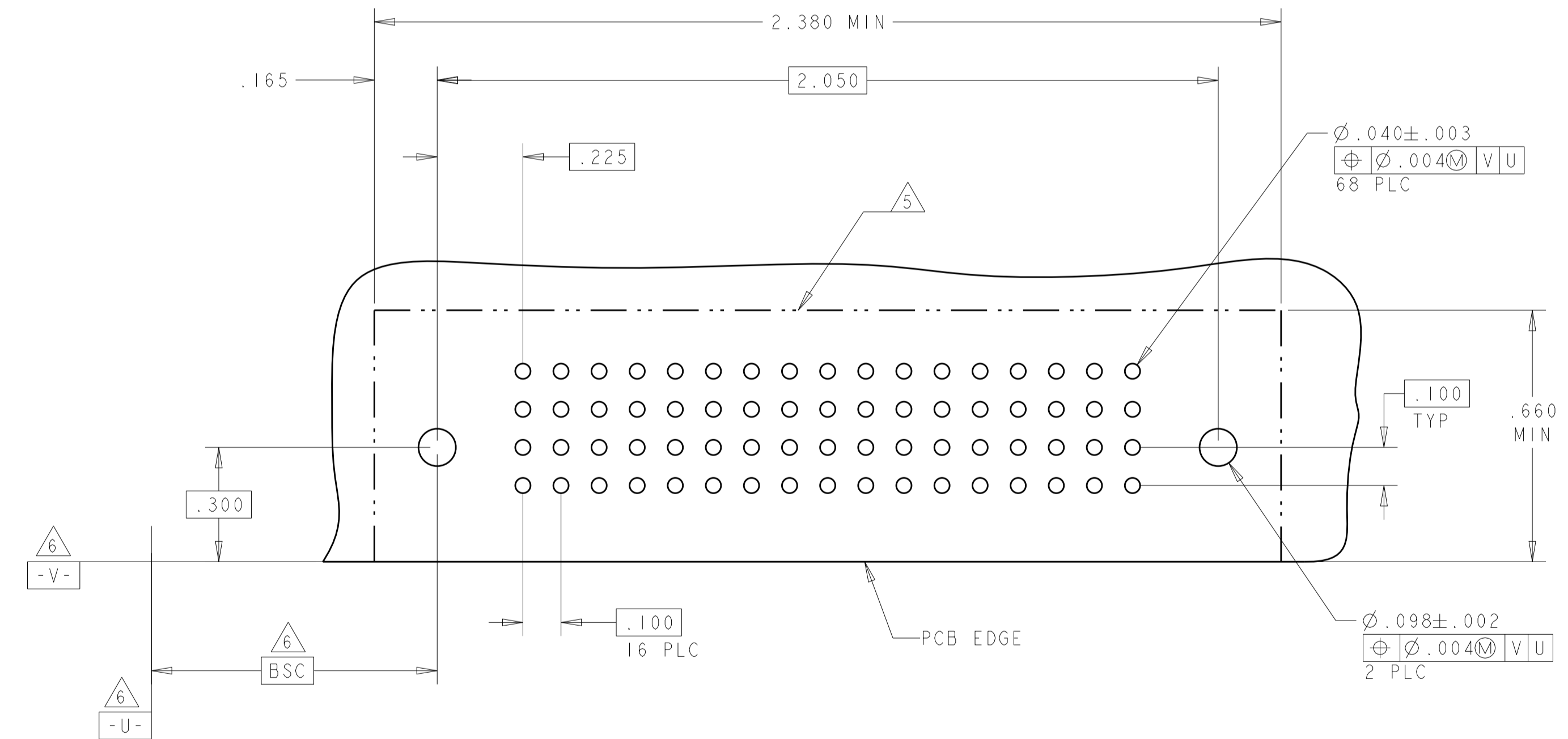
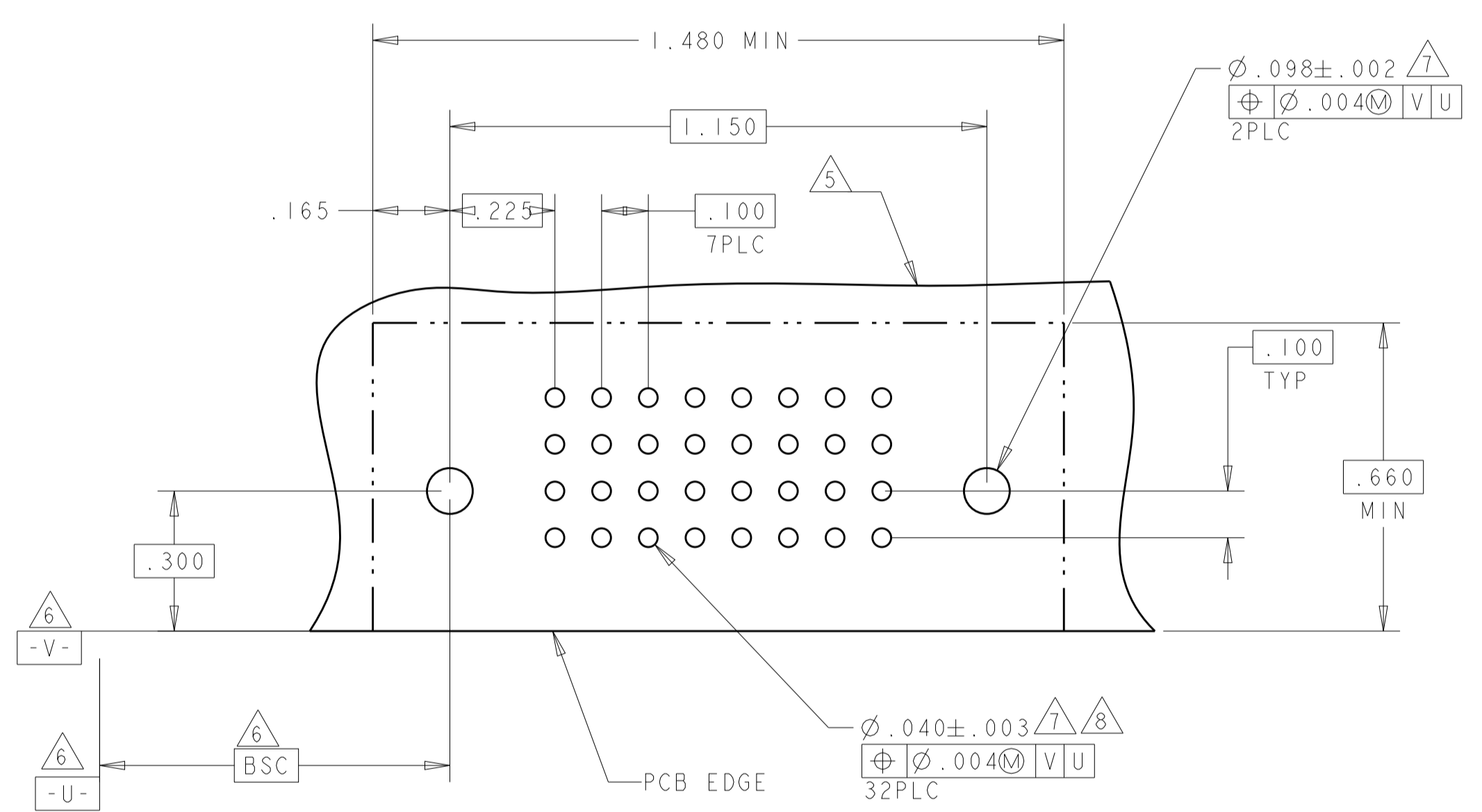
32S

PART NUMBER	ROWS	SIGNAL																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
2-6450521-2	D	J		J		J		J		J		J		J		J		J	
	C																		
	B	N		N		N		N		N		N		N		N		N	
	A	HD																	

68S

F

NO CONTACTS LOADED  
50 PLC



THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: INCHES	TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ±. 1 PLC ±.01 2 PLC ±.01 3 PLC ±.005 4 PLC ±.0020 ANGLES ±.7°	DWN: R. GRZYBOWSKI 02FEB05 CHK: M. PERCHERKE 02FEB05 APVD: M. PERCHERKE	NAME: RIGHT ANGLE HEADER ASSY W/GUIDES MULTI-BEAM XL
MATERIAL:	FINISH:	PRODUCT SPEC: 108-1973 APPLICATION SPEC: 114-13038 WEIGHT:	SIZE: A1 CAGE CODE: 100779 DRAWING NO: 6450121
CUSTOMER DRAWING		SCALE: N/A	SHEET 9 OF 9 REV: F.4

4805 (3/11)