ZONE	REV	ECN NUMBER	DESCRIPTION	BY	DATE	APPROVED
	F	BW AG-18101704	UPDATED NOTE 1. ADDED NOTE 12. REVISED BASE THICKNESS TOLERANCE 0.10 W AS 0.13. ADDED SURFACE GROUND PLANE.	HCL-UD	10/29/2018	B.W ANG
SHT1, C3	G	HHUG-20010801	ADDED PLATING OPTION 'P' TO P/N TREE	HCL-SG	01/23/2020	H.HUANG
SHT9	H	HHUG-20090906	ADDED SE MODULE PCB DETAILS.	HCL-SH	10/06/2020	H.HUANG

NOTE: ONLY THREE MOST RECENT RELEASED REVISIONS DISPLAYED.

9 7 2 - 4 X 1 C - X 0 X

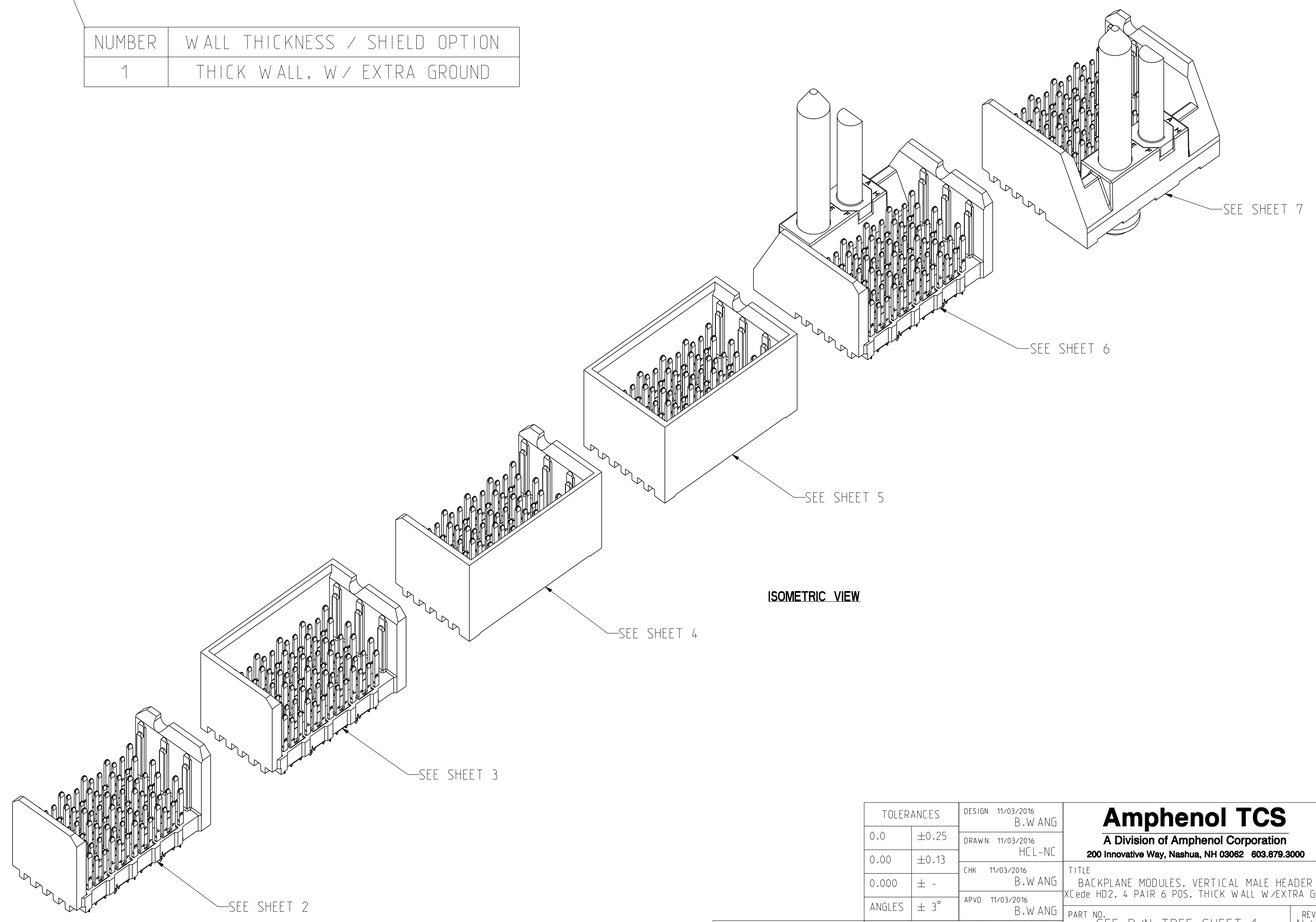
- 9 7 2 - XCede HD2 BACKPLANE MODULE MALE STANDARD LOAD
- 4 - 4 PAIR
- X - LETTER (see table)
- 1 - NUMBER (see table)
- C - 6-POSITION
- X - NUMBER (see table)
- 0 - NUMBER (see table)
- X - LETTER (see table)

LETTER	PLATING
D	NI SULFAMATE, STANDARD GOLD, LEADFREE
E	NI SULFAMATE, HIGH GOLD, LEADFREE
H	NANO NI, STANDARD GOLD, LEADFREE
J	NANO NI, HIGH GOLD, LEADFREE
P	Pd-NI, STANDARD GOLD, LEADFREE

NUMBER	SIGNAL & GROUND WIPE LENGTH, COMPLIANT PIN SIZE
G	2 mm WIPE SIGNAL, 3 mm WIPE GND, Ø.0157" DRILL
J	2 mm WIPE SIGNAL, 2 mm WIPE GND, Ø.0157" DRILL

NUMBER	WALL THICKNESS / SHIELD OPTION
1	THICK WALL, W/ EXTRA GROUND

LETTER									
LEFT POLARIZING GUIDANCE (SEE SHEET 6)	J (NO KEY)	A	B	C	D	E	F	G	H
RIGHT POLARIZING GUIDANCE (SEE SHEET 7)	Y (NO KEY)	P	Q	R	S	T	U	V	W
OPEN (SEE SHEET 2)	O (ZERO)								
LEFT WALL (SEE SHEET 3)	L								
RIGHT WALL (SEE SHEET 4)	M								
TWO WALL (SEE SHEET 5)	1								



ISOMETRIC VIEW

NOTES:
1. REFER TO TB-2343 FOR XCede HD2 PRODUCT SPECIFICATIONS.
2. NOTCH DESIGNATES "ROW A" SIDE OF SHROUD. NOTCH FEATURE ON OPPOSITE SIDE FROM PART MARKING.
3. SEE TB-2325 FOR PART MARKING REQUIREMENTS.
4. PLATING THICKNESS OF SIGNAL CONTACT AND GROUND CONTACT IS DETERMINED BY PLATING CODE.
5. REPAIR PROCEDURE FOR MODULE, SEE TB-2245.
6. SEE TB-2237 (XCede HD2 ROUTING GUIDELINES) FOR BOARD SPECIFIC DETAILS ON ROUTING, PLATING THICKNESS, SECONDARY DIAMETERS, PAD, ANTIPAD LOCATIONS, BACK DRILLING AND SHADOW VIAS.
7. SEE DOC C-190-0009-000 FOR TOOLING KEEPOUT ZONES.
8. BACKPLANE DATUM REFERENCE.
9. OPTIONAL HOLE/MOUNTING SCREW LOCATION FOR GROUNDED PIN OR ADDITIONAL GUIDE PIN SUPPORT SEE DRAWING C-914-4010-000 FOR OPTIONAL HOLE DETAILS. ONLY APPLIES FOR MACHINED GUIDE PIN APPLICATIONS.
10. SHADOW VIAS (GND VIA'S) DO NOT RECEIVE COMPLIANT PINS. THEY ARE ADDED FOR IMPROVED SIGNAL INTEGRITY PERFORMANCE AND CAN CHANGE IN SIZE AND LOCATION BASED UPON THE SPECIFIC DESIGN DETAILS.
11. SURFACE GROUND PLANE EQUAL TO COMPONENT OUTLINE REQUIRED. SURFACE GROUND PLANE TO BE FREE FROM SOLDERMASK.
12. ALL PLASTIC MATERIAL IS UL 94V-0 FLAMMABLE.

TOLERANCES	
0.0	±0.25
0.00	±0.13
0.000	± -
ANGLES	± 3°

DESIGN 11/03/2016 B.W ANG
DRAWN 11/03/2016 HCL-NC
CHK 11/03/2016 B.W ANG
APVD 11/03/2016 B.W ANG

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM. DECIMAL MARKER IS A PERIOD

INTERPRET PER ASME Y14.5M

CODE IDENT 31143

CUSTOMER USE DRAWING

Amphenol TCS
A Division of Amphenol Corporation
200 Innovative Way, Nashua, NH 03062 603.879.3000

TITLE: BACKPLANE MODULES, VERTICAL MALE HEADER XCede HD2, 4 PAIR 6 POS, THICK WALL W/EXTRA GND

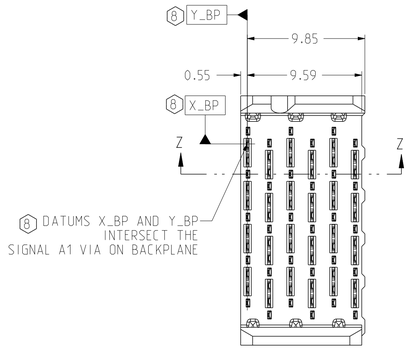
PART NO. SEE P/N TREE SHEET 1 REV N/A

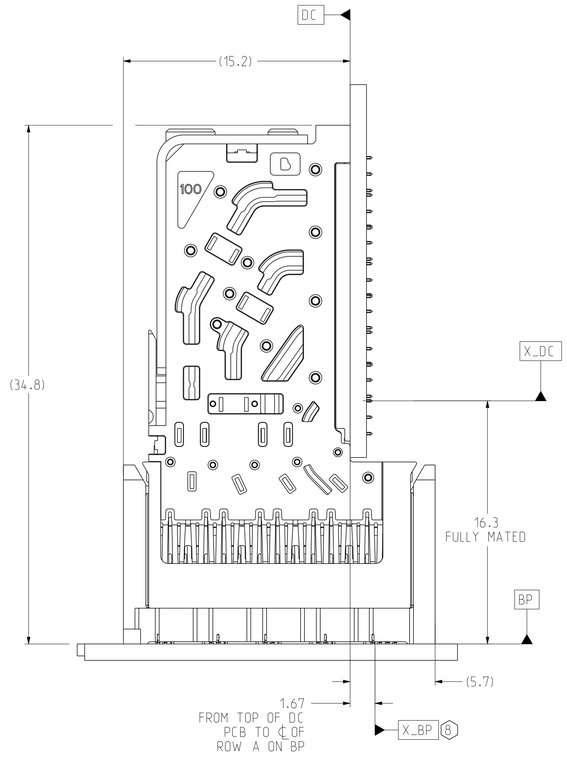
DRAWING NO. C-972-401C-500 REV H

ASSEM C972-401C-500_XG-HD2 0.2
DRAWING C972-401C-500_XG-HD2 0.16

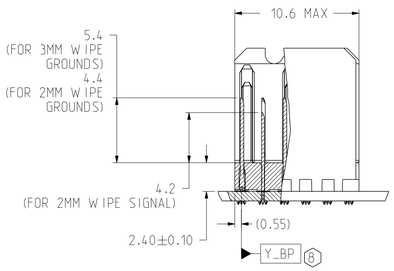
SIZE D | SCALE 1/1 | SHEET 1 OF 9

ZONE	REV	ECN NUMBER	DESCRIPTION	BY	DATE	APPROVED
			SEE SHEET 1			

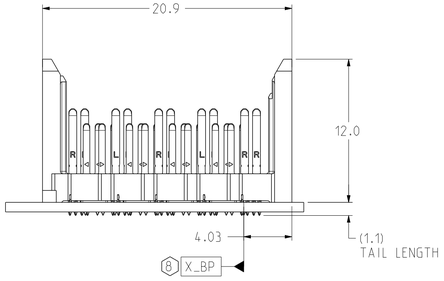


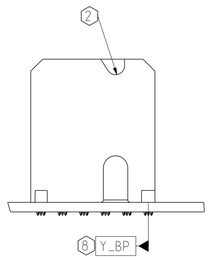


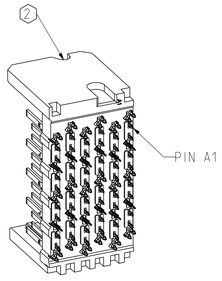
CONNECTOR REFERENCE
SCALE 5/1



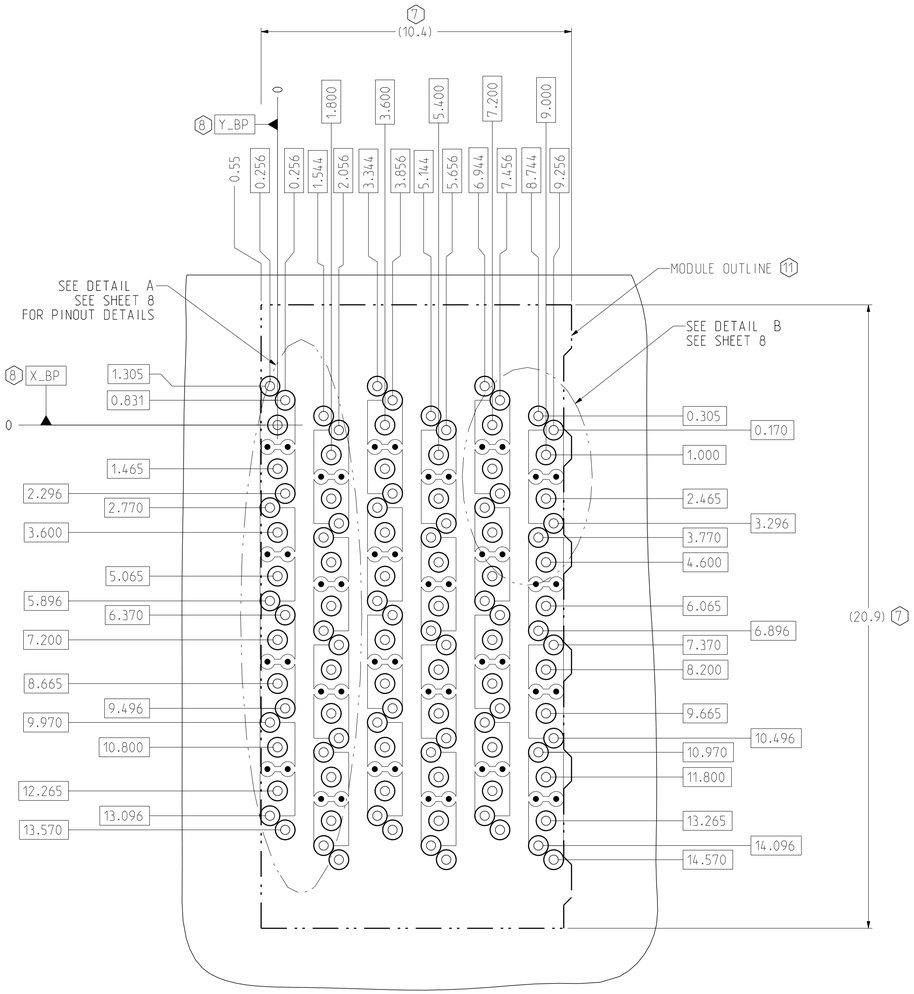
SECTION Z-Z







ISOMETRIC VIEW
SCALE 3/1



BP HOLE PATTERN
COMPONENT SIDE
SCALE 10/1

OPEN BACKPLANE MODULE DIMENSION

TOLERANCES	
0.0	±0.25
0.00	±0.13
0.000	± -
ANGLES	± 3°

DESIGN 11/03/2016 B.W ANG
DRAWN 11/03/2016 HCL-NC
CHK 11/03/2016 B.W ANG
APVD 11/03/2016 B.W ANG

INTERPRET PER ASME Y14.5M
CODE IDENT 31413

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM, DECIMAL MARKER IS A PERIOD

CUSTOMER USE DRAWING

Amphenol TCS
A Division of Amphenol Corporation
200 Innovative Way, Nashua, NH 03062 603.879.3000

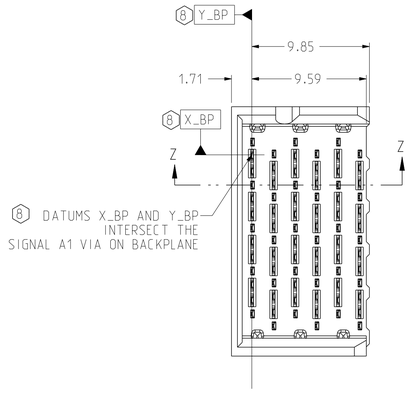
TITLE
BACKPLANE MODULES, VERTICAL MALE HEADER
XCede HD2, 4 PAIR 6 POS. THICK WALL W/EXTRA GND

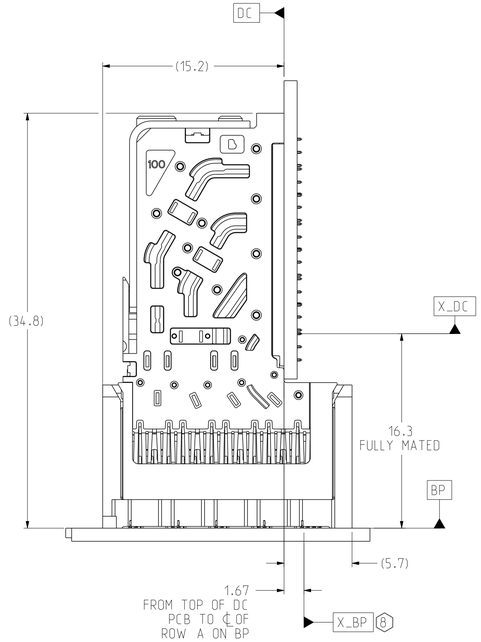
PART NO.	REV.
SEE P/N TREE SHEET 1	N/A
DRAWING NO. C-972-401C-500	REV H
ASSEM C972-401C-500_XG-HD2	0.2
DRAWING C972-401C-500_XG-HD2	0.16

SIZE D | SCALE 1/1 | SHEET 2 OF 9

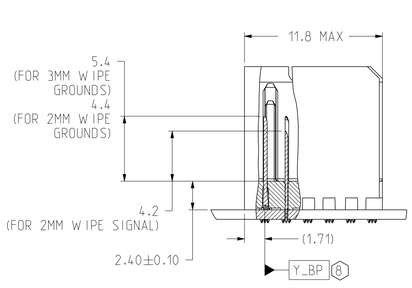
DRW NO.	SH	REV
C-972-401C-500	3	H

ZONE	REV	ECN NUMBER	DESCRIPTION	BY	DATE	APPROVED
			SEE SHEET 1			

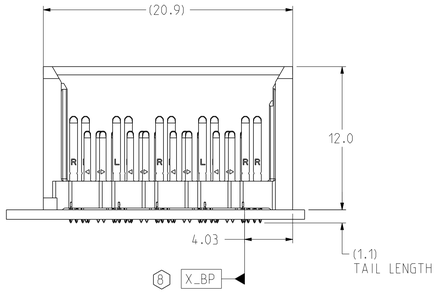


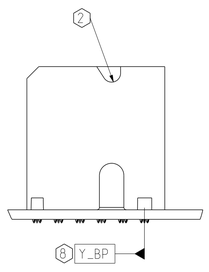


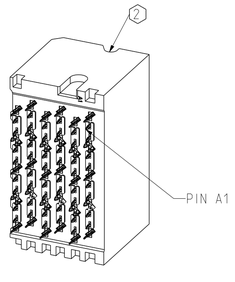
CONNECTOR REFERENCE
SCALE 4/1



SECTION Z-Z

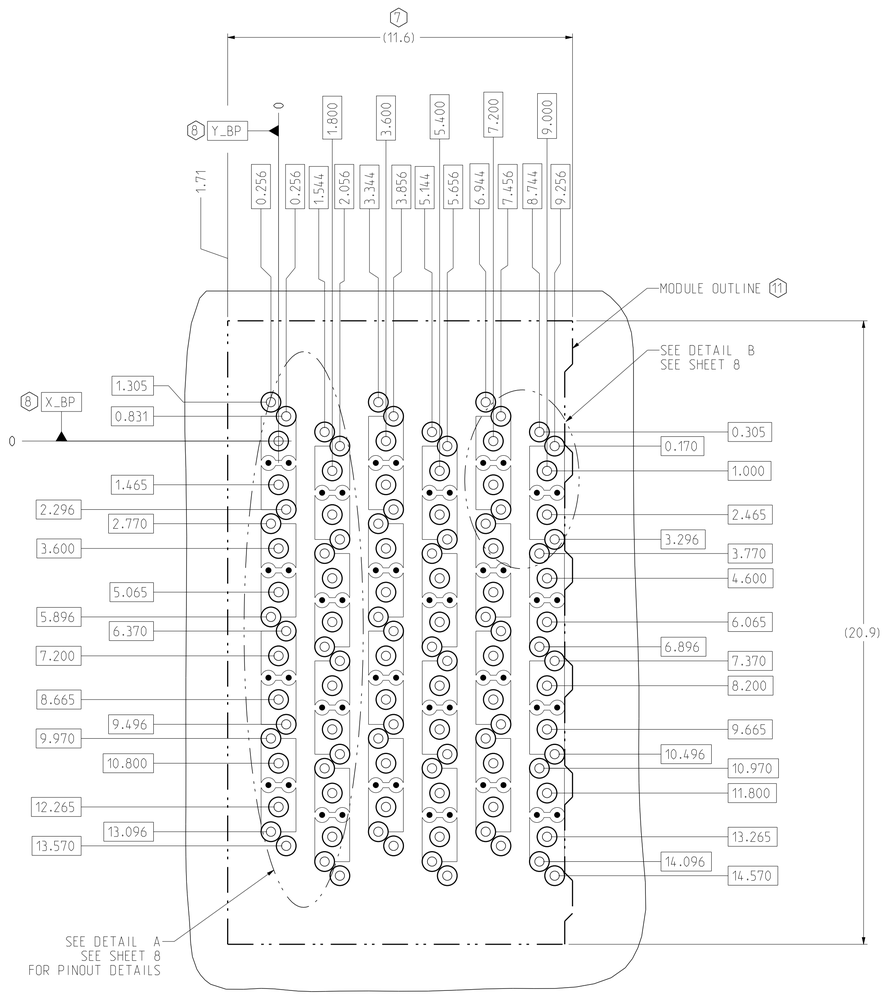






ISOMETRIC VIEW
SCALE 3/1

LEFT WALL BACKPLANE MODULE DIMENSION



BP HOLE PATTERN COMPONENT SIDE
SCALE 10/1

TOLERANCES	
0.0	±0.25
0.00	±0.13
0.000	± -
ANGLES	± 3°

DESIGN	11/03/2016	B.W ANG
DRAWN	11/03/2016	HCL-NC
CHK	11/03/2016	B.W ANG
APVD	11/03/2016	B.W ANG

INTERPRET PER ASME Y14.5M

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM, DECIMAL MARKER IS A PERIOD

CUSTOMER USE DRAWING

CODE IDENT 31413

Amphenol TCS
A Division of Amphenol Corporation
200 Innovative Way, Nashua, NH 03062 603.879.3000

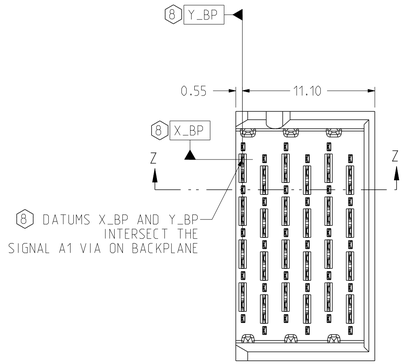
TITLE
BACKPLANE MODULES, VERTICAL MALE HEADER
XCede HD2, 4 PAIR 6 POS. THICK WALL W/EXTRA GND

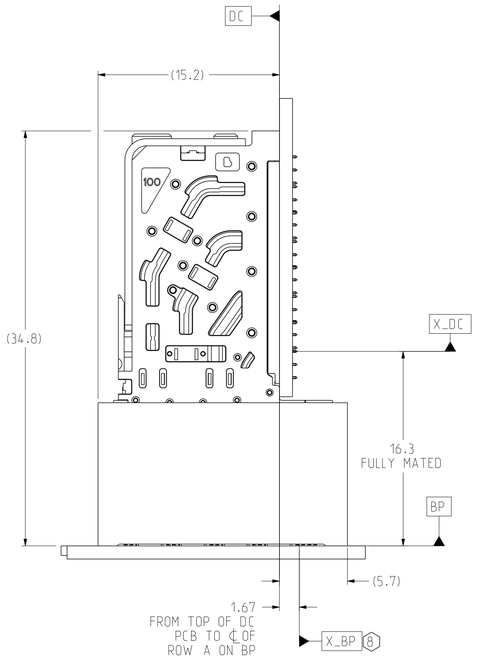
PART NO.	REV.
SEE P/N TREE SHEET 1	N/A
DRAWING NO. C-972-401C-500	REV H
ASSEM C972-401C-500_XG-HD2	0.2
DRAWING C972-401C-500_XG-HD2	0.16

SIZE D | SCALE 1/1 | SHEET 3 OF 9

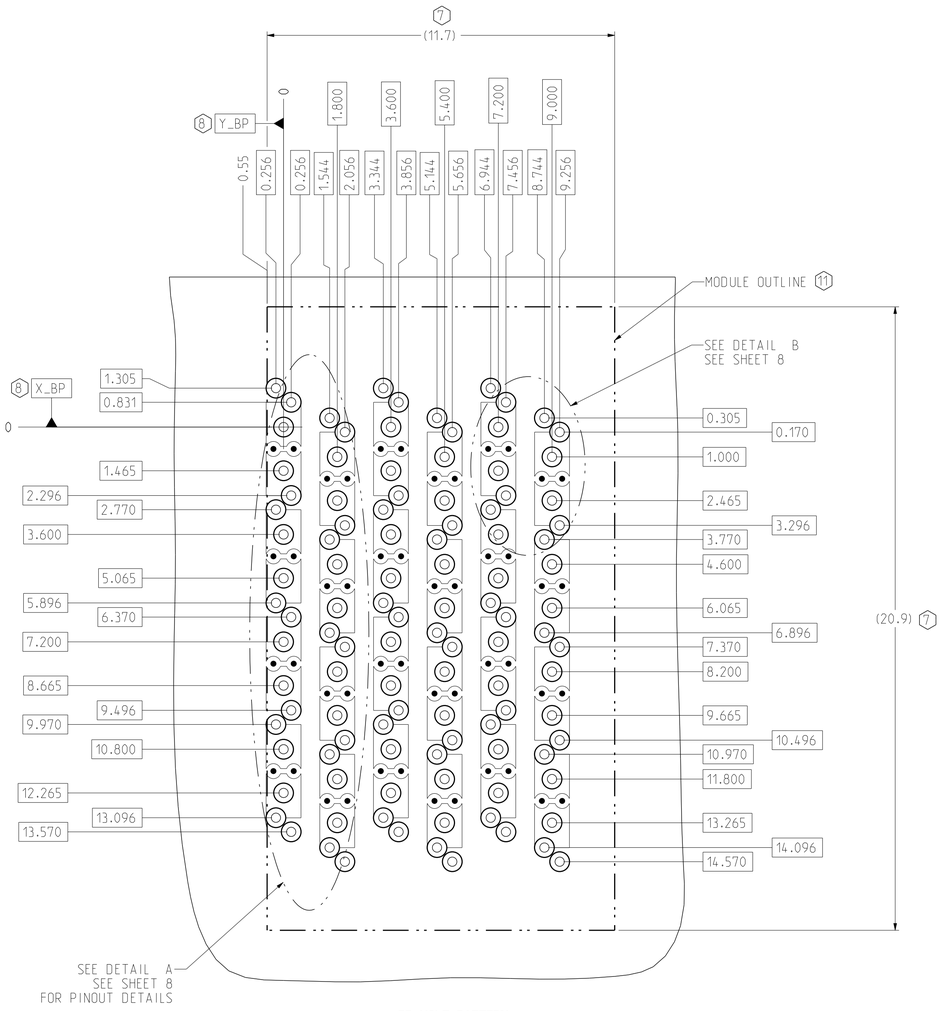
DRW NO.	SH	REV
C-972-401C-500	4	H

ZONE	REV	ECN NUMBER	DESCRIPTION	BY	DATE	APPROVED
			SEE SHEET 1			

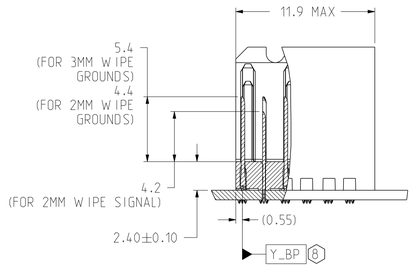




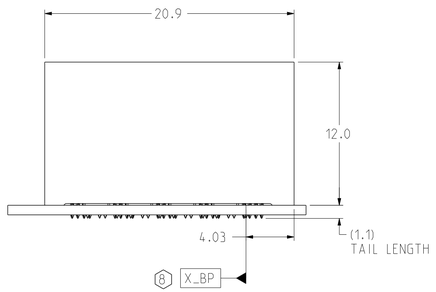
CONNECTOR REFERENCE
SCALE 4/1

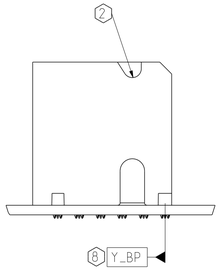


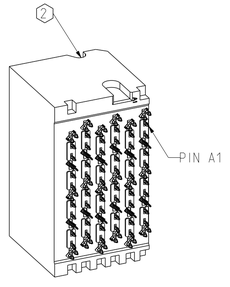
BP HOLE PATTERN COMPONENT SIDE
SCALE 10/1



SECTION Z-Z







ISOMETRIC VIEW
SCALE 3/1

RIGHT WALL BACKPLANE MODULE DIMENSION

TOLERANCES	
0.0	±0.25
0.00	±0.13
0.000	± -
ANGLES	± 3°

DESIGN 11/03/2016 B.W ANG
DRAWN 11/03/2016 HCL-NC
CHK 11/03/2016 B.W ANG
APVD 11/03/2016 B.W ANG

INTERPRET PER ASME Y14.5M
CODE IDENT 31413
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM, DECIMAL MARKER IS A PERIOD
CUSTOMER USE DRAWING

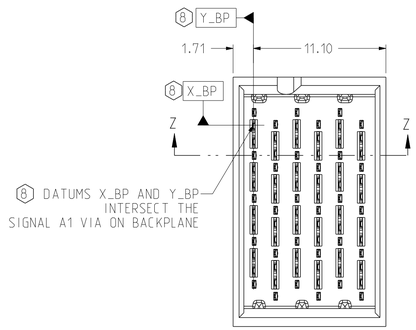
Amphenol TCS
A Division of Amphenol Corporation
200 Innovative Way, Nashua, NH 03062 603.879.3000

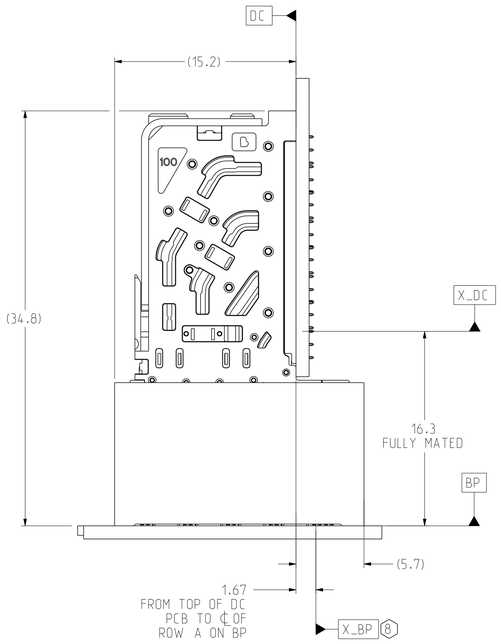
TITLE: BACKPLANE MODULES, VERTICAL MALE HEADER XCede HD2, 4 PAIR 6 POS. THICK WALL W/EXTRA GND

PART NO.	REV.
SEE P/N TREE SHEET 1	N/A
DRAWING NO. C-972-401C-500	H
ASSEM C972-401C-500_XG-HD2	0.2
DRAWING C972-401C-500_XG-HD2	0.16

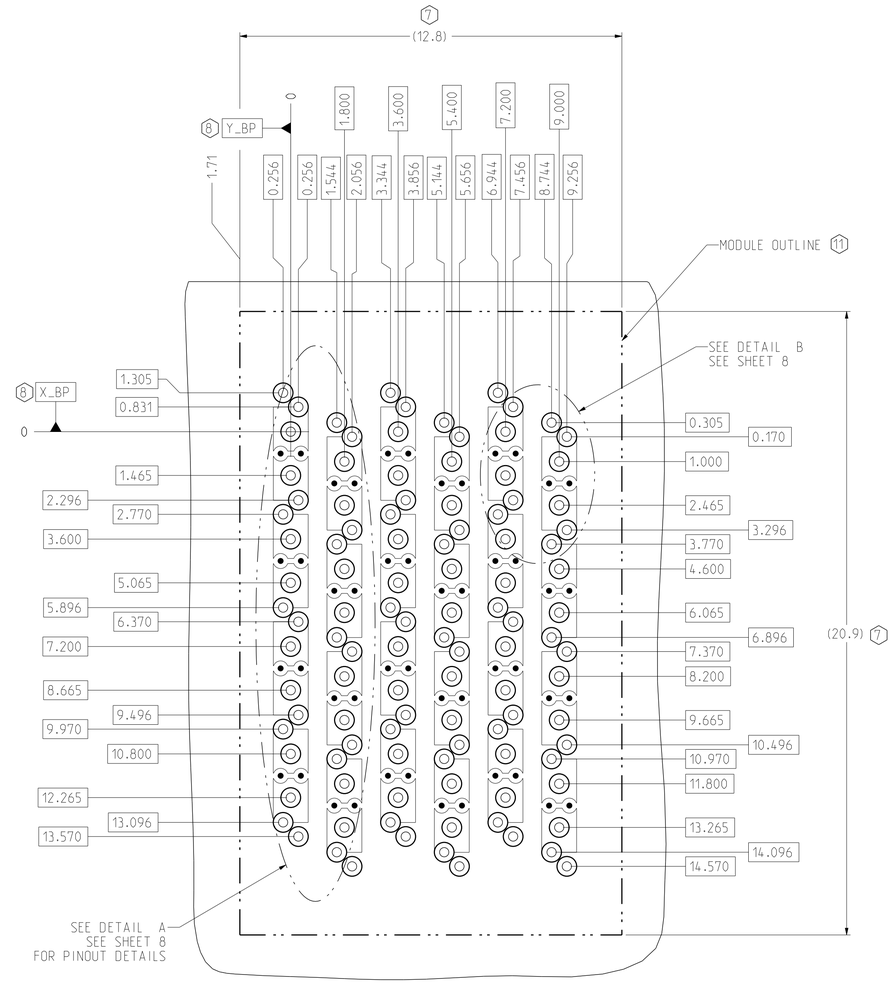
SIZE D | SCALE 1/1 | SHEET 4 OF 9

ZONE	REV	ECN NUMBER	DESCRIPTION	BY	DATE	APPROVED
			SEE SHEET 1			



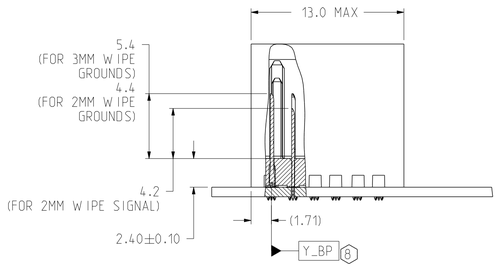


CONNECTOR REFERENCE
SCALE 4/1

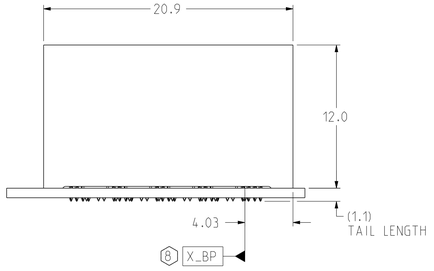


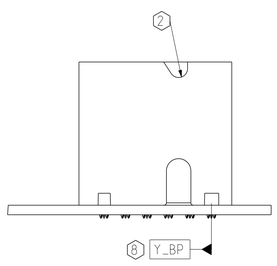
TWO WALL BACKPLANE FOOTPRINT

BP HOLE PATTERN COMPONENT SIDE
SCALE 10/1

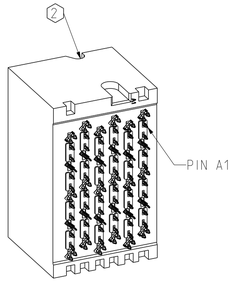


SECTION Z-Z





TWO WALL BACKPLANE MODULE DIMENSION



ISOMETRIC VIEW
SCALE 3/1

TOLERANCES	
0.0	±0.25
0.00	±0.13
0.000	± -
ANGLES	± 3°

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM. DECIMAL MARKER IS A PERIOD

INTERPRET PER ASME Y14.5M

CODE IDENT 31413

CUSTOMER USE DRAWING

DESIGN 11/03/2016 B.W ANG
DRAWN 11/03/2016 HCL-NC
CHK 11/03/2016 B.W ANG
APVD 11/03/2016 B.W ANG

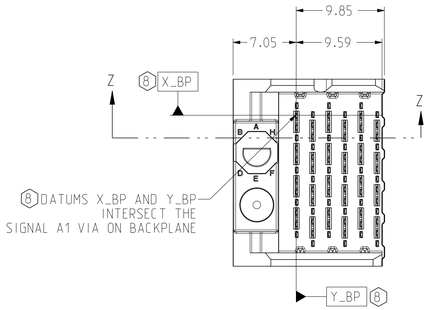
Amphenol TCS
A Division of Amphenol Corporation
200 Innovative Way, Nashua, NH 03062 603.879.3000

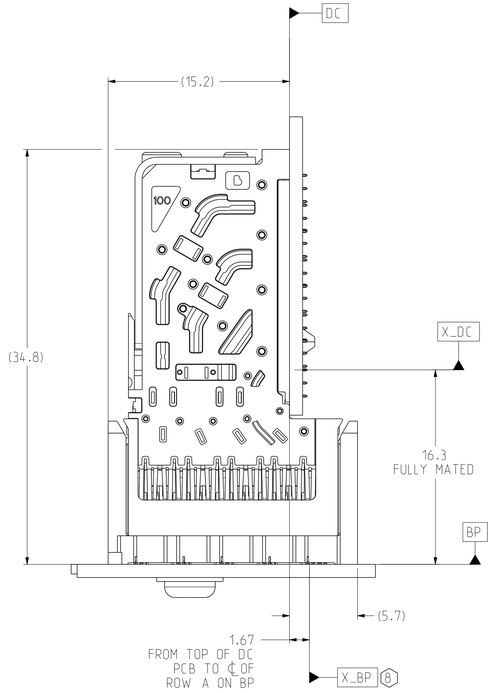
TITLE
BACKPLANE MODULES, VERTICAL MALE HEADER
XCede HD2, 4 PAIR 6 POS. THICK WALL W/EXTRA GND

PART NO. SEE P/N TREE SHEET 1 REV. N/A
DRAWING NO. C-972-401C-500 REV H
ASSEM C972-401C-500_XG-HD2 0.2
DRAWING C972-401C-500_XG-HD2 0.16
SIZE D | SCALE 1/1 | SHEET 5 OF 9

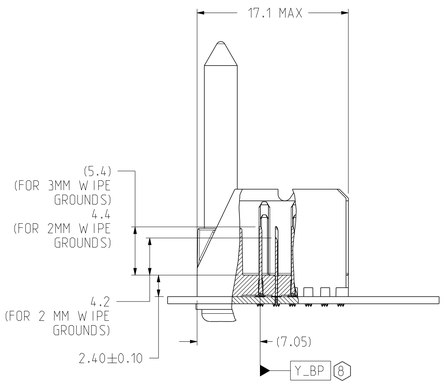
DRW NO.	SH	REV
C-972-401C-500	6	H

ZONE	REV	ECN NUMBER	DESCRIPTION	BY	DATE	APPROVED
			SEE SHEET 1			

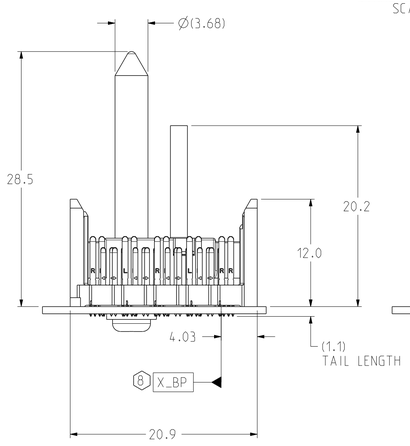


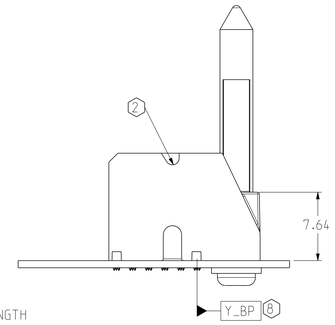


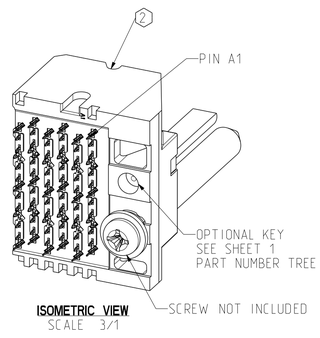
CONNECTOR REFERENCE
SCALE 4/1



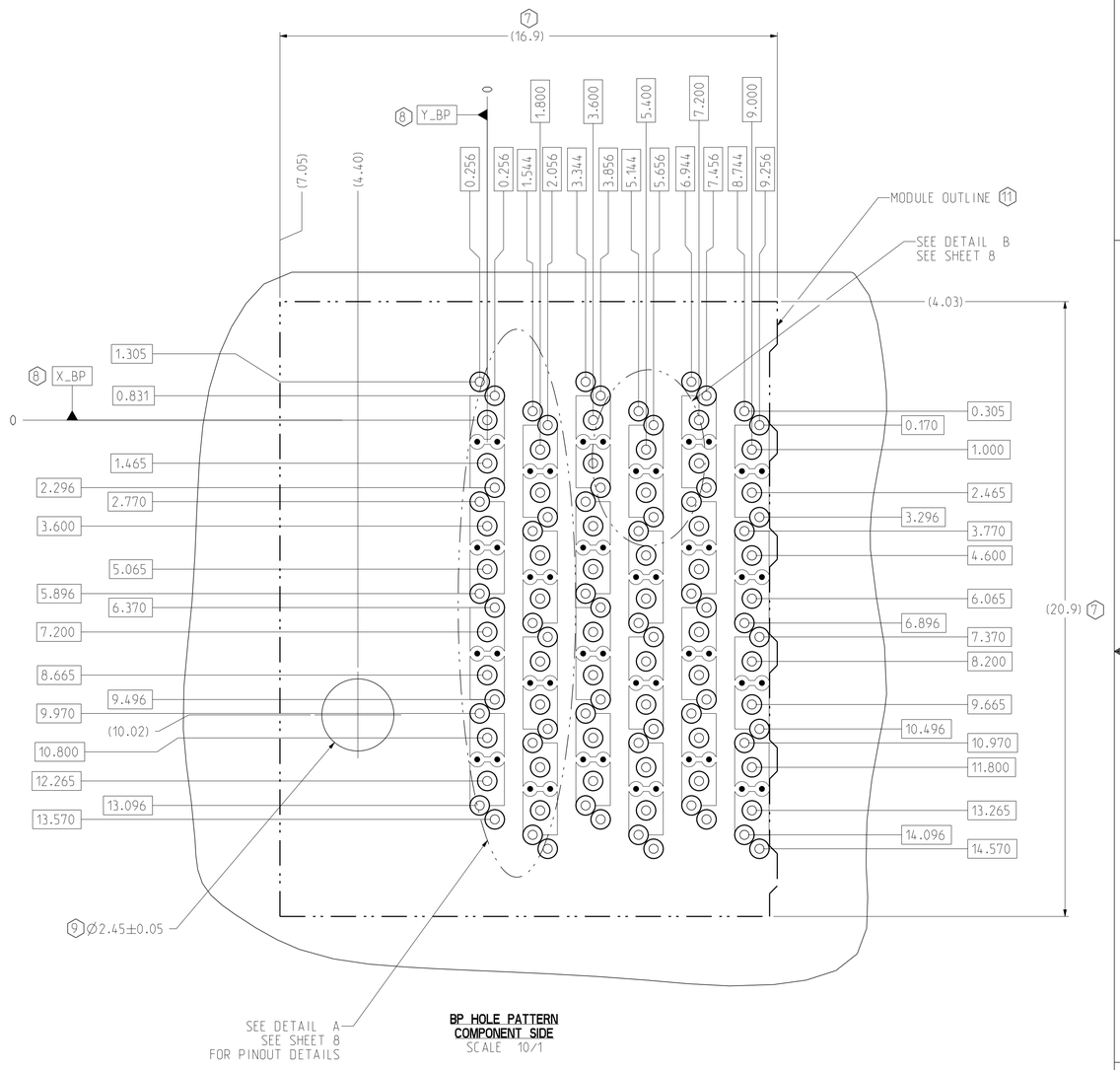
SECTION Z-Z







ISOMETRIC VIEW
SCALE 3/1



BP HOLE PATTERN
COMPONENT SIDE
SCALE 10/1

LEFT POLARIZING/GUIDE
BACKPLANE MODULE DIMENSION

TOLERANCES	
0.0	±0.25
0.00	±0.13
0.000	± -
ANGLES	± 3°

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM. DECIMAL MARKER IS A PERIOD

INTERPRET PER ASME Y14.5M

CODE IDENT 31413

CUSTOMER USE DRAWING

DESIGN	11/03/2016	B.W ANG
DRAWN	11/03/2016	HCL-NC
CHK	11/03/2016	B.W ANG
APVD	11/03/2016	B.W ANG

Amphenol TCS
A Division of Amphenol Corporation
200 Innovative Way, Nashua, NH 03062 603.879.3000

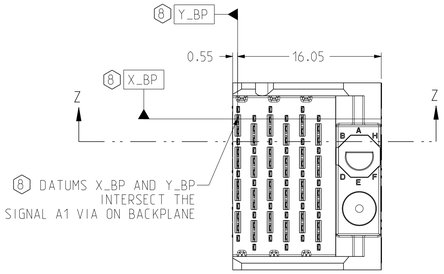
TITLE
BACKPLANE MODULES, VERTICAL MALE HEADER
XCede HD2, 4 PAIR 6 POS. THICK WALL W/EXTRA GND

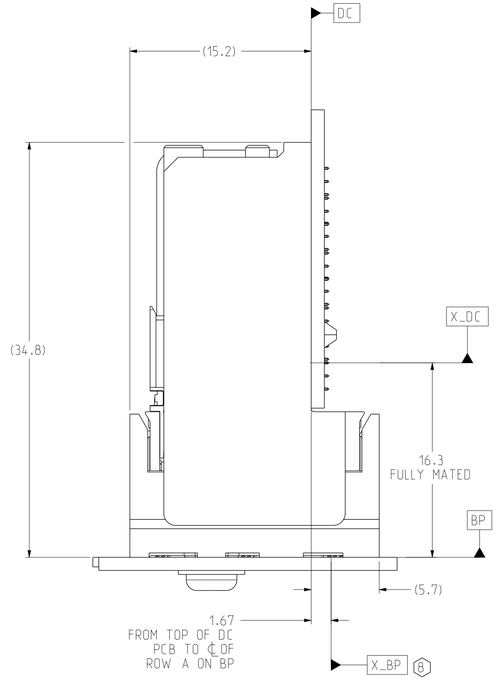
PART NO.	REV
SEE P/N TREE SHEET 1	N/A
DRAWING NO. C-972-401C-500	H
ASSEM C972-401C-500_XG-HD2	0.2
DRAWING C972-401C-500_XG-HD2	0.16

SIZE D | SCALE 1/1 | SHEET 6 OF 9

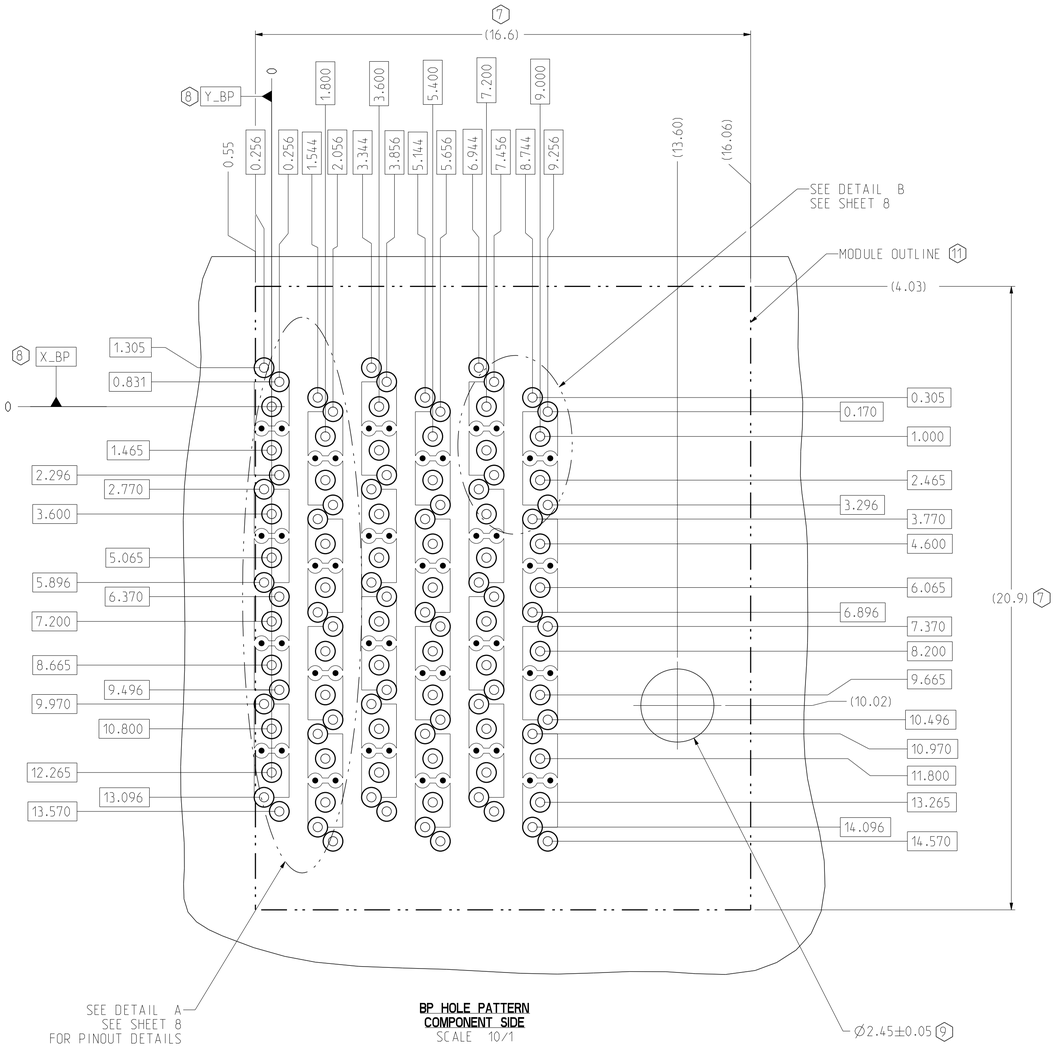
DRW NO.	SH	REV
C-972-401C-500	7	H

ZONE	REV	ECN NUMBER	DESCRIPTION	BY	DATE	APPROVED
			SEE SHEET 1			

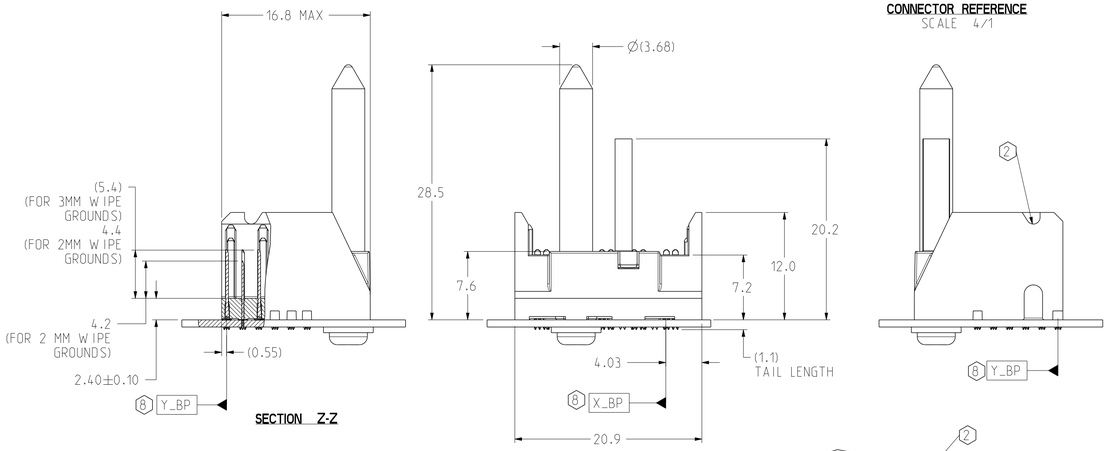




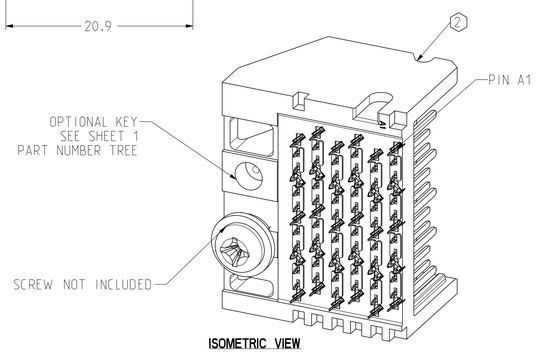
CONNECTOR REFERENCE
SCALE 4/1



BP HOLE PATTERN
COMPONENT SIDE
SCALE 10/1



SECTION Z-Z



ISOMETRIC VIEW
SCALE 4/1

RIGHT POLARIZING/GUIDE BACKPLANE MODULE DIMENSION

TOLERANCES	
0.0	±0.25
0.00	±0.13
0.000	± -
ANGLES	± 3°

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM. DECIMAL MARKER IS A PERIOD

INTERPRET PER ASME Y14.5M

CODE IDENT 31413

CUSTOMER USE DRAWING

DESIGN 11/03/2016	B.W ANG	
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APVD 11/03/2016	B.W ANG	

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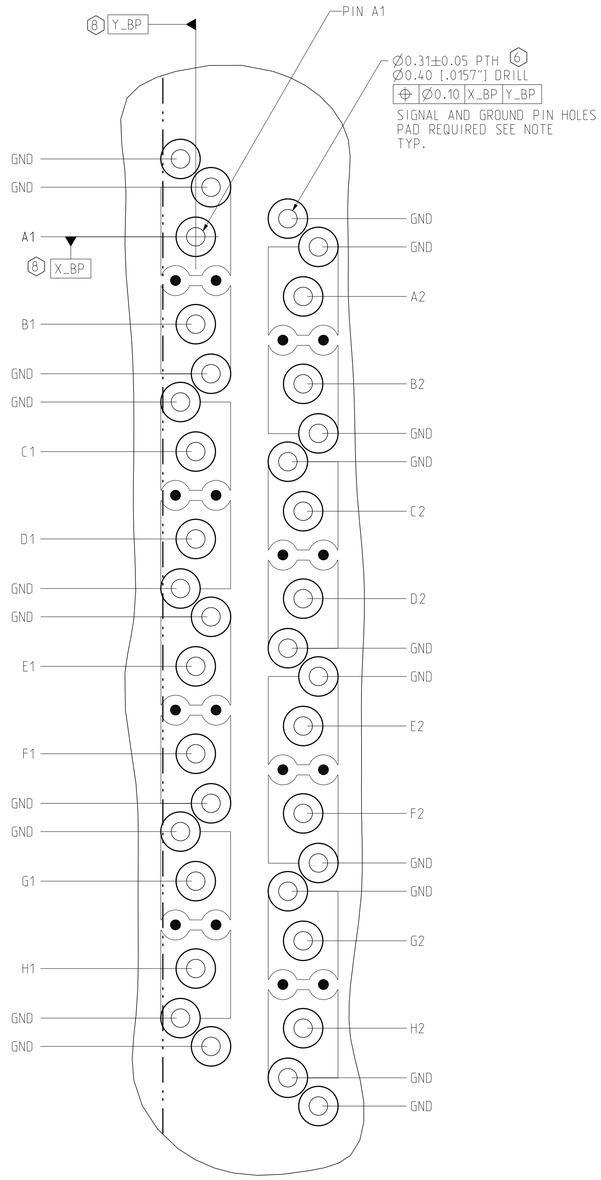
TITLE
BACKPLANE MODULES, VERTICAL MALE HEADER
XCede HD2, 4 PAIR 6 POS. THICK WALL W/EXTRA GND

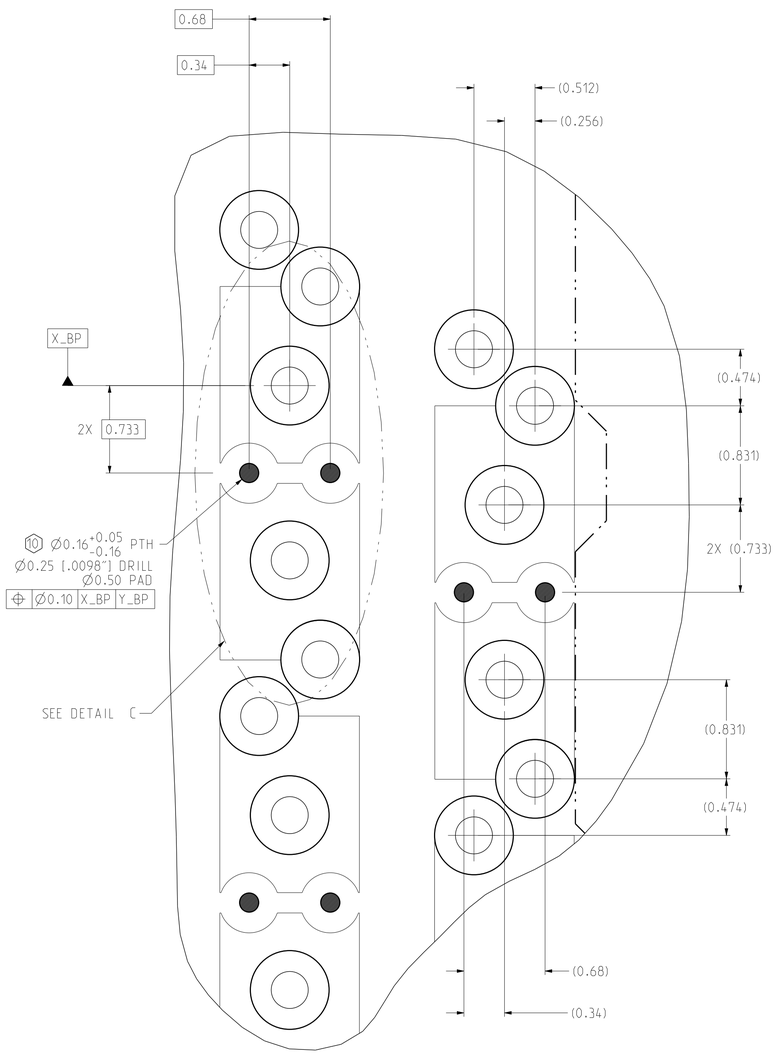
PART NO.	REV
SEE P/N TREE SHEET 1	N/A
DRAWING NO. C-972-401C-500	H
ASSEM C972-401C-500_XG-HD2	0.2
DRAWING C972-401C-500_XG-HD2	0.16
SIZE D	SCALE 1/1 SHEET 7 OF 9

DRW NO.	SH	REV
C-972-401C-500	8	H

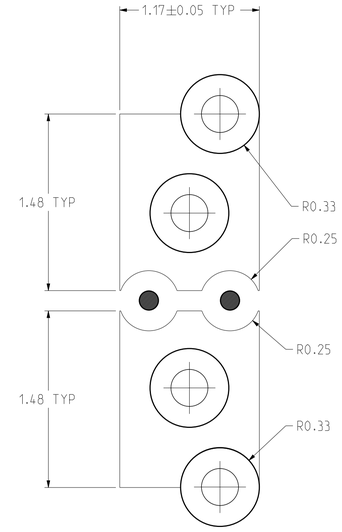
ZONE	REV	ECN NUMBER	DESCRIPTION	BY	DATE	APPROVED
			SEE SHEET 1			



DETAIL A
PINOUT DETAILS
SCALE 20/1



DETAIL B
SHADOW VIAS (BETWEEN SIGNALS) 10
TYPICAL LAYOUT
SCALE 40/1



DETAIL C
ANTIPAD DETAILS
GROUND AND SHADOW VIAS CAN BE CONNECTED AS
ONE CONTINUOUS SURFACE PAD
SCALE 40/1

TOLERANCES	
0.0	±0.25
0.00	±0.13
0.000	± -
ANGLES	± 3°

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM. DECIMAL MARKER IS A PERIOD

INTERPRET PER ASME Y14.5M

CODE IDENT 31413

CUSTOMER USE DRAWING

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APVD	11/03/2016	B.W ANG

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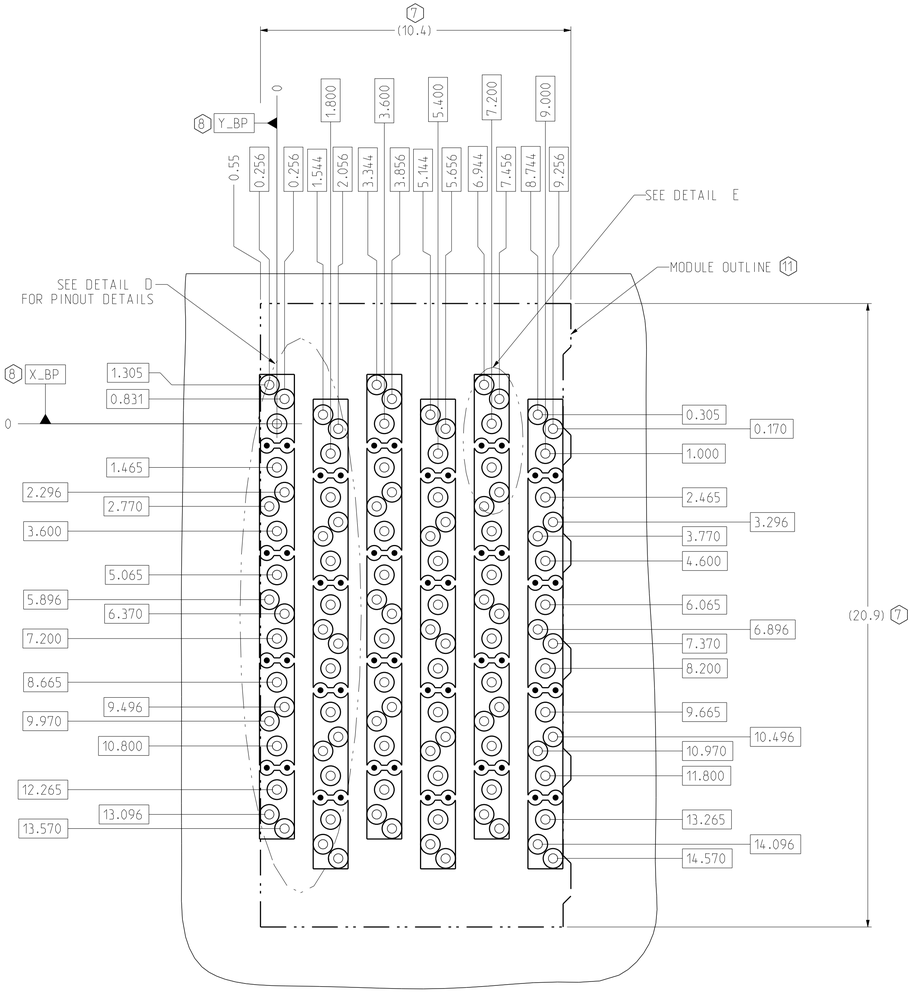
TITLE: BACKPLANE MODULES, VERTICAL MALE HEADER
XCede HD2, 4 PAIR 6 POS, THICK WALL W/EXTRA GND

PART NO.	SEE P/N TREE SHEET 1	REV N/A
DRAWING NO.	C-972-401C-500	REV H
ASSEM C972-401C-500_XG-HD2		0.2
DRAWING C972-401C-500_XG-HD2		0.16

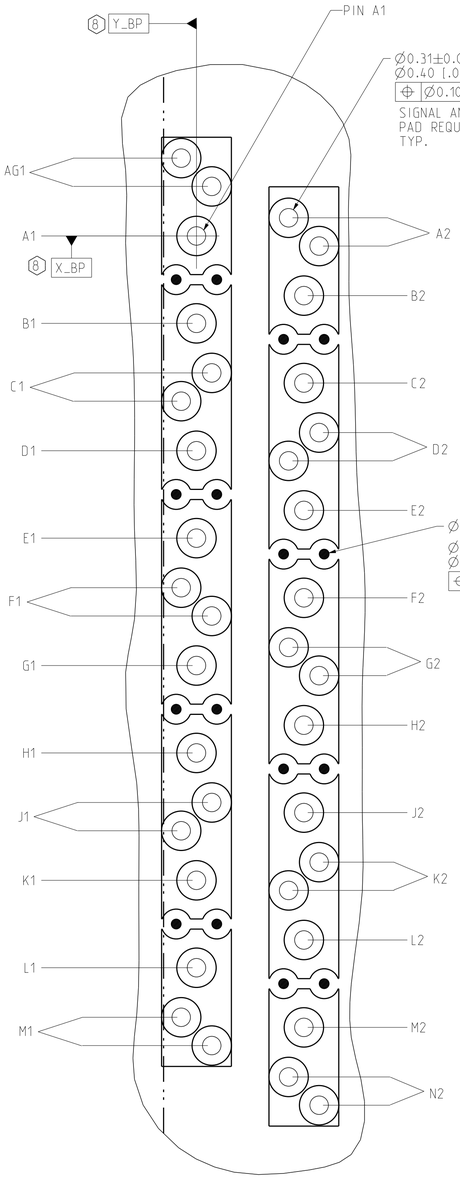
SIZE D | SCALE 1/1 | SHEET 8 OF 9

DRW NO.	SH	REV
C-972-401C-500	9	H

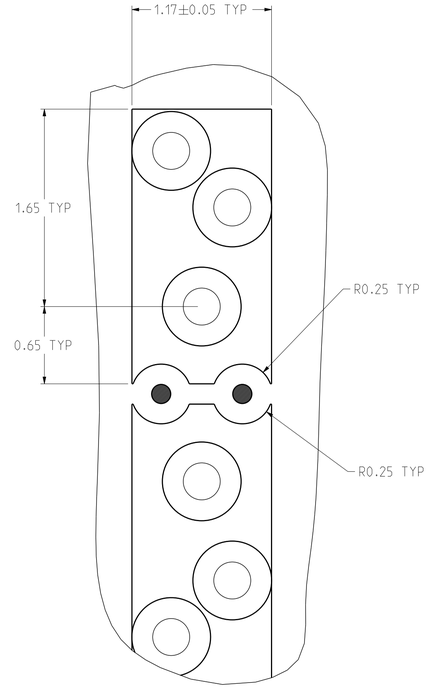
ZONE	REV	ECN NUMBER	DESCRIPTION	BY	DATE	APPROVED
			SEE SHEET 1			



SE MODULE
BP HOLE PATTERN
COMPONENT SIDE
SCALE 10/1



DETAIL D
SE PINOUT DETAILS
SCALE 20/1



DETAIL E
SE ANTIPAD DETAILS
GROUND AND SHADOW VIAS CAN BE CONNECTED AS
ONE CONTINUOUS SURFACE PAD
SCALE 40/1

TOLERANCES	
0.0	±0.25
0.00	±0.13
0.000	± -
ANGLES	± 3°

INTERPRET PER ASME Y14.5M

CODE IDENT 31413

DESIGN 11/03/2016	B.W ANG
DRAWN 11/03/2016	HCL-NC
CHK 11/03/2016	B.W ANG
APVD 11/03/2016	B.W ANG

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM. DECIMAL MARKER IS A PERIOD

CUSTOMER USE DRAWING

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TITLE
BACKPLANE MODULES, VERTICAL MALE HEADER
XCede HD2, 4 PAIR 6 POS, THICK WALL W/EXTRA GND

PART NO. SEE P/N TREE SHEET 1	REV N/A
DRAWING NO. C-972-401C-500	REV H
ASSEM C972-401C-500_XG-HD2	0.2
DRAWING C972-401C-500_XG-HD2	0.16
SIZE D	SCALE 1/1 SHEET 9 OF 9