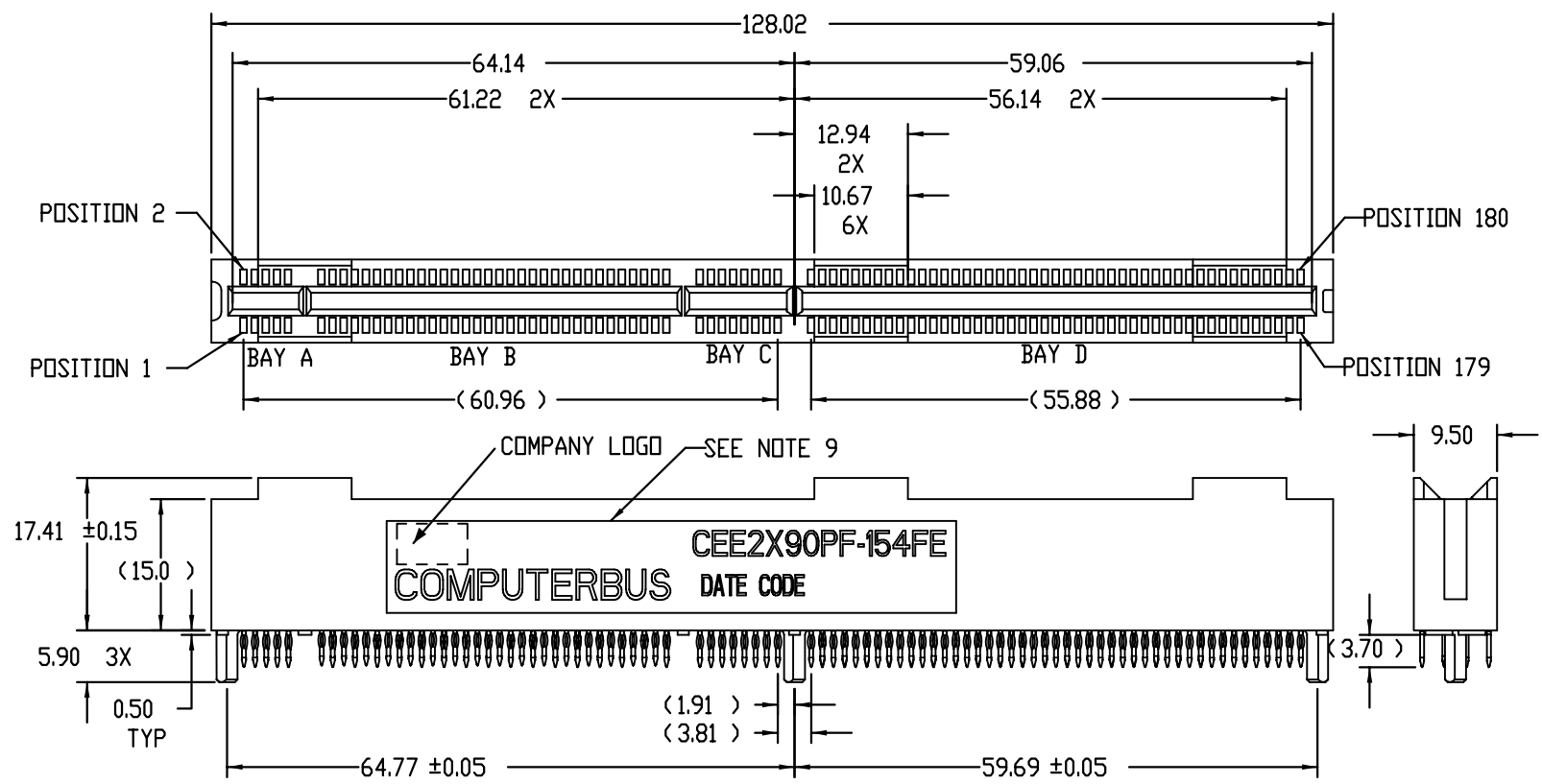


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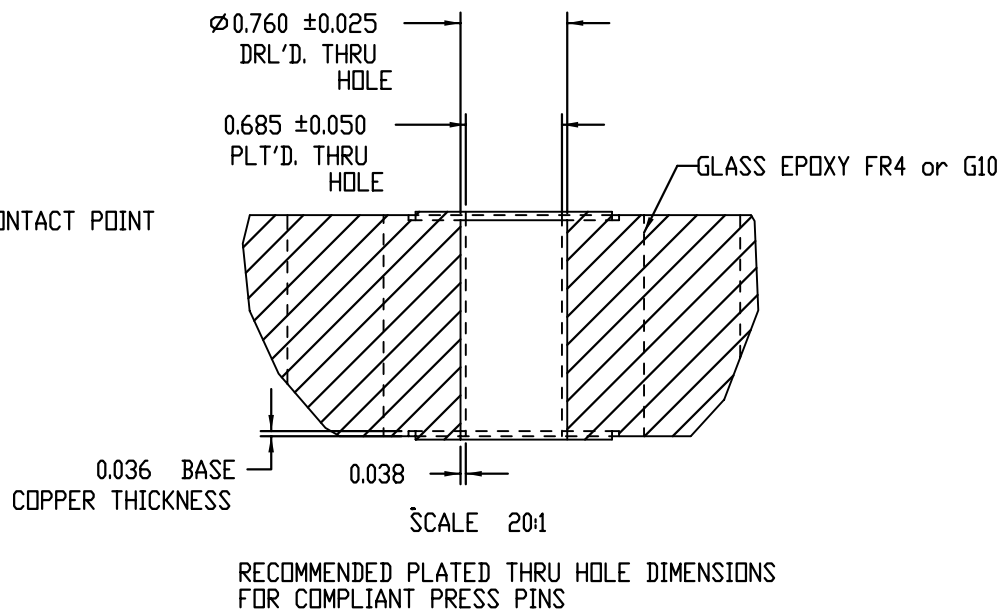
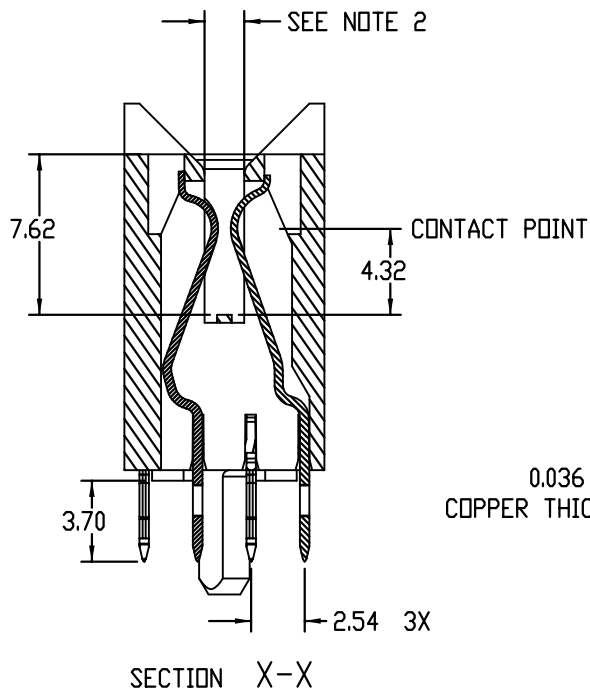
PRODUCT NUMBER  
SEE TABLE



(CONNECTOR SHOWN FULLY POPULATED, SEE TABLE FOR LOAD PATTERN)

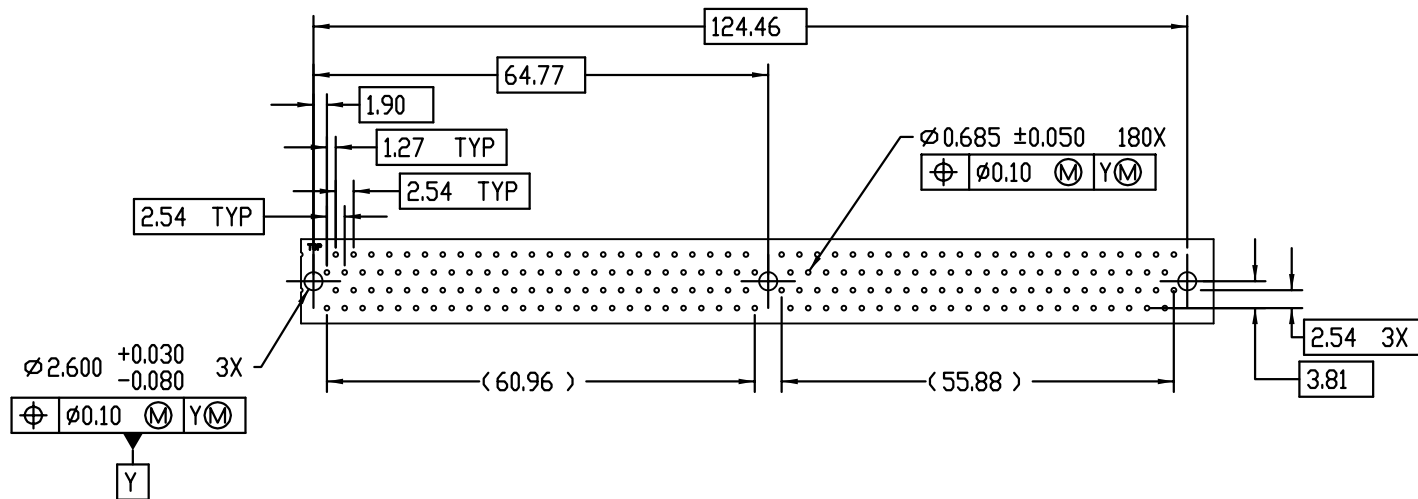
mat'l. code				surface	tolerance	projection	product family
				ISO 1302	ISO 406 ISO 1101		CARDEDGE
ltr	ec'n no	dr	date	tolerances unless otherwise specified		MM scale 13:10	title
H	V11759	MEP	7/21/01	angles	.XX±.2		CEE 2X90 PF
J	V12283	GIP	10/1/01	linear	.XX±.10		CONNECTOR ASSEMBLY
K	V04-1156	TAB	12/8/04	0°±1°	.XXX±.050		
L	M05-0075	ERE	4/25/05	dr	G. PETERS	10/4/01	dwg no
M	M06-0037	MHT	3/30/06	engr	D. CASEY	10/3/01	sheet 1 of 6 size
N	M06-0234	AGS	6/14/06	chr	G. PETERS	10/4/04	S97316 A3
P	M08-0241	MHT	8/25/08	appd	D. CASEY	10/4/01	type
sheet	revision	P	P	P	P	P	Product Customer Drawing
index	sheet	1	2	3	4	5	

FCI CATALOG NO. F/CONNECTORS w/CARD COLLECTORS	CONN. SIZE	NUMBER OF CONTACTS LOADED	TERMIN.	LOAD PATTERN UNPOPULATED POSITIONS	CONTACT PAIRS BAY A	CONTACT PAIRS BAY B	CONTACT PAIRS BAY C	CONTACT PAIRS BAY D
CEE2X90PF-154FE	2x90	145	P.F.	1,2,4,5,7,25,26,27,28,37,38,47,48,49,	5	32	8	45
CEE2X90PF-154FELF				50,67,68,69,70,71,72,73,74,91,92,93, 94,113,114,115,116,153,154,155,156				



mat'l. code				surface ISO 1302	tolerance ISO 406 ISO 1101	projection MM	product family CARDEDGE
ltr	ecm no	dr	date	tolerances unless otherwise specified		scale 1:1	title CEE 2X90 PF CONNECTOR ASSEMBLY
P				angles	linear		
				0°±1°	.X±.2 .XX±.10 .XXX±.050		
				dr	G. PETERS	10/4/01	dwg no S97316 sheet 2 of 6 size A3
				enr	D. CASEY	10/3/01	
				chr	G. PETERS	10/4/04	
				appd	D. CASEY	10/4/01	
sheet index	revision sheet						type Product Customer Drawing

PRODUCT NUMBER  
SEE TABLE



RECOMMENDED BACKPLANE HOLE PATTERN FOR CEE2X90PF-154FE & CEE2X90PF-154FELF

mat'l. code				surface ISO 1302	tolerance ISO 406 ISO 1101	projection	product family
ltr	ec'n no	dr	date	tolerances unless otherwise specified		MM	CARDEDGE
P				angles	linear	scale 1:1	title
							CEE 2X90 PF
							CONNECTOR ASSEMBLY
				dr	G. PETERS	10/4/01	dwg no
				enr	D. CASEY	10/3/01	sheet 3 of 6 size
				chr	G. PETERS	10/4/04	A3
				appd	D. CASEY	10/4/01	type
sheet	revision						Product Customer Drawing
index	sheet						



PRODUCT NUMBER

SEE TABLE

## NOTES:

1. INTERPRET THIS DRAWING IN ACCORDANCE WITH ANSI Y14.5M -1982.
- ② CONNECTORS WITH CARD COLLECTING SCOOPS ARE DESIGNED TO ACCOMMODATE 1.57+/-180 PC BOARDS WITH WARPAGE UP TO +/-2.03.
3. RECOMMENDED COMPONENT BOARD MATERIAL:  
P.C. BOARD:FR-4 WITH 28.35 GRAMS MIN. COPPER, PADS PLATED WITH .76 MICRONS MIN GOLD, PER MIL-G-45204, TYPE 1, CLASS 1, GRADE C OVER 2.54 MICRONS MIN NI. UNDERPLATE PER QQ-N-290.
4. RECOMMENDED BACK PLANE THICKNESS IS 2.39 FOR 3.71 COMPLIANT TAIL.
5. CONTACT MATING SURFACES ARE LUBRICATED WITH OS-138.
6. MATERIAL:

BODY: POLYPHTHALAMIDE (PPA) UL RATED 94V-0  
COLOR, BLACK

CONTACTS: PHOS BRONZE, PER FCI SPEC. M738

CONTACT FINISH: FE 0.75 MICRONS MIN GOLD OR GXT IN CONTACT  
AREA 1-3 MICRONS MIN 60/40 TIN LEAD ON SOLDER TAILS  
2 MICRONS MIN NI UNDERPLATE ALL OVER.

LEAD FREE OPTION:

CONTACT FINISH: FE 0.75 MICRONS MIN GOLD OR GXT IN CONTACT  
AREA 1-3 MICRONS MIN PURE TIN ON SOLDER TAILS  
2 MICRONS MIN NI UNDERPLATE ALL OVER.

7. PERFORMANCE CHARACTERISTICS: SEE SHEET 7.
8. APPLICATION SPECIFICATION PER BUS-09-026.
9. ITEM NAME, LOGO, PART NUMBER, DATE CODE, AND UL SYMBOLS TO APPEAR IN THIS AREA.

⑩ LF SUFFIX AT THE END OF PART NUMBER IS LEAD FREE.

⑪ THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATION AS DESCRIBED IN GS-22-008.

⑫ PLATING OPTIONS:  
MAY BE EITHER GOLD OR GXT PLATED AT MANUFACTURER'S OPTION.

mat'l. code				surface ISO 1302		tolerance ISO 406 ISO 1101		projection MM		product family CARDEGE	
ltr	ecr no	dr	date	tolerances unless otherwise specified						title	
P				angles	linear	.X±.2 .XX±.10 .XXX±.050		scale 1:1		CEE 2X90 PF CONNECTOR ASSEMBLY	
				dr	G. PETERS	10/4/01				dwg no	
				enr	D. CASEY	10/3/01				sheet 5 of 6 size	
				chr	G. PETERS	10/4/04				S97316 A3	
				appd	D. CASEY	10/4/01				type Product Customer Drawing	
sheet	revision										
index	sheet										

PRODUCT NUMBER

SEE TABLE

## PERFORMANCE CHARACTERISTICS:

## ENVIRONMENTAL:

OPERATING TEMPERATURE: -40C TO 105C

THERMAL SHOCK: MIL-STD-1344, METHOD 1003.1)-55C TO +85C, 5 CYCLES)

FLAMABILITY RATING: UL94V-0

## MECHANICAL:

DURABILITY: 100 MATING CYCLES WITHOUT PHYSICAL DAMAGE, OR EXCEEDING LOW LEVEL CONTACT  
RESISTANCE REQUIREMENTS WHEN MATED WITH RECOMMENDED CARD.

CONTACT RETENTION: MIL-STD-1344, METHOD 2007.1, 4.4 N MIN.

MATING FORCE: MIL-STD-1344, METHOD 2013.1 2.0 N MAX. AVERAGE PER OPPOSING PAIR USING  
GAUGE PER MIL-STD-C-21097 WITH CARD PROFILE

CONTACT NORMAL FORCE: 0.72 N MINIMUM

PRESS FIT TERMINATION FORCES: INSERTION FORCE 70 N MAX. PER PIN  
RETENTION FORCE 9 N MIN. PER PIN

## ELECTRICAL:

CONTACT RESISTANCE: MIL-STD-1344, METHOD 3002-1, WITH 10 MILLIOHM MAX. INITIAL, 20  
(LOW SIGNAL LEVEL) MILLIOHM RISE. COMPONENT BOARD SIDE - 1 MILLIOHM MAX., CONNECTION  
PRESS FIT PIN WITH PLATED THROUGH HOLE.



INSULATION RESISTANCE: MIL-STD-202, METHOD 302, CONDITION B, 1000 MEGAOHMS MIN.

DIELECTRIC WITHSTAND VOLTAGE: MIL-STD-1344, METHOD D3001.1 CONDITION 1, 500 VAC RM

CAPACITANCE: 2 PICO FARADS, MAX AT 1 MEGAHERTZ

CURRENT RATING: 1 AMP, 30C RISE ABOVE AMBIENT

VOLTAGE RATING: 150 VAC (RMS)

mat'l. code				surface ISO 1302		tolerance ISO 406 ISO 1101		projection 		product family CARDEDGE	
ltr	ecn no	dr	date	tolerances unless otherwise specified				MM		title	
P				angles	linear	.X±.2				CEE 2X90 PF	
						.XX±.10				CONNECTOR ASSEMBLY	
				0°±1°		.XXX±.050		scale 1:2		dwg no	
				dr	G. PETERS	10/4/01				sheet 6 of 6 size	
				engr	D. CASEY	10/3/01				S97316	
				chr	G. PETERS	10/4/04				A3	
				appd	D. CASEY	10/4/01				type Product Customer Drawing	
sheet	revision										
index	sheet										