

Amphenol  
FCi

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spec ref	-	dr	Hai-Ling Liu	2016/03/09	projection	MM	size	A2	scale	1:1
tolerance std	ISO 406 ISO 1101	eng	Sunny2 Liu	2016/06/16			ecn no	-	rel level	Released
TOLERANCES UNLESS OTHERWISE SPECIFIED		chr	Terris Liu	2016/06/16						
surface	ASME Y14.5	linear	0.X	±0.5	product family		10139003	rev	A	
			0.XX	±0.25	HPCE VT-ENHANCED WALLS					
			0.XXX	±0.10	P+S - UNIVERSAL DRAWING LOW HF					
		angular	0°	±2°	cat. no.		Product - Customer Drw	sheet 1 of 4		

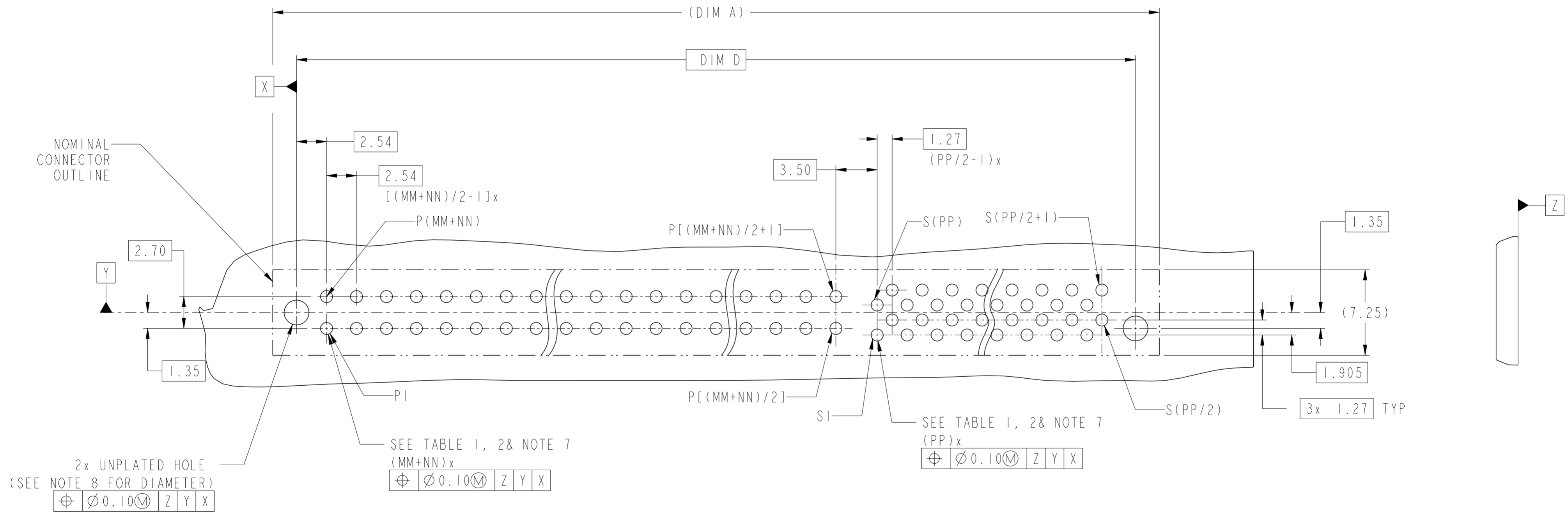
PDS: Rev :A

STATUS:Released

Printed: Jun 16, 2016

CONTACT TYPE	TOP LAYER DESCRIPTION	TABLE 1 (HPCE / SOLDER TAILS) PLATED THROUGH-HOLE REQUIREMENTS				
		DRILLED HOLE DIAMETER	COPPER THICKNESS	TIN-LEAD THICKNESS	TIN THICKNESS	FINISHED HOLE DIAMETER
POWER & SIGNAL	TIN-LEAD	1.10-1.16 (1.15 DRILL)	0.025 - 0.050	0.005 - 0.015	--	0.94 - 1.10
	IMMERSION TIN	1.10-1.16 (1.15 DRILL)	0.025 - 0.050	--	0.9 - 1.5um	0.94 - 1.10
	COPPER	1.10-1.16 (1.15 DRILL)	0.025 - 0.050	--	--	0.94 - 1.10

CONTACT TYPE	TOP LAYER DESCRIPTION	TABLE 2 (HPCE / PRESS-FIT TAILS) PLATED THROUGH-HOLE REQUIREMENTS				
		DRILLED HOLE DIAMETER	COPPER THICKNESS	TIN-LEAD THICKNESS	TIN THICKNESS	FINISHED HOLE DIAMETER
POWER & SIGNAL	TIN-LEAD	0.81-0.86 (0.85 DRILL)	0.025 - 0.050	0.005 - 0.015	--	0.65 - 0.80
	IMMERSION TIN	0.81-0.86 (0.85 DRILL)	0.025 - 0.050	--	0.9 - 1.5um	0.70 - 0.80
	COPPER	0.81-0.86 (0.85 DRILL)	0.025 - 0.050	--	--	0.70 - 0.80

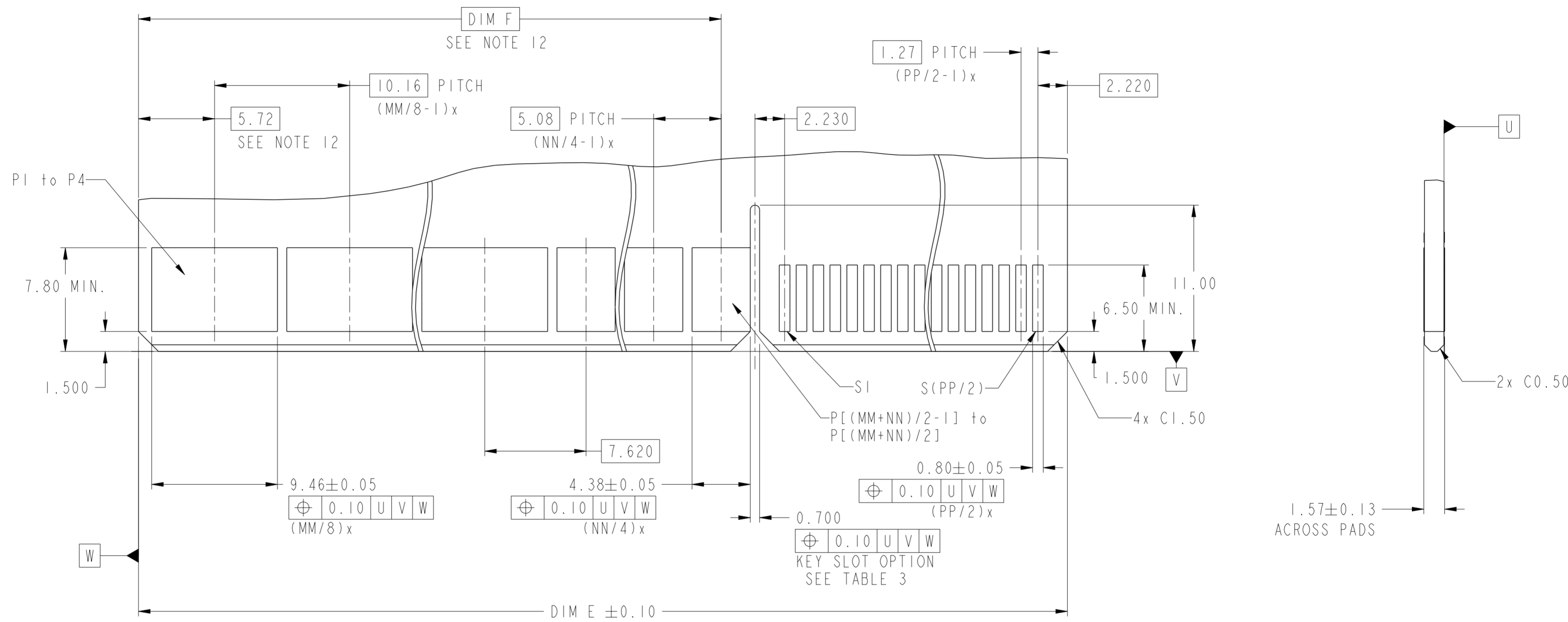


**RECOMMENDED PCB LAYOUT**  
**DIMENSION TOLERANCE IS ± 0.05 mm**

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TOLERANCES UNLESS OTHERWISE SPECIFIED		chr	Terris Liu	2016/06/16							
		appr	Pai-Ming Zheng	2016/06/16							
surface	ASME Y14.5	linear	0.X	±0.5	0.XX	±0.25	0.XXX	±0.10	angular	0°	±2°
					<b>HPCE VT-ENHANCED WALLS</b> P+S - UNIVERSAL DRAWING LOW HF		cat. no.	Product - Customer Drw	sheet 2 of 4		

Amphenol FCI

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RECOMMENDED EDGE CARD LAYOUT  
DIMENSION TOLERANCE IS ± 0.05 mm

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TOLERANCES UNLESS OTHERWISE SPECIFIED		chr	Terris Liu	2016/06/16							
		appr	Pai-Ming Zheng	2016/06/16							
surface	ASME Y14.5	linear	0.X	±0.5	0.XX	±0.25	0.XXX	±0.10	angular	0°	±2°
		Amphenol FCI		HPCE VT-ENHANCED WALLS		P+S - UNIVERSAL DRAWING LOW HF		cat. no.	Product - Customer Drw	sheet 3 of 4	
						divg no		10139003		rev	A

10139003

MM

NN

PP

H

LF

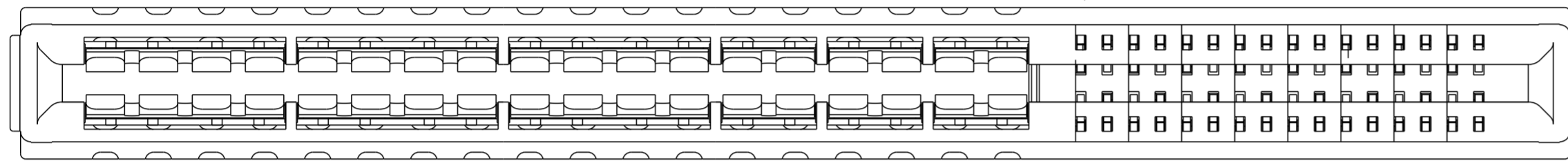
LOW HALOGEN FREE

Polarization Key Option	A	B	C	D
	Y	Y	N	N
Tail Type Note 10	STB	PF	STB	PF

QUAD PWR BEAM QTY  
(NEXT TO LEFT END)

DUAL PWR BEAM QTY  
(NEXT TO SIGNAL)

SIGNAL CONTACT QTY



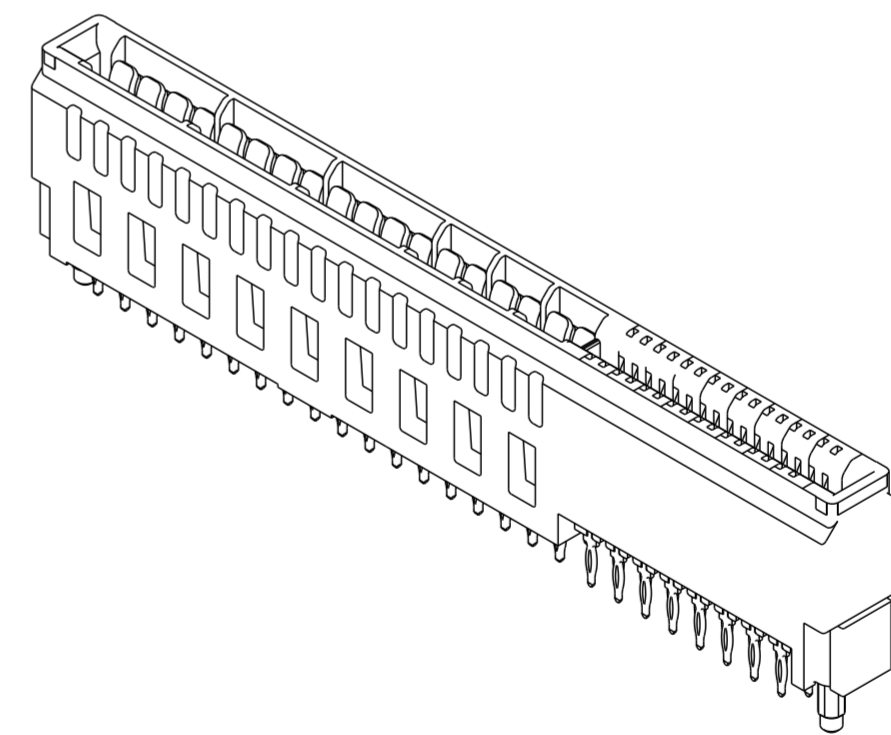
Example: The configuration above is 10139003241232BHLLF  
VERT Press fit 36P32S with polarization key. 24P is Quad beam contact, 12P is dual beam contact.

TABLE 3. PART NUMBER CODE. HPCE VERT P+S CONFIG

NOTES:

- CONNECTOR MATERIALS:  
HOUSING: HIGH TEMPERATURE THERMAL PLASTIC, BLACK  
UL 94V-0 COMPLIANT  
CONTACTS: HIGH PERFORMANCE COPPER ALLOY.
- CONTACT FINISH REF. GS-12-604 SECTION 5.2.
- PRODUCT SPECIFICATION: GS-12-604.
- APPLICATION SPECIFICATION: GS-20-128.
- PRODUCT MARKING ON HOUSING IN AREA SHOWN MEETS AFCI SPECIFICATION GS-24-007
- PACKAGING MEETS FCI SPECIFICATION GS-14-937.
- ALL HOLE SIZES ARE FINISHED HOLE SIZES.
- MOUNTING HOLES ARE UNPLATED  
Ø 2.40 +/- 0.1 FOR PRESS-FIT TAILS  
Ø 2.18 +/- 0.03 FOR SOLDER TAILS
- PRESS FIT APPLICATION TOOL DRAWING : 10119453.
- STB=SOLDER TO BOARD, 2.36MM PCB THICKNESS.  
PF=PRESS FIT, 1.57MM MINIMUM PCB THICKNESS.
- MAXIMUM OVERALL LENGTH IS 100mm.
- DIM IS NOT APPLICABLE IF NO 4 BEAM CONTACT OR 2 BEAM CONTACT.

DIM	TABLE 2. LENGTH FORMULAS.
DIM A	$(MM/8) \times 10.16 + (NN/4) \times 5.08 + (PP/2) \times 1.27 + 9.12$
DIM B	DIM "A" - 5.00
DIM C	DIM "A" - 0.94
DIM D	DIM "A" - 4.04
DIM E	DIM "A" - 5.30
DIM F	$(MM/8-1) \times 10.16 + (NN/4-1) \times 5.08 + 13.34$ (WITH 4 BEAM CONTACT)
	3.18 (WITHOUT 4 BEAM CONTACT)



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surface	ASME Y14.5	appr	Pei-Ming Zheng	2016/06/16	product family		cat. no.		Product - Customer Drw	sheet 4 of 4
	linear	0.X	±0.5		title HPCE VT-ENHANCED WALLS P+S - UNIVERSAL DRAWING LOW HF	dwg no 10139003	rev A			
		0.XX	±0.25							
	angular	0°	±2°							