

TABLE 2

ITEM	COMPONENT	PART NUMBER	QUANTITY
1	HEADER	BDR-J-24	1
2	CABLE ASSEMBLY	BE23S-XXXX-XX-XX-XXXX (SEE TABLE 4 & 5, SHEET 2)	12
3	ITEM DELETED		
4	POSITION LABEL	HDRL-16	24
5	ESD BAG 1	BAG-SS-09X12	1
6	ESD BAG 2	BAG-SS-04X06-Z	1
7	TOOL	CAT-EX-SCC-03	1

DO NOT  
SCALE FROM  
THIS PRINTDESIGNED & DIMENSIONED  
IN MILLIMETERS[INCHES]

BDRA-XXXX-XX-XX-XXXX

## END 2 CONNECTOR

-SCC3: PRB3-P-C-XX-ST-CS3 (SEE SHEET 3)  
-92SJ: 292XX-J-C-XX-ST-CS3 (SEE SHEET 3)  
-92SP: 292XX-P-C-XX-ST-CS3 (SEE SHEET 3)

## END 2 PLATING OPTION

1: GOLD ALL COMPONENTS  
P: HEAVY GOLD / PASSIVATED STAINLESS STEEL  
(SEE SHEET 2 FOR PLATING SPECIFICS)

OVERALL CABLE LENGTH (MILLIMETERS)  
0100-9999 [3.9 - 393.7]  
(SEE NOTE 9 & 10)

## PHASE MATCHED PAIRS

-12  
(SEE SHEET 2, TABLE 3)

## PHASE MATCHING SPEC (RANGE)

-02: 2.0 PICO-SECOND  
-05: 5.0 PICO-SECONDS  
-10: 10.0 PICO-SECONDS

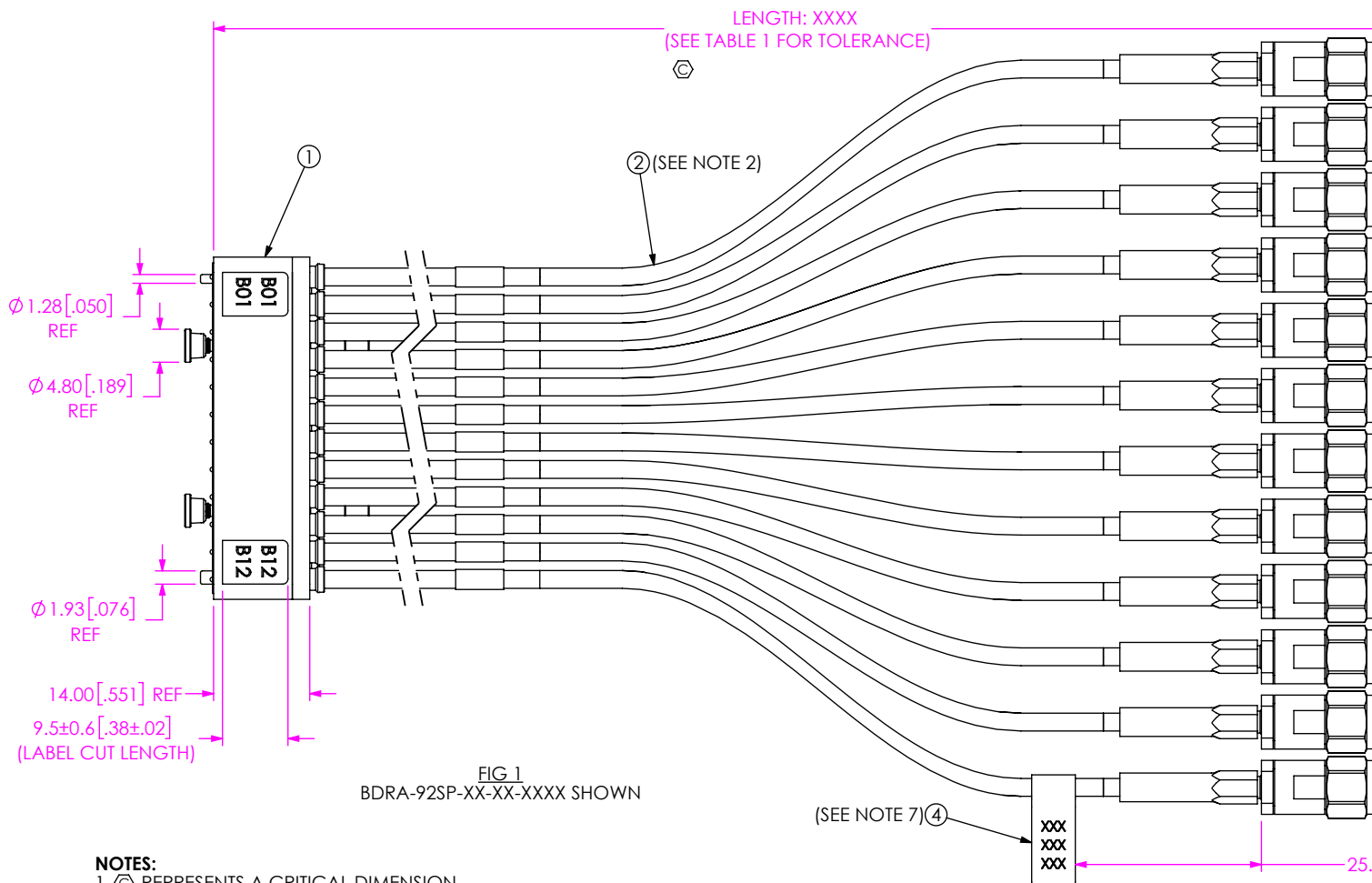
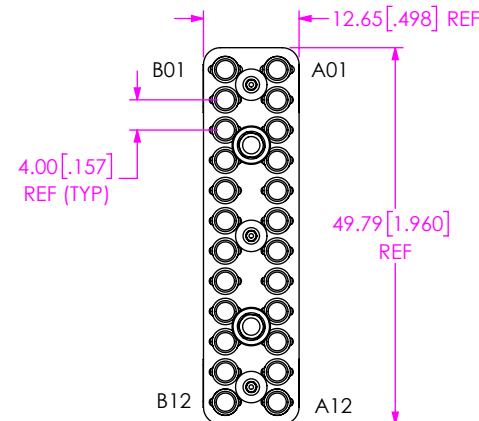


FIG 1  
BDRA-92SP-XX-XX-XXXX SHOWN

(SEE NOTE 7) ④



CABLE ASSEMBLIES NOT  
SHOWN FOR CLARITY

## NOTES:

- ①. ② REPRESENTS A CRITICAL DIMENSION.
2. USE DRAWING No. BE23S-XXXX-XX-XX-XXXX FOR CABLE ASSEMBLY INSTRUCTIONS.
3. PARTS TO BE PROCESSED PER SAMTEC WORKMANSHIP GUIDELINES.
- ④. ALL ASSEMBLIES TO BE 100% ELECTRICALLY TESTED.
- ⑤. ALL ASSEMBLIES TO BE 100% HI-POT TESTED AT 300V.
6. FOR SUB-ASSEMBLY AND FINISHED GOOD PACKAGING REQUIREMENTS, REFERENCE SAMTEC PACKAGING STANDARD, LOCK WASHERS AND NUTS TO BE SHIPPED UNASSEMBLED.
7. PRINT CABLE POSITION (3 LINES FOR POSITION) AND APPLY TO CABLES (TAG STYLE) AS SHOWN.
8. SEE SHEET 2, TABLE 2 FOR PHASE MATCHING REQUIREMENTS.
9. CABLE STOCKED IN INCHES, 1 INCH = 25.4 MILLIMETERS.
10. CABLE LENGTHS LONGER THAN 1000 MILLIMETERS ARE NOT SUPPORTED BY S.I. TEST DATA.

UNLESS OTHERWISE SPECIFIED,  
DIMENSIONS ARE IN MILLIMETERS.  
TOLERANCES ARE:

DECIMALS ANGLES  
.X: ±.3[.01]  
.XX: ±.13[.005]  
.XXX: ±.051[.0020]

## \* PROPRIETARY NOTE

THIS DOCUMENT CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION AND ALL DESIGN, MANUFACTURING, REPRODUCTION, USE, PATENT RIGHTS AND SALES RIGHTS ARE EXPRESSLY RESERVED BY SAMTEC, INC. THIS DOCUMENT SHALL NOT BE DISCLOSED, IN WHOLE OR PART, TO ANY UNAUTHORIZED PERSON OR ENTITY NOR REPRODUCED, TRANSFERRED OR INCORPORATED IN ANY OTHER PROJECT IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT OF SAMTEC, INC.

DO NOT SCALE DRAWING

SHEET SCALE: 1:1

DESCRIPTION:

BULLSEYE DOUBLE ROW, 24 POSITION, ASSEMBLY

DWG. NO.

BDRA-XXXX-XX-XX-XXXX

BY: EMMA CHEN 3/14/2014 SHEET 1 OF 5

TABLE 5	
BDRA-XXXX-XX-12-XXXX ■	BE23S-XXXX-XX-02-XXXX ■
BDRA-XXXX-02-12-XXXX	BE23S-XXXX-02-02-XXXX
BDRA-XXXX-05-12-XXXX	BE23S-XXXX-05-02-XXXX
BDRA-XXXX-10-12-XXXX	BE23S-XXXX-10-02-XXXX

■ BE23S' OVERALL CABLE LENGTH OPTION IS SAME AS BDRA'S

TABLE 4	
BDRA-XXXX-XX-12-XXXX ■	BE23S-XXXX-XX-02-XXXX ■
BDRA-SCC31-XX-12-XXXX	BE23S-SCC31-XX-02-XXXX
BDRA-92SJP-XX-12-XXXX	BE23S-92SJP-XX-02-XXXX
BDRA-92SPP-XX-12-XXXX	BE23S-92SPP-XX-02-XXXX

■ BE23S' OVERALL CABLE LENGTH OPTION IS SAME AS BDRA'S

TABLE 1: FINAL ASSEMBLY LENGTH TOLERANCE	
LENGTH	TOLERANCE
0100-0200 [3.92-7.87]	+3.0 [.12]/-0.0 [.00]
0200-0500 [7.87-19.69]	+5.0 [.20]/-0.0 [.00]
0500-9999 [19.69-393.66]	+10.0 [.40]/-0.0 [.00]

TABLE 3 - PHASE MATCHED PAIRS		
POSITION	POSITION	PAIR NO.
A01	B01	1
A02	B02	2
A03	B03	3
A04	B04	4
A05	B05	5
A06	B06	6
A07	B07	7
A08	B08	8
A09	B09	9
A10	B10	10
A11	B11	11
A12	B12	12

CAUTION: EACH PAIR OF CABLES TO BE PHASE MATCHED PER CALLOUT. IF RE-WORKED, THE ENTIRE PAIR MUST BE REPLACED.

• PROPRIETARY NOTE •  
THIS DOCUMENT CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION AND ALL DESIGN, MANUFACTURING, REPRODUCTION, USE, PATENT RIGHTS AND SALES RIGHTS ARE EXPRESSLY RESERVED BY SAMTEC, INC. THIS DOCUMENT SHALL NOT BE DISCLOSED, IN WHOLE OR PART, TO ANY UNAUTHORIZED PERSON OR ENTITY NOR REPRODUCED, TRANSFERRED OR INCORPORATED IN ANY OTHER PROJECT IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT OF SAMTEC, INC.

DO NOT SCALE DRAWING

SHEET SCALE: 1:1



520 PARK EAST BLVD, NEW ALBANY, IN 47150  
PHONE: 812-944-6733 FAX: 812-948-5047  
e-Mail info@SAMTEC.com code 55322

DESCRIPTION:  
BULLSEYE DOUBLE ROW, 24 POSITION, ASSEMBLY

DWG. NO.  
BDRA-XXXXXX-XX-XX-XXXX

BY: EMMA CHEN 3/14/2014 SHEET 2 OF 5

-SCC3

(ROUND TIP/STD. FERRULE)

(USE DRAWING No. PRB3-P-C-XX-ST-CS3  
FOR ASSEMBLY INSTRUCTIONS)

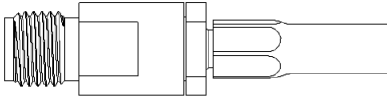


PLATING  
1: 30μ" MIN. GOLD CENTER CONTACT  
3μ" MIN. GOLD OUTER CONTACT  
3μ" MIN. GOLD REMAINING METAL PARTS  
(END CONNECTOR P/N: PRB3-P-C-HF-ST-CS3)

**NOTE:** ALL CRITICAL DIMENSIONS ON PRB3-P-C-XX-ST-CS3  
THAT APPLY MUST BE VERIFIED.

-92SJ  
(STRAIGHT JACK)

(USE DRAWING No. 292XX-J-C-XX-ST-CS3  
FOR ASSEMBLY INSTRUCTIONS)

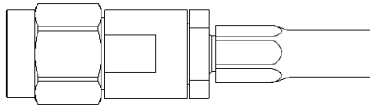


PLATING OPTIONS  
P: 30μ" MIN. GOLD CENTER CONTACT  
PASSIVATED STAINLESS STEEL OUTER CONTACT  
3μ" MIN. GOLD REMAINING METAL PARTS  
(END CONNECTOR P/N: 292PS-J-C-HP-ST-CS3)

**NOTE:** ALL CRITICAL DIMENSIONS ON 292XX-J-C-XX-ST-CS3  
THAT APPLY MUST BE VERIFIED.

-92SP  
(STRAIGHT PLUG)

(USE DRAWING No. 292XX-P-C-XX-ST-CS3  
FOR ASSEMBLY INSTRUCTIONS)



PLATING OPTIONS  
P: 30μ" MIN. GOLD CENTER CONTACT  
PASSIVATED STAINLESS STEEL OUTER CONTACT  
3μ" MIN. GOLD REMAINING METAL PARTS  
(END CONNECTOR P/N: 292PS-P-C-HP-ST-CS3)

**NOTE:** ALL CRITICAL DIMENSIONS ON 292XX-P-C-XX-ST-CS3  
THAT APPLY MUST BE VERIFIED.

• PROPRIETARY NOTE •  
THIS DOCUMENT CONTAINS CONFIDENTIAL AND  
PROPRIETARY INFORMATION AND ALL DESIGN,  
MANUFACTURING, REPRODUCTION, USE, PATENT RIGHTS  
AND SALES RIGHTS ARE EXPRESSLY RESERVED BY SAMTEC,  
INC. THIS DOCUMENT SHALL NOT BE DISCLOSED, IN WHOLE  
OR PART, TO ANY UNAUTHORIZED PERSON OR ENTITY NOR  
REPRODUCED, TRANSFERRED OR INCORPORATED IN ANY  
OTHER PROJECT IN ANY MANNER WITHOUT THE EXPRESS  
WRITTEN CONSENT OF SAMTEC, INC.

DO NOT SCALE DRAWING

SHEET SCALE: 1:1

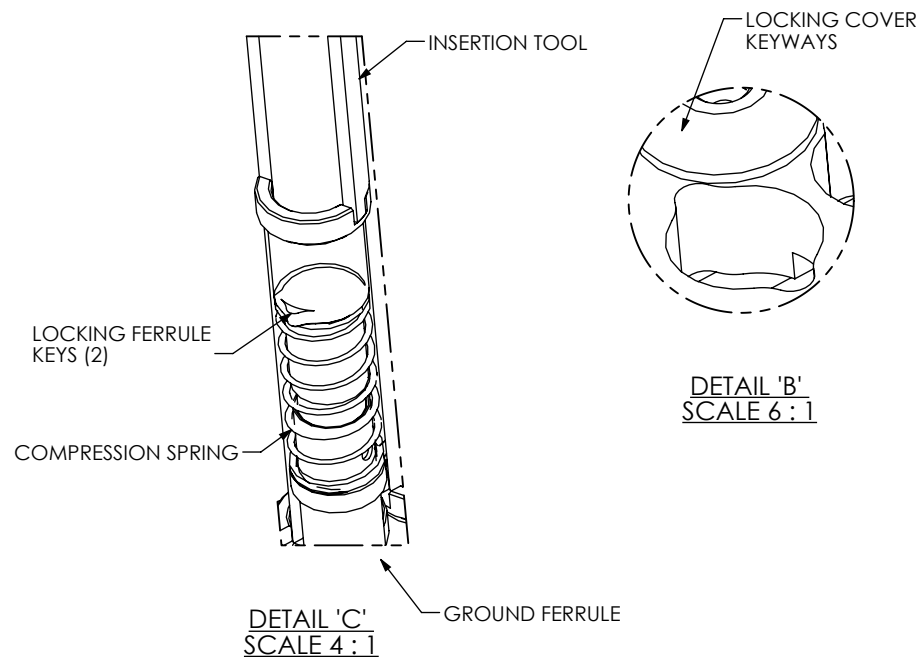
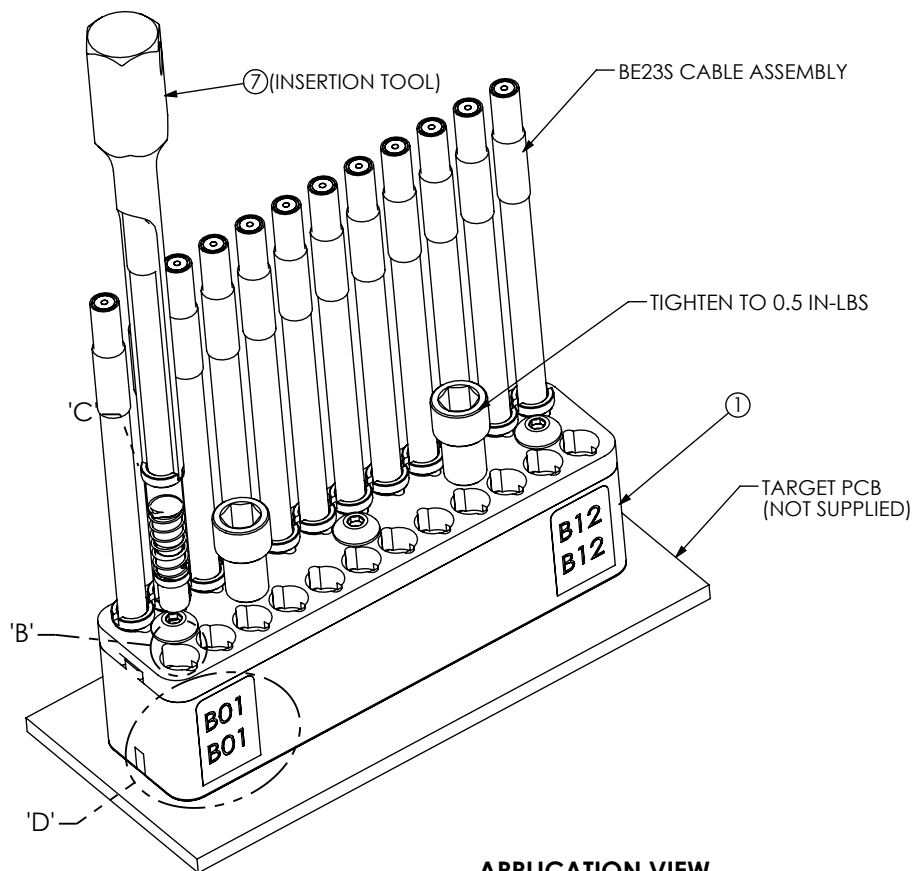
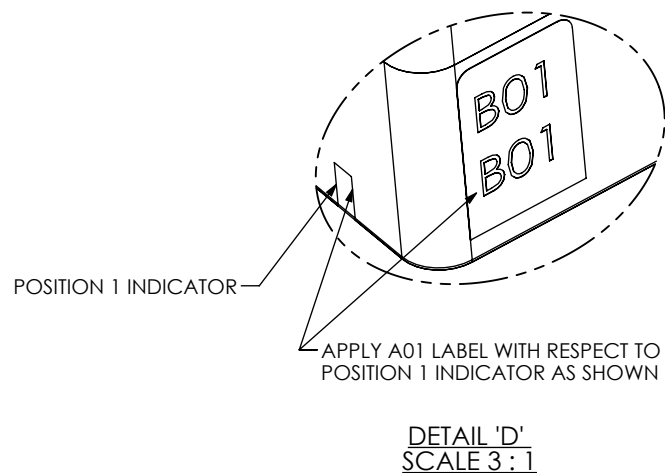


520 PARK EAST BLVD, NEW ALBANY, IN 47150  
PHONE: 812-944-6733 FAX: 812-948-5047  
e-Mail info@SAMTEC.com code 55322

DESCRIPTION:  
BULLSEYE DOUBLE ROW, 24 POSITION, ASSEMBLY

DWG. NO.  
BDRA-XXXXXX-XX-XX-XXXX

BY: EMMA CHEN 3/14/2014 SHEET 3 OF 5



#### CABLE INSTALLATION PROCEDURE:

INSURE LOCKING FERRULE KEYS (SEE DETAIL 'C') ALIGN WITH KEYWAY FEATURES IN THE CONNECTOR BODY (SEE DETAIL 'B'). PUSH DOWN ON THE LOCKING FERRULE (WITH MINIMAL FORCE) USING THE INSERTION TOOL. TWIST THE INSERTION TOOL CLOCKWISE (IT SHOULD TURN FREELY)

LOCK CHAMBER, LOCATED INSIDE THE CONNECTOR BODY, BY WAY OF THE COMPRESSION SPRING. REPEAT THIS PROCESS WITH REMAINING CABLE ASSEMBLIES .

REVERSE ABOVE PROCEDURE TO DISASSEMBLE.

**PROPRIETARY NOTE**  
THIS DOCUMENT CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION AND ALL DESIGN, MANUFACTURING, REPRODUCTION, USE, PATENT RIGHTS AND SALES RIGHTS ARE EXPRESSLY RESERVED BY SAMTEC, INC. THIS DOCUMENT SHALL NOT BE DISCLOSED, IN WHOLE OR PART, TO ANY UNAUTHORIZED PERSON OR ENTITY NOR REPRODUCED, TRANSFERRED OR INCORPORATED IN ANY OTHER PROJECT IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT OF SAMTEC, INC.

DO NOT SCALE DRAWING

SHEET SCALE: 3:2

**samtec**

520 PARK EAST BLVD, NEW ALBANY, IN 47150  
PHONE: 812-944-6733 FAX: 812-948-5047  
e-Mail info@SAMTEC.com code 55322

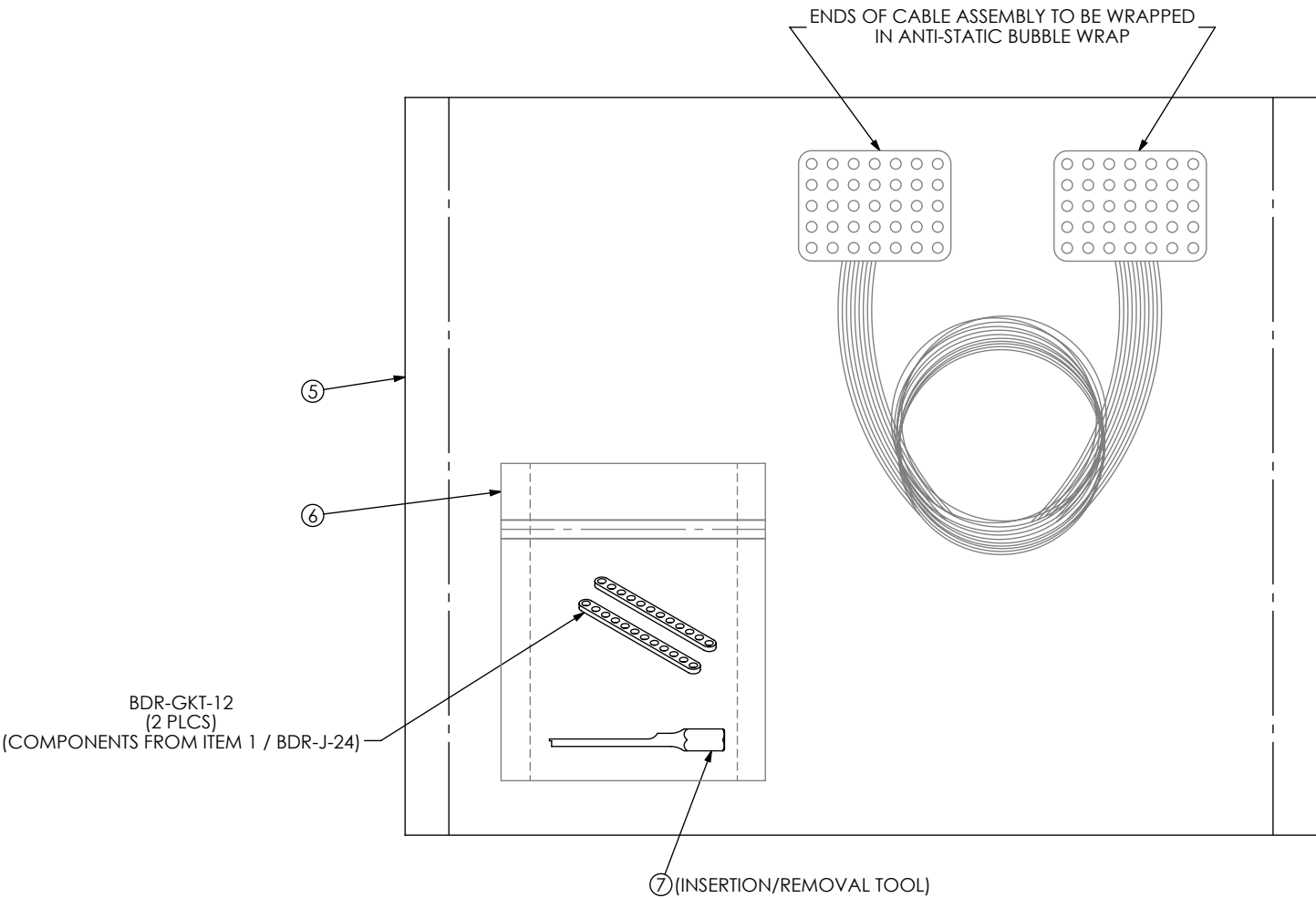
DESCRIPTION:  
BULLSEYE DOUBLE ROW, 24 POSITION, ASSEMBLY

DWG. NO.

BDRA-XXXXX-XX-XX-XXXX

BY: EMMA CHEN 3/14/2014 SHEET 4 OF 5

PACKAGING VIEW



**PROPRIETARY NOTE**  
THIS DOCUMENT CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION AND ALL DESIGN, MANUFACTURING, REPRODUCTION, USE, PATENT RIGHTS AND SALES RIGHTS ARE EXPRESSLY RESERVED BY SAMTEC, INC. THIS DOCUMENT SHALL NOT BE DISCLOSED, IN WHOLE OR PART, TO ANY UNAUTHORIZED PERSON OR ENTITY NOR REPRODUCED, TRANSFERRED OR INCORPORATED IN ANY OTHER PROJECT IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT OF SAMTEC, INC.

DO NOT SCALE DRAWING

SHEET SCALE: 2:1



520 PARK EAST BLVD, NEW ALBANY, IN 47150  
PHONE: 812-944-6733 FAX: 812-948-5047  
e-Mail info@SAMTEC.com code 55322

DESCRIPTION:  
BULLSEYE DOUBLE ROW, 24 POSITION, ASSEMBLY

DWG. NO.  
BDRA-XXXXX-XX-XX-XXXX

BY:EMMA CHEN 3/14/2014 SHEET 5 OF 5