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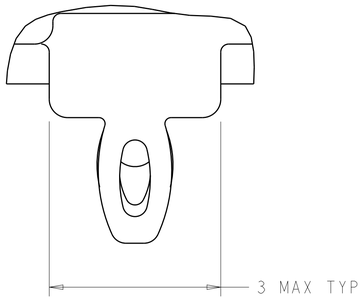
LOC	DIST
GP	00

REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
	6	REVISED PER ECO-12-003841	14MAR2012	TY	KS
	7	REVISED PER ECO-12-005533	05APR2012	JY	AC
	A	REVISED PER ECR-13-019963	5NOV2013	RG	MC
	B	REVISED PER ECO-14-016878	3DEC2014	RG	MC



DETAIL S △12
SCALE 20:1

△1 CAGE ASSEMBLY MATERIAL: NICKEL SILVER, 0.25 THICK
HEAT SINK MATERIAL: ALUMINUM
HEAT SINK CLIP MATERIAL: STAINLESS STEEL
EMI SPRING MATERIAL: COPPER ALLOY
FRONT FLANGE MATERIAL: ZINC ALLOY
LIGHT PIPE MATERIAL: CLEAR POLYCARBONATE

△2 PITCH BETWEEN PORTS OF ONE 1X6 CAGE ASSEMBLY.

△3 SPACING BETWEEN CAGES ON THE SAME PC BOARD, TO BE SPECIFIED BY CUSTOMER, MUST COMPLY WITH MINIMUM DIMENSIONS SHOWN.

△4 REFERENCE APPLICATION SPEC 114-13218 FOR RECOMMENDED DRILL HOLE DIAMETER AND PLATING THICKNESS.

△5 DATUMS AND BASIC DIMENSIONS ESTABLISHED BY CUSTOMER.

△6 DIMENSION F IS THE NOMINAL THICKNESS OF CUSTOMER SUPPLIED PC BOARD,
SINGLE SIDED PC BOARD MINIMUM THICKNESS = 1.45mm
DOUBLE SIDED PC BOARD MINIMUM THICKNESS = 2.2mm PER QSFP.

△7 HEAT SINKS, LIGHT PIPES, AND HEAT SINK CLIPS SHIPPED ASSEMBLED TO CAGE ASSEMBLY. CAGE ASSEMBLY MAY BE PRESSED INTO THE PCB AS SHIPPED.

△8 DATUM A IS TOP SURFACE OF PC BOARD.

△9 DIMENSION APPLIES WITH MODULE INSERTED IN CAGE.

△10 UNPLATED THRU HOLE.

11. MATES WITH QSFP MSA COMPATIBLE TRANSCEIVER.

△12 SURFACE TRACES PERMITTED WITHIN THIS AREA EXCEPT WHERE CAGE STANDOFFS, SHOWN IN DETAIL S, CONTACT PC BOARD.

△13 BASELINE FOR THESE DIMENSIONS IS THE CENTER OF COMPLIANT PIN HOLE.

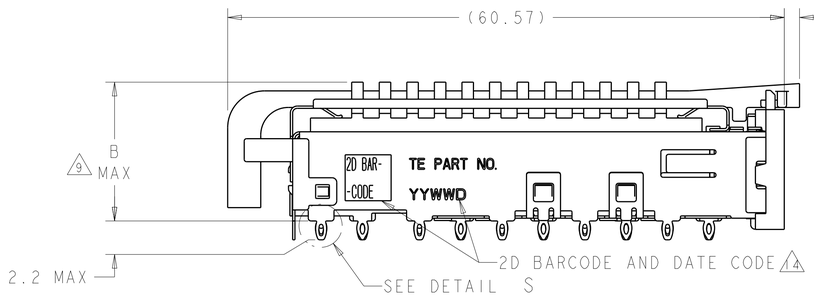
△14 2D BARCODE AND DATE CODE (YYWWD) MARKED ON SIDE OF CAGE ASSEMBLY.

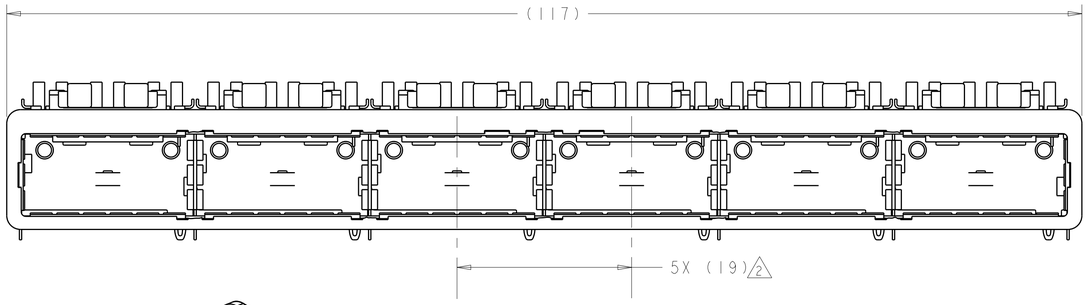
△15 REFERENCE APP SPEC 114-13218 FOR GASKET THICKNESS CALCULATION.

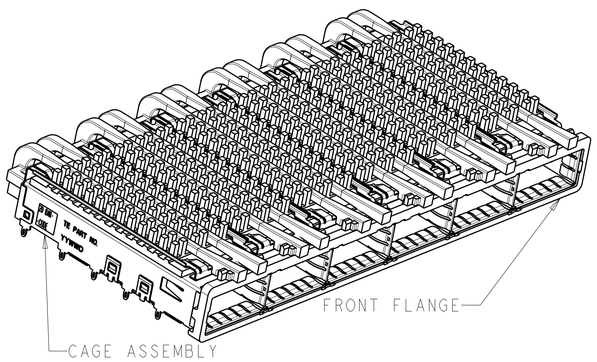
△16 EMI SPRING FINISH: 2um MINIMUM TIN
FRONT FLANGE FINISH: 3um MINIMUM TIN OVER 1.27um MINIMUM NICKEL OVER 5.08um MINIMUM COPPER.
HEAT SINK FINISH: BLACK ANODIZED

△17 HEAT SINKS AND CLIPS SHIPPED ASSEMBLED TO CAGE ASSEMBLY. CAGE ASSEMBLY MAY BE PRESSED INTO THE PCB AS SHIPPED. LIGHT PIPES, SHIPPED UNATTACHED, MUST BE ASSEMBLED BY CUSTOMER AFTER THE CAGE IS SEATED IN THE PCB.

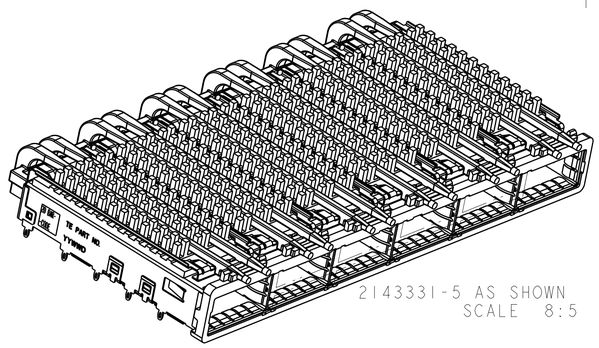
△18 ROUND LIGHT PIPES PLEASE SEE SHEET 4/6



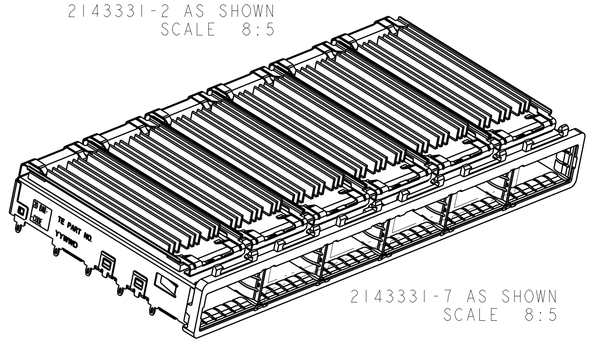




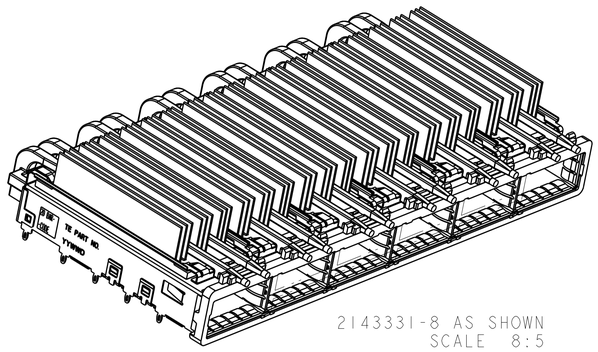
2143331-2 AS SHOWN
SCALE 8:5



2143331-5 AS SHOWN
SCALE 8:5



2143331-7 AS SHOWN
SCALE 8:5



2143331-8 AS SHOWN
SCALE 8:5

△18	ROUND LIGHT PIPE	2.00	21.0	FIN TYPE	2143331-8
	N/A	N/A	15.0	FIN TYPE	2143331-7
△18	ROUND LIGHT PIPES	1.66	23.0	NETWORKING	2143331-6
			16.0	SAN	2143331-5
			13.7	PCI	2143331-4
△17 △7 △17	SQUARE LIGHT PIPES	1.66	23.0	NETWORKING	2143331-3
			16.0	SAN	2143331-2
			13.7	PCI	2143331-1
	LIGHT PIPE TYPE	A	B	HEAT SINK PROFILE	PART NUMBER

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DIMENSIONS: mm

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ±
1 PLC ±0.20
2 PLC ±0.15
3 PLC ±
4 PLC ±
ANGLES ±

MATERIAL - △1
FINISH △16

DWN C. VALENTINE 18MAR2010
CHK J. PETERSON 18MAR2010
APVD J. PETERSON 18MAR2010
PRODUCT SPEC 108-2286
APPLICATION SPEC 114-13218
WEIGHT -

TE Connectivity

NAME 1X6 CAGE ASSEMBLY, BEHIND BEZEL, W/ SQR LIGHT PIPES AND HEAT SINKS, QSFP

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A1	00779	C-2143331	-

Customer Drawing | SCALE 3:1 | SHEET 1 OF 6 | REV B

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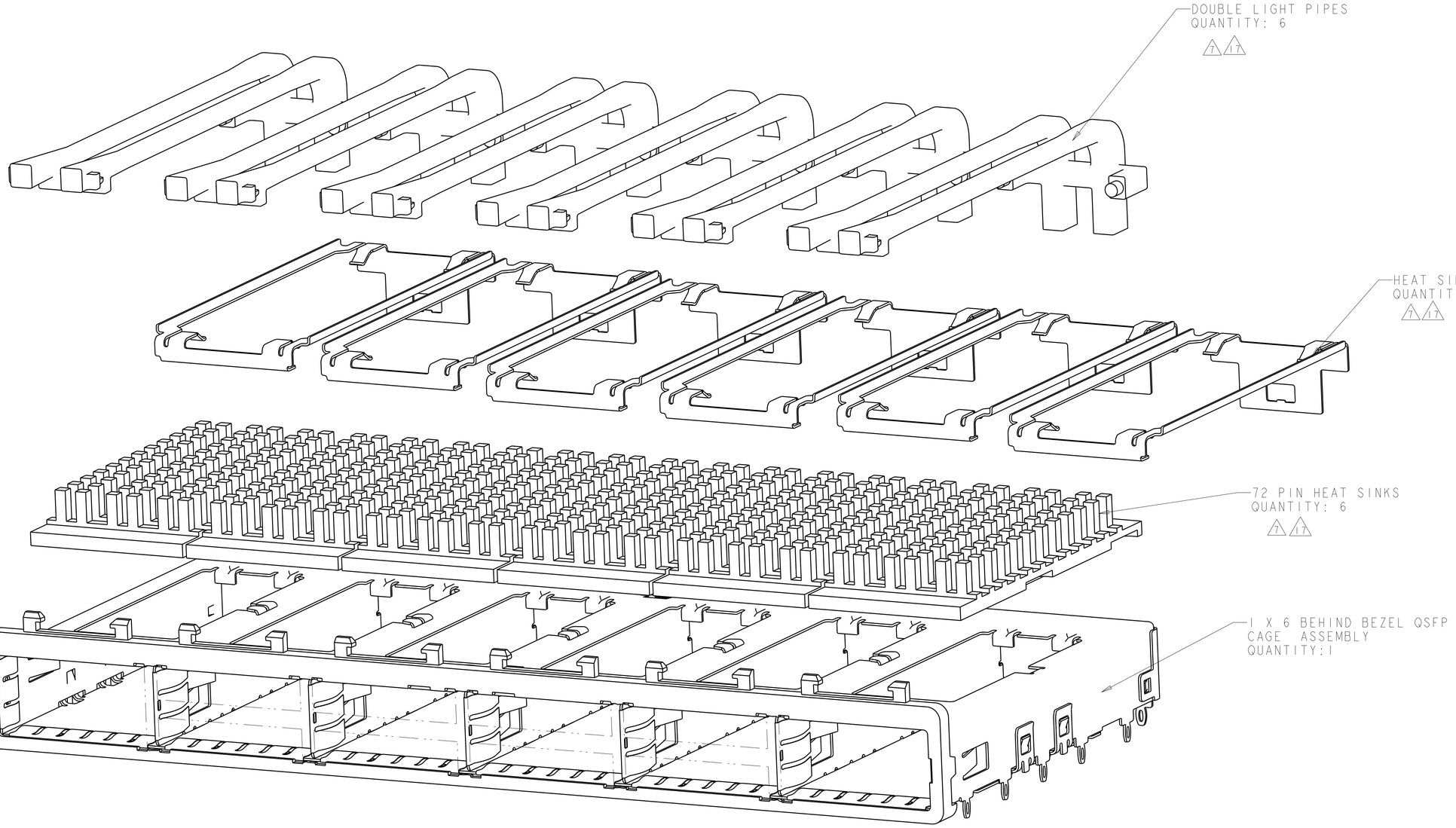
LOC	DIST
GP	00

REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
	-	SEE SHEET 1	-	-	-



THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: mm

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ±
1 PLC ±0.1
2 PLC ±0.1
3 PLC ±
4 PLC ±
ANGLES ±

MATERIAL -
FINISH -

DWN C. VALENTINE 18MAR2010
CHK J. PETERSON 18MAR2010
APVD J. PETERSON 18MAR2010
PRODUCT SPEC 108-2286
APPLICATION SPEC 114-13218
WEIGHT -

TE Connectivity

NAME 1X6 CAGE ASSEMBLY, BEHIND BEZEL, W/ SQR LIGHT PIPES AND HEAT SINKS, QSFP

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A1	00779	C-2143331	-

Customer Drawing | SCALE 4:1 | SHEET 2 OF 6 | REV B

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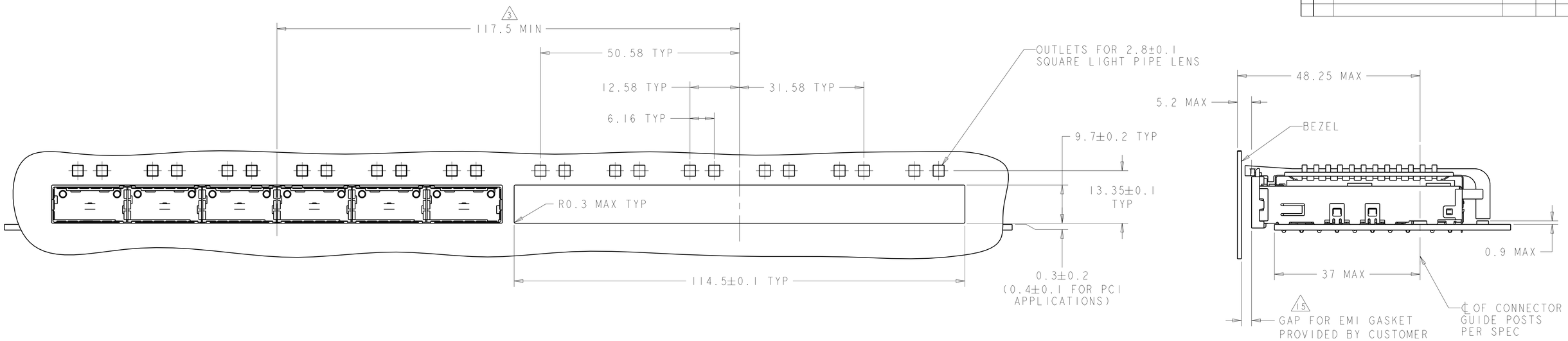
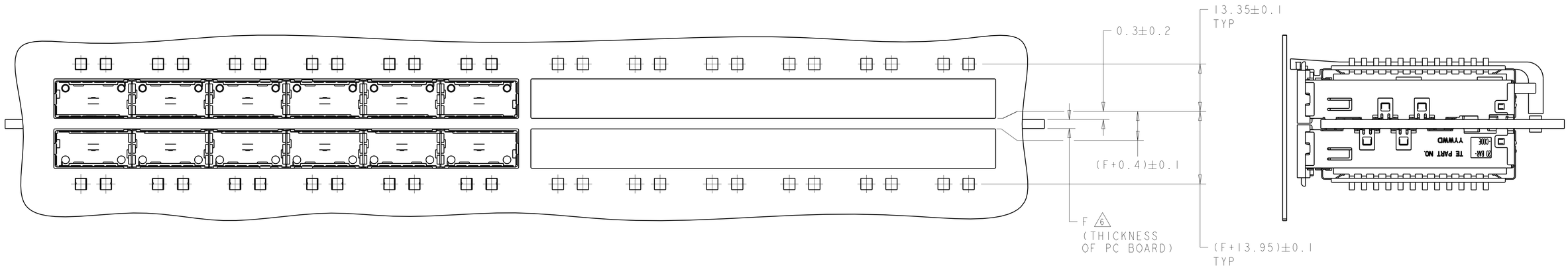
LOC	DIST
GP	00

REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
	-	SEE SHEET 1	-	-	-



ONE SIDED CONFIGURATION
WITH SQUARE LIGHT PIPES
SCALE 2:1



BELLY TO BELLY CONFIGURATION
WITH SQUARE LIGHT PIPES
SIMILAR TO ONE SIDED
EXCEPT WHERE NOTED
SCALE 2:1

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: mm

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ±-
1 PLC ±0.1
2 PLC ±0.1
3 PLC ±-
4 PLC ±-
ANGLES ±-

MATERIAL - -
FINISH - -

DWN C. VALENTINE 18MAR2010
CHK J. PETERSON 18MAR2010
APVD J. PETERSON 18MAR2010

TE Connectivity

NAME 1X6 CAGE ASSEMBLY, BEHIND BEZEL, W/ SQR LIGHT PIPES AND HEAT SINKS, QSFP

PRODUCT SPEC 108-2286
APPLICATION SPEC 114-13218
WEIGHT -

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A1	00779	C-2143331	-

Customer Drawing

SCALE 4:1 SHEET 3 OF 6 REV B

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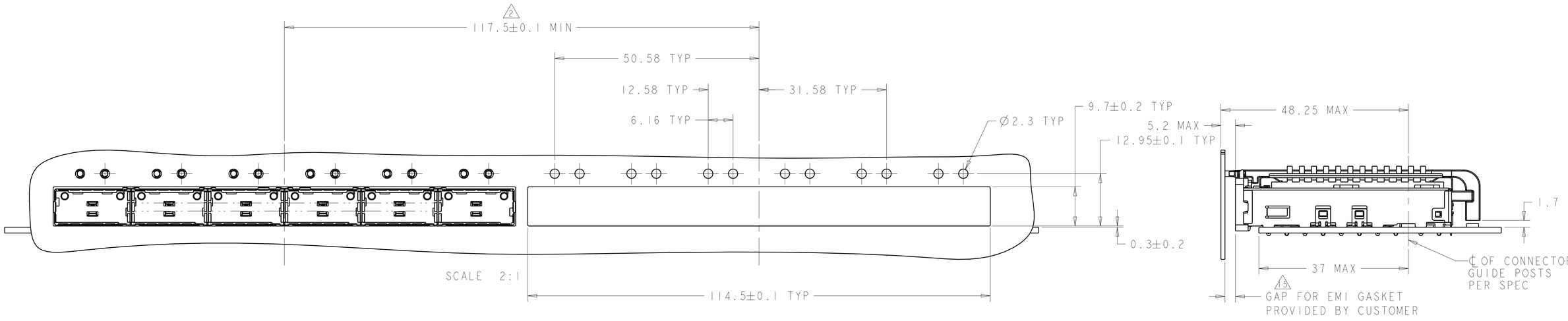
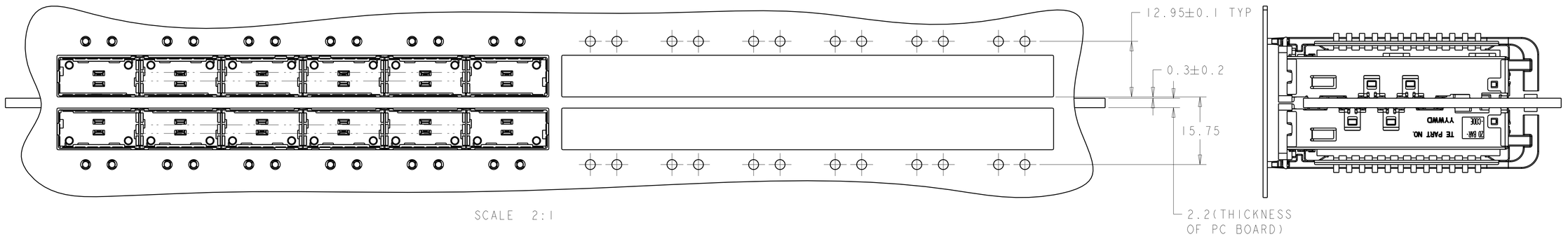
LOC	DIST
GP	00

REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
	-	SEE SHEET 1	-	-	-



ONE SIDED CONFIGURATION WITH
ROUND LIGHT PIPES



BELLY TO BELLY CONFIGURATION
WITH ROUND LIGHT PIPES
SIMILAR TO ONE SIDED
EXCEPT WHERE NOTED

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN C. VALENTINE 18MAR2010	TE Connectivity
DIMENSIONS: mm	TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ±- 1 PLC ±0.1 2 PLC ±0.1 3 PLC ±- 4 PLC ±- ANGLES ±-	CHK J. PETERSON 18MAR2010	NAME 1X6 CAGE ASSEMBLY, BEHIND BEZEL, W/ SQR LIGHT PIPES AND HEAT SINKS, QSFP
		APVD J. PETERSON 18MAR2010	PRODUCT SPEC 108-2286
			APPLICATION SPEC 114-13218
MATERIAL - -	FINISH - -	WEIGHT -	SIZE A1 · CAGE CODE 00779 · DRAWING NO C-2143331 · RESTRICTED TO -
		Customer Drawing	SCALE 3:1 · SHEET 4 OF 6 · REV B

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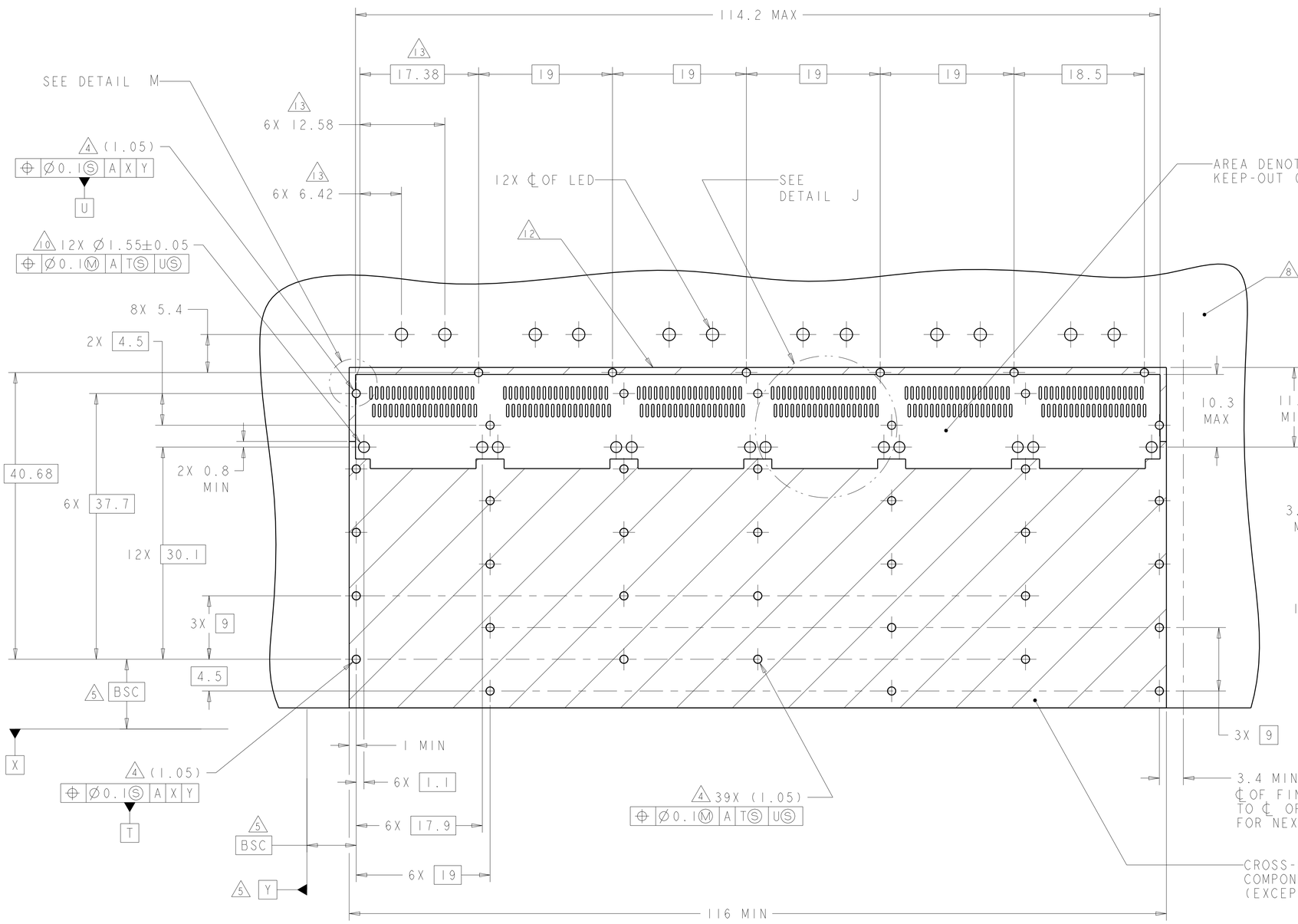
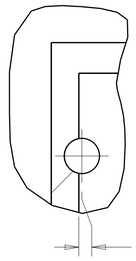
REVISIONS

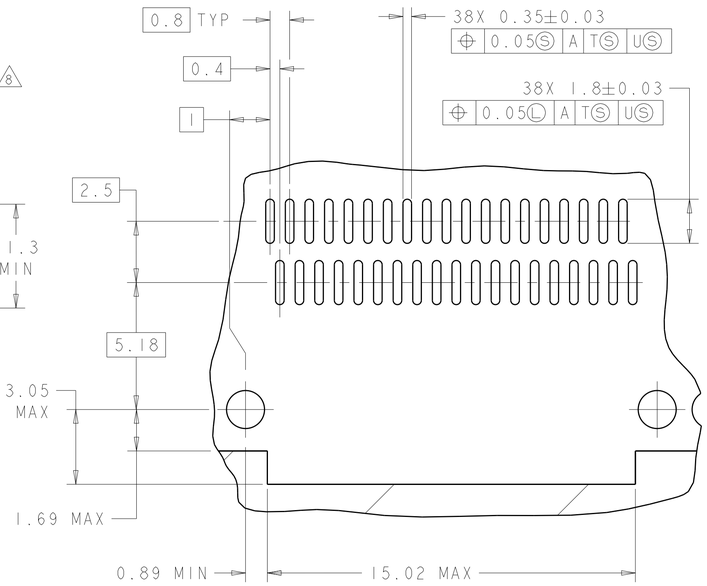
P	LTR	DESCRIPTION	DATE	DWN	APVD
	-	SEE SHEET 1	-	-	-



RECOMMENDED PC BOARD LAYOUT
SINGLE SIDE MOUNT CONFIGURATION
SCALE 3:1



DETAIL M
SCALE 10:1



DETAIL J
6 PLACES
SCALE 8:1

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DIMENSIONS: mm

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ±-
1 PLC ±0.1
2 PLC ±0.1
3 PLC ±-
4 PLC ±-
ANGLES ±-

MATERIAL -
FINISH -

DWN C. VALENTINE 18MAR2010
CHK J. PETERSON 18MAR2010
APVD J. PETERSON 18MAR2010

TE Connectivity

NAME 1X6 CAGE ASSEMBLY, BEHIND BEZEL, W/ SQR LIGHT PIPES AND HEAT SINKS, QSFP

PRODUCT SPEC 108-2286
APPLICATION SPEC 114-13218
WEIGHT -

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
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Customer Drawing | SCALE 4:1 | SHEET 5 OF 6 | REV B

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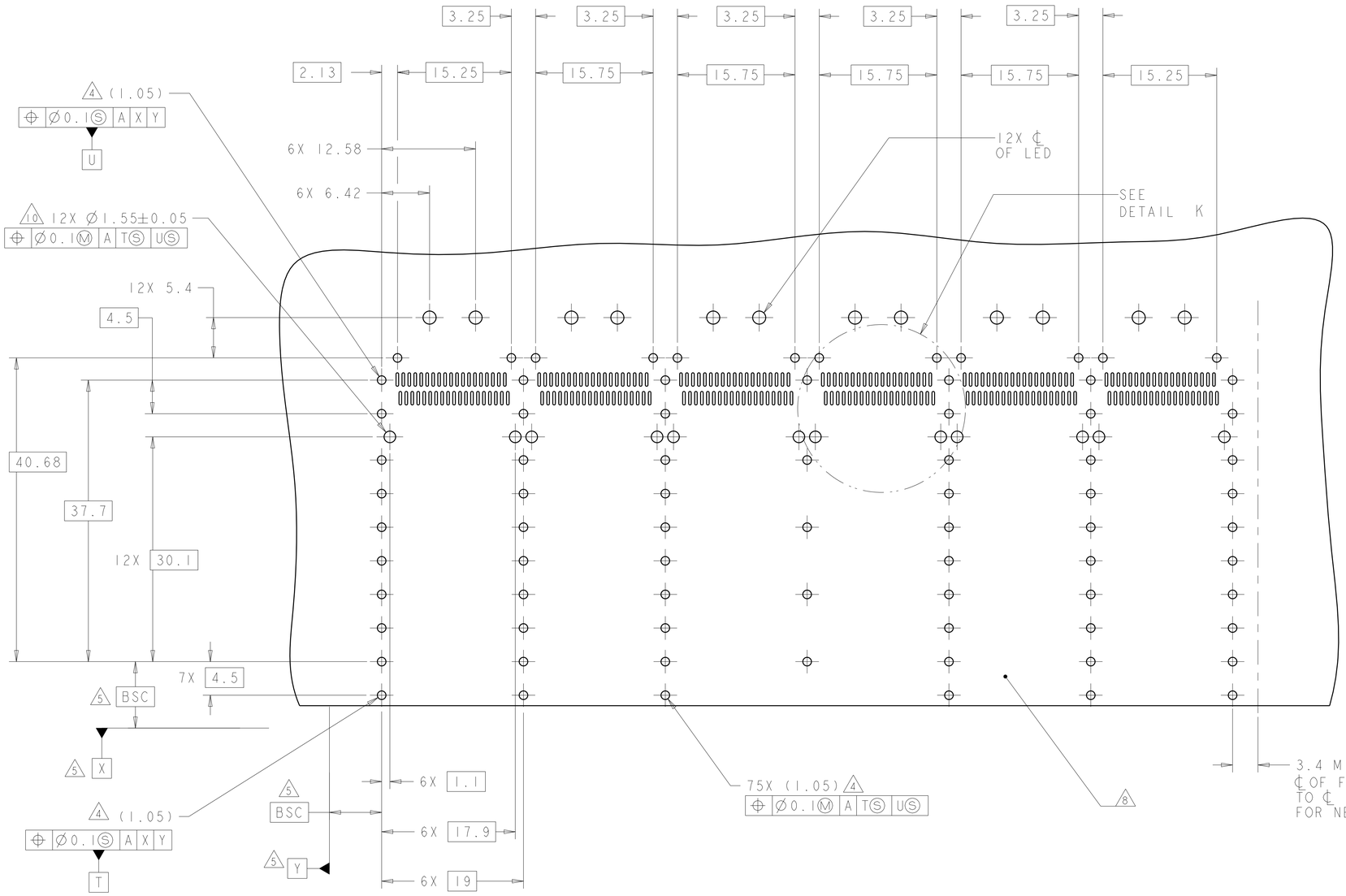
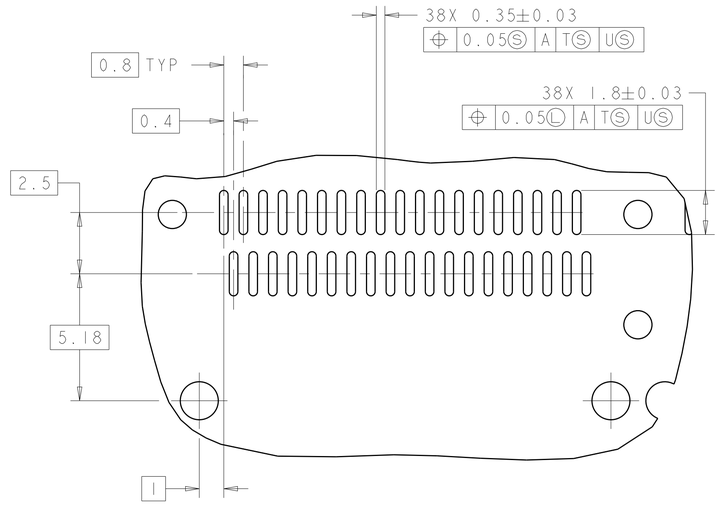
	-	SEE SHEET 1	-	-	-



RECOMMENDED PC BOARD LAYOUT
BELLY TO BELLY CONFIGURATION
SEE SHEET 4 FOR COMPONENT AND TRACE KEEP-OUTS
SCALE 3:1



DETAIL K
6 PLACES
SCALE 8:1

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DIMENSIONS: mm

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ±-
1 PLC ±0.1
2 PLC ±0.1
3 PLC ±-
4 PLC ±-
ANGLES ±-

MATERIAL - -
FINISH - -

DWN C. VALENTINE 18MAR2010
CHK J. PETERSON 18MAR2010
APVD J. PETERSON 18MAR2010
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APPLICATION SPEC 114-13218
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NAME 1X6 CAGE ASSEMBLY, BEHIND BEZEL, W/ SQR LIGHT PIPES AND HEAT SINKS, QSFP

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A1	00779	C-2143331	-

Customer Drawing | SCALE 4:1 | SHEET 6 OF 6 | REV B

OCEAN CHIPS
Океан Электроники
Поставка электронных компонентов

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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AVIC JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).

FORSTAR®

Телефон: 8 (812) 309-75-97 (многоканальный)
Факс: 8 (812) 320-03-32
Электронная почта: ocean@oceanchips.ru
Web: http://oceanchips.ru/
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А