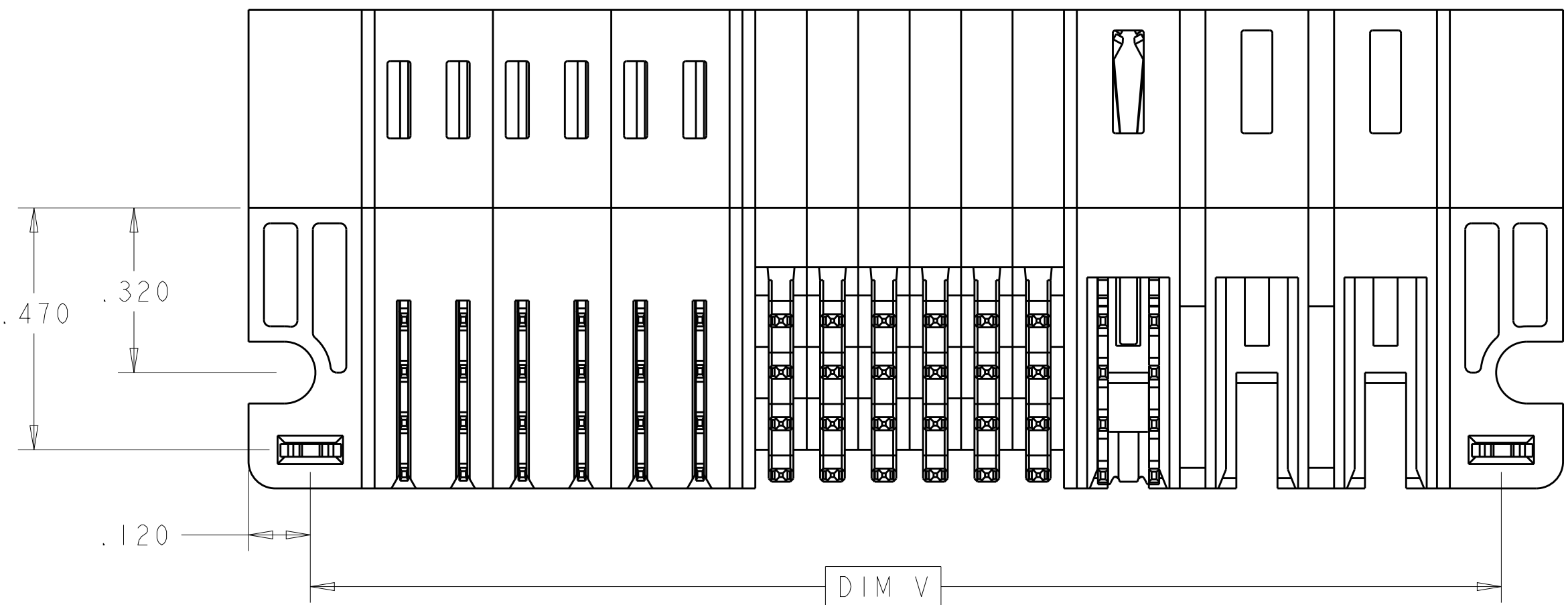
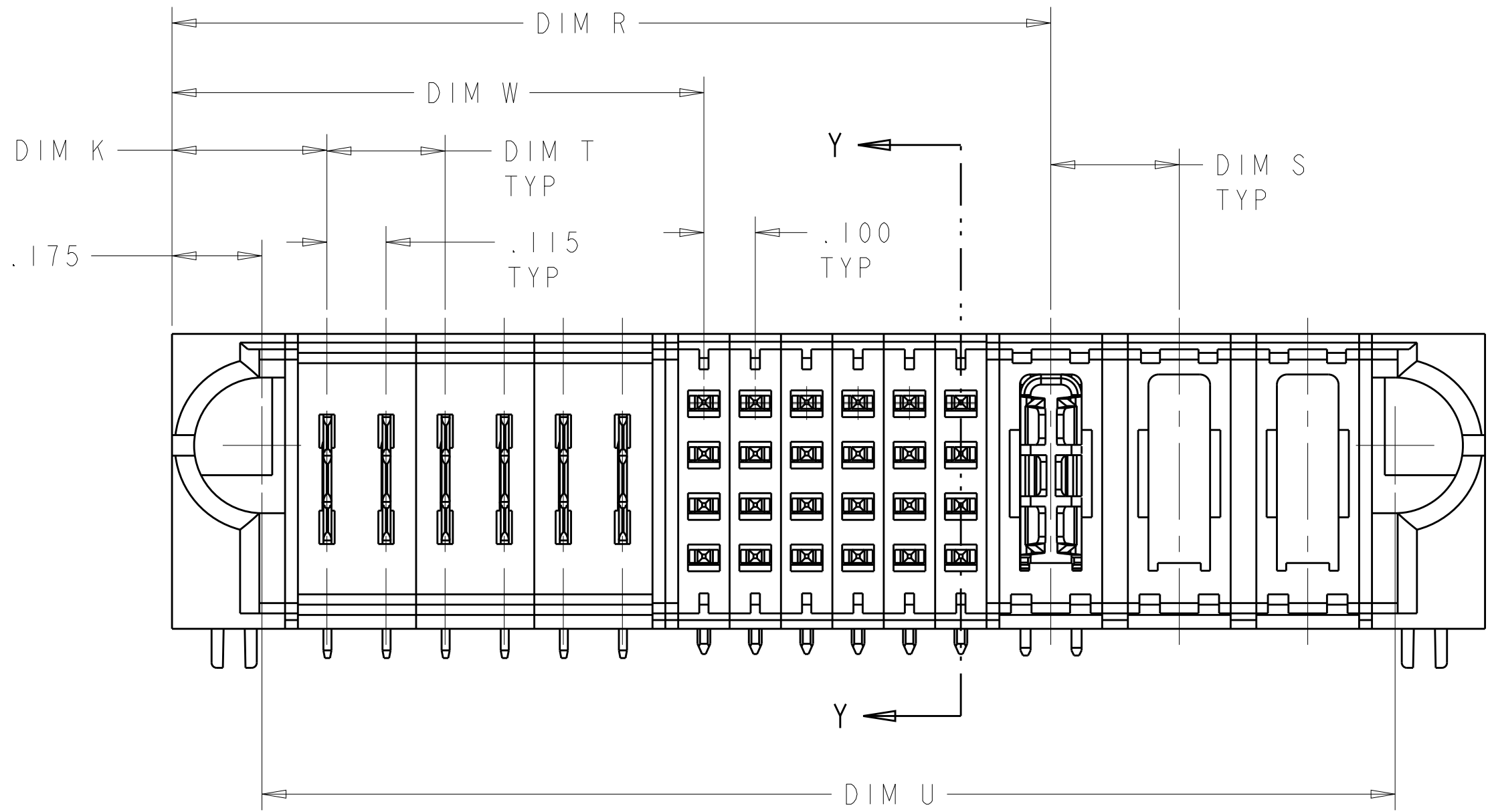
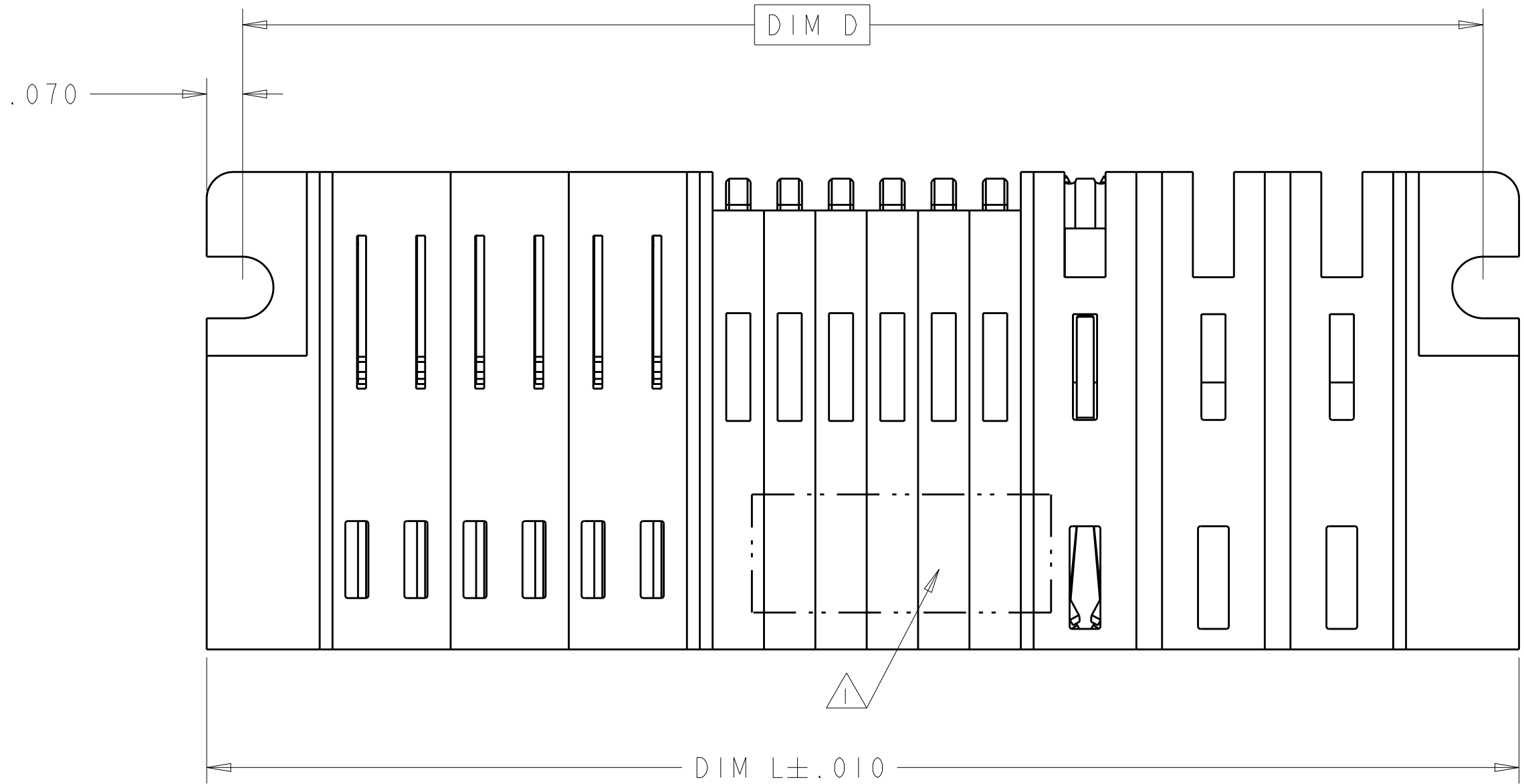
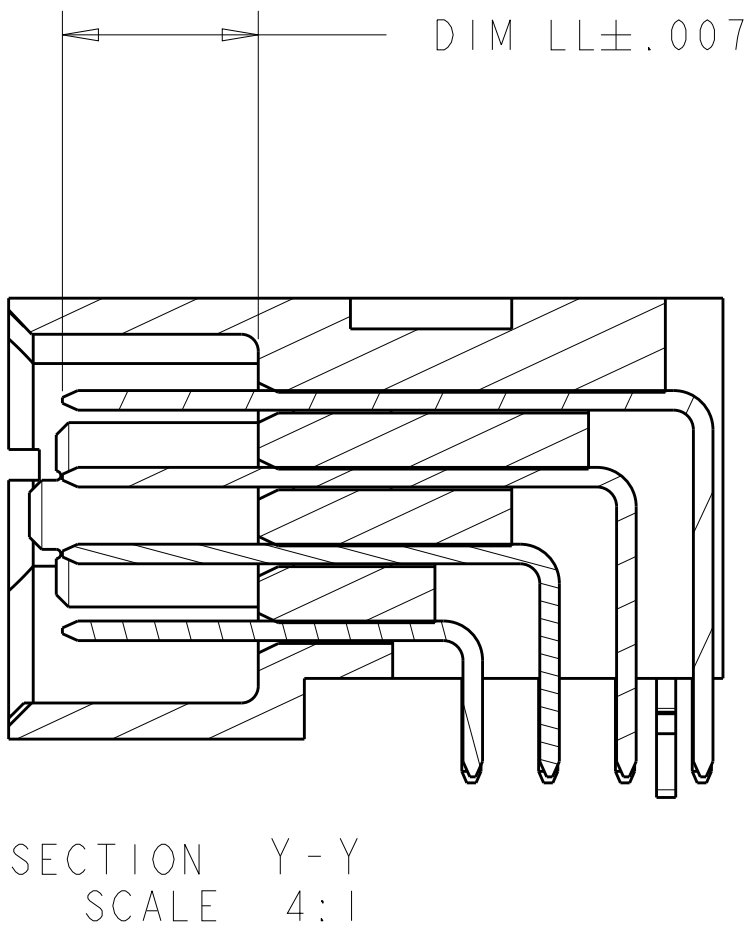
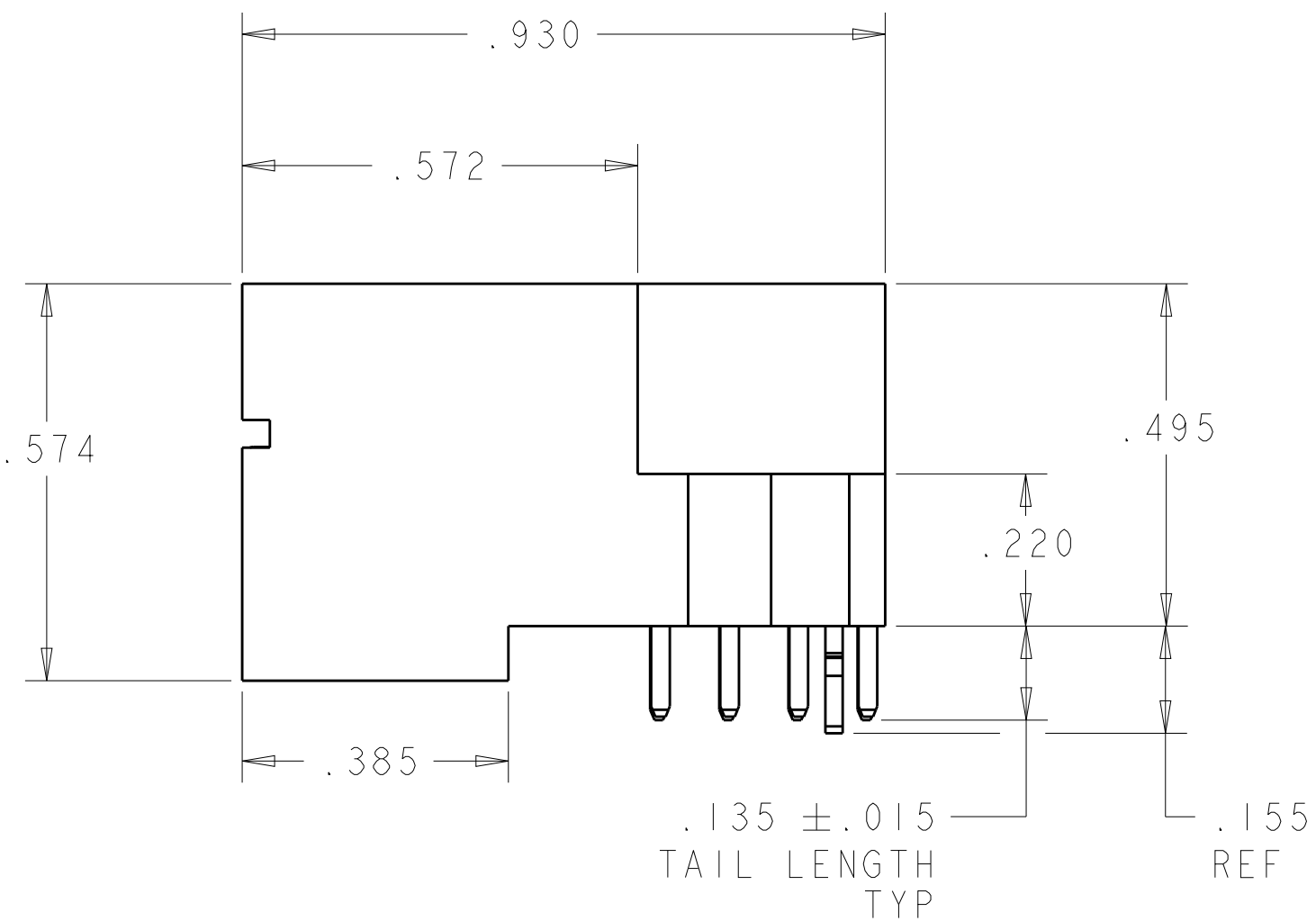


LOC	DIST	REVISIONS					
ES	00	P	LTR	DESCRIPTION	DATE	DWN	APVD
			R9	REVISED 8-1	05NOV2014	CZ	SZ
			S	ADD NEW DASH NUMBER 8-2	07FEB2015	CZ	SZ
			S2	REVISED 8-2 CUSTOMER	09MAR2015	CZ	SZ



- 1 "AMP", PART NUMBER AND DATE CODE TO BE MARKED IN AREA SHOWN
PARTS UNDER 2.00 LONG MAY BE MARKED ON BOTH SIDES
- 2 MATERIAL: HOUSING - GLASS FILLED HIGH TEMP THERMO PLASTIC, UL94 V-0
SIGNAL CONTACT - HIGH CONDUCTIVITY COPPER ALLOY
POWER CONTACT - HIGH CONDUCTIVITY COPPER ALLOY
- 3 CONTACT PLATING: NOBLE METAL PLATING ON CONTACT FUNCTIONAL AREA
OF POWER AND SIGNAL CONTACTS
- 4 MECHANICAL CONNECTOR KEEP OUT ZONE
- 5 DATUM AND BASIC DIMENSIONS ESTABLISHED BY CUSTOMER
- 6 PCB - ALL HOLE DIAMETERS ARE FINISHED HOLE SIZES
- 7 PCB - 0.0453 ±.0010 DRILLED HOLES PLATED WITH .0003 MIN Sn
OVER .001 TO .003 Cu PLATING TO ACHIEVE A .040 ±.030 HOLE
- 8 VARIABLE DIMENSIONS SHOW ON TABLE OR PART VIEW
- 9 REFER TO PAGE 10 FOR DETAIL DIMENTIONS.



THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN S. ZHAO	10APR2007	TE Connectivity	
		CHK S. ZHAO	10APR2007		
DIMENSIONS: INCHES		TOLERANCES UNLESS OTHERWISE SPECIFIED:		NAME	
		0 PLC ±"		PRODUCT SPEC	
		1 PLC ±.01		108-2292	
		2 PLC ±.01		APPLICATION SPEC	
		3 PLC ±.005		114-13251	
		4 PLC ±.0020		WEIGHT	
		ANGLES ±2°		CUSTOMER DRAWING	
MATERIAL : 2		FINISH : 3		SIZE : 100779	
				CAGE CODE : 6450830	
				RESTRICTED TO	
				SCALE 4:1 SHEET 1 OF 42 REV S2	

LOC	DIST	REVISIONS					
ES	00	P	LTR	DESCRIPTION	DATE	DWN	APVD
		-		SEE SHEET 1	-	-	-

2.100	1.495	1.020	1.990	0.250	0.250	2.200	2.340	.3450	3P + 16S + 3P	7-6450830-3
1.000	.895	.570	.890	-	-	1.100	1.240	.345	1P + 8S + 1P	7-6450830-2
4.750	3.645	3.070	4.640	.250		4.850	4.990	.370	3ACP + 7P + 20S + 5P	7-6450830-1
3.850	3.4675	1.010	3.740	.230	.230	3.950	4.090	.2775	6LP + 96S + 4LP	7-6450830-0
3.850	3.4675	1.010	3.740	.230	.230	3.950	4.090	.2775	6LP + 96S + 4LP	6-6450830-9
2.420	2.0375	.780	2.310	.230	.230	2.520	2.660	.2775	4LP + 48S + 4LP	6-6450830-8
5.400	4.5575	1.700	5.290	.230	.230	5.500	5.640	.2775	12LP + 112S + 8LP	6-6450830-7
2.860	2.4775	1.820	2.750	.230	.300	2.960	3.100	.370	5ACP + 24S + 4LP	6-6450830-6
2.225	1.620	1.045	2.115	.250	.250	2.325	2.465	.345	3P + 20S + 3P	6-6450830-4
3.600	2.895	1.795	3.490	.300	.250	3.700	3.840	.345	6P + 40S + 3ACP	6-6450830-3
3.030		1.345	2.920			3.130	3.270	.345	5HDP + 24S + 1P + 7LP	6-6450830-2
1.135	.9825	.550	1.025	-	-	1.235	1.375	.2775	2LP + 16S + 2LP	6-6450830-0
3.200	3.120	2.370	3.090	-	.300	3.300	3.440	.320	7ACP + 24S + 1P	5-6450830-8
2.800	1.945	1.270	2.690	.250	.250	2.900	3.040	.345	4P + 24S + 4P	5-6450830-7
2.700	1.595	1.120	2.590	.250	.300	2.800	2.940	.345	3ACP + 16S + 5P	5-6450830-6
2.655	2.5025	2.145	2.545	.115		2.755	2.895	.345	3ACP+3P+12S+2LP	5-6450830-5
1.350	1.020	.745	1.240	.250	.250	1.450	1.590	.320	2P + 8S + 2P	5-6450830-4
2.450	1.595	1.120	2.340	.250	.300	2.550	2.690	.345	3ACP + 16S + 4P	5-6450830-3
2.350	1.670	1.095	2.240	.200	.200	2.450	2.590	.320	4HDP + 20S + 4HDP	5-6450830-2
1.300	1.145	.520	1.190	-	-	1.400	1.540	.345	1P + 24S + 1P	5-6450830-1
1.025	.7575	.550	.915	-	-	1.125	1.265	.2775	2LP + 8S + 3LP	5-6450830-0
2.300	1.6950	1.020	2.190	.250	.250	2.400	2.540	.3450	3P + 24S + 3P	4-6450830-9
2.995	2.190	1.415	2.885	.350	.280	3.095	3.235	.3025	8LP + 24S + 3P	4-6450830-8
1.280	.875	.575	1.170	.250	-	1.380	1.520	.3015	2LP + 8S + 2P	4-6450830-7
1.750	1.345	.845	1.640	.250	.250	1.850	1.990	.395	2P + 16S + 2P	4-6450830-6
2.300	1.6950	1.020	2.190	.250	.250	2.400	2.540	.3450	3P + 24S + 3P	4-6450830-5
1.600	1.245	.770	1.490	.250	.250	1.700	1.840	.3450	2P + 16S + 2P	4-6450830-4
6.100	2.195	1.845	5.990	.250	.375	6.200	6.340	.395	4P + 12S + 16P	4-6450830-3
2.500	1.645	1.270	2.390	.250	.250	2.600	2.740	.3450	4P + 12S + 4P	4-6450830-2
3.675	2.445	2.045	3.565	.375	.375	3.775	3.915	.3450	5ACP + 12S + 4ACP	3-6450830-8
1.190	-	1.060	1.080	-	.230	1.290	1.430	.3775	6LP + 8S	3-6450830-7
1.920	1.0775	.870	1.810	-	.300	2.020	2.160	.320	2ACP + 8S + 4LP	3-6450830-6
2.195	1.465	.865	2.085		.215	2.295	2.435	.2775	3LP + 20S + 4HDP	3-6450830-5
4.400	3.220	2.695	4.290		.300	4.500	4.640	.3700	8ACP + 16S + 4ACP	3-6450830-4
3.075	2.395	1.920	2.965		.300	3.175	3.3150	.3700	4ACP + 12S + 3P	3-6450830-3
3.075	2.395	1.920	2.965		.300	3.175	3.3150	.3700	4ACP + 12S + 3P	3-6450830-2
.935	.7825	.550	.825	-	-	1.035	1.175	.2775	2LP + 8S + 2LP	3-6450830-1
3.075	2.395	1.920	2.965		.300	3.175	3.3150	.3700	4ACP + 12S + 3P	3-6450830-0
2.160	1.7775	1.145	2.050	-	.300	2.260	2.400	.3450	3ACP + 24S+ 4LP	2-6450830-9
1.600	1.295	.720	1.490	.200	.200	1.700	1.840	.3450	2P + 20S + 2P	2-6450830-8
1.500	1.195	.720	1.390	.200	.200	1.600	1.740	.3450	2P + 16S + 2P	2-6450830-7
1.475	1.320	.595	1.365	-	-	1.575	1.715	.3700	1P + 24S + 1P	2-6450830-6
2.100	1.795	.720	1.990	.200	.200	2.200	2.340	.3450	2P + 40S + 2P	2-6450830-4
2.750	2.0450	1.270	2.640	.300	.250	2.850	2.990	.3450	4P + 28S + 3ACP	1-6450830-9
2.460	1.8575	.625	2.350	-	-	2.560	2.700	.1700	1P+2LP+48S+2LP+1P	1-6450830-7
	-	-	-	-	-	-	-	-	4P+16S+24S+2HDP	1-6450830-8
2.750	2.0450	1.270	2.640	.300	.250	2.850	2.990	.3450	4P + 28S + 3ACP	1-6450830-5
1.800	1.4450	.770	1.690	.250	.250	1.900	2.040	.3450	2P + 24S + 2P	1-6450830-4
2.375	1.520	.845	2.265	.250	.300	2.475	2.615	.3450	2ACP + 24S + 4P	1-6450830-3
3.000	2.5025	1.945	2.890	.230		3.000	3.240	.3200	8HDP + 20S + 5LP	1-6450830-2
3.615	1.6850	1.010	3.505		.230	3.715	3.855	.2775	6LP + 24S + 10P	1-6450830-0
2.300	1.6950	1.020	2.190	.250	.250	2.400	2.540	.3450	3P + 24S + 3P	6450830-9
2.480	2.3275	1.520	2.370	-	.250	2.580	2.720	.3450	5P + 32S + 2LP	6450830-8
3.400	2.2950	1.570	3.290	.250	.250	3.500	3.640	.3450	5P + 24S + 5P	6450830-7
1.800	1.4450	.770	1.690	.250	.250	1.900	2.040	.3450	2P + 24S + 2P	6450830-5
1.780	1.6025	.770	1.670	-	.250	1.880	2.020	.3450	2P + 32S + 2LP	6450830-4
2.310	1.6725	1.240	2.200	.230	.230	2.410	2.550	.3025	8LP + 16S + 6LP	6450830-3
2.315	1.7100	1.035	2.205	.250	.230	2.415	2.555	.3025	6LP + 24S + 3P	6450830-2
.935	.7825	.550	.825	-	-	1.035	1.175	.2775	2LP + 8S + 2LP	6450830-1
DIM V	DIM R	DIM W	DIM U	DIM S	DIM T	DIM D	DIM L	DIM K	DESCRIPTION	PART NUMBER

4.350	2.405	1.380	4.240			4.450	4.590	.2775	9LP + 36S + 1P + 16LP	8-6450830-2
4.500	2.170	.795	4.390			4.600	4.740	.345	2P + 48S + 10P	8-6450830-1
2.250	1.645	1.170	2.140	.250	.300	2.300	2.490	.370	3ACP + 16S + 3P	8-6450830-0
4.300	2.695	2.020	4.190	.250	.250	4.400	4.540	.345	7P + 24S + 7P	7-6450830-9
4.180	3.325	1.700	4.070	.250	.230	4.280	4.420	.2775	12LP + 60S + 4P	7-6450830-8
2.650	2.545	1.270	2.540	-	.250	2.750	2.890	.345	4P + 48S + 1P	7-6450830-7
1.750	1.3675	1.060	1.755	.230	.230	1.850	1.990	.2775	3LP + 12S + 4LP	7-6450830-6
DIM V	DIM R	DIM W	DIM U	DIM S	DIM T	DIM D	DIM L	DIM K	DESCRIPTION	PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS:
INCHES

MATERIAL
-

TOLERANCES UNLESS OTHERWISE SPECIFIED:

0 PLC
1 PLC
2 PLC
3 PLC
4 PLC
ANGLES
FINISH

±
±.01
±.005
±.0020
±P

DWN
S. ZHAO

CHK
S. ZHAO

APVD
S. ZHAO

10APR2007

10APR2007

-

PRODUCT SPEC
108-2292

APPLICATION SPEC
114-13251

WEIGHT
-

CUSTOMER DRAWING

NAME
S. ZHAO

RIGHT ANGLE WITH SHORT GUIDES
AND LP CONTACTS ASSEMBLY
MULTI-BEAM XLE

SIZE
A1

CAGE CODE
100779

DRAWING NO
6450830

RESTRICTED TO
-

SCALE
4:1

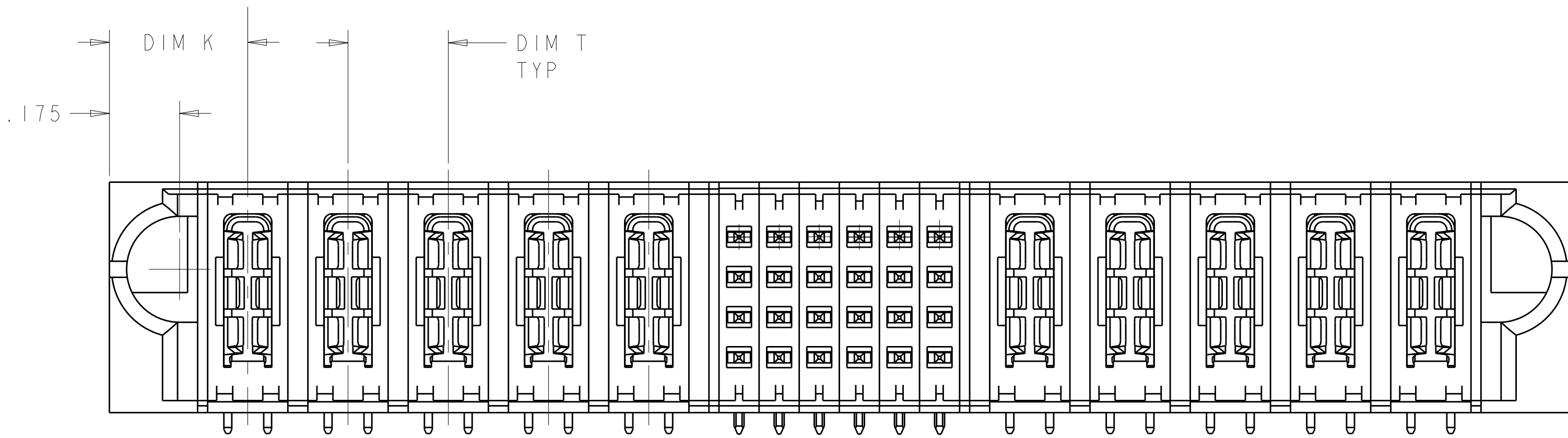
SHEET
2

OF
42

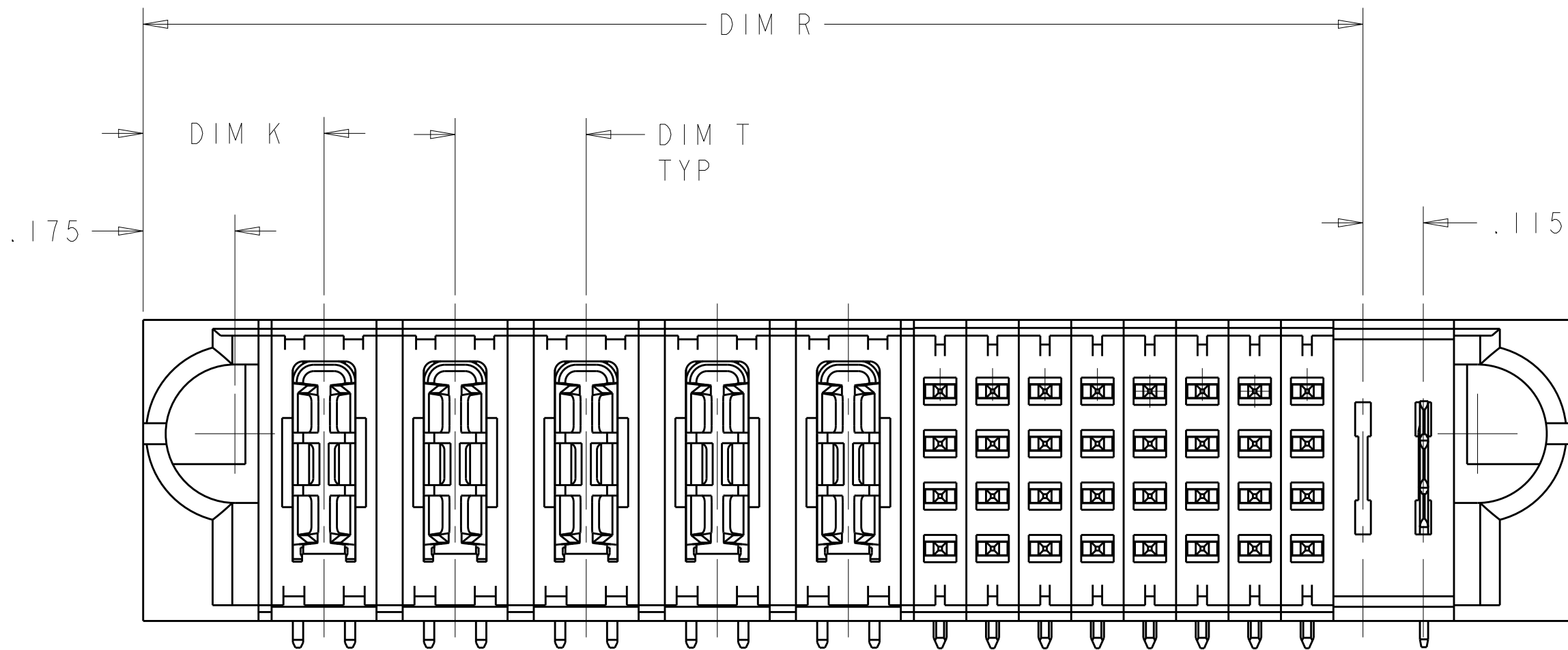
REV
S2

4805 (3/11)

LOC	DIST	REVISIONS				
		P	LYR	DESCRIPTION	DATE	DWN
ES	00	-	-	SEE SHEET 1	-	-



FOR "P+S+P"CONFIGURATION
UNSPECIFY DIMENSIONS PLEASE REFER TO PAGE 1



FOR "P+S+LP"CONFIGURATION
UNSPECIFY DIMENSIONS PLEASE REFER TO PAGE 1

HOLD DOWN	HD
.135 SIGNAL CON, ROW D,MFBL LL=.304	FJ
.135 SIGNAL CON, ROW C,MFBL LL=.304	FK
.135 SIGNAL CON, ROW B,MFBL LL=.304	FN
.135 SIGNAL CON, ROW A,MFBL LL=.304	FS
.135 SIGNAL CON, ROW D,MLBF LL=.204	E
.135 SIGNAL CON, ROW C,MLBF LL=.204	F
.135 SIGNAL CON, ROW B,MLBF LL=.204	G
.135 SIGNAL CON, ROW A,MLBF LL=.204	H
.135 SIGNAL CON, ROW D,STANDARD LL=.254	J
.135 SIGNAL CON, ROW C,STANDARD LL=.254	K
.135 SIGNAL CON, ROW B,STANDARD LL=.254	N
.135 SIGNAL CON, ROW A,STANDARD LL=.254	S
.135 STANDARD POWER CON,3 BEAMS	TM
.135 SOLDER LOWER POWER,MFBL	LMF
.135 SOLDER LOWER POWER,STD	LM
.135 SOLDER LOWER POWER,MLBF	LML
DESCRIPTION	IDENTIFIER

THIS DRAWING IS A CONTROLLED DOCUMENT.

DWN

S.ZHAO

10APR2007

CHK

S.ZHAO

10APR2007

APVD

S.ZHAO

-

DIMENSIONS:

INCHES

0 PLC

±"

1 PLC

±.01

2 PLC

±.01

3 PLC

±.005

4 PLC

±.0020

ANGLES

±2°

FINISH

-

TOLERANCES UNLESS OTHERWISE SPECIFIED:

PRODUCT SPEC

108-2292

APPLICATION SPEC

114-13251

WEIGHT

-

MATERIAL

-

CUSTOMER DRAWING

TE

TE Connectivity

NAME

RIGHT ANGLE WITH SHORT GUIDES AND LP CONTACTS ASSEMBLY MULTI-BEAM XLE

SIZE

CAGE CODE

DRAWING NO

RESTRICTED TO

A1

00779

6450830

-

SCALE

4:1

SHEET

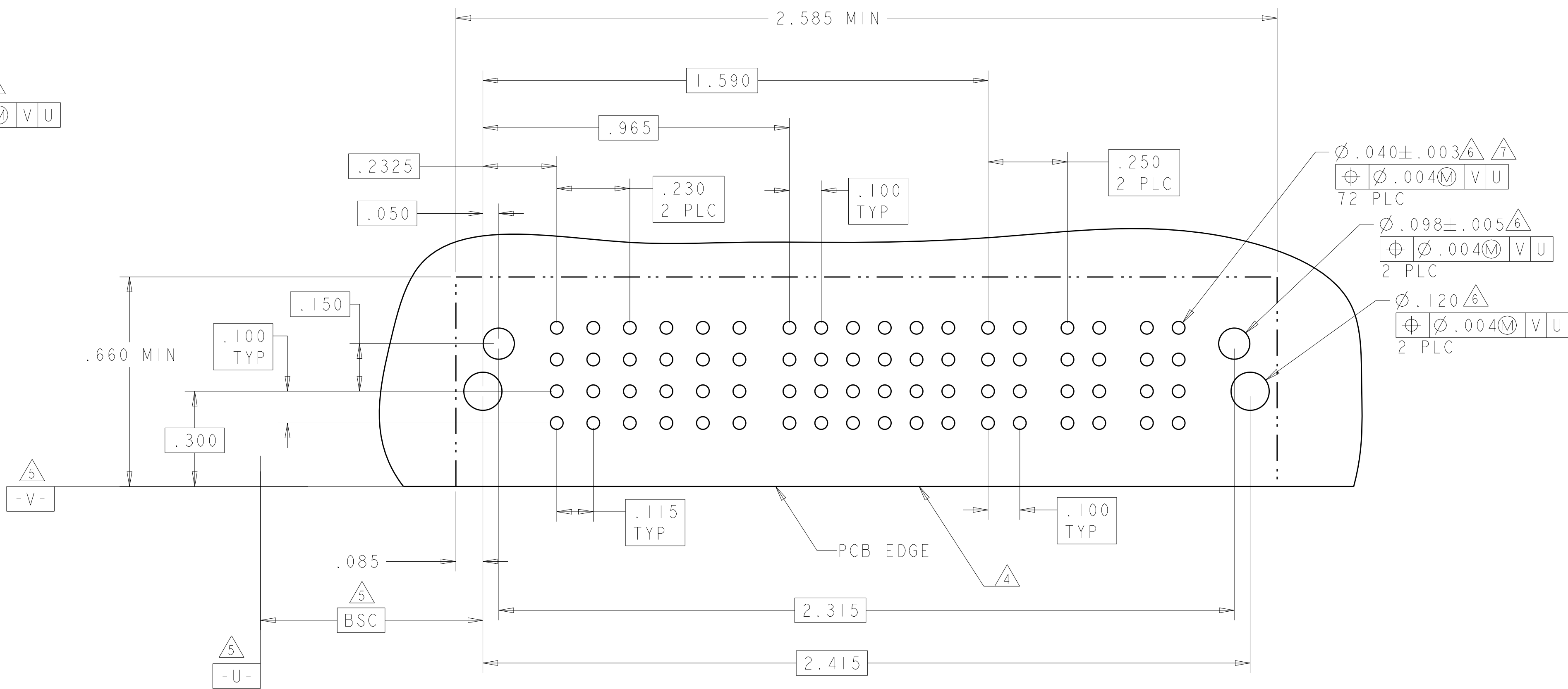
3

OF

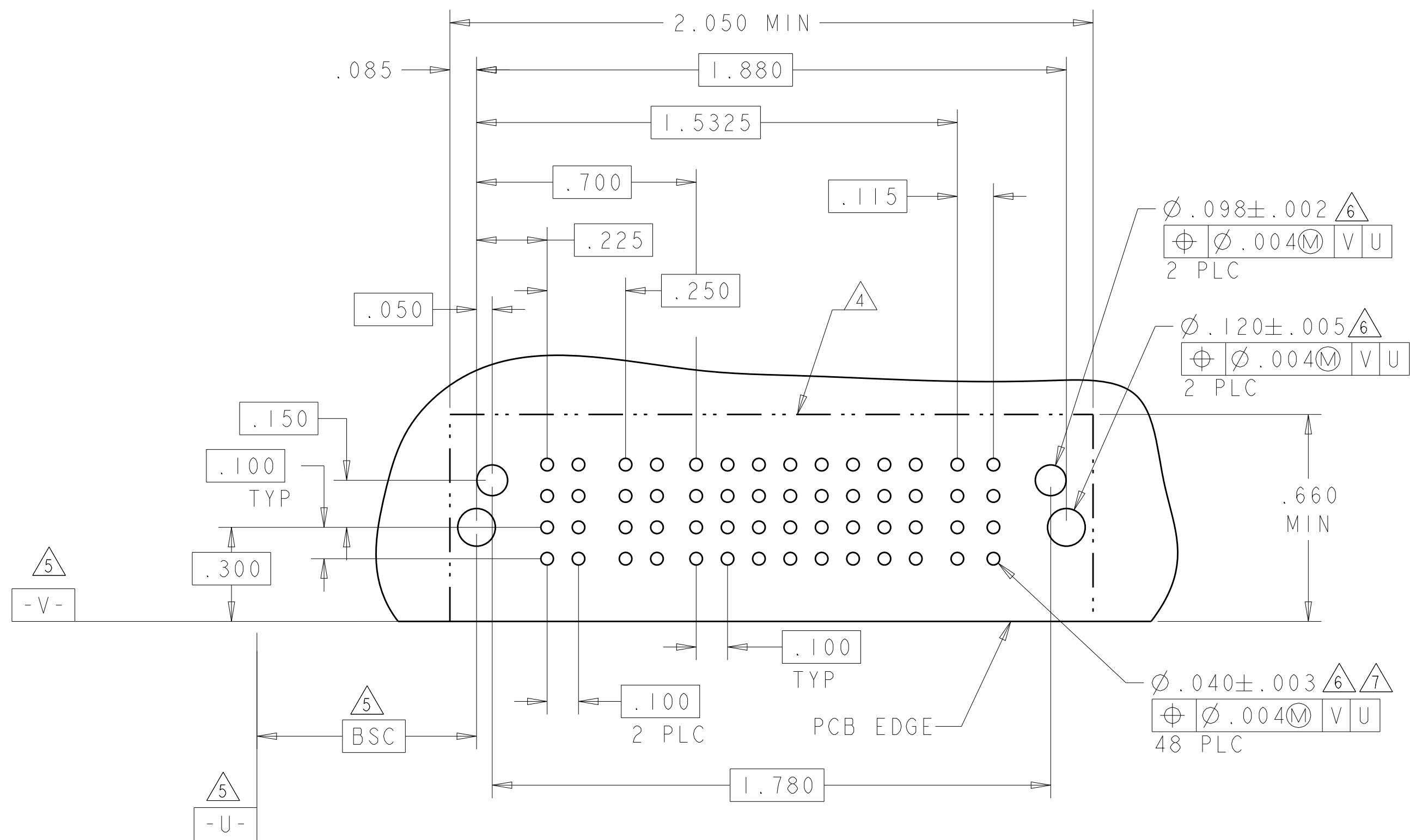
42

REV

S2

[illegible]4805 (3/11)

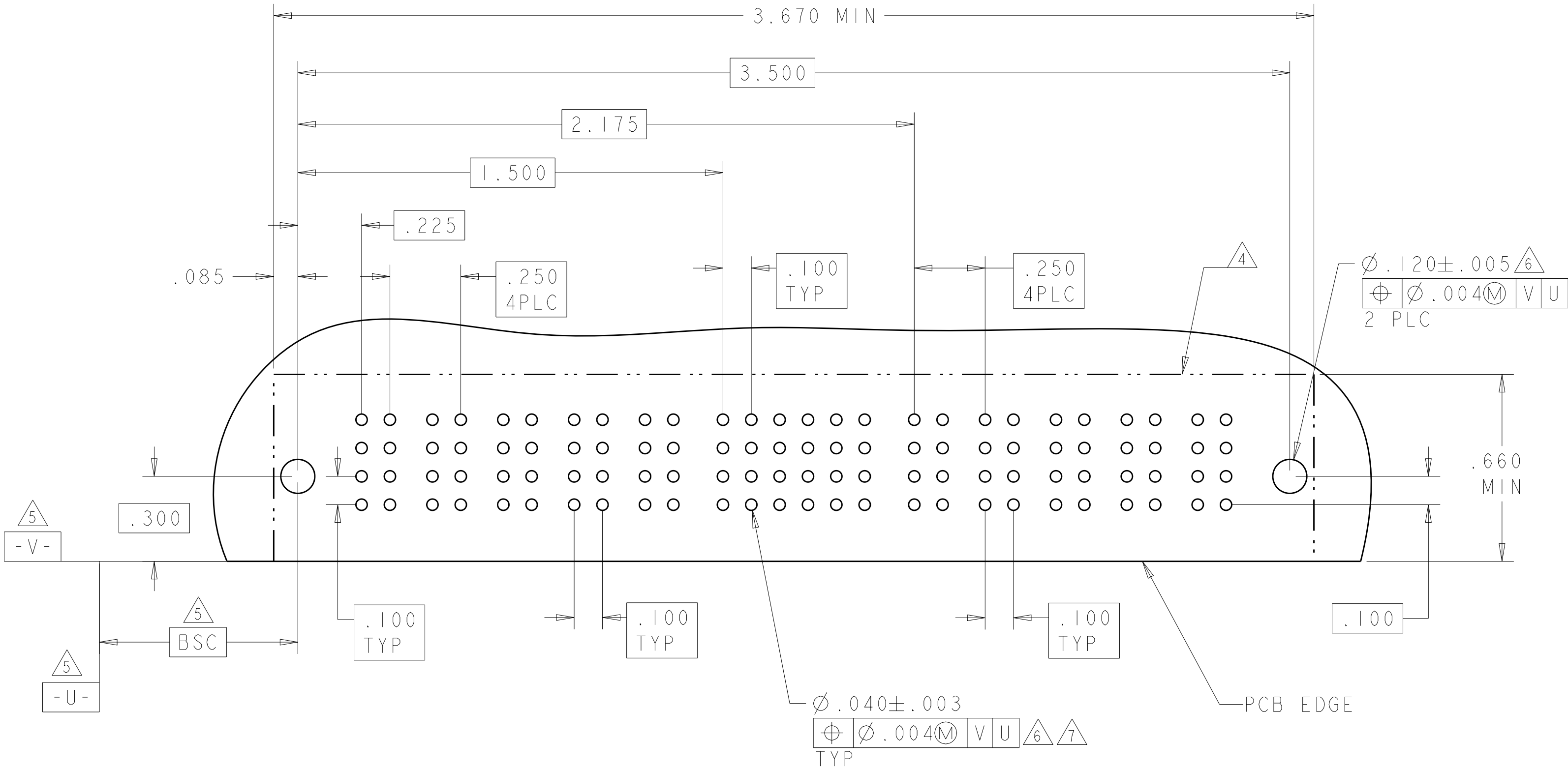
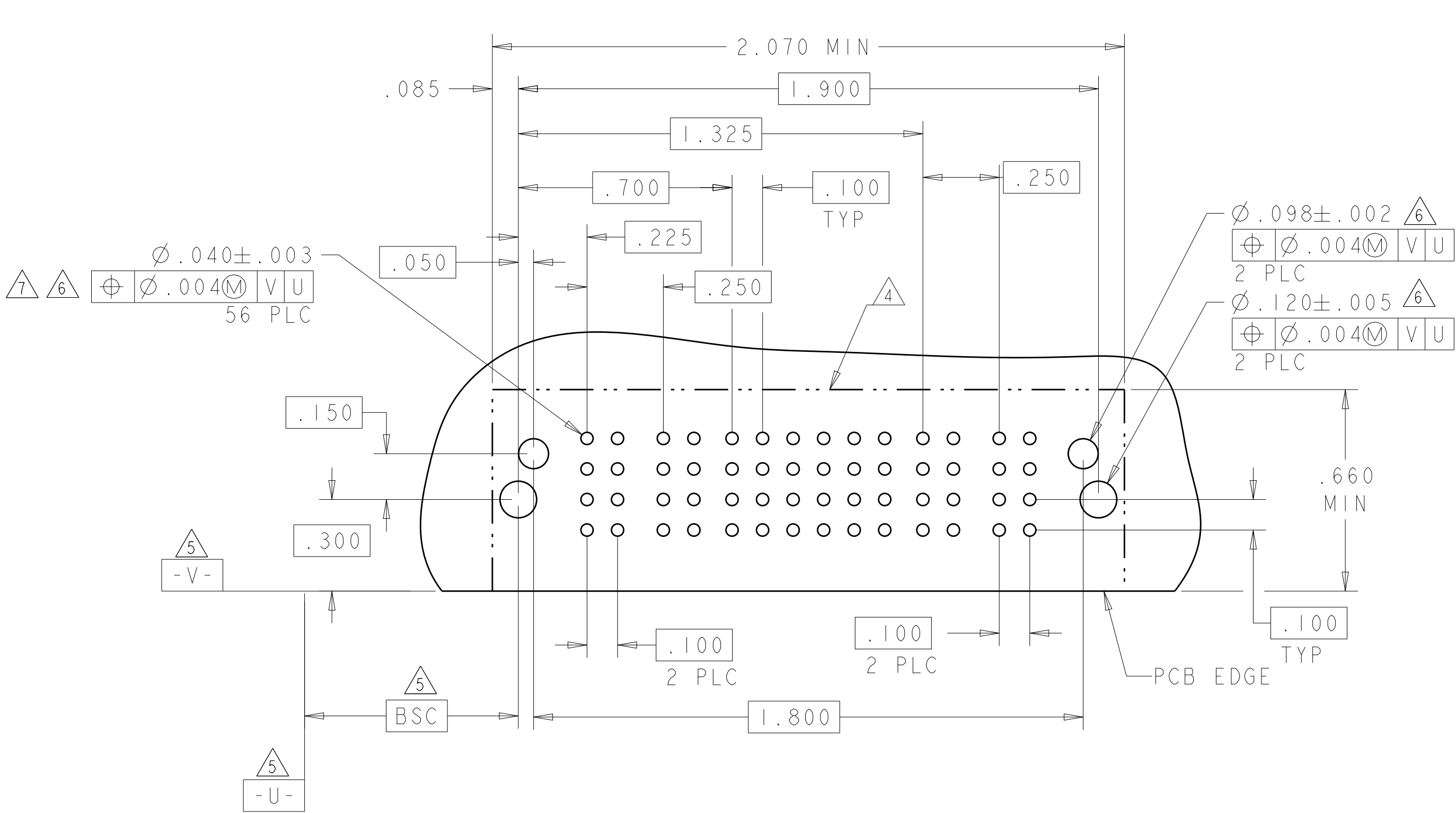
PART NUMBER	ROWS		POWER		SIGNAL								POWER			
			PI	P2	1	2	3	4	5	6	7	8	LP1	LP2		
6450830-4	D C B A		TM	TM	J	J	J	J	J	J	J	J	J	LM	LM	
					K	K	K	K	K	K	K	K	K			
					N	N	N	N	N	N	N	N	N			
					S	S	S	S	S	S	S	S	S			
2P + 32S + 2LP																

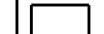


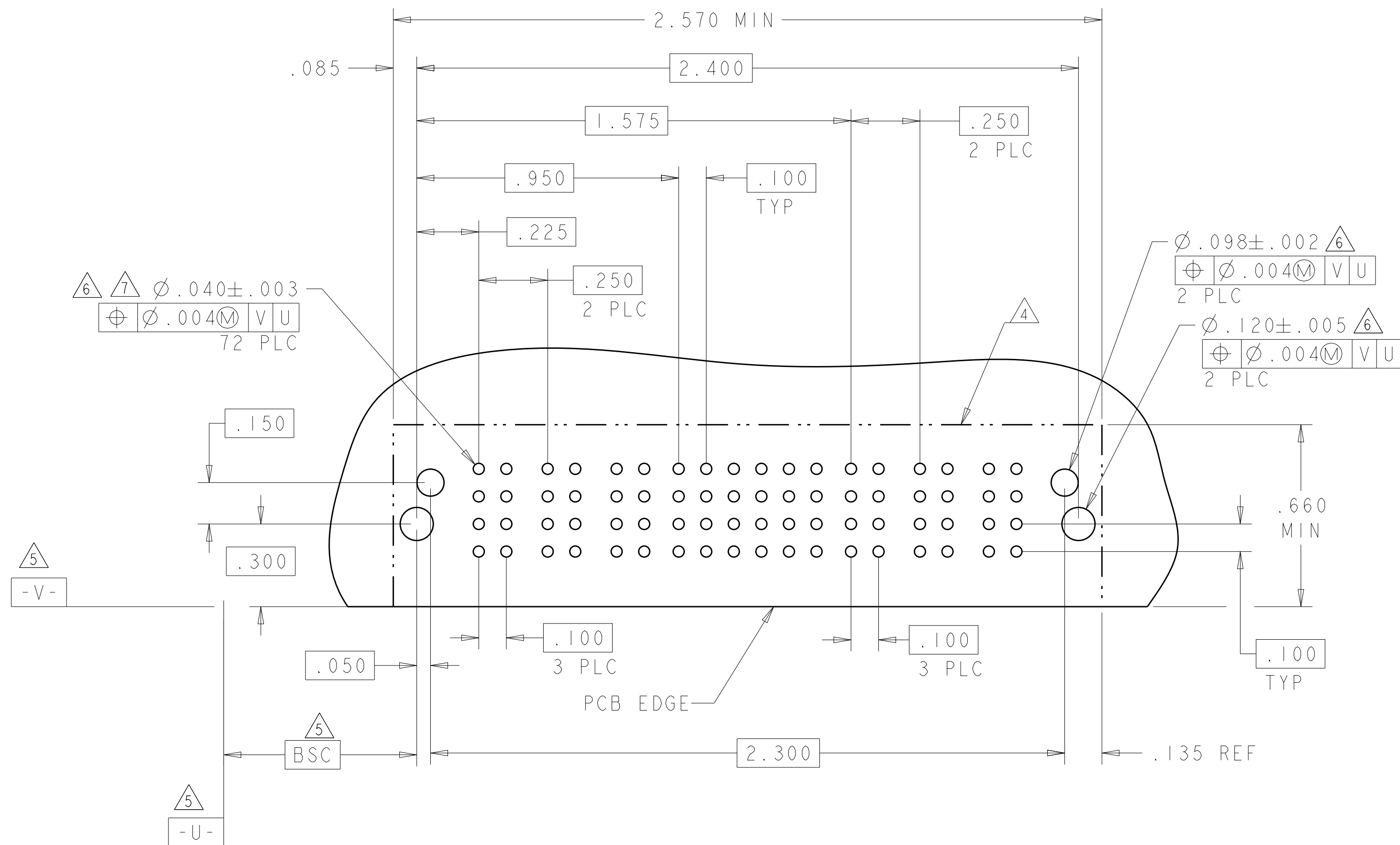
LOC	DIST	REVISIONS					
ES	00	P	LTR	DESCRIPTION	DATE	DWN	APVD
		-		SEE SHEET 1	-	-	-

PART NUMBER	ROWS		POWER		SIGNAL						POWER		
			P1	P2	1	2	3	4	5	6	P3	P4	
6450830-5	D C B A	 HD	 TM	 TM	J	J	J	J	J	J	 TM	 TM	 HD
					K	K	K	K	K	K			
					N	N	N	N	N	N			
					S	S	S	S	S	S			
2P + 24S + 2P													

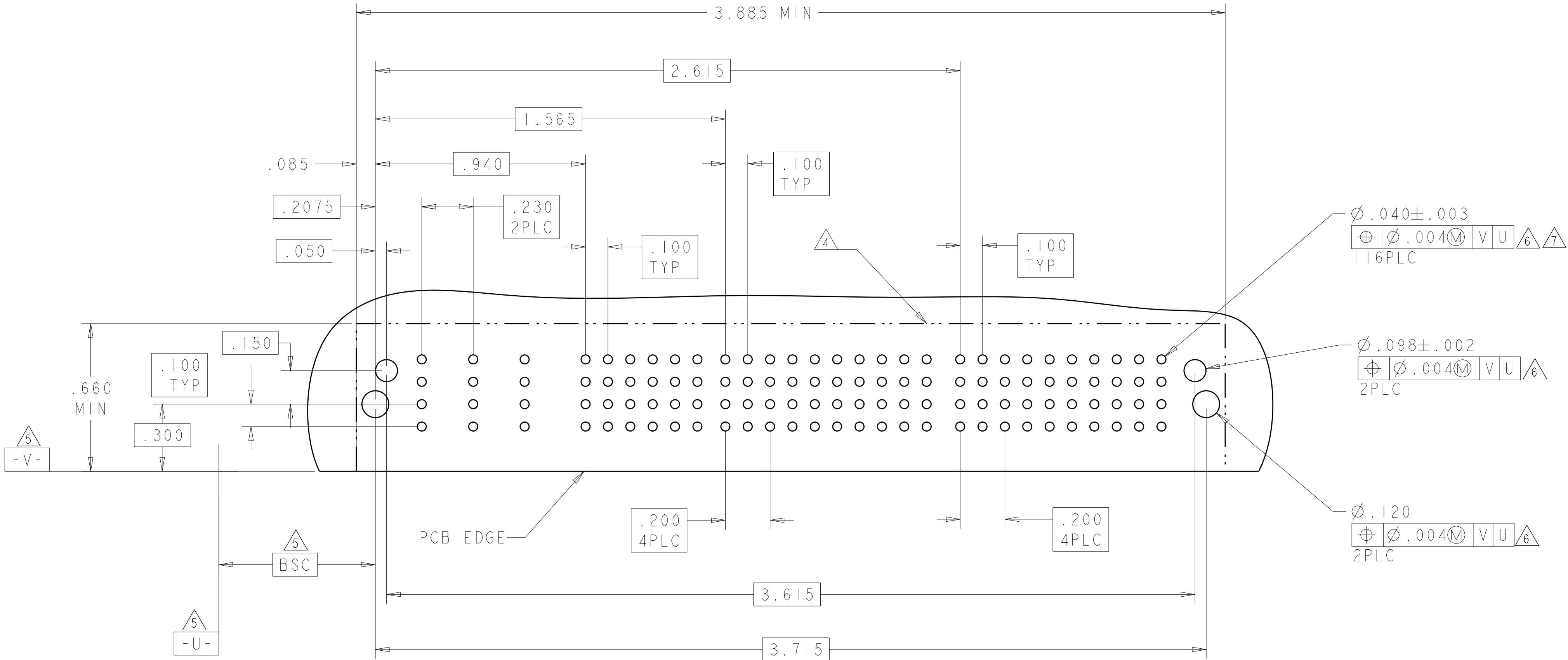
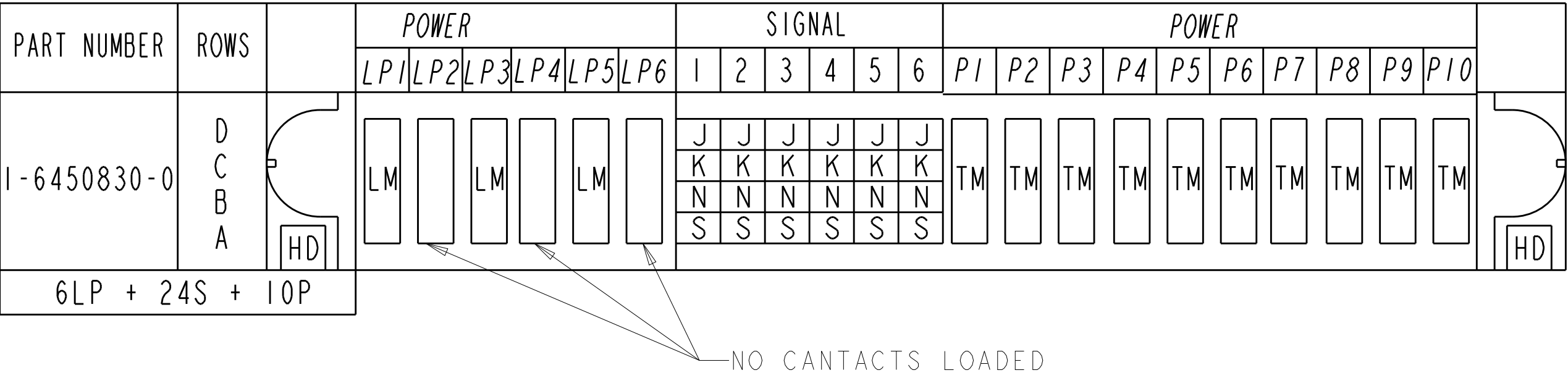
PART NUMBER	ROWS		POWER					SIGNAL						POWER					
			P1	P2	P3	P4	P5	1	2	3	4	5	6	P6	P7	P8	P9	P10	
6450830-7	D C B A							J	J	J	J	J	J						
								K	K	K	K	K	K						
								N	N	N	N	N	N						
								S	S	S	S	S	S						
5P + 24S + 5P																			



PART NUMBER	ROWS		POWER			SIGNAL						POWER					
			P1	P2	P3	1	2	3	4	5	6	P4	P5	P6			
6450830-9	D			TM	TM	TM	J	J	J	J	J	J		TM	TM	TM	
	C						K	K	K	K	K	K					
	B						N	N	N	N	N	N					
	A						S	S	S	S	S	S					
3P + 24S + 3P																	

$$3P + 24S + 3P$$
4805 (3/11)

LOC	DIST	REVISIONS					
ES	00	P	LTR	DESCRIPTION	DATE	DWN	APVD
		-		SEE SHEET 1	-	-	-



THIS DRAWING IS A CONTROLLED DOCUMENT.

DWN
S.ZHAO
CHK
S.ZHAO
APVD
S.ZHAO

10APR2007
10APR2007
-

DIMENSIONS:
INCHES

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

PRODUCT SPEC
108-2292
APPLICATION SPEC
114-13251
WEIGHT -

CUSTOMER DRAWING

TE Connectivity

RIGHT ANGLE WITH SHORT GUIDES
AND LP CONTACTS ASSEMBLY
MULTI-BEAM XLE

SIZE
A100779

CAGE CODE
C=6450830

DRAWING NO
-

RESTRICTED TO
-

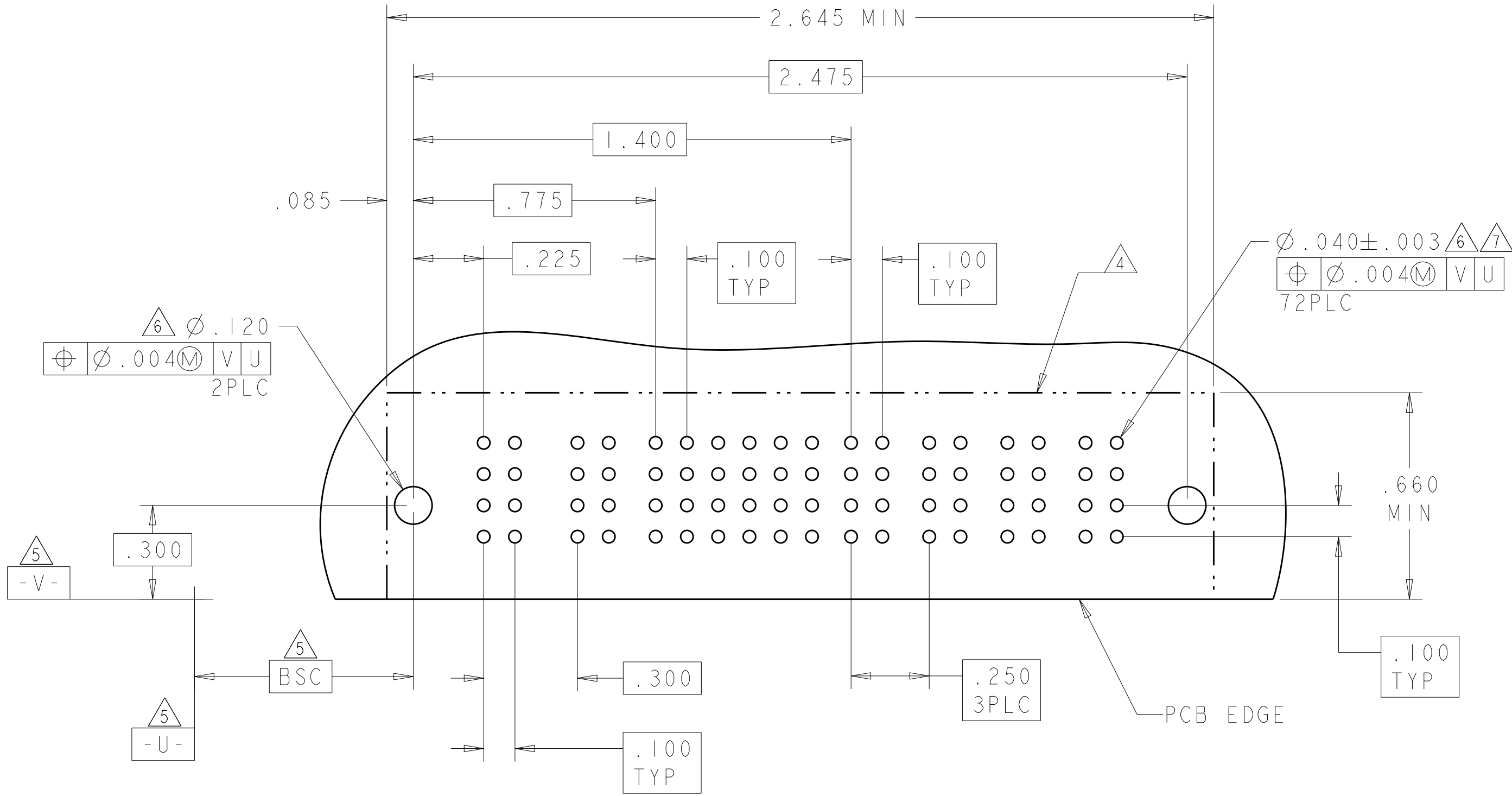
SCALE
4:1

SHEET
8

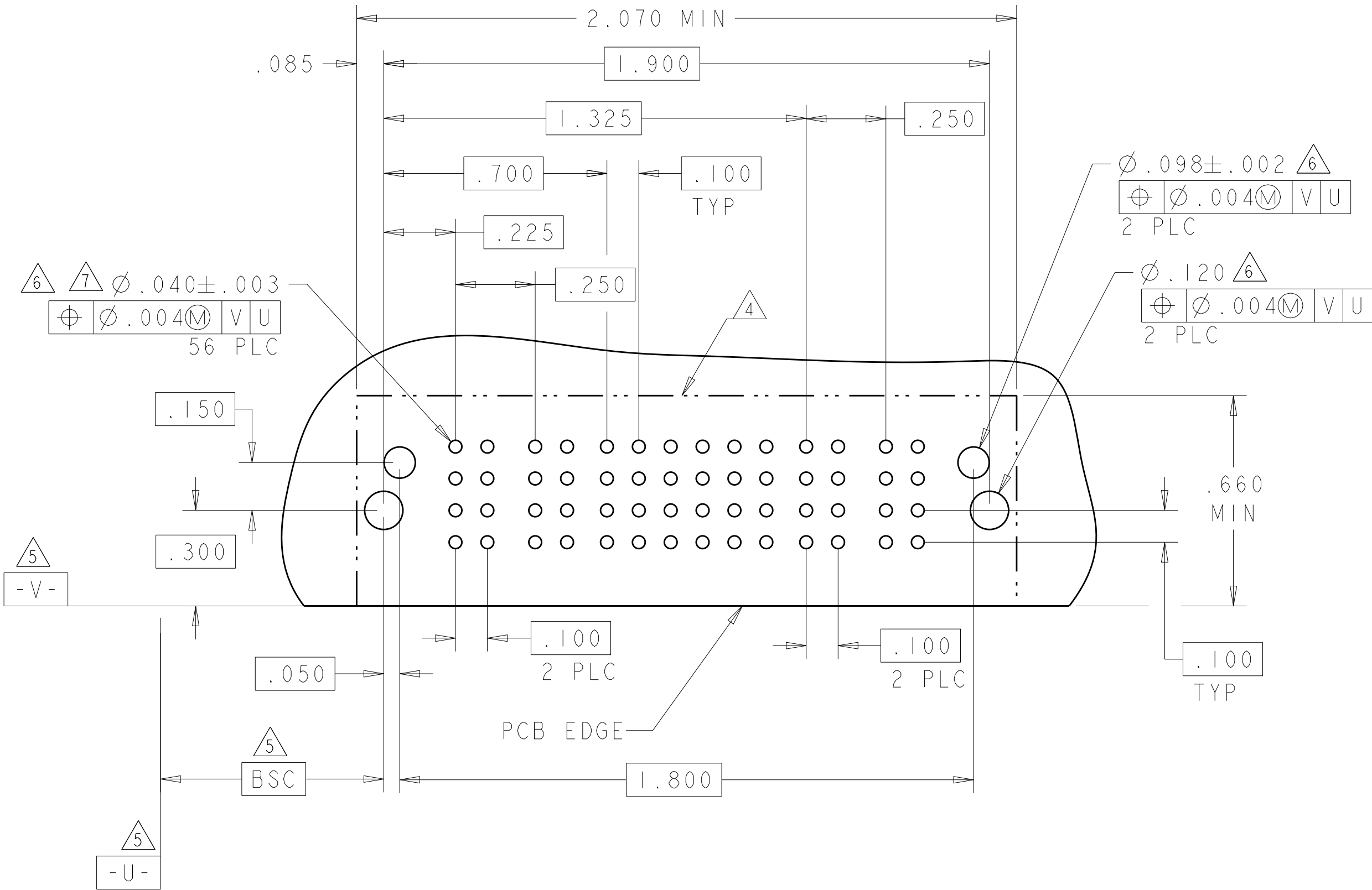
OF
42

REV
S2

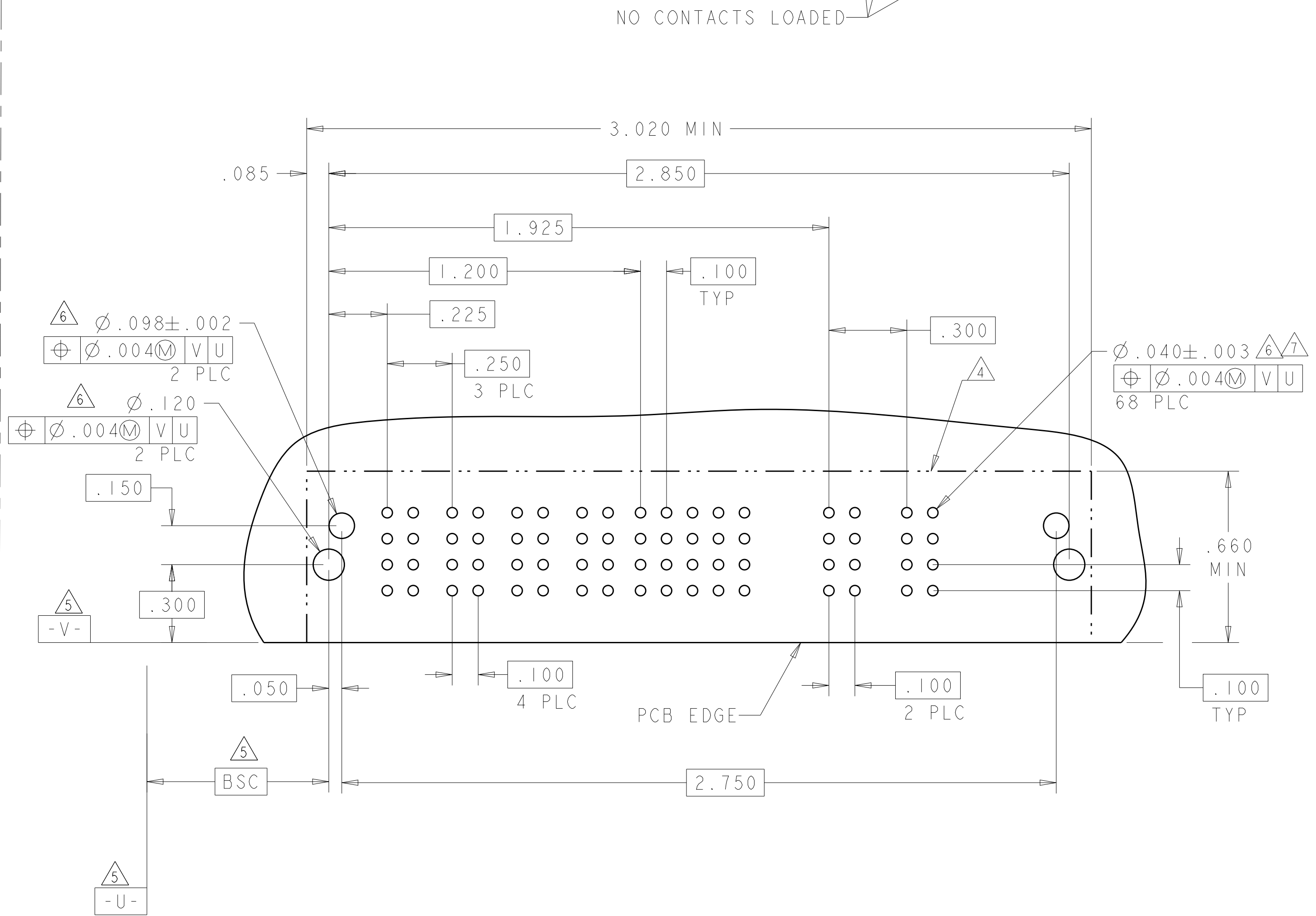
PART NUMBER	ROWS		POWER		SIGNAL						POWER				
			P1	P2	1	2	3	4	5	6	P3	P4	P5	P6	
I-6450830-3	D C B A		TM	TM		J	J	J	J	J	TM	TM	TM	TM	
						K	K	K	K	K					
						N	N	N	N	N					
						S	S	S	S	S					
2ACP + 24S + 4P															



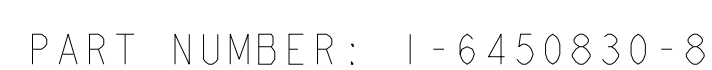
PART NUMBER	ROWS		POWER		SIGNAL						POWER		
			P1	P2	1	2	3	4	5	6	P3	P4	
I-6450830-4	D C B A				J	J	J	J	J	J			
					K	K	K	K	K	K			
					N	N	G	N	N	N			
					S	S	S	S	S	S			
2P + 24S + 2P													



PART NUMBER	ROWS		POWER				SIGNAL							POWER			
			P1	P2	P3	P4	1	2	3	4	5	6	7	P5	P6	P7	
1-6450830-5	D		TM	TM	TM	TM	J	J	J	J	J			TM	TM		
	K						K	K	K	K							
	N						N	N	N	N							
	S						S	S	S	S							
4P + 28S + 3ACP			 														



THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN S_ZHAO 10APR2007		 TE Connectivity	
DIMENSIONS: INCHES		CHG S_ZHAO 10APR2007			
		APVD S_ZHAO -			
		TOLERANCES UNLESS OTHERWISE SPECIFIED:		NAME RIGHT ANGLE WITH SHORT GUIDES AND LP CONTACTS ASSEMBLY MULTI-BEAM XLE	
		0 PLC ±			
		1 PLC ±.01			
		2 PLC ±.005			
4 PLC ±.0020		PRODUCT SPEC 108-2292		SIZE CAGE CODE DRAWING NO RESTRICTED TO A 100779 © 6450830 - CUSTOMER DRAWING SCALE 4:1 SHEET 10 OF 42 REV S2	
ANGLES ±°		APPLICATION SPEC 114-13251			
MATERIAL -		WEIGHT -			
FINISH -					

[illegible]4805 (3/11)

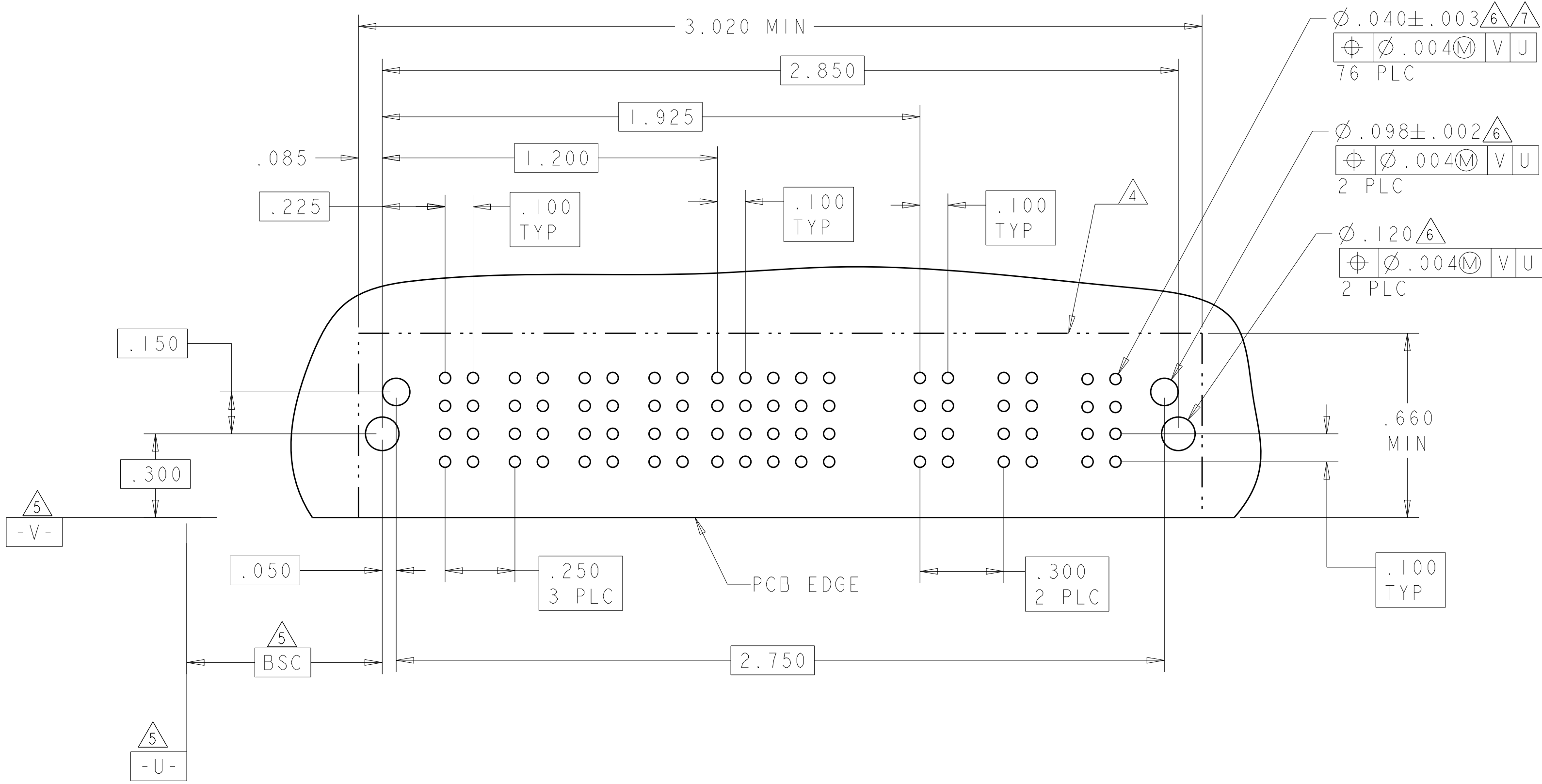
Technical drawing of a 16-pin D-sub connector. The drawing shows the top view of the connector with dimensions labeled. The overall width is DIM W. The distance from the center of the connector to the center of the mounting holes is DIM K. The distance from the center of the connector to the center of the mounting holes is .1825. The distance from the center of the connector to the center of the mounting holes is .115. The distance from the center of the connector to the center of the mounting holes is .2075. The distance from the center of the connector to the center of the mounting holes is .115.

[illegible]4805 (3/11)

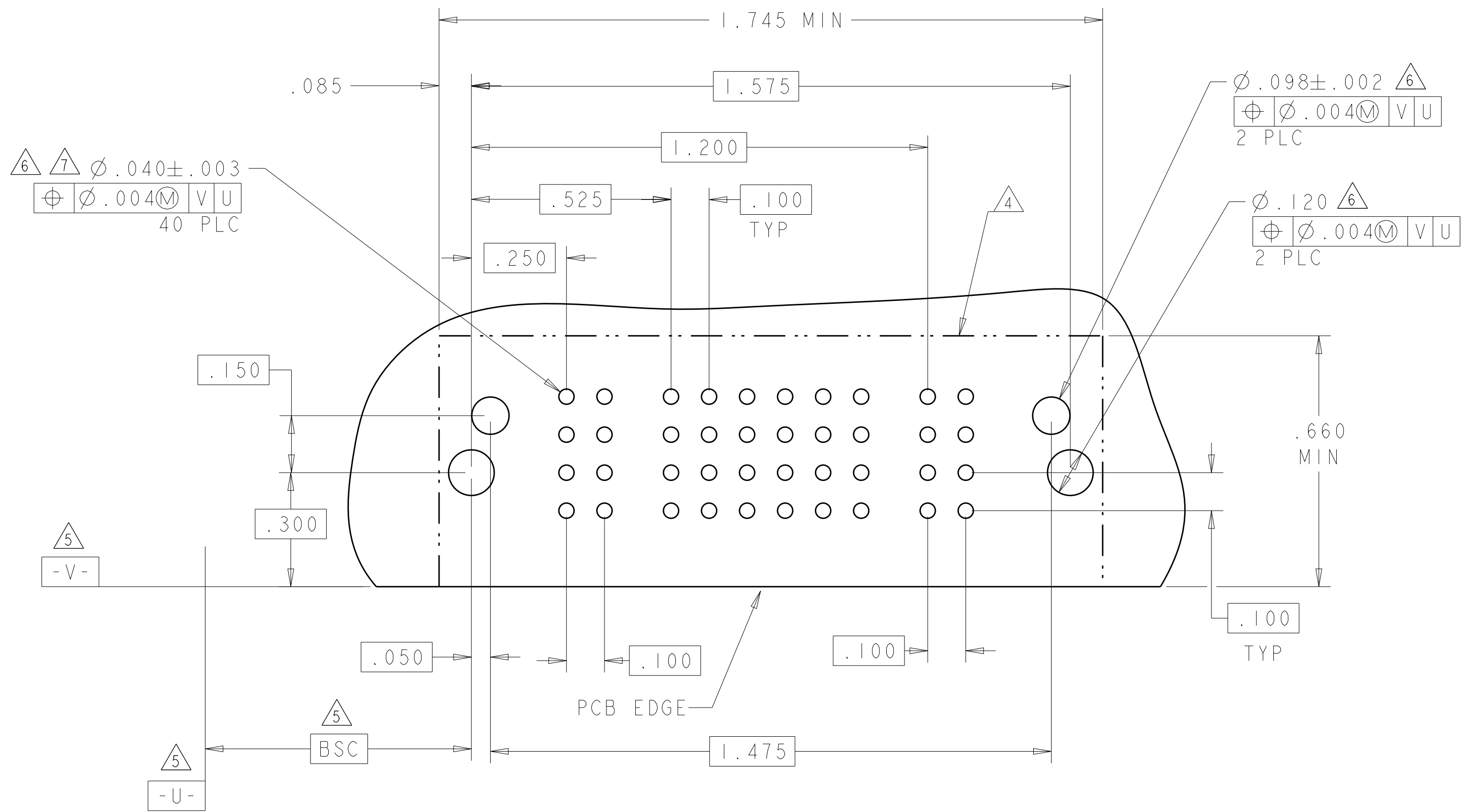
LOC	DIST	REVISIONS					
ES	00	P	LTR	DESCRIPTION	DATE	DWN	APVD
		-		SEE SHEET 1	-	-	-

PART NUMBER	ROWS		POWER				SIGNAL							POWER			
			P1	P2	P3	P4	1	2	3	4	5	6	7	P5	P6	P7	
I-6450830-9	D		TM	TM	TM	TM	J	J	J	J	J			TM	TM	TM	
	K						K	K	K	K							
	N						N	N	N	N							
	S						S	S	S	S							
4P + 28S + 3ACP																	

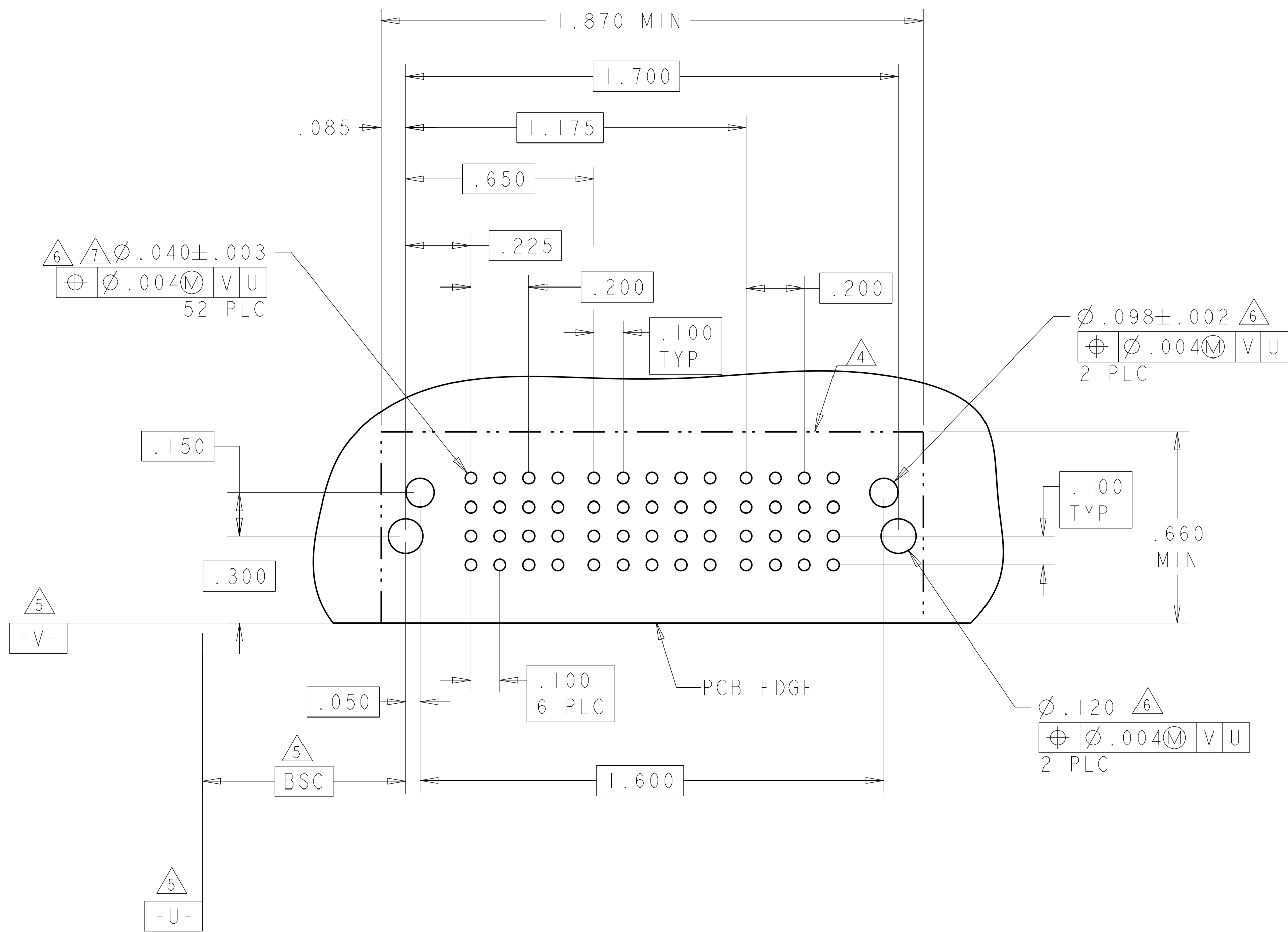
NO CONTACTS LOADED



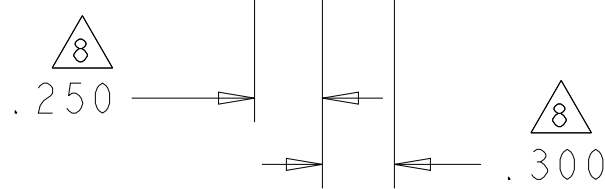
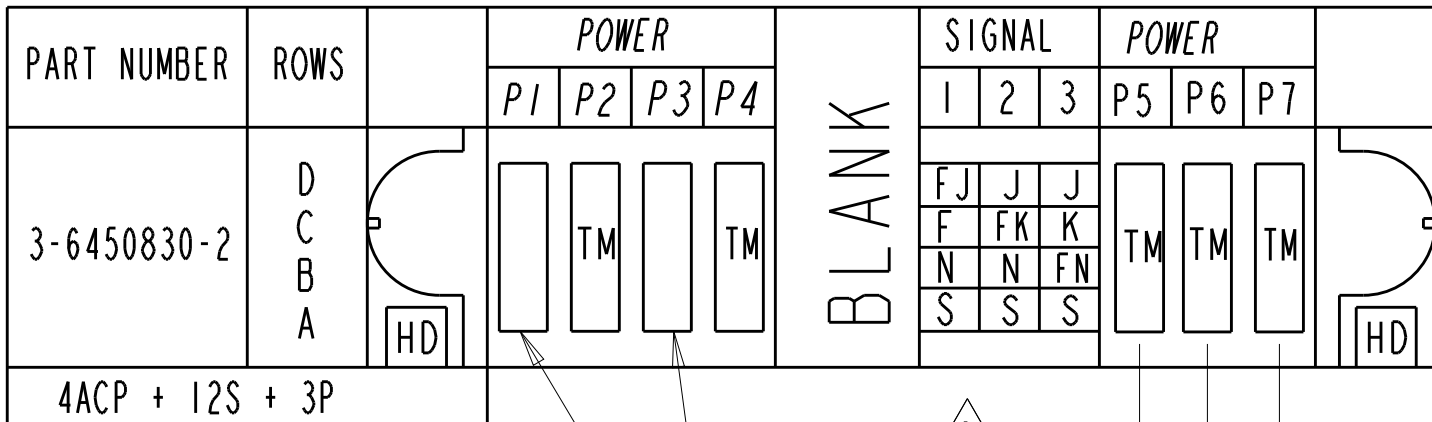
THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN	S. ZHAO	10APR2007	 TE Connectivity			
		CHK	S. ZHAO	10APR2007				
DIMENSIONS:		APVD	S. ZHAO	-	NAME	RIGHT ANGLE WITH SHORT GUIDES AND LP CONTACTS ASSEMBLY MULTI-BEAM XLE		
INCHES								
		PRODUCT SPEC			SIZE			
		108-2292						
		APPLICATION SPEC						
		114-13251						
TOLERANCES UNLESS OTHERWISE SPECIFIED:					CAGE CODE			
0 PLC ±					DRAWING NO			
1 PLC ±					RESTRICTED TO			
2 PLC ±.01								
3 PLC ±.005								
4 PLC ±.0020								
ANGLES ±°								
FINISH		WEIGHT			A			
-		-			00779			
-					C6450830			
-		CUSTOMER DRAWING			SCALE			
-					4:1			
-					SHEET			
-					13			
-					OF			
-					42			
-					REV			
-					S2			

[illegible]4805 (3/11)

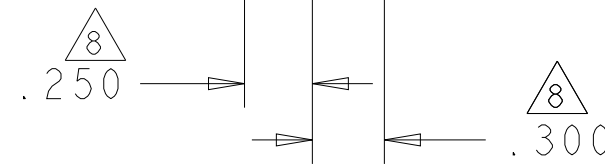
PART NUMBER	ROWS		POWER		SIGNAL					POWER		
			P1	P2	1	2	3	4	5	P3	P4	
2-6450830-8	D		TM	TM	J	J	J	J	J	TM	TM	
	K				K	K	K	K				
	N				N	N	N	N				
	S				S	S	S	S				
	A	HD										HD
2P + 20S + 2P												

4805 (3/11)

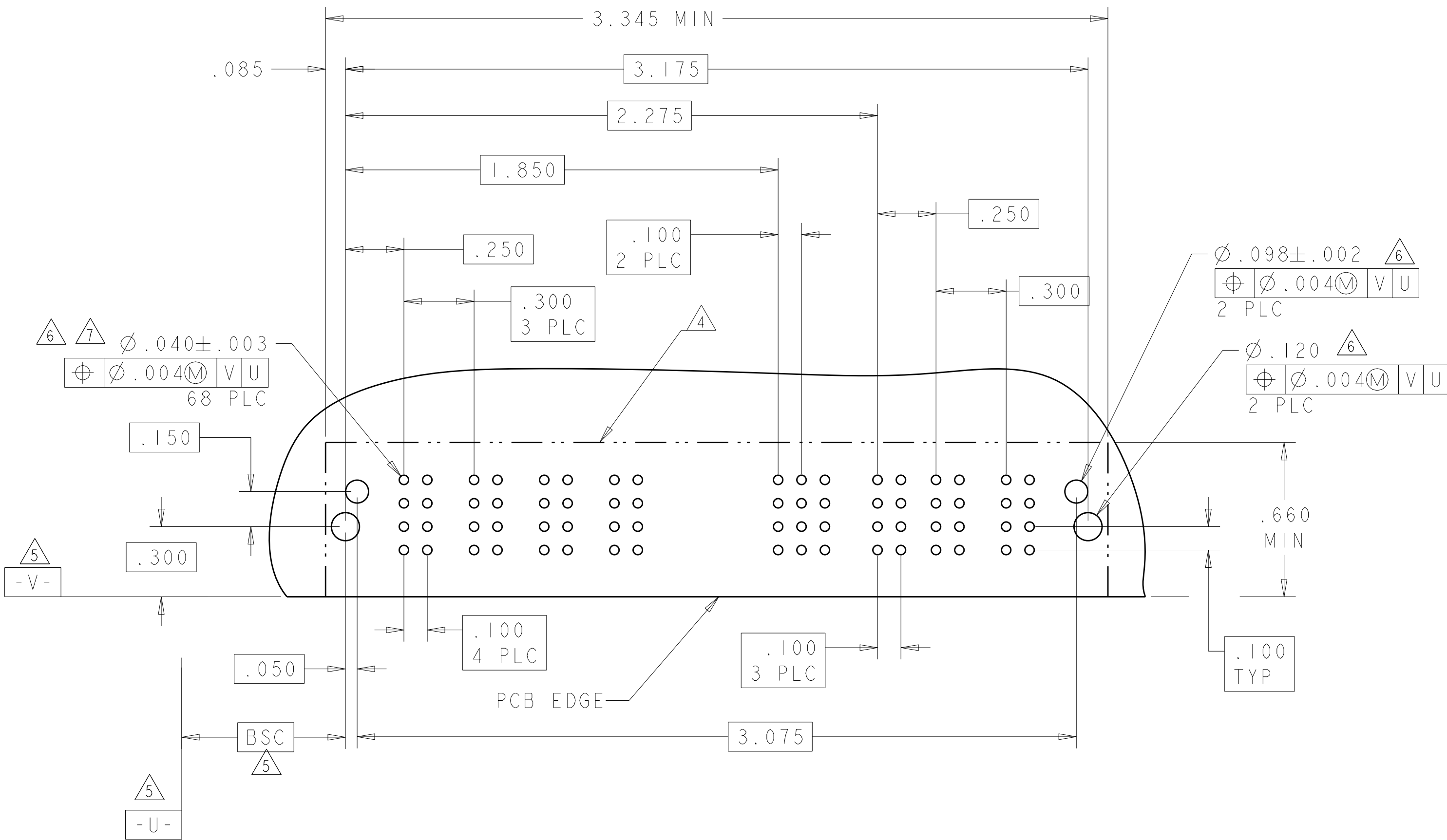
PART NUMBER	ROWS		POWER				BLANK	SIGNAL			POWER													
			P1	P2	P3	P4		1	2	3	P5	P6	P7											
3-6450830-0	D C B A					BLANK																		
4ACP + 12S + 3P			   																					



PART NUMBER	ROWS		POWER				BLANK	SIGNAL			POWER			
			P1	P2	P3	P4		1	2	3	P5	P6	P7	
3-6450830-3	D		TM		TM		BLANK	F	J	J	TM	TM	TM	
	C							F	N	K				
	B							N	N	N				
	A							S	S	S				
4ACP + 12S + 3P														



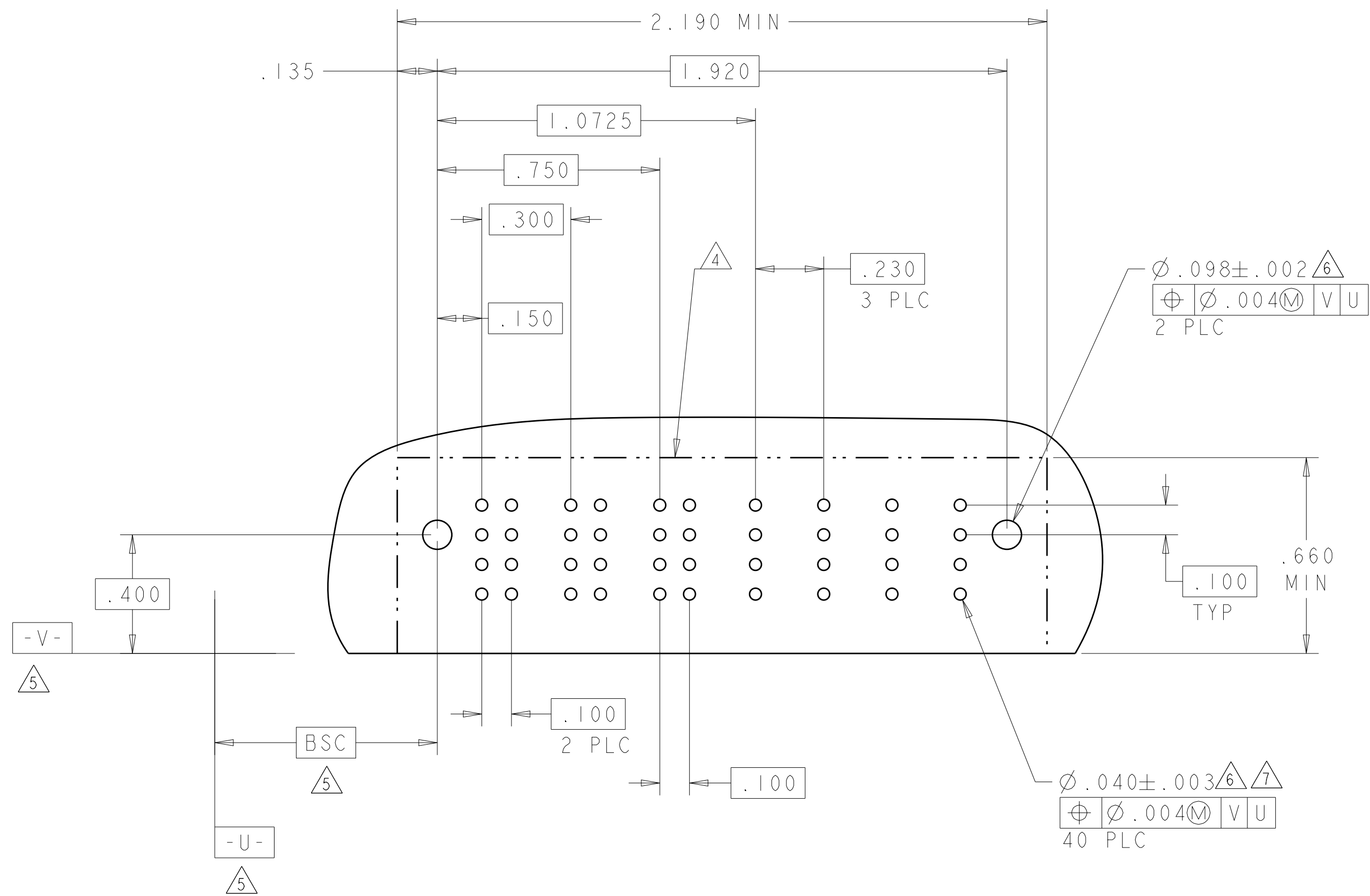
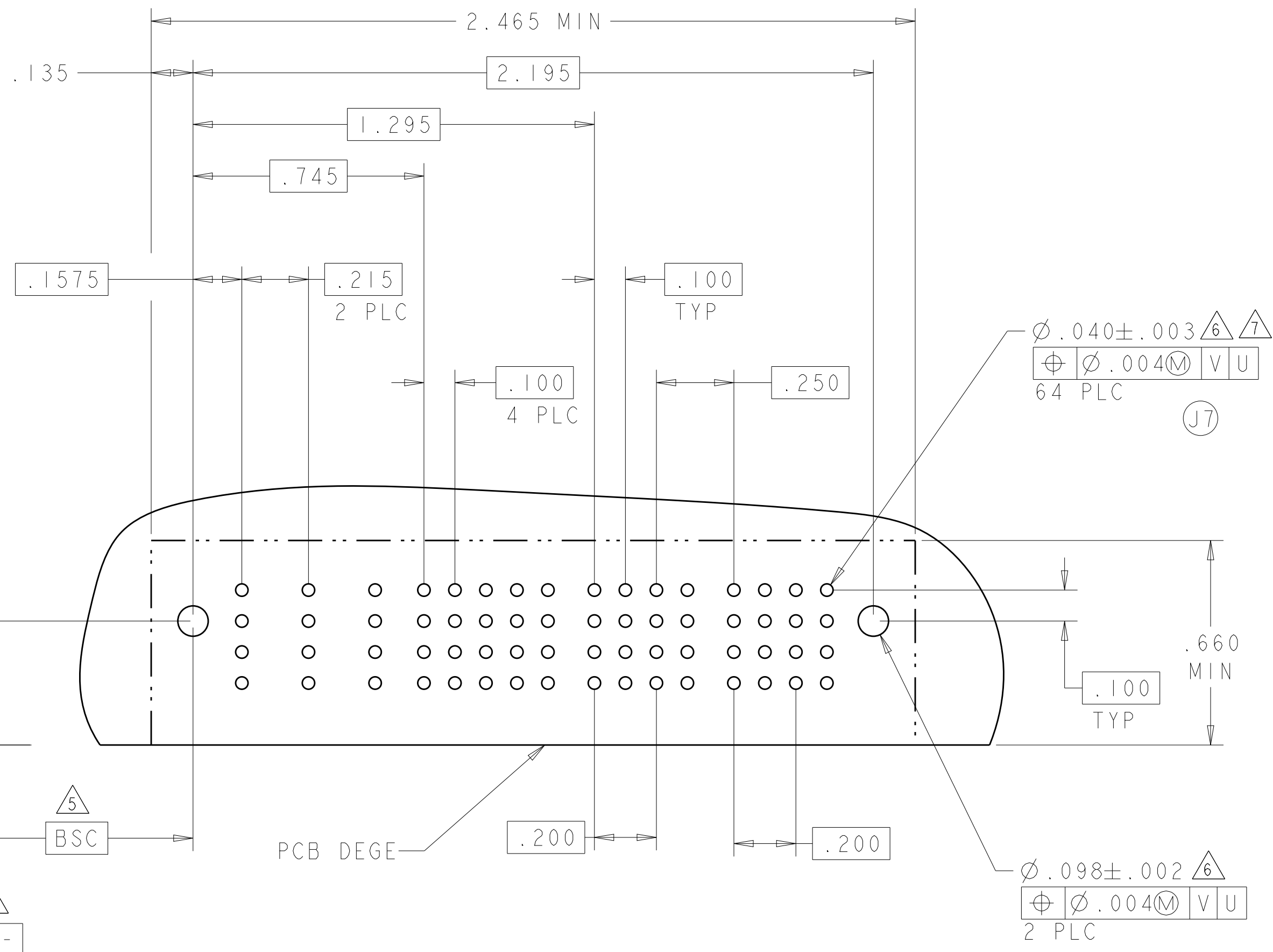
-NO CONTACTS LOADED



RECOMMENDED PCB LAYOUT FOR 3-6450830-0, 3-6450830-2 AND 3-6450830-3

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN S_ZHAO 10APR2007		 TE Connectivity	
DIMENSIONS: INCHES		CHG S_ZHAO 10APR2007			
		APVD S_ZHAO -			
		TOLERANCES UNLESS OTHERWISE SPECIFIED:		NAME RIGHT ANGLE WITH SHORT GUIDES AND LP CONTACTS ASSEMBLY MULTI-BEAM XLE	
		0 PLC ±			
		1 PLC ±			
		2 PLC ±.01			
		3 PLC ±.005		PRODUCT SPEC 108-2292 APPLICATION SPEC 114-13251	
		4 PLC ±.0020			
		ANGLES ±°			
		FINISH			
MATERIAL		WEIGHT		SIZE CAGE CODE DRAWING NO RESTRICTED TO A 100779 © 6450830 -	
				CUSTOMER DRAWING SCALE 4:1 SHEET 16 OF 42 REV S2	

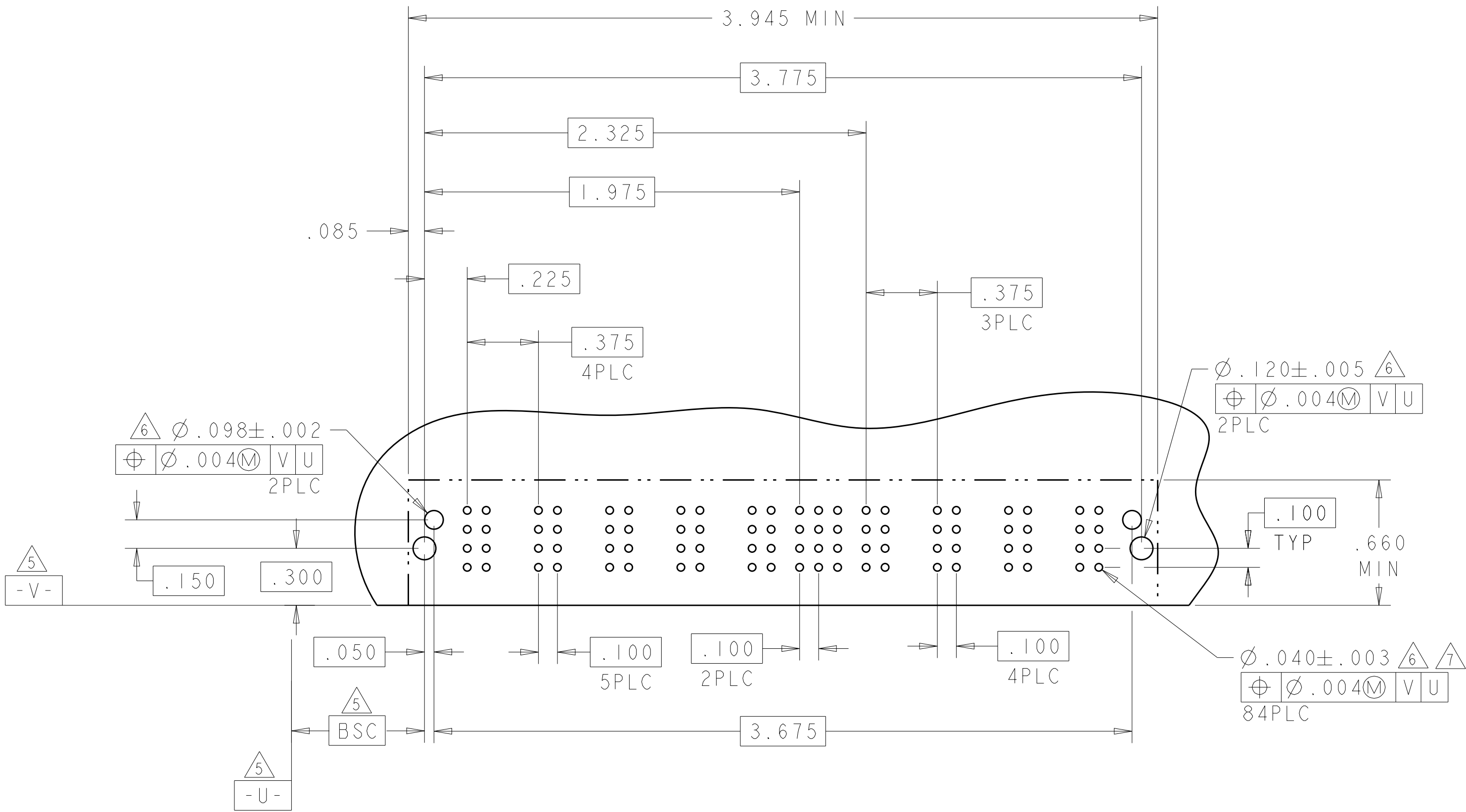
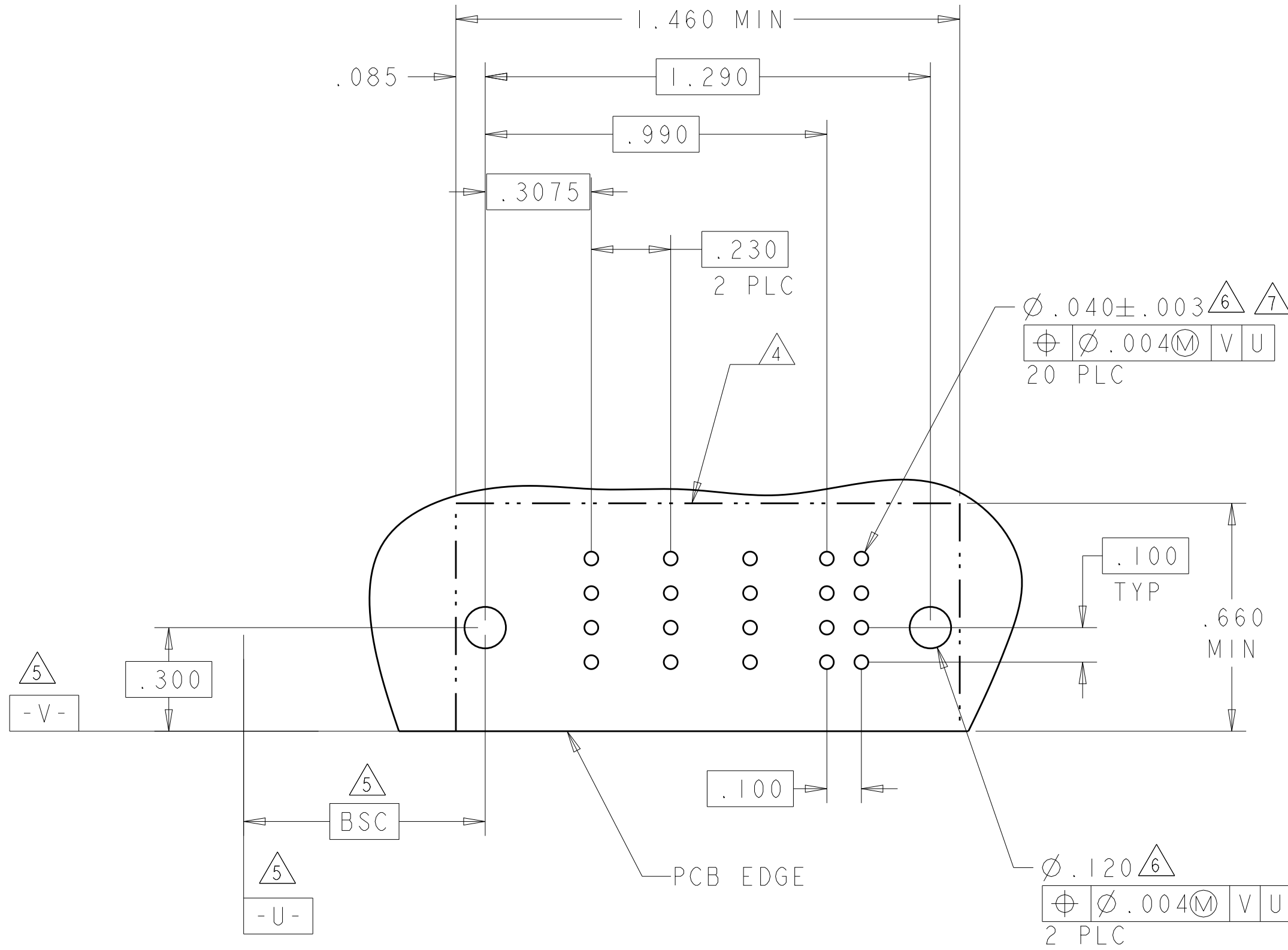
PART NUMBER	ROWS		POWER		SIGNAL		POWER				
			P1	P2	1	2	LP1	LP2	LP3	LP4	
3-6450830-6	D		TM	TM	J	J	LM	LM	LM	LM	
	C				K	K					
	B				N	N					
	A				S	S					
2ACP + 8S + 4LP											

4805 (3/11)

LOC	DIST	REVISIONS					
ES	00	P	LTR	DESCRIPTION	DATE	DWN	APVD
		-		SEE SHEET 1	-	-	-

PART NUMBER	ROWS		POWER						SIGNAL		
			LP1	LP2	LP3	LP4	LP5	LP6	1	2	
3-6450830-7	D C B A										
6LP + 8S											

PART NUMBER	ROWS		POWER					SIGNAL			POWER				
			P1	P2	P3	P4	P5	1	2	3	P6	P7	P8	P9	
3-6450830-8	D C B A		TM	TM	TM	TM	TM	J	J	J	TM	TM	TM	TM	
								K	K	K					
								N	N	N					
								S	S	H					
5ACP + 12S + 4ACP															



THIS DRAWING IS A CONTROLLED DOCUMENT.

DWN
S. ZHAO
10APR2007

CHK
S. ZHAO
10APR2007

APVD
S. ZHAO
-

DIMENSIONS:
INCHES

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ±.01
1 PLC ±.01
2 PLC ±.01
3 PLC ±.005
4 PLC ±.002
ANGLES ±2°
FINISH

PRODUCT SPEC
108-2292

APPLICATION SPEC
114-13251

WEIGHT
-

CUSTOMER DRAWING

NAME
RIGHT ANGLE WITH SHORT GUIDES AND LP CONTACTS ASSEMBLY MULTI-BEAM XLE

SIZE
A1

CAGE CODE
00779

DRAWING NO
6450830

RESTRICTED TO
-

SCALE
4:1

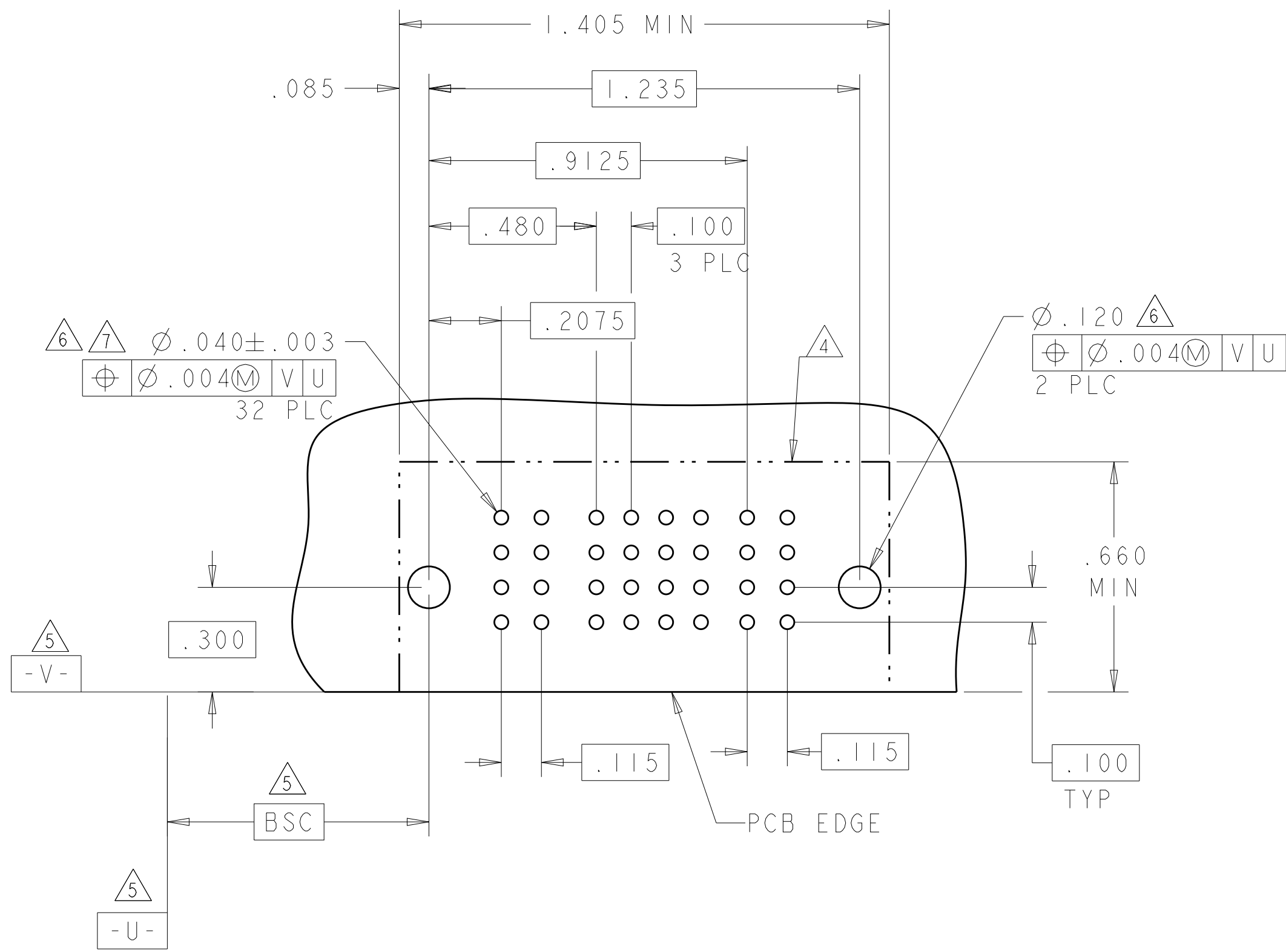
SHEET
19

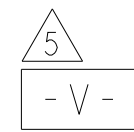
OF
42

REV
S2

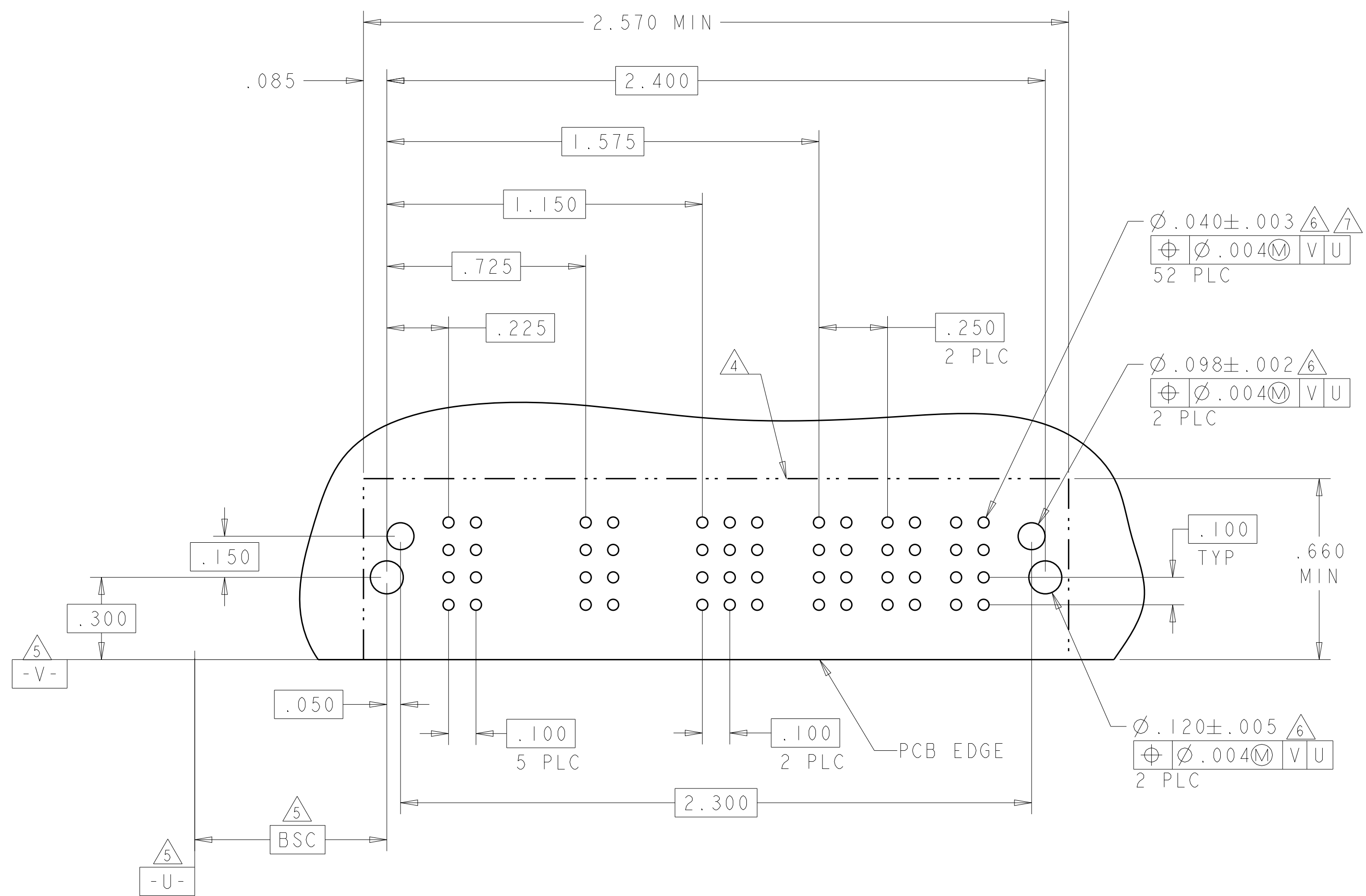
PART NUMBER	ROWS		LOW POWER		SIGNAL				LOW POWER		
			LP1	LP2	I	2	3	4	LP3	LP4	
6-6450830-0	D		LM	LM	J	J	J	E	LM	LM	
	C				K	K	K	K			
	B				N	N	N	N			
	A				S	S	S	S			

2LP + 16S + 2LP

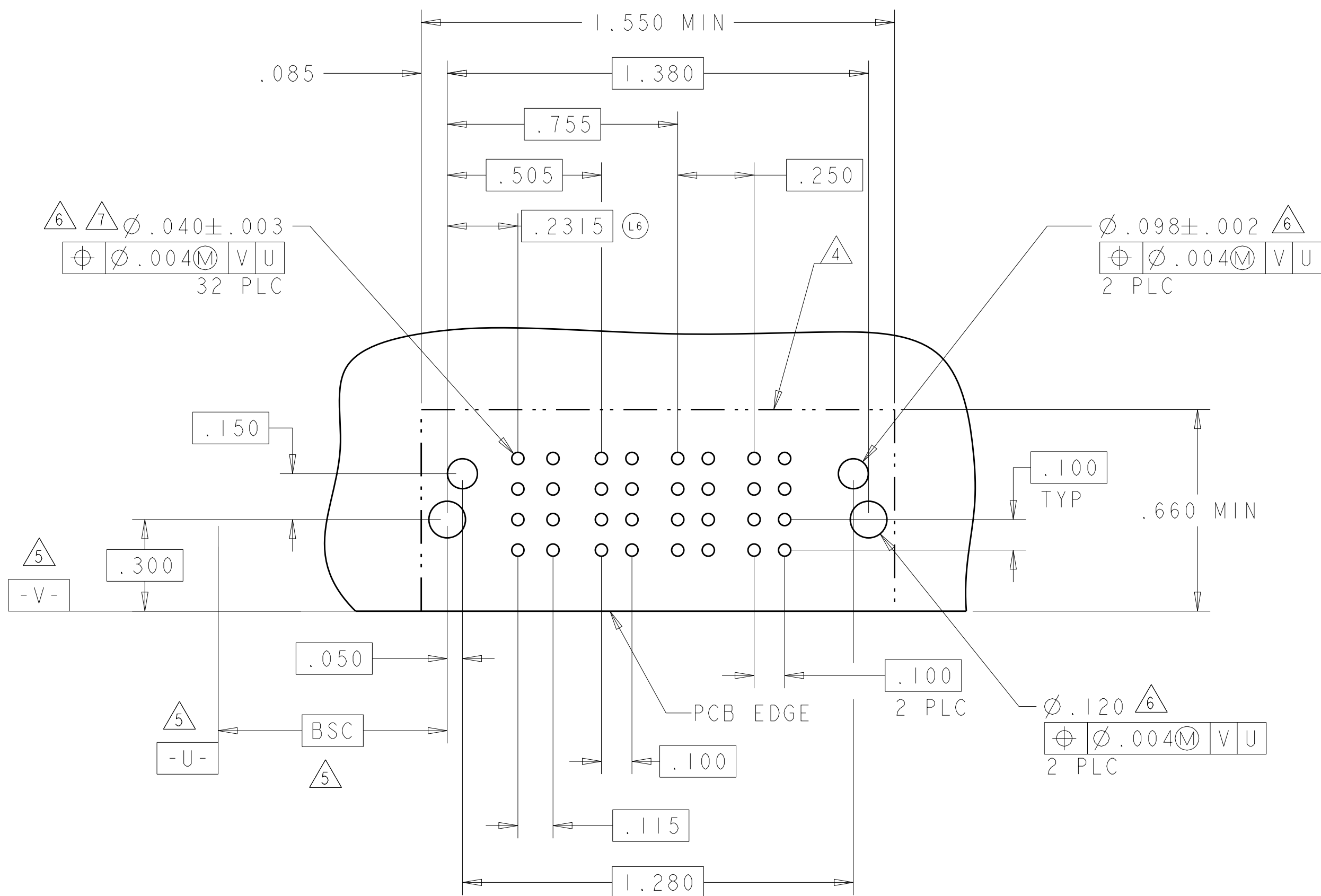
4805 (3/11)

4805 (3/11)

PART NUMBER	ROWS		POWER			SIGNAL						POWER			
			P1	P2	P3	1	2	3	4	5	6	P4	P5	P6	
4-6450830-5	D		TM		TM			J	J	J		TM	TM	TM	
	C							K	K	K					
	B							G	G	G					
	A					HD			S	S	S				
3P + 24S + 3P															

4805 (3/11)

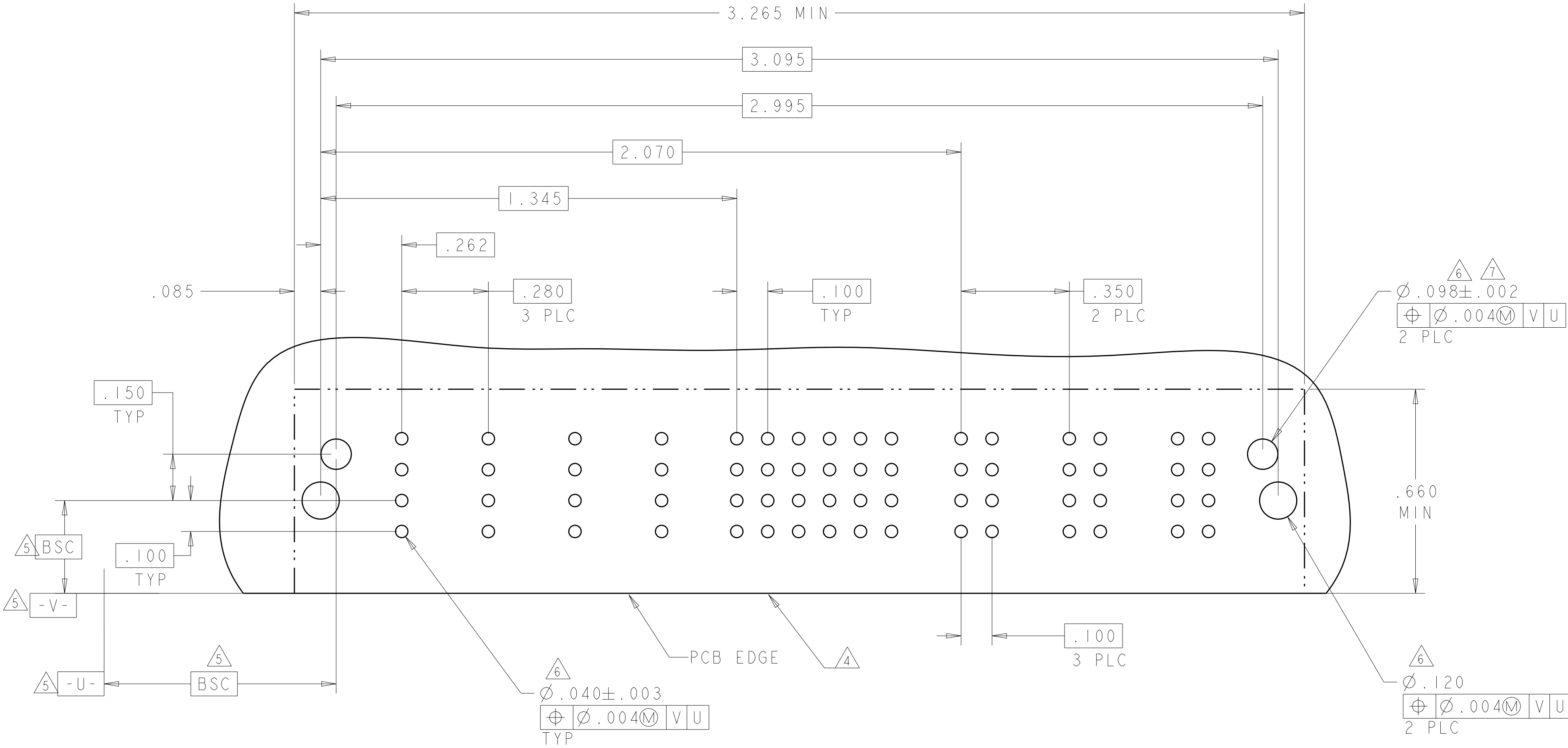
PART NUMBER	ROWS		POWER		SIGNAL		POWER		
			P1	P2	1	2	P3	P4	
4-6450830-7	D		LM	LM	F	J	TM	TM	
	C				K	F			
	B				N	N			
	A				S	S			
2LP + 8S + 2P			HD						HD

4805 (3/11)

LOC	DIST	REVISIONS					
ES	00	P	LTR	DESCRIPTION	DATE	DWN	APVD
		-		SEE SHEET 1	-	-	-

PART NUMBER	ROWS		POWER								SIGNAL						POWER									
			LP1	LP2	LP3	LP4	LP5	LP6	LP7	LP8	1	2	3	4	5	6	P1	P2	P3							
4-6450830-8	D C B A			LM		LM		LM		LM		LM														
8LP + 24S + 3P																										

NO CONTACT LOADED



THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN S.ZHAO	10APR2007	 TE Connectivity	
		CHK S.ZHAO	10APR2007		
DIMENSIONS: INCHES		APVD S.ZHAO	-	NAME	RIGHT ANGLE WITH SHORT GUIDES AND LP CONTACTS ASSEMBLY MULTI-BEAM XLE
		PRODUCT SPEC		SIZE	
		108-2292			
		APPLICATION SPEC			
		114-13251		DRAWING NO	RESTRICTED TO
MATERIAL		WEIGHT		A100779C=6450830	
FINISH					
				CUSTOMER DRAWING	SCALE 4:1
					SHEET 24 OF 42
					REV S2

LOC	DIST	REVISIONS					
ES	00	P	LTR	DESCRIPTION	DATE	DWN	APVD
		-		SEE SHEET 1	-	-	-

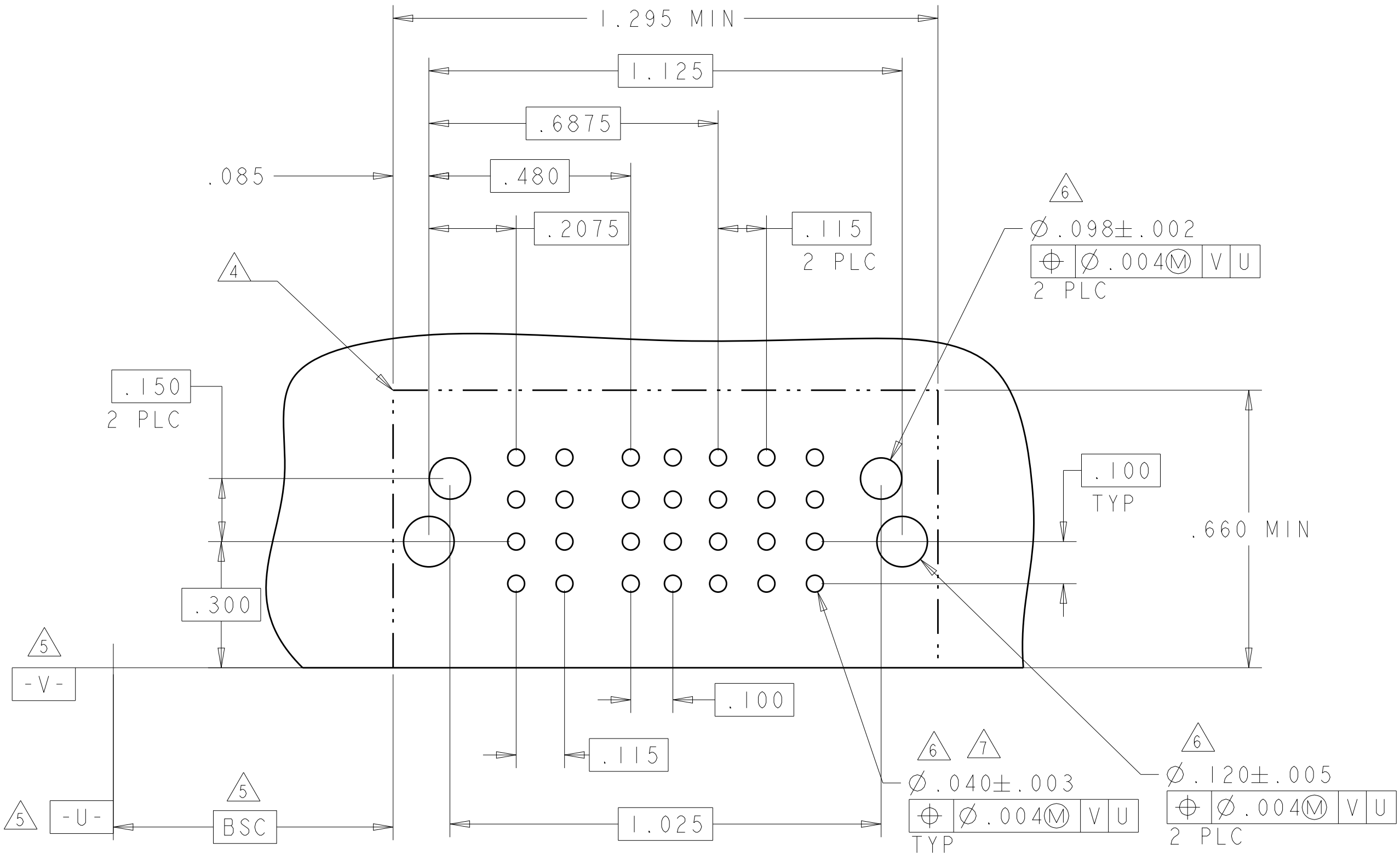
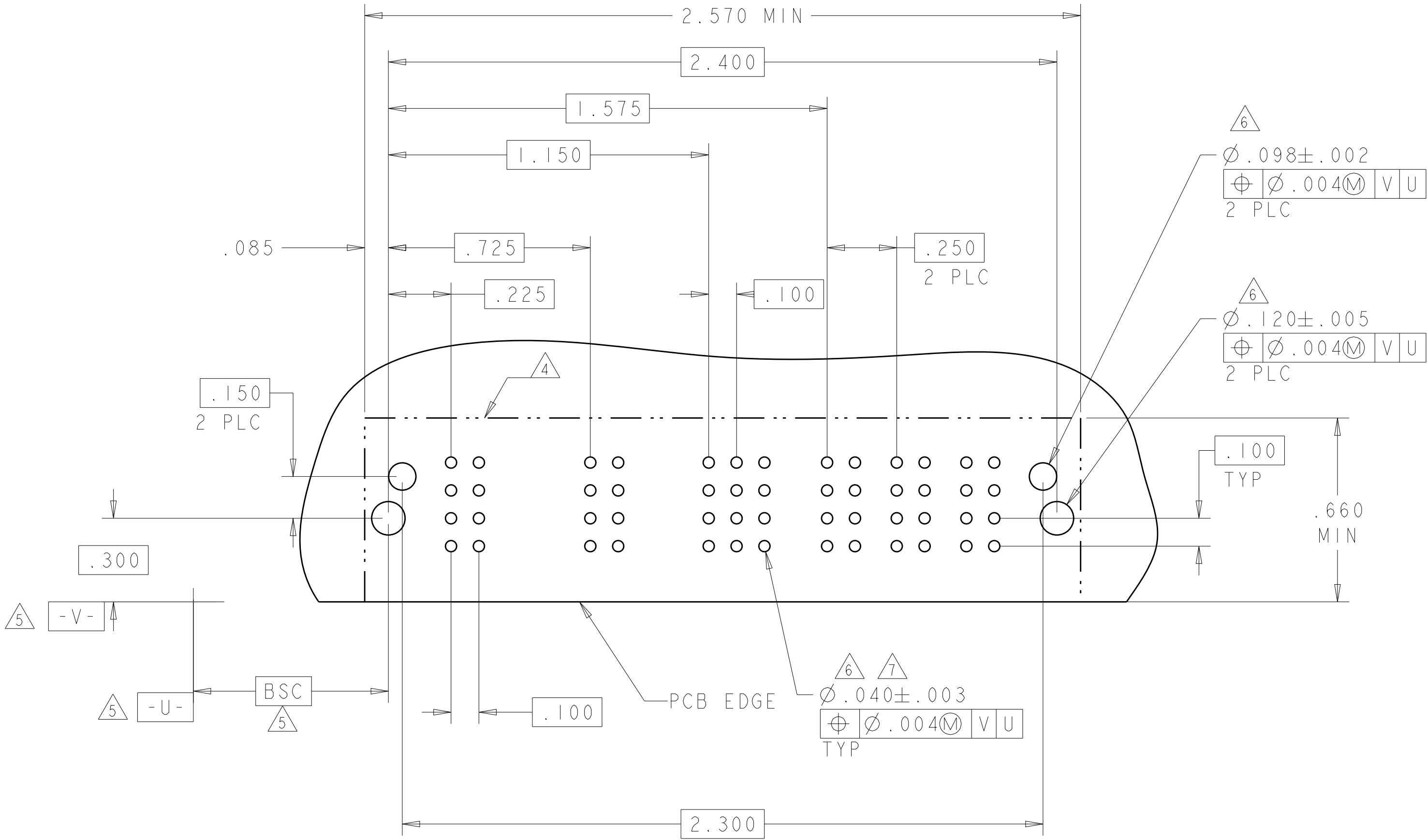
L 8

PART NUMBER	ROWS		POWER			SIGNAL						POWER			
			P1	P2	P3	1	2	3	4	5	6	P4	P5	P6	
4-6450830-9	D		TM	TM					J	J		TM	TM	TM	
	C								K	K					
	B								G	G					
	A								S	S					
3P + 24S + 3P															

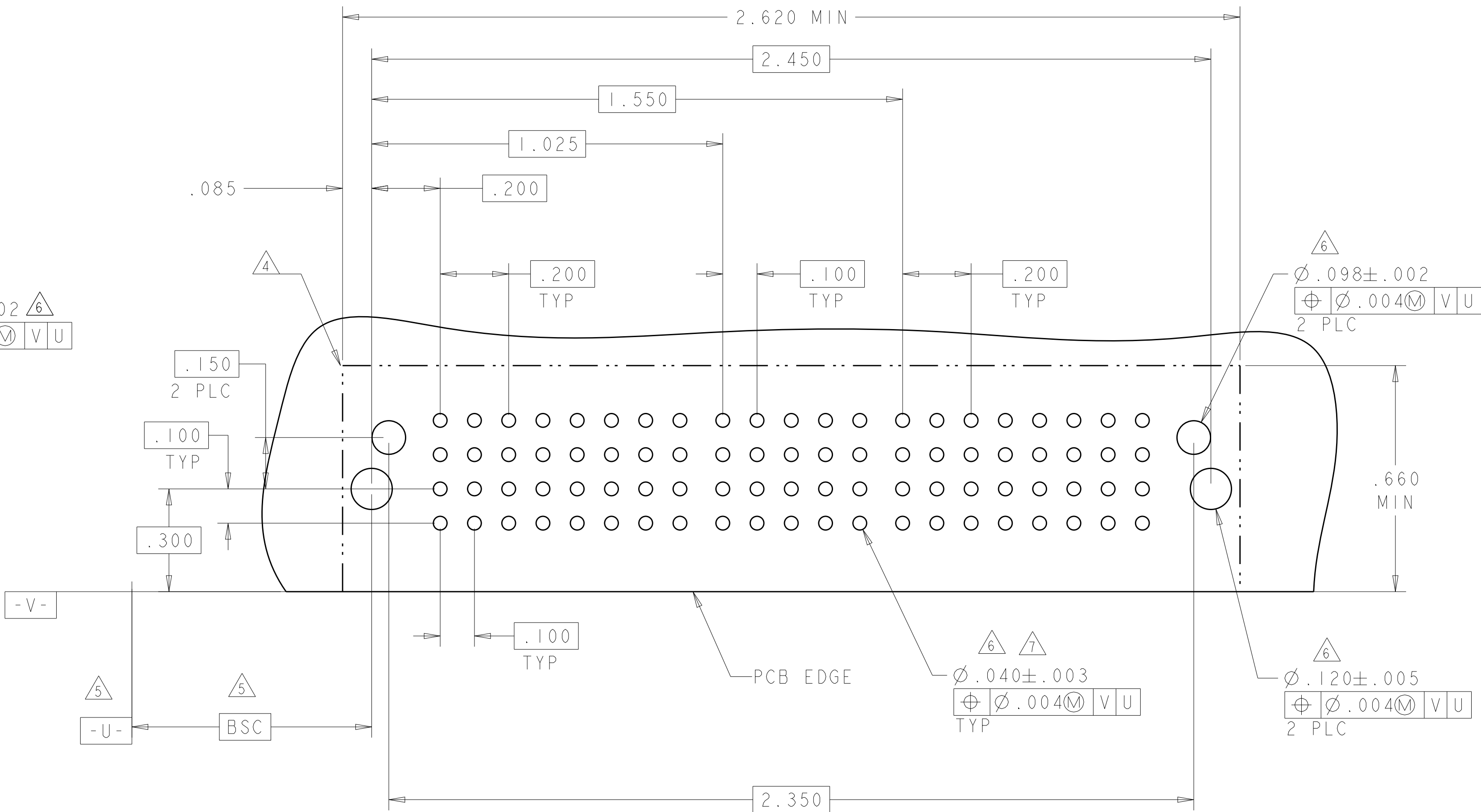
NO CONTACT LOADED

M

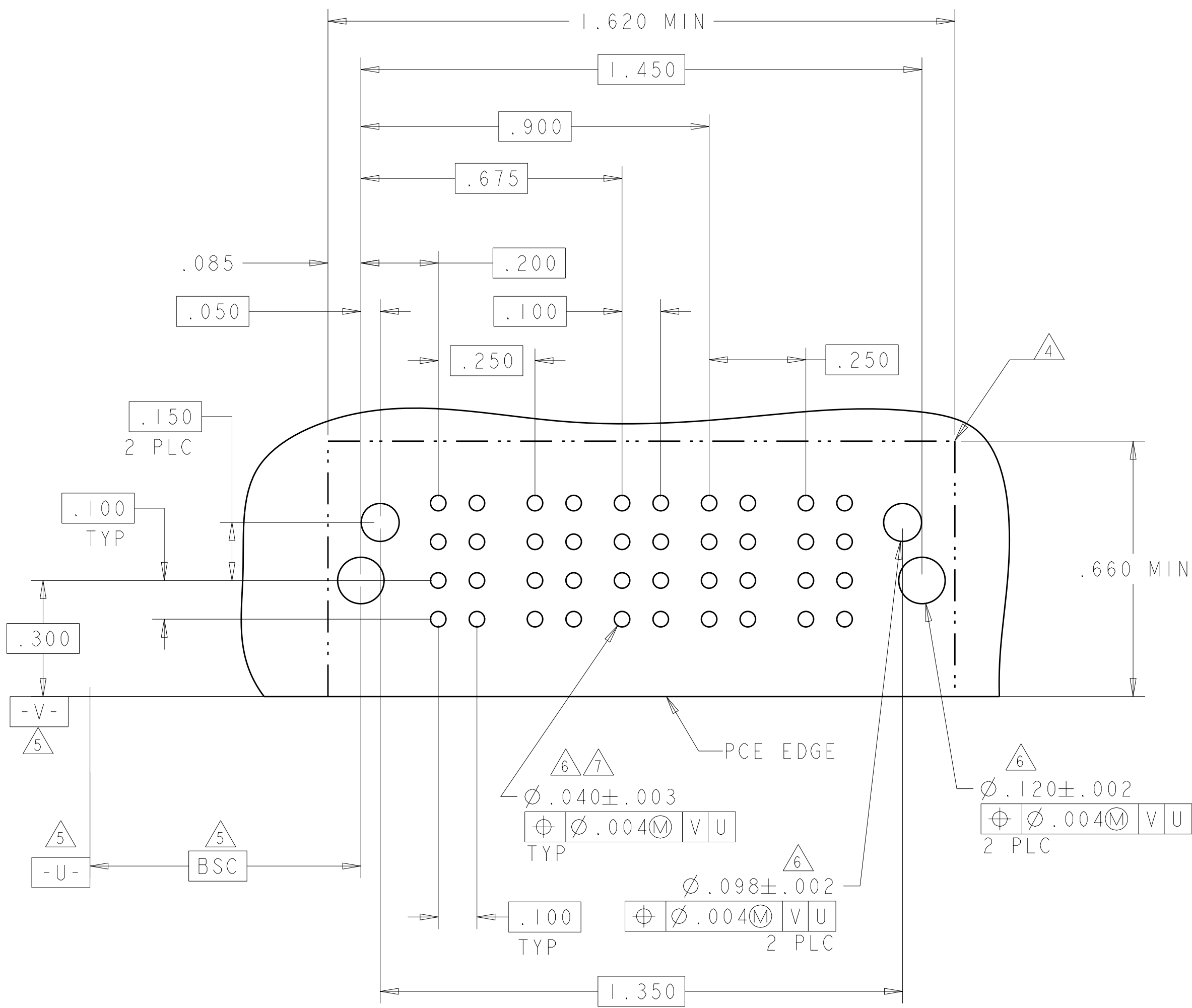
PART NUMBER	ROWS		POWER		SIGNAL		POWER			
			P1	P2	1	2	P3	P4	P5	
5-6450830-0	D		LM	LM	J	J	LMF	LMF	LMF	
	C				K	K				
	B				N	N				
	A				S	S				
2LP + 8S + 3LP										



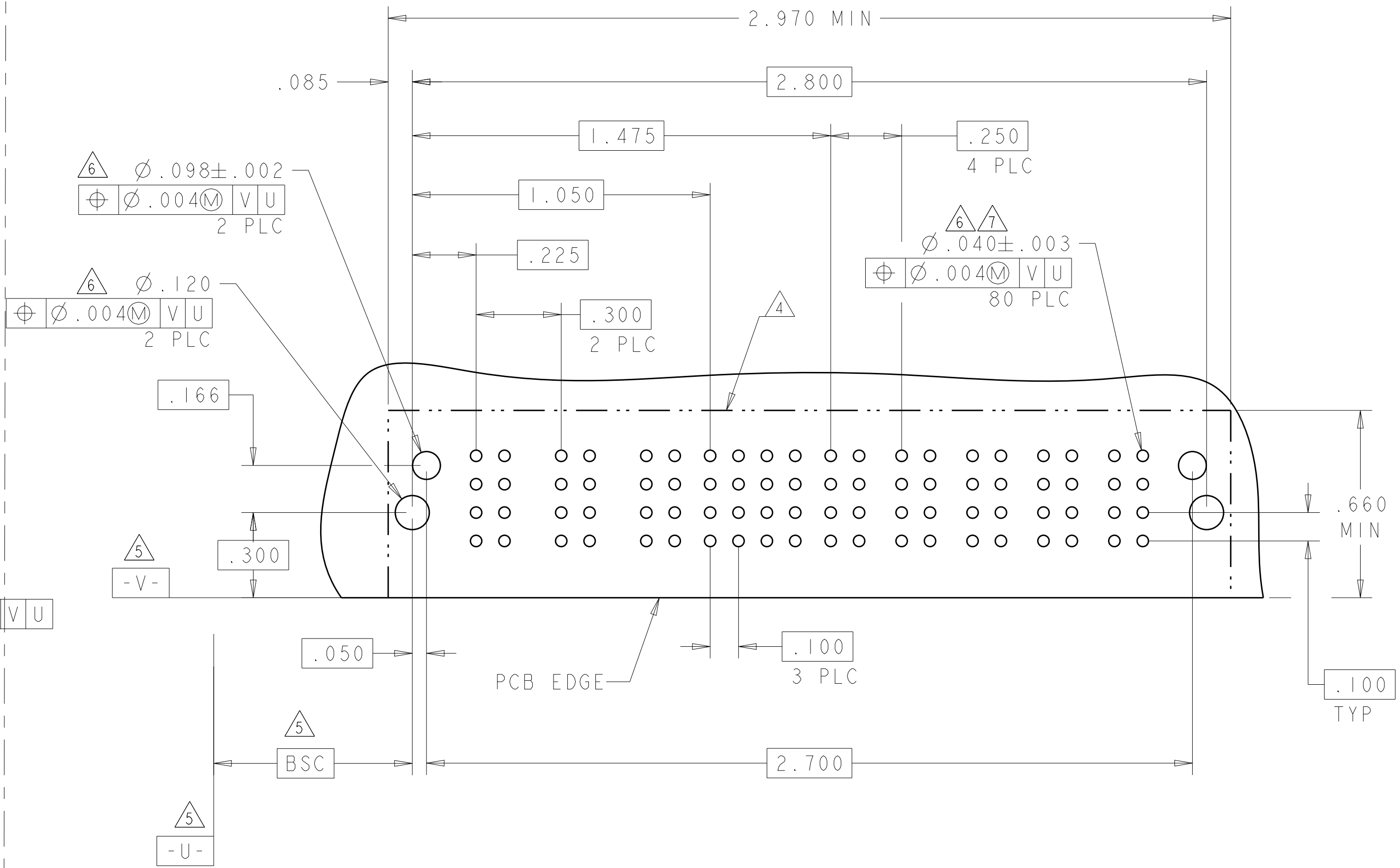
PART NUMBER	ROWS		POWER				SIGNAL					POWER				
			P1	P2	P3	P4	1	2	3	4	5	P5	P6	P7	P8	
5-6450830-2	D		TM	TM	TM	TM	J	J	J	J	J	TM	TM	TM	TM	
	K						K	K	K	K						
	N						N	N	N	N						
	H						S	S	S	S						
A	HD															HD
4P + 20S + 4P																

4805 (3/11)

PART NUMBER	ROWS		POWER		SIGNAL		POWER		
		P1	P2	I	2	P4	P5		
5-6450830 -4	D		TM	TM	J	J	TM	TM	
	C				K	K			
	B				N	N			
	A	HD			S	S			HD
2P + 8S + 2P									

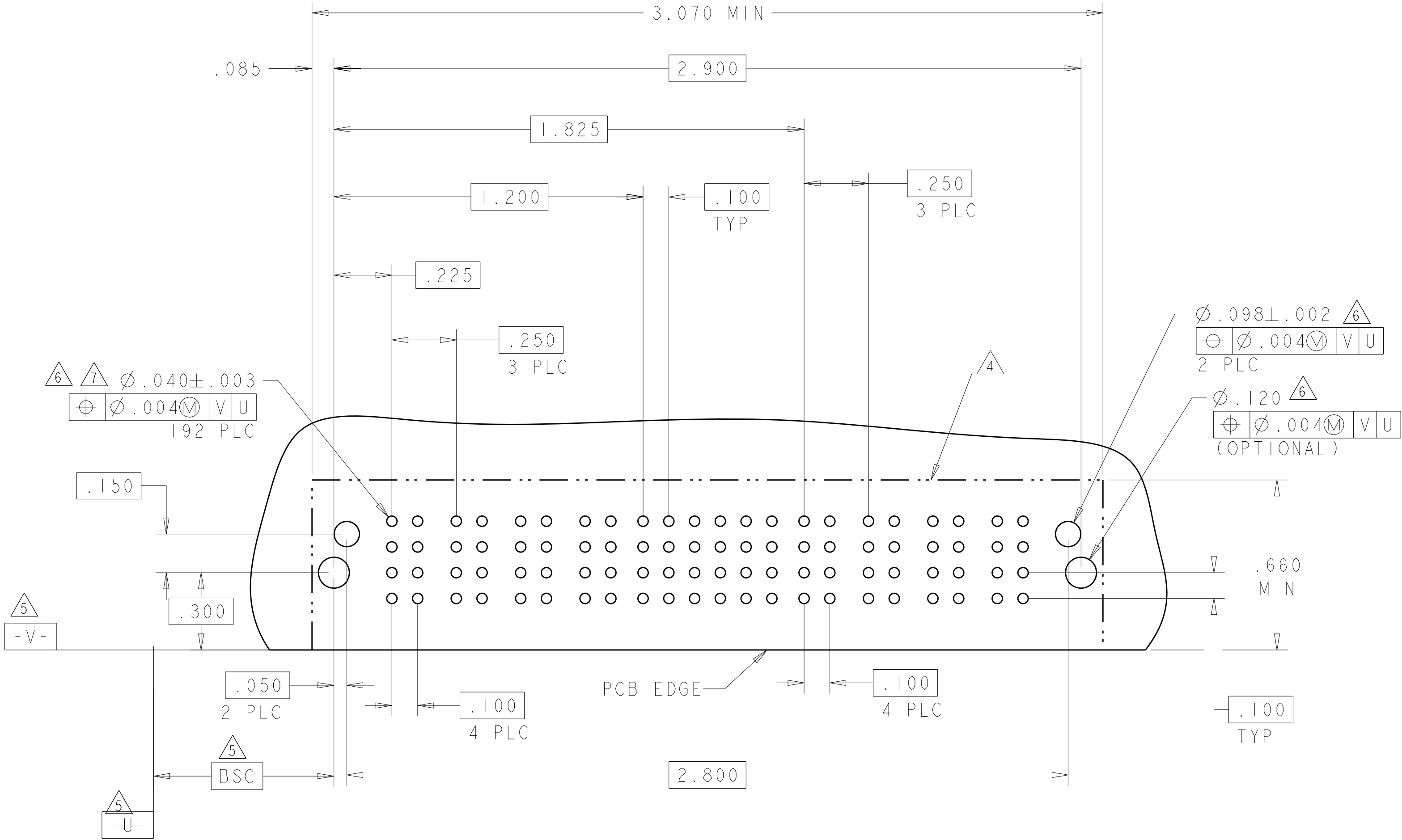
4805 (3/11)

PART NUMBER	ROWS	POWER			SIGNAL				POWER						
		P1	P2	P3	1	2	3	4	P4	P5	P6	P7	P8		
5-6450830-6	C		TM	TM	TM	J	J	J	J	TM	TM	TM	TM	TM	
	K					K	K	K							
	N					N	N	N							
	S					S	S	S							
	A	HD													HD
3ACP + 16S + 5P															

4805 (3/11)

LOC	DIST	REVISIONS				
		P	LTR	DESCRIPTION	DATE	DWN
ES	00	-	-	SEE SHEET 1	-	-

PART NUMBER	ROWS		POWER				SIGNAL						POWER				
			P1	P2	P3	P4	1	2	3	4	5	6	P5	P6	P7	P8	
5-6450830-7	D		TM	TM	TM	TM	J	J	J	J	J	J	TM	TM	TM	TM	
	C						K	K	K	K	K	K					
	B						N	N	N	N	N	N					
	A	HD					S	S	S	S	S	H					HD
4P + 24S + 4P																	

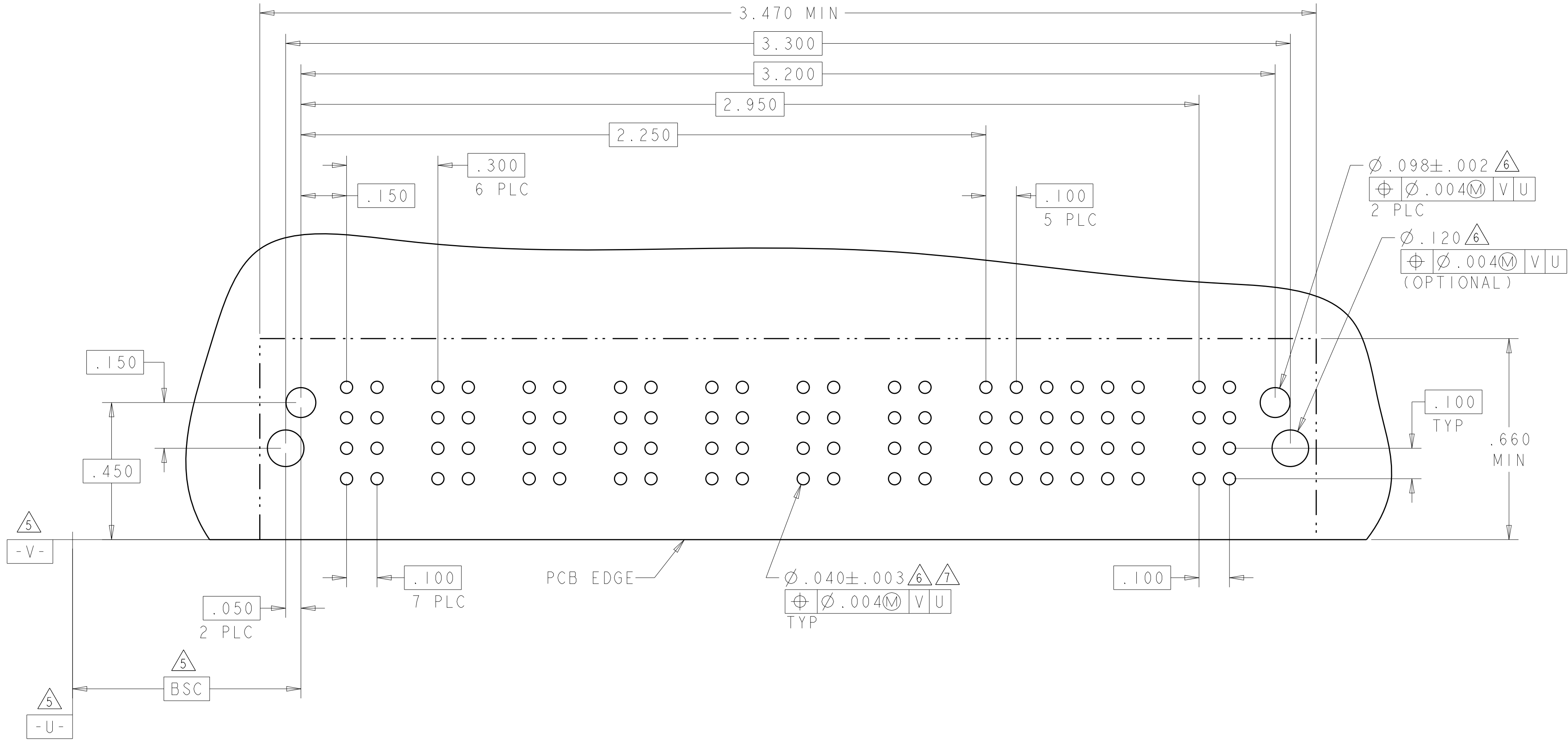


THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN S. ZHAO	10APR2007			TE Connectivity		
		CHK S. ZHAO	10APR2007					
DIMENSIONS: INCHES		TOLERANCES UNLESS OTHERWISE SPECIFIED:		NAME RIGHT ANGLE WITH SHORT GUIDES AND LP CONTACTS ASSEMBLY MULTI-BEAM XLE				
		0 PLC ± 1 PLC ± 2 PLC ±.01 3 PLC ±.005 4 PLC ±.0020 ANGLES #2° FINISH						
MATERIAL -		-		PRODUCT SPEC 108-2292 APPLICATION SPEC 114-13251 WEIGHT -	SIZE A1	CAGE CODE 00779	DRAWING NO C6450830	RESTRICTED TO -
CUSTOMER DRAWING				SCALE 4:1	SHEET 29	OF 42	REV S2	

LOC	DIST	REVISIONS					
		P	LTR	DESCRIPTION	DATE	DWN	APVD
ES	00	-	-	SEE SHEET 1	-	-	-

N6

PART NUMBER	ROWS		POWER							SIGNAL							
			P1	P2	P3	P4	P5	P6	P7	1	2	3	4	5	6		
5-6450830-8	D		TM	TM	TM	TM	TM	TM	TM	FJ	FJ	FJ	FJ	FJ	FJ	TM	
	C									K	K	K	K	K			
	B									N	N	N	N	N			
	A	HD								S	S	S	S	S	S		HD
7ACP + 24S + 1P																	

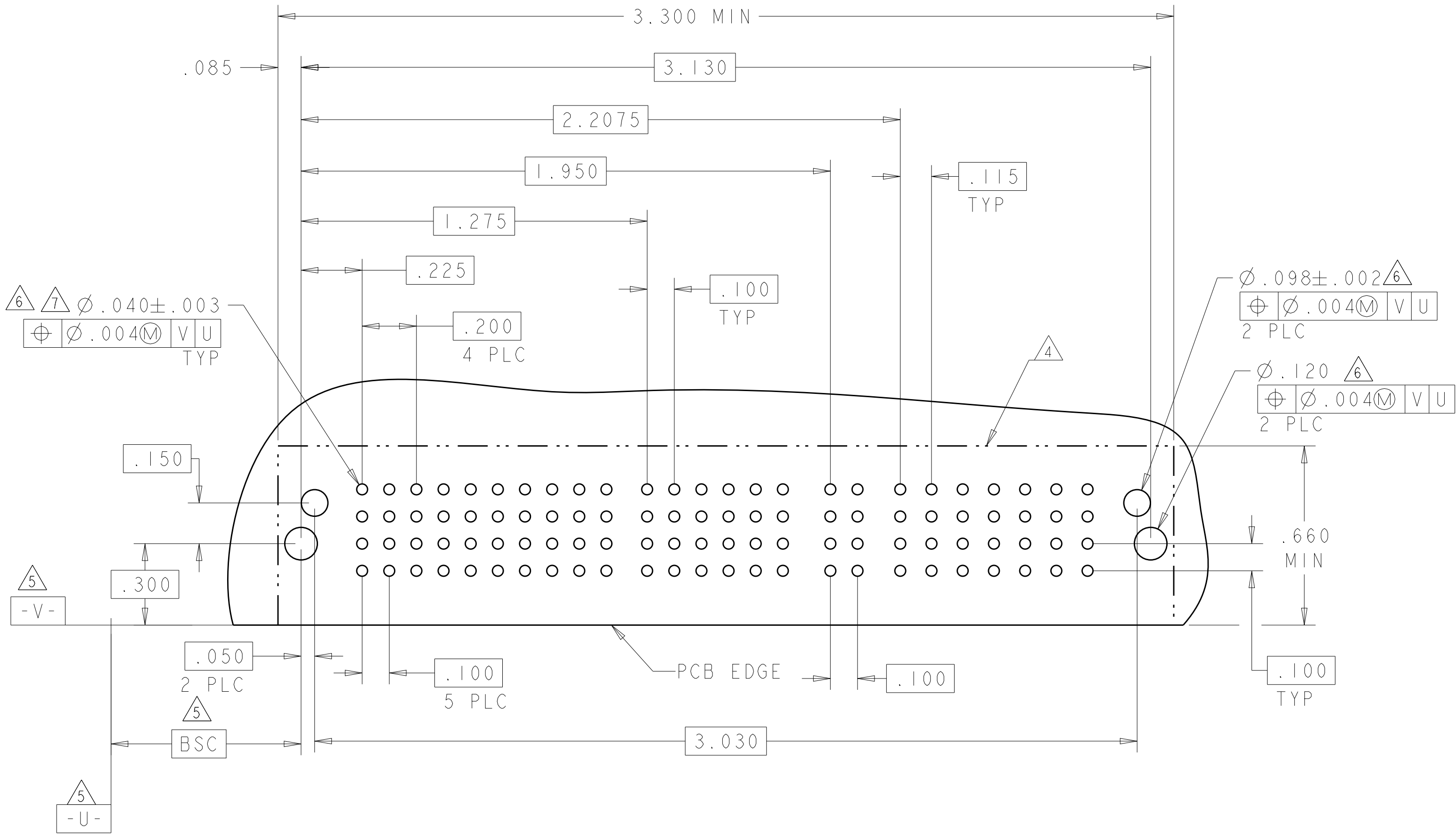
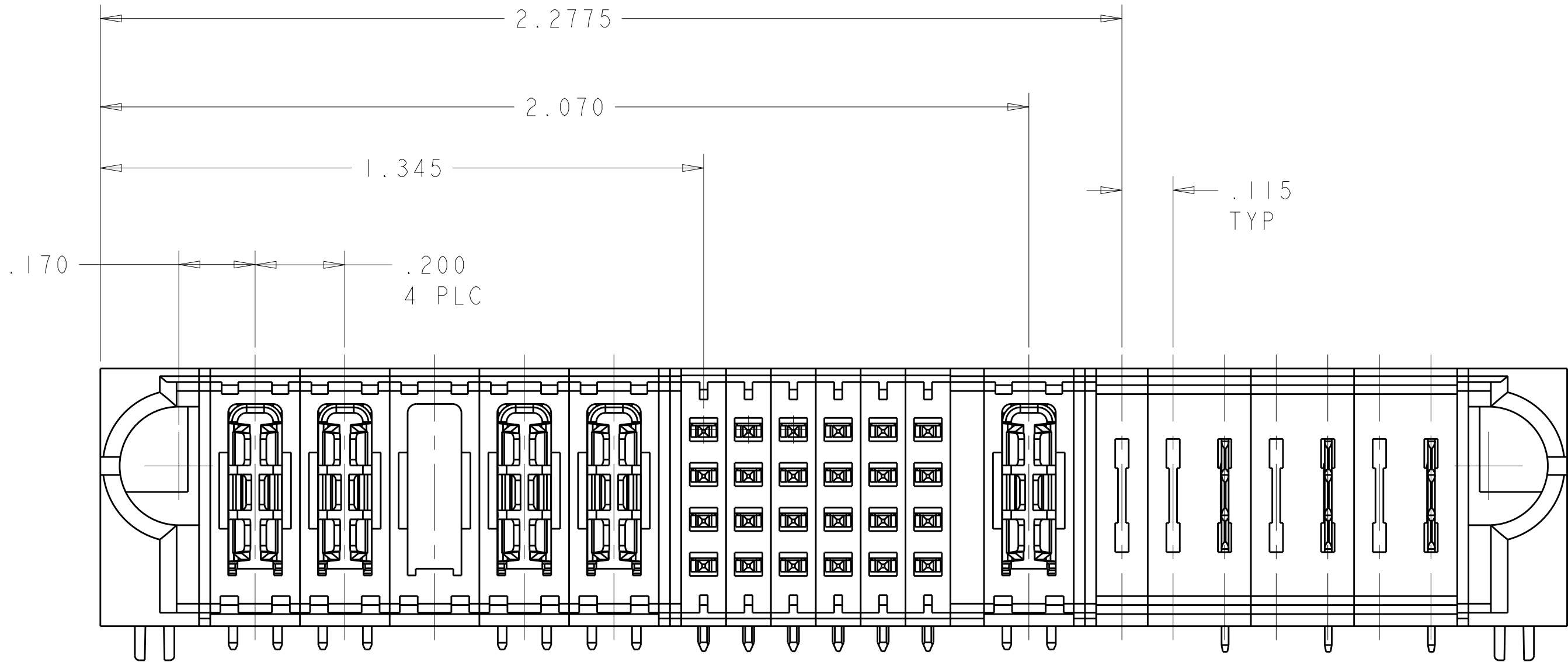


THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN S. ZHAO	10APR2007	 TE Connectivity	
		CHK S. ZHAO	10APR2007		
DIMENSIONS: INCHES		APVD S. ZHAO	-	NAME RIGHT ANGLE WITH SHORT GUIDES AND LP CONTACTS ASSEMBLY MULTI-BEAM XLE	RESTRICTED TO -
		PRODUCT SPEC 108-2292			
		APPLICATION SPEC 114-13251			
		SIZE A1			
MATERIAL -	FINISH -	WEIGHT -		CAGE CODE 00779	DRAWING NO C=6450830
		CUSTOMER DRAWING		SCALE 4:1	SHEET 30 OF 42
				REV S2	

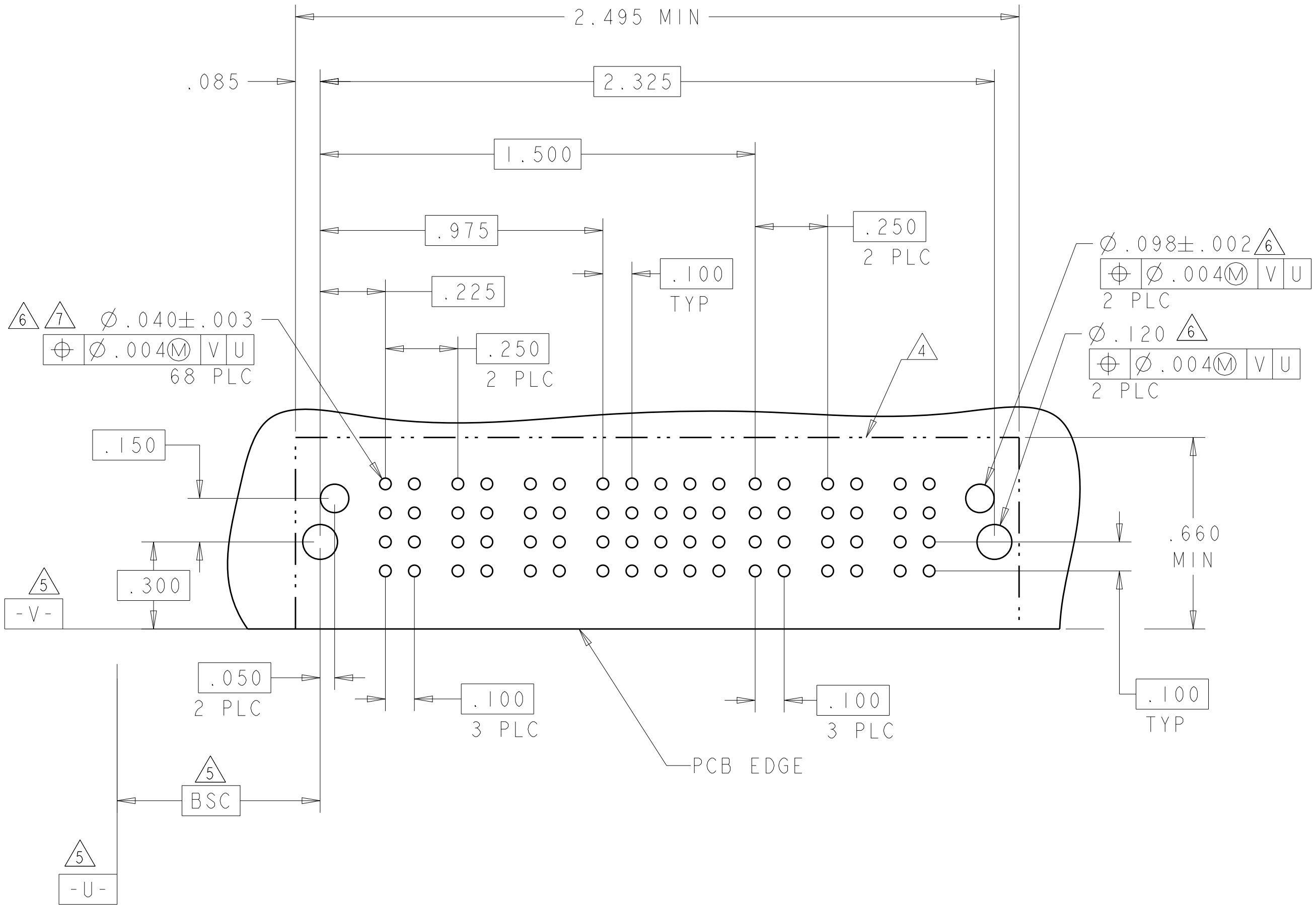
LOC	DIST	REVISIONS					
ES	00	P	LTR	DESCRIPTION	DATE	DWN	APVD
		-		SEE SHEET 1	-	-	-

PART NUMBER	ROWS		POWER					SIGNAL						POWER	LOW POWER							
			P1	P2	P3	P4	P5	1	2	3	4	5	6	P6	LP1	LP2	LP3	LP4	LP5	LP6	LP7	
6-6450830-2	D		TM	TM	TM	TM	J	J	J	J	J	J	TM			LM		LM		LM		
	C						K	K	K	K	K	K										
	B						N	N	N	N	N	N										
	A						S	S	S	S	S	S										
5HDP + 24S + 1P + 7LP																						

NO CONTACTS LOADED



PART NUMBER	ROWS		POWER			SIGNAL					POWER			
			P1	P2	P3	1	2	3	4	5	P4	P5	P6	
6-6450830-4	D		TM	TM	TM	J	J	J	J	J	TM	TM	TM	
	C					K	K	K	K	K				
	B					N	N	N	N	N				
	A					HD	S	S	S	S				
3P + 20S + 3P														

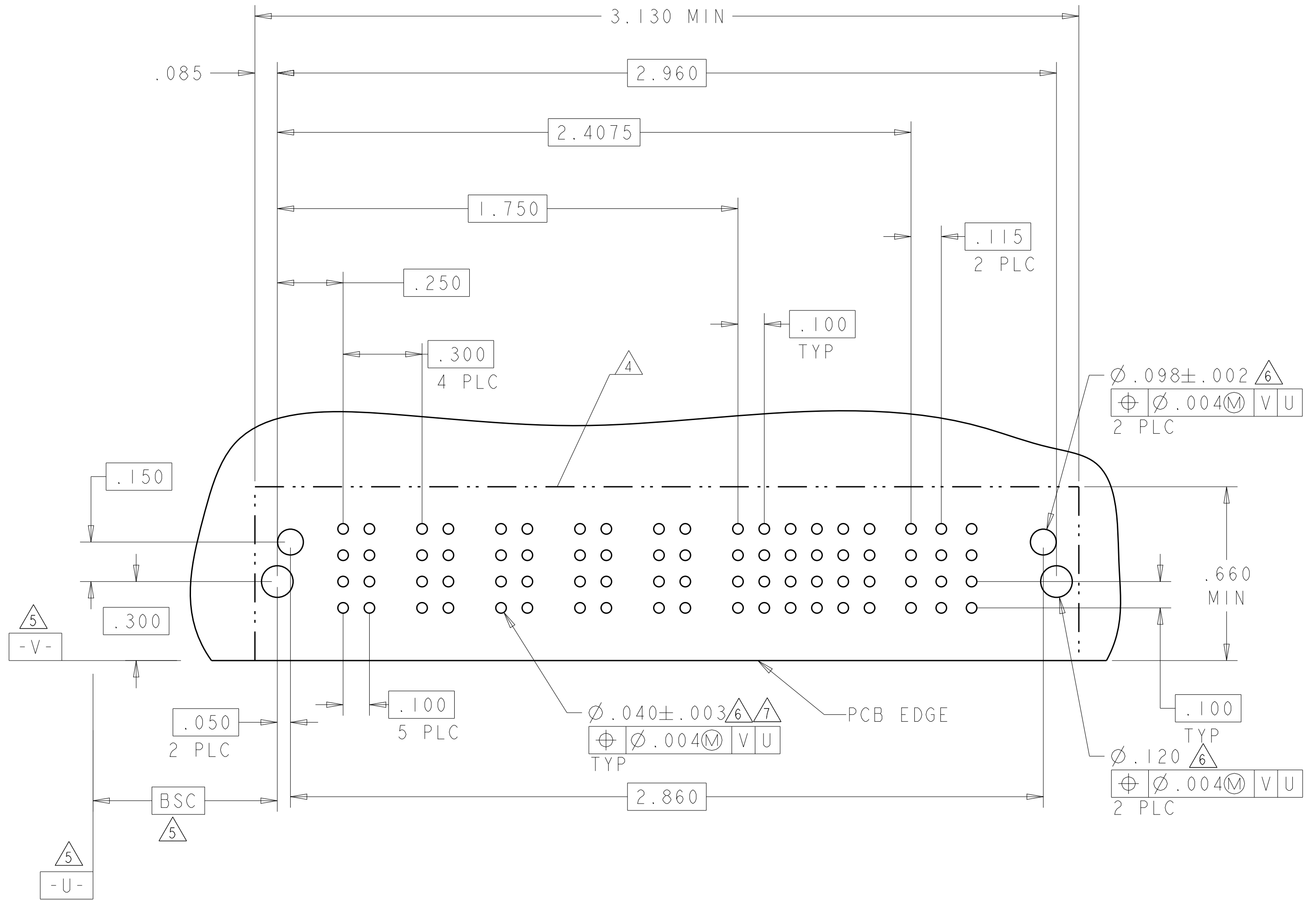


THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN S. ZHAO	10APR2007	TE Connectivity	
DIMENSIONS: INCHES		CHK S. ZHAO	10APR2007		
		TOLERANCES UNLESS OTHERWISE SPECIFIED:		NAME	
		0 PLC ±.01 1 PLC ±.01 2 PLC ±.01 3 PLC ±.005 4 PLC ±.0020 ANGLES ±.2° FINISH		RIGHT ANGLE WITH SHORT GUIDES AND LP CONTACTS ASSEMBLY MULTI-BEAM XLE	
MATERIAL		PRODUCT SPEC		SIZE	
		108-2292		CAGE CODE	
		114-13251		DRAWING NO	
		WEIGHT		RESTRICTED TO	
		CUSTOMER DRAWING		A100779	
				SCALE	
				4:1	
				SHEET	
				31	
				OF	
				42	
				REV	
				S2	

PART NUMBER	ROWS		POWER					SIGNAL						POWER				
			P1	P2	P3	P4	P5	1	2	3	4	5	6	LP1	LP2	LP3	LP4	
6-6450830-6	D		TM	TM	TM	TM	TM	J	J	J	J	J	J	LMF	LM	LM		
	K							K	K	K	K	K						
	N							N	N	N	N	N						
	S							S	S	S	S	S						
5ACP + 24S + 4LP																		

Top view drawing of a PCB. The drawing shows a rectangular board with rounded corners. Dimensions are provided in inches. Key features include:

- Overall width: 3.130 MIN
- Overall length: 2.860
- Internal dimensions: 2.960, 2.4075, 1.750, .250, .300, .115 (2 PLC), .100 (TYP), .100 (5 PLC), .100 (TYP), .120 (2 PLC).
- Plating thickness: 4 PLC, 5 PLC, 2 PLC.
- Microvias: $\varnothing .098 \pm .002$ (6), $\varnothing .004$ (M), V, U, 2 PLC.
- Microvias: $\varnothing .040 \pm .003$ (6), (7), $\varnothing .004$ (M), V, U, TYP.
- Microvias: $\varnothing .120$ (6), $\varnothing .004$ (M), V, U, 2 PLC.
- PCB EDGE label.
- LC label.



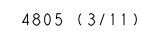
PART NUMBER	ROWS		LOW POWER						SIGNAL																								LOW POWER												
			LP1	LP2	LP3	LP4	LP5	LP6	I	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20	21	22	23	24	LP7	LP8	LP9	LP10										
6-6450830-9	D		LMF	LM	LM	LM	LMF	LM	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	LMF	LM	LM	LM							
	K								K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K						K	K	K	K	K	
	N								N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N						N	N	N	N	N	N
	S	S							S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S						S	S	S	S	S	S
A		HD																													HD														
6LP + 96S + 4LP																																													

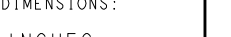
Top view drawing of a PCB assembly. The drawing includes the following dimensions and features:

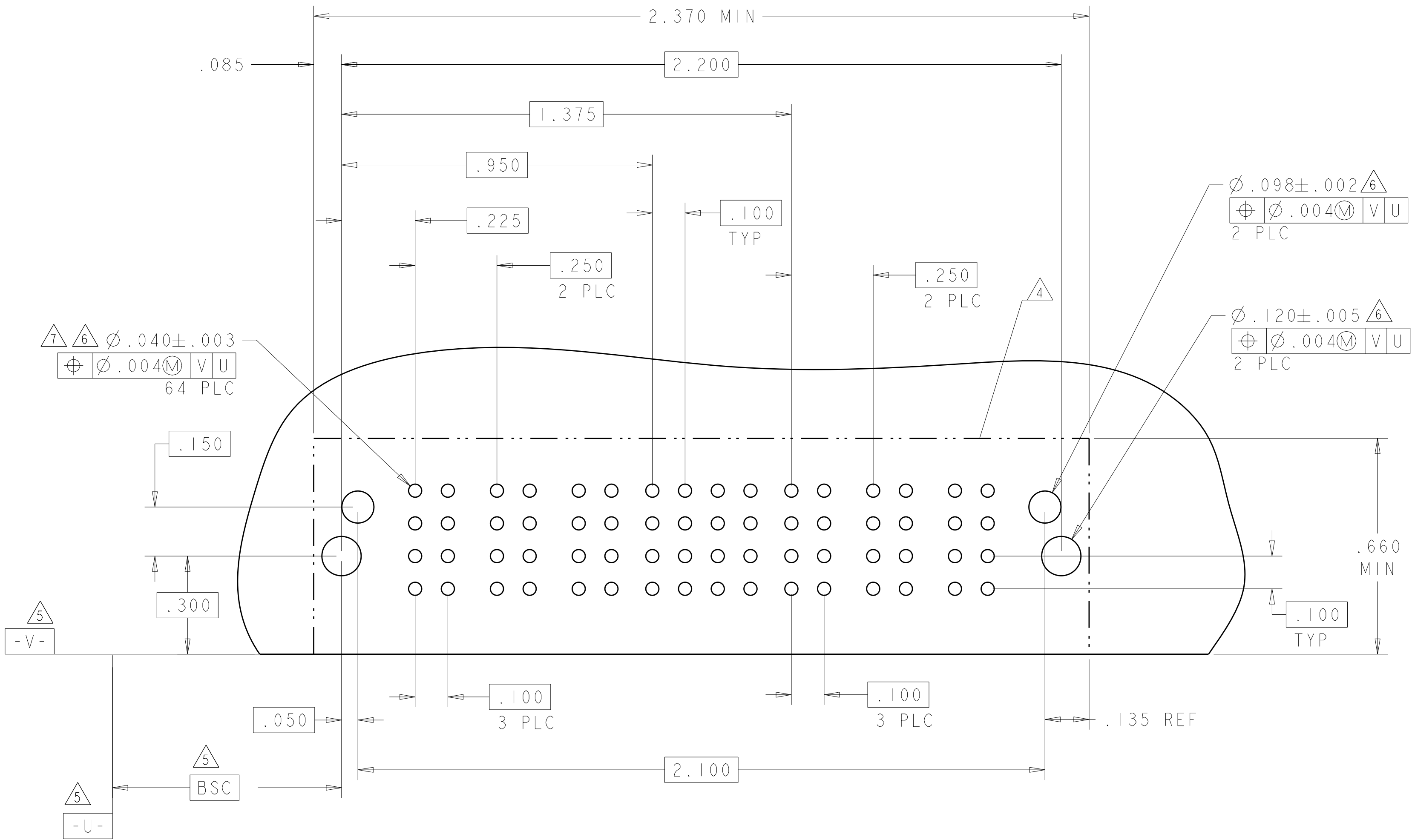
- Overall Dimensions:**
 - Top: 4.120 MIN
 - Left: .085
 - Right: .115 3 PLC
 - Bottom: .660 MIN
 - Bottom: .100 TYP
 - Bottom: .120 2 PLC
 - Bottom: .100 TYP
- Internal Dimensions:**
 - Top: 3.950
 - Top: 3.3975
 - Top: .940
 - Top: .100 TYP
 - Top: .2075
 - Top: .115 5 PLC
 - Bottom: .050 2 PLC
 - Bottom: .300
 - Bottom: .150
 - Bottom: .3850
- Feature Callouts:**
 - $\phi .098 \pm .002$ 6 (Top Right)
 - $\phi .004$ M V U 2 PLC (Top Right)
 - $\phi .040 \pm .003$ 6 7 (Bottom Center)
 - $\phi .004$ M V U TYP (Bottom Center)
 - PCB EDGE (Bottom Center)
 - BSC (Bottom Left)
 - V- (Bottom Left)
 - U- (Bottom Left)
- Other Features:**
 - Array of 120 circular features (4 rows by 30 columns).
 - Two circular features on the left side.
 - Two circular features on the right side.
 - Various tolerance zones and positional tolerances indicated by triangles and circles.

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN S_ZHAO 10APR2007		 TE Connectivity	
DIMENSIONS:		CHN S_ZHAO 10APR2007			
INCHES		APVD S_ZHAO -			
		TOLERANCES UNLESS OTHERWISE SPECIFIED:		NAME	
0 PLC ± 1 PLC ± 2 PLC ±.01 3 PLC ±.005 4 PLC ±.0020 ANGLES ±°		PRODUCT SPEC 108-2292		RIGHT ANGLE WITH SHORT GUIDES AND LP CONTACTS ASSEMBLY MULTI-BEAM XLE	
MATERIAL		APPLICATION SPEC 114-13251		SIZE CAGE CODE DRAWING NO	
FINISH		WEIGHT -		A 100779 © 6450830	
		CUSTOMER DRAWING		SCALE 4:1 SHEET 34 OF 42 REV S2	
				RESTRICTED TO -	

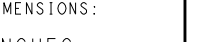
Timing diagram for the 4-bit parallel adder showing the propagation of a carry signal through four full adders. The diagram shows the carry-in (C_{in}) and carry-out (C_{out}) signals for each stage, with delays of 0.300, 0.350, 0.250, and 0.275 units indicated. The final carry-out is labeled "4 PLC".

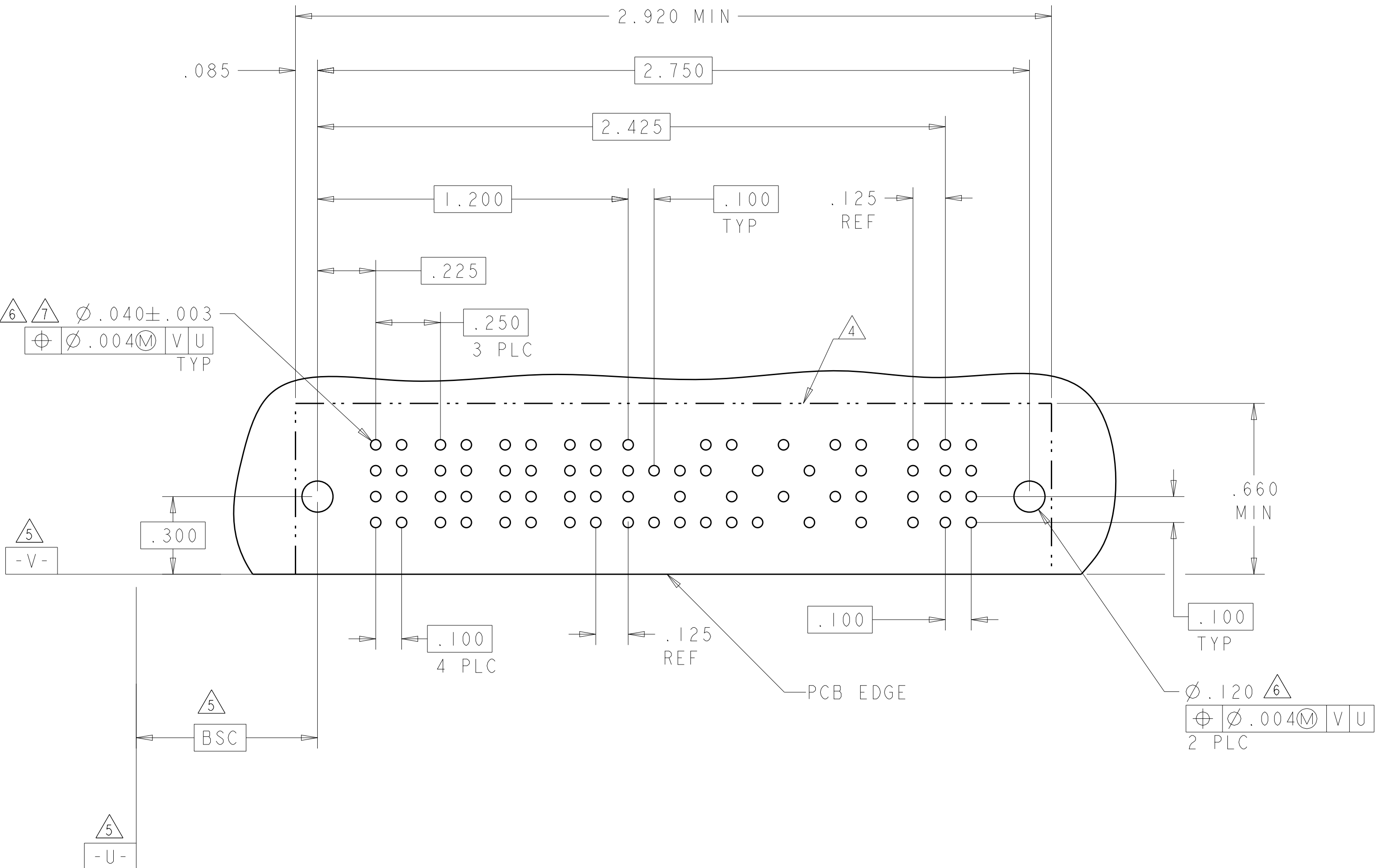


THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN S_ZHAO 10APR2007		 TE Connectivity	
DIMENSIONS:		CHN S_ZHAO 10APR2007			
INCHES		APVD S_ZHAO -			
		TOLERANCES UNLESS OTHERWISE SPECIFIED:		NAME RIGHT ANGLE WITH SHORT GUIDES AND LP CONTACTS ASSEMBLY MULTI-BEAM XLE	
0 PLC ± 1 PLC ± 2 PLC ±.01 3 PLC ±.005 4 PLC ±.0020 ANGLES ±?		PRODUCT SPEC 108-2292 APPLICATION SPEC 114-13251			
MATERIAL		WEIGHT -			
FINISH		SIZE CAGE CODE DRAWING NO		RESTRICTED TO	
-		A 00779 © 6450830		-	
		CUSTOMER DRAWING		SCALE 4:1 SHEET 35 OF 42 REV S2	

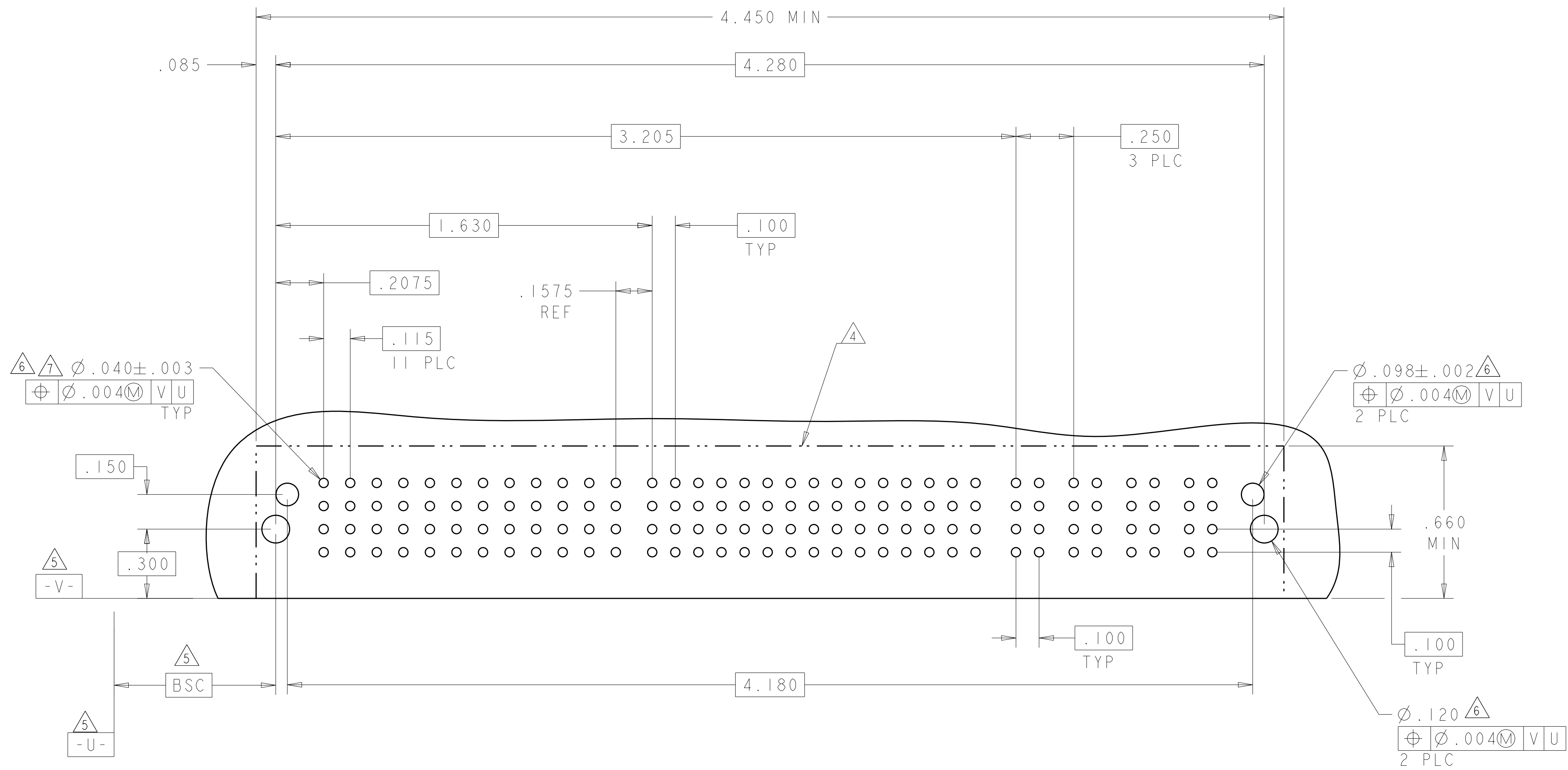
[illegible]4805 (3/11)

PART NUMBER	ROWS		POWER				SIGNAL												POWER	
			P1	P2	P3	P4	1	2	3	4	5	6	7	8	9	10	11	12	P4	
7-6450830-7	D		TM	TM	TM	TM	E			E	J		J		J	E		E	TM	
	C						F	F	F		K		K		F		F			
	B						G		G		N		N		G		N			
	A						H	H	H	H	H		S		H		H			
4P + 48S + 1P																				

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN S_ZHAO	10APR2007	 TE Connectivity			
DIMENSIONS: INCHES		TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ±. 1 PLC ±. 2 PLC ±.01 3 PLC ±.005 4 PLC ±.0020 ANGLES ±°				CHW S_ZHAO	10APR2007
		APVD - S_ZHAO PRODUCT SPEC 108-2292 APPLICATION SPEC 114-13251				NAME RIGHT ANGLE WITH SHORT GUIDES AND LP CONTACTS ASSEMBLY MULTI-BEAM XLE	
		SIZE A		CAGE CODE 00779	DRAWING NO C-6450830		
MATERIAL -		WEIGHT -		RESTRICTED TO -			
CUSTOMER DRAWING				SCALE 4:1	SHEET 37 OF 42		
				REV S2			



PART NUMBER	ROWS		LOW POWER												SIGNAL															POWER						
			LP1	LP2	LP3	LP4	LP5	LP6	LP7	LP8	LP9	LP10	LP12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	P1	P2	P3	P4				
7-6450830-8	D		LM	LM	LM	LM	LM	LM	LM	LM	LM	LM	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	TM	TM	TM	TM					
	C												K	K	K	K	K	K	K	K	K	K	K	K	K	K	K						K	K		
	B												N	N	N	N	N	N	N	N	N	N	N	N	N	N	N						N	N	N	
	A												S	S	S	S	S	S	S	S	S	S	S	S	S	S	S						S	S	S	
12LP + 60S + 4P																																				



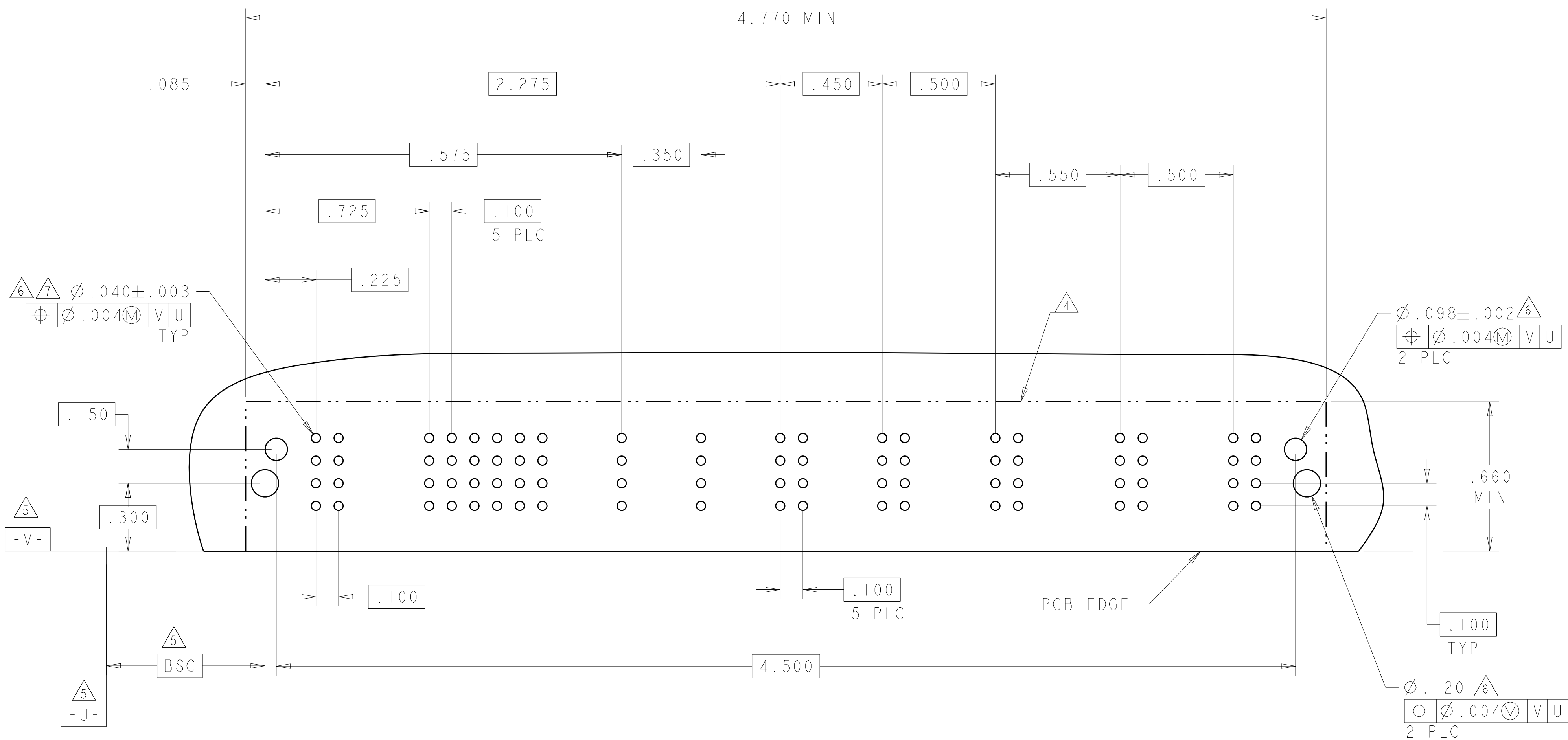
THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN S_ZHAO 10APR2007		 TE Connectivity	
DIMENSIONS:		CHW S_ZHAO 10APR2007			
INCHES		APVD S_ZHAO -			
		TOLERANCES UNLESS OTHERWISE SPECIFIED:		NAME	
0 PLC ± 1 PLC ± 2 PLC ±.01 3 PLC ±.005 4 PLC ±.0020 ANGLES ±?°		PRODUCT SPEC 108-2292		RIGHT ANGLE WITH SHORT GUIDES AND LP CONTACTS ASSEMBLY MULTI-BEAM XLE	
MATERIAL		APPLICATION SPEC 114-13251		SIZE	
FINISH		WEIGHT -		CAGE CODE DRAWING NO	
-		-		A 00779 © 6450830	
-		-		RESTRICTED TO	
-		-		-	
-		CUSTOMER DRAWING		SCALE 4:1 SHEET 38 OF 42 REV S2	

[illegible]4805 (3/11)

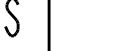
NO CONTACT LOADED

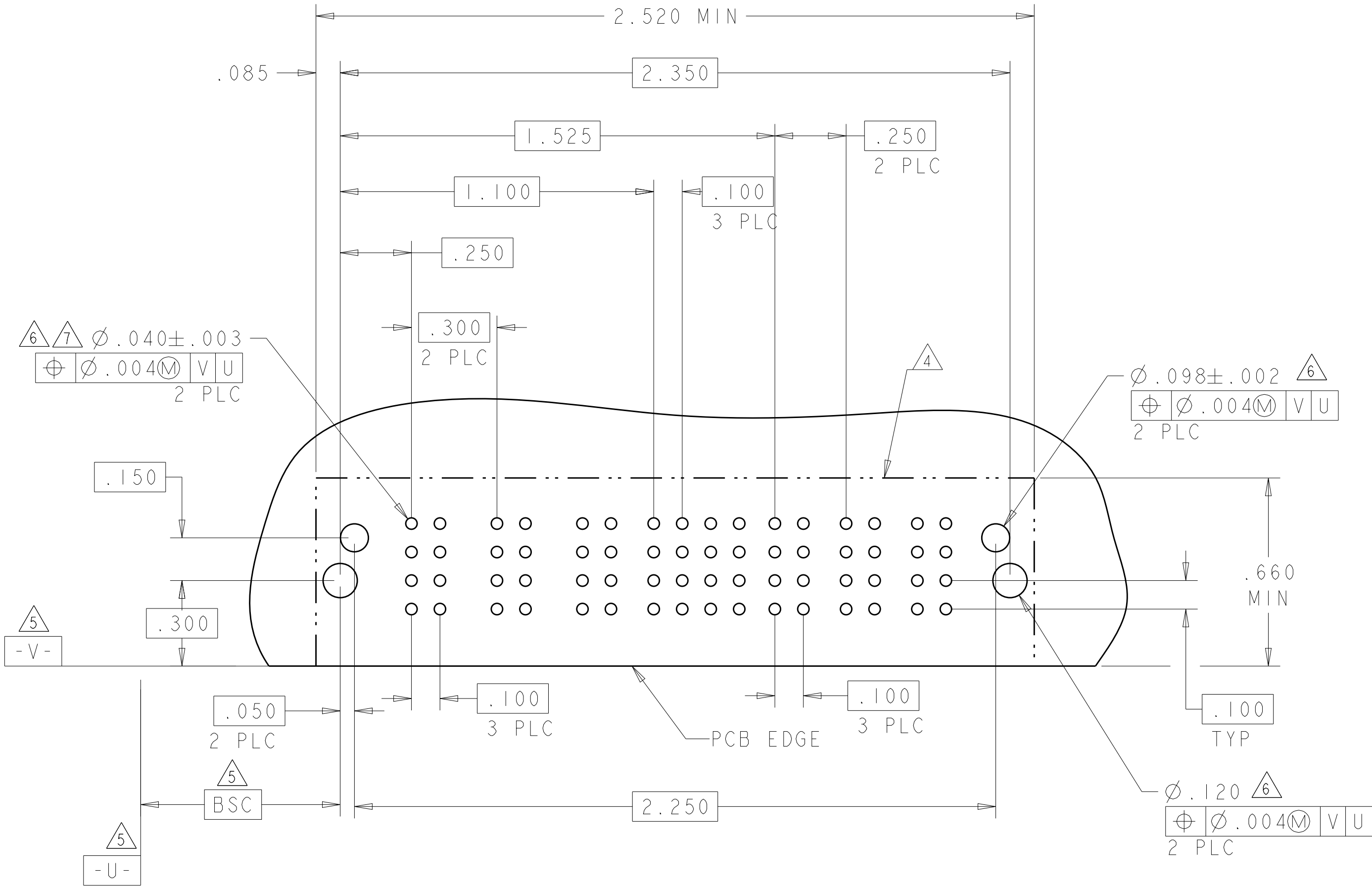
NO CONTACTS LOADED

NO CONTACTS LOADED

4805 (3/11)

LOC	DIST	REVISIONS				
		P	LTR	DESCRIPTION	DATE	DWN
ES	00	-	-	SEE SHEET 1	-	-

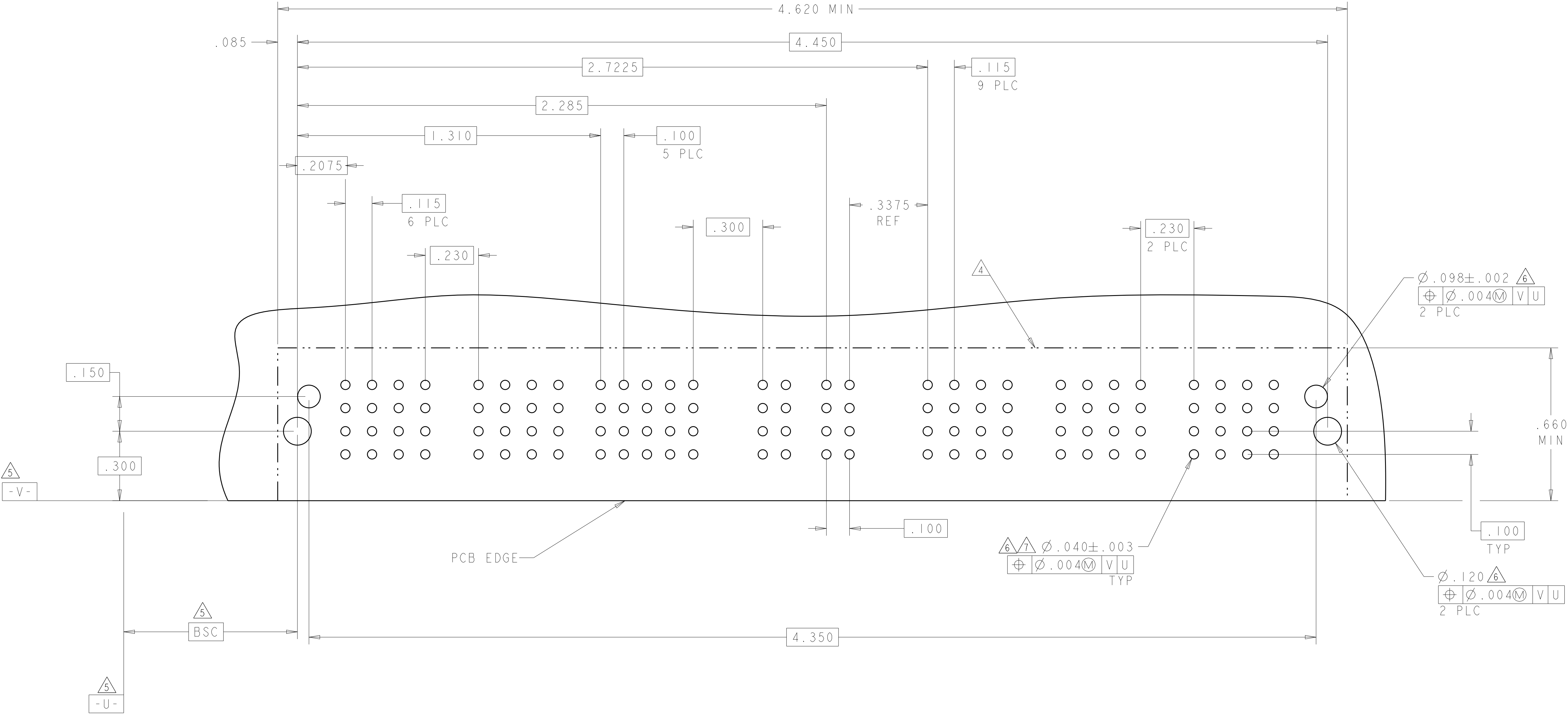
PART NUMBER	ROWS		POWER			SIGNAL				POWER			
			P1	P2	P3	1	2	3	4	P4	P5	P6	
8-6450830-0	D	 HD	TM	TM	TM	J	J	J	J	TM	TM	TM	 HD
	C					K	K	K	K				
	B					N	N	N	N				
	A					S	S	S	S				
3ACP + 16S + 3P													



LOC	DIST	REVISIONS					
ES	00	P	LTR	DESCRIPTION	DATE	DWN	APVD
		-		SEE SHEET 1	-	-	-

PART NUMBER	ROWS		LOW POWER									SIGNAL									POWER	LOW POWER																
			LP1	LP2	LP3	LP4	LP5	LP6	LP7	LP8	LP9	I	2	3	4	5	6	7	8	9		P1	LP10	LP11	LP12	LP13	LP14	LP15	LP16	LP17	LP18	LP19	LP20	LP21	LP22	LP23	LP24	
8-6450830-2	D		LM	LM	LM	LMF	-	LMF	LM	LM	LM	E	E	E	E	E	-	-	E	E	TM	-	-	LML	LML	LML	LML	LML	LML	LML	LML	LML	LML	LML	LML			
	C											F	F	F	F	F	G	-	-	F																	F	
	B											G	G	G	G	G	G	-	-	G																	G	
	A											H	H	H	H	H	-	-	H	H																		
9LP + 36S + 1P + 16LP																																						

- NO CONTACTS LOADED



THIS DRAWING IS A CONTROLLED DOCUMENT.

DWN S.ZHAO 10APR2007
CHK S.ZHAO 10APR2007
APVD S.ZHAO -

NAME

DIMENSIONS:
INCHES

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

MATERIAL

CUSTOMER DRAWING

PRODUCT SPEC
108-2292

APPLICATION SPEC
114-13251

WEIGHT

SIZE
A1

CAGE CODE
00779

DRAWING NO
C=6450830

RESTRICTED TO

SCALE 4:1

SHEET 42 OF 42

REV S2

TE Connectivity

RIGHT ANGLE WITH SHORT GUIDES AND LP CONTACTS ASSEMBLY MULTI-BEAM XLE

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9