

## TE series rectangular high and low frequency electrical and optical integrated connectors

### Product Introduction

Rectangular high and low frequency electrical and optical integrated connectors comply with the M series connectors of IEC60603-2, suitable for cabinets, electrical connection between PCB. Products are composed of plug and receptacle. Corresponding position on the plug and receptacle reserved a hole which can be used for installing the fiber, high current, high frequency coaxial or differential contacts to realize high and low current, high frequency coaxial, mixed optical fiber products, thus greatly extending the application scope of the product.

Execution enterprise standard: Q/21EJ677

Main technical performance

[Contact Performance]

——High frequency contact

Item		D4 coaxial	DB4 coaxial
Characteristic impedance ( $\Omega$ )		50 $\Omega$	50 $\Omega$
transmission frequency	flexible cable	0~2GHz	0~10GHz
	Semi-flexible cable	0~2GHz	0~20GHz
voltage standing wave ratio (VSWR)		0~0.5GHz SWR $\leq$ 1.22	$\leq 1.15 + 0.02F$ F unit GHz
		0.5~2GHz SWR $\leq$ 1.5	
Contact resistance ( $m\Omega$ )	Center conductor	10 $m\Omega$	5 $m\Omega$
	Outer conductor	5 $m\Omega$	3 $m\Omega$
(M $\Omega$ ) Insulation resistance		1000 M $\Omega$	1000 M $\Omega$
(V) dielectric withstand voltage		1500 V	1000 V
Isolation		50dB	50dB

——Optical contact

SM, wavelength 9/125 nm; Insert loss $\leq$ 1dB; RL (return loss)  $\geq$ 35dB

MM, wavelength 62.5/125nm; Insert loss $\leq$ 1dB;

——LF contact:

Insulation resistance: 5000 M $\Omega$

Dielectric withstand voltage

LF contact and contact: 1000 VAC

Contact resistance: 10  $m\Omega$  ( $\phi$ 0.8), 0.51  $m\Omega$  (8#)

Current rating: 2A (φ0.8); 50A (8#)

[Mechanical performance]

—Endurance: 500 cycles

—Shock: half sinusoid, acceleration 980m/s<sup>2</sup> (100g)

( use optical contact, the acceleration 490m/ S<sup>2</sup>)

—Vibration: sine 10~2000Hz, acceleration 147m/s<sup>2</sup>

- ( use optical contact, sine 10-55Hz, single amplitude 0.75mm)

[Environmental performance]

—Operating temperature: -55~+125℃

(use optical contact, connector working temperature -45~+80℃)

—Salt spray: 96h

Ordering Information

TE X X - X - X X X  
 1 2 3 4 5 6 7

No.	Classify Characteristics	Classify contents	Mark
1	Basic series	Rectangular high and low frequency mixed connector	TE
2	Serial number	Structure type	3、4.....
3	Type of LF contact	pin	1
		socket	2
4	Contact arrangement No. (LF+ Special, each has two number)	One special contact on each side of both sides of 78 low frequency contacts	7802
		Two special contacts on each side of both sides of 60 low frequency contacts	6004
		Three special contacts on each side of both sides of 42 low frequency contacts	4206
		Four special contacts on each side of both sides of 24 low frequency contacts	2408
		Five special contacts on each side of both sides of 6 low frequency contacts	0610
5	Model installed with LF contacts	fully loaded with contacts	1
		no contact in b row	2



No.	Classify Characteristics	Classify contents	Mark
		no contact in odd number cavity	3
		no contact in odd number and b row	4
		no contact in b row and even number in row a, c	5

No.	Classify Characteristics	Classify contents	Mark
6	Terminating forms of LF contacts	Straight PCB	1( used for the 1.6mm thick PCB)
		Straight PCB lengthening	2( used for the 2.4mm thick PCB)
		Elbow PCB	3
		soldering cup	4
		wire wrap	5
7	Contact plating	gold plating	1 ( can be omit)
		silver plating	2
Note: special contacts should be ordered separately.			

For example: TE34—7802—211 express: rectangular high and low frequency integrated connector series I, socket contact, 78 cores LF and 2 cores fiber integrated, no LF contacts in b row, straight PCB termination, gold plating.

### Contacts layout

Contact arrangement code	Hole number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32				
		7802	row a				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	row b	○			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	○		
	row c				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
6004	row a						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
	row b	○		○			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	○	○		
	row c						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
4206	row a									*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
	row b	○		○		○				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	○	○	○	
	row c									*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
2408	row a													*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
	row b	○		○		○		○						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	○	○	○	
	row c									*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
0610	row a															*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
	row b	○		○		○		○		○		○		○		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	○	○	○	
	row c									*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

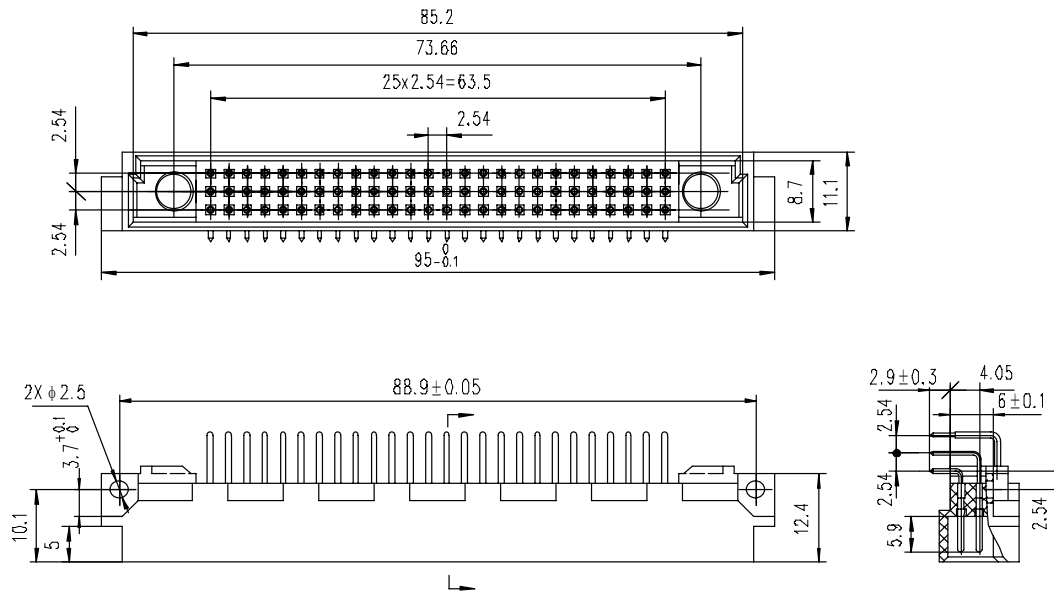
\* Note: One indicates a low-frequency contact and one represents a special contact

\* stands for a LF contact, O stands for a special contact

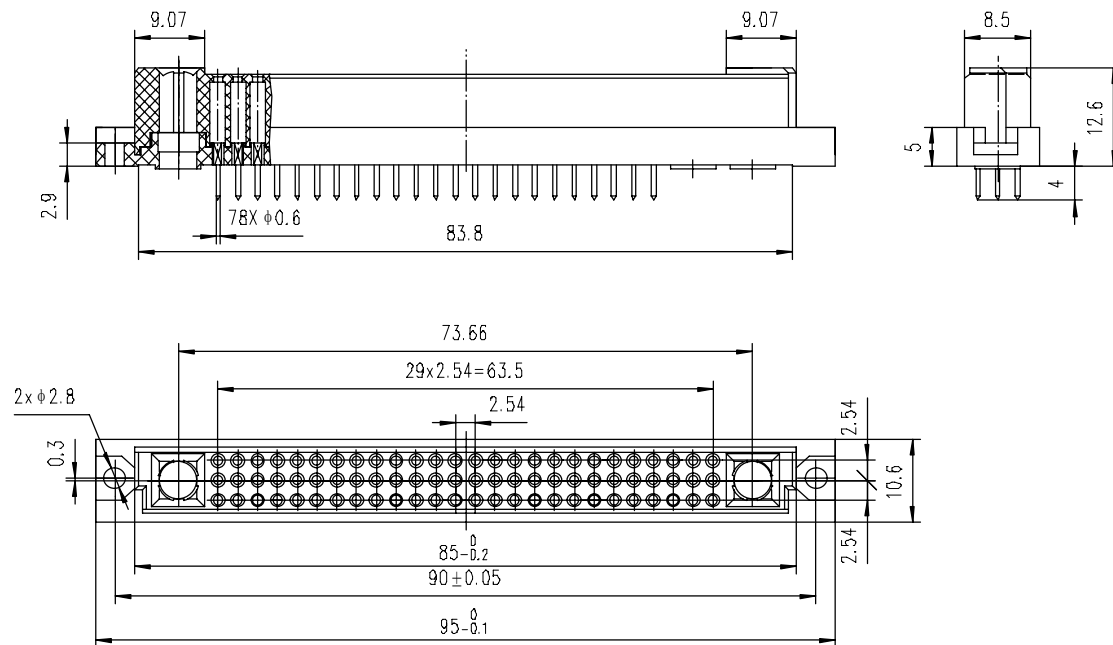
### Outline dimensions

7802 contact point (78 cores LF contacts, 2 cores special contacts)

#### Plug



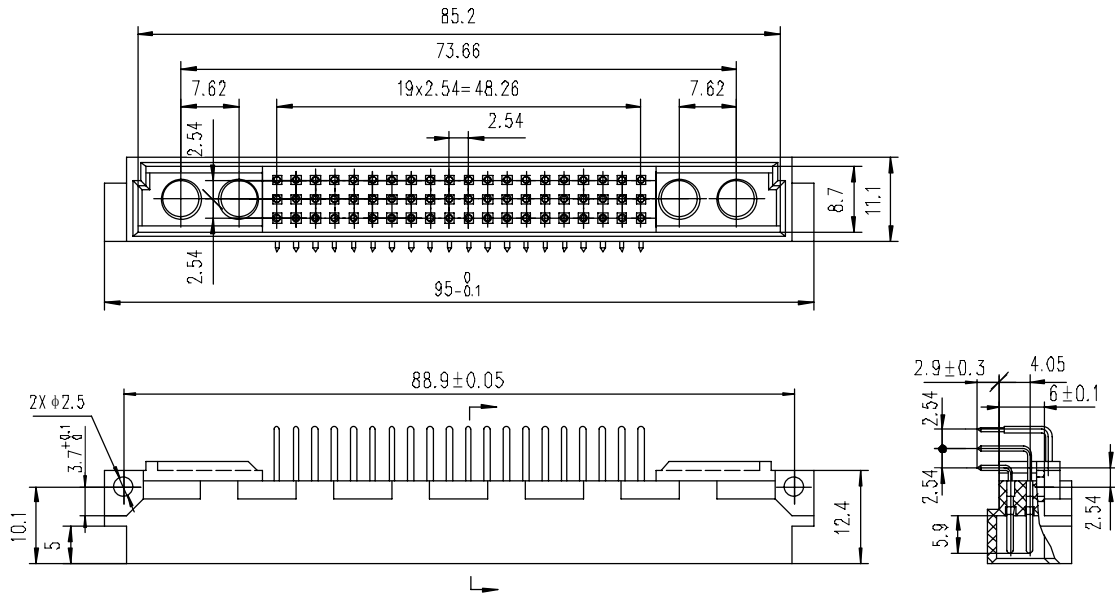
#### Receptacle



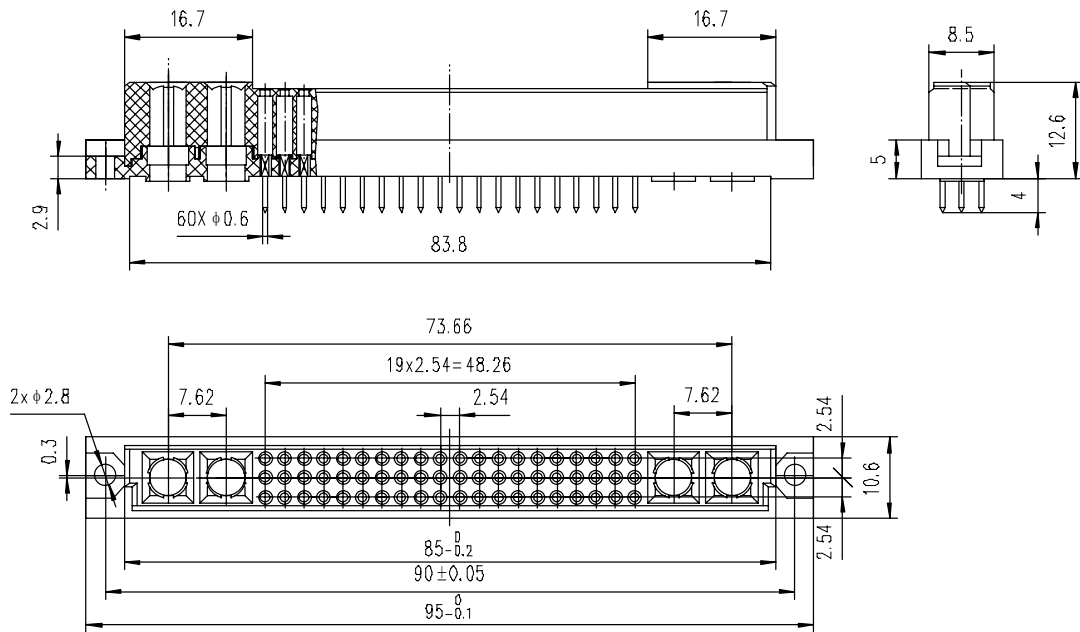
Type	L
TE34-7802-X1	2.5
TE34-7802-X2	4.0

6004 insert arrangement (60 cores LF contacts, 4 cores special contacts)

Plug



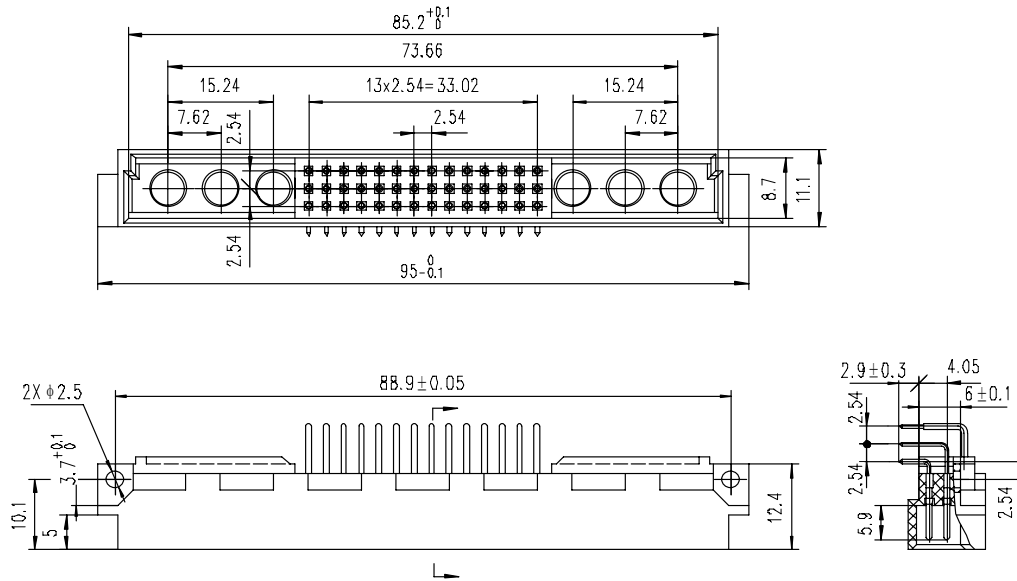
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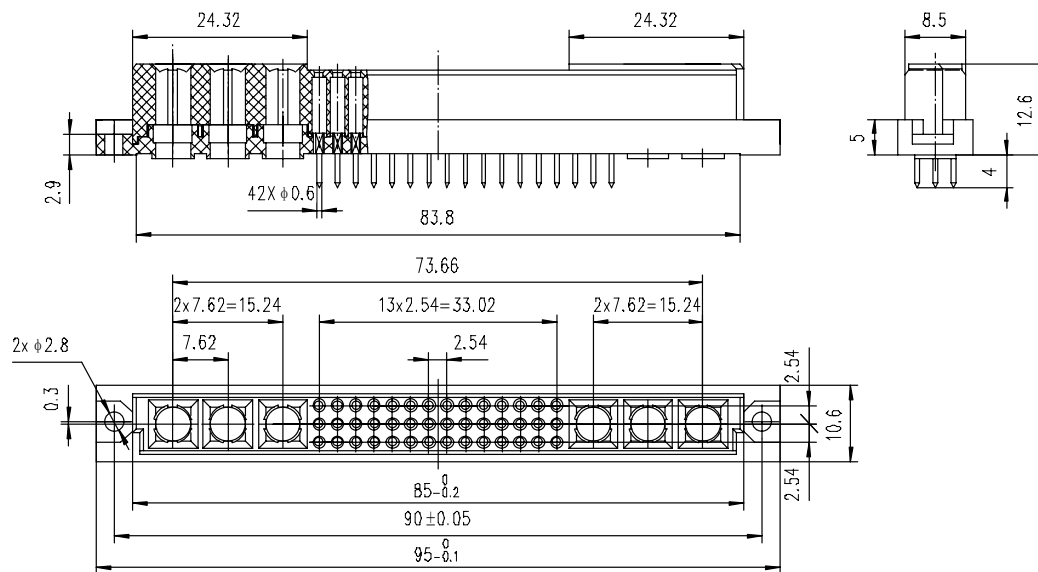
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TE34-6004-X1	2.5
TE34-6004-X2	4.0

4206 insert arrangement (42 cores LF contacts, 6 cores special contacts)

Plug



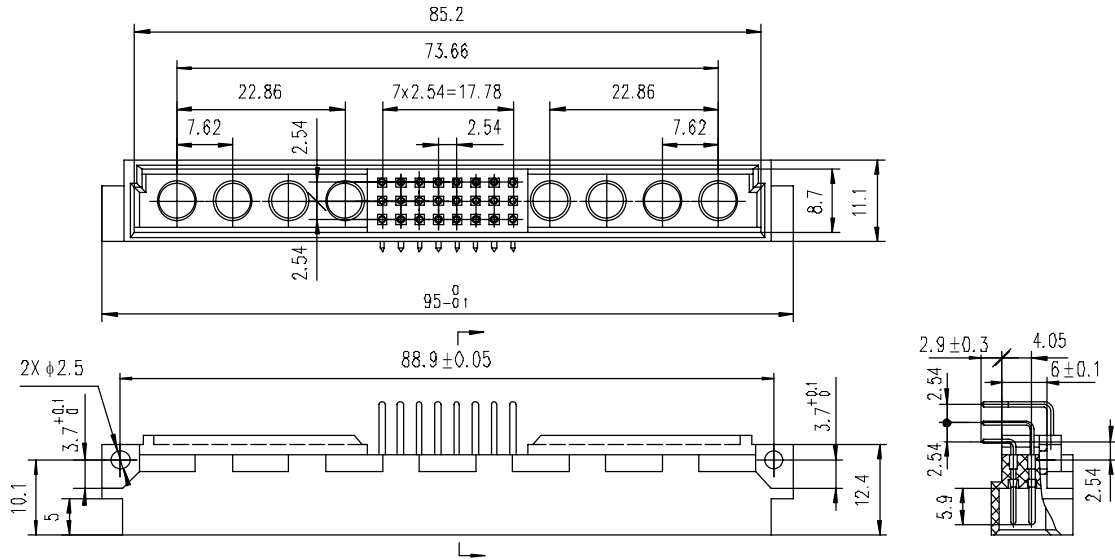
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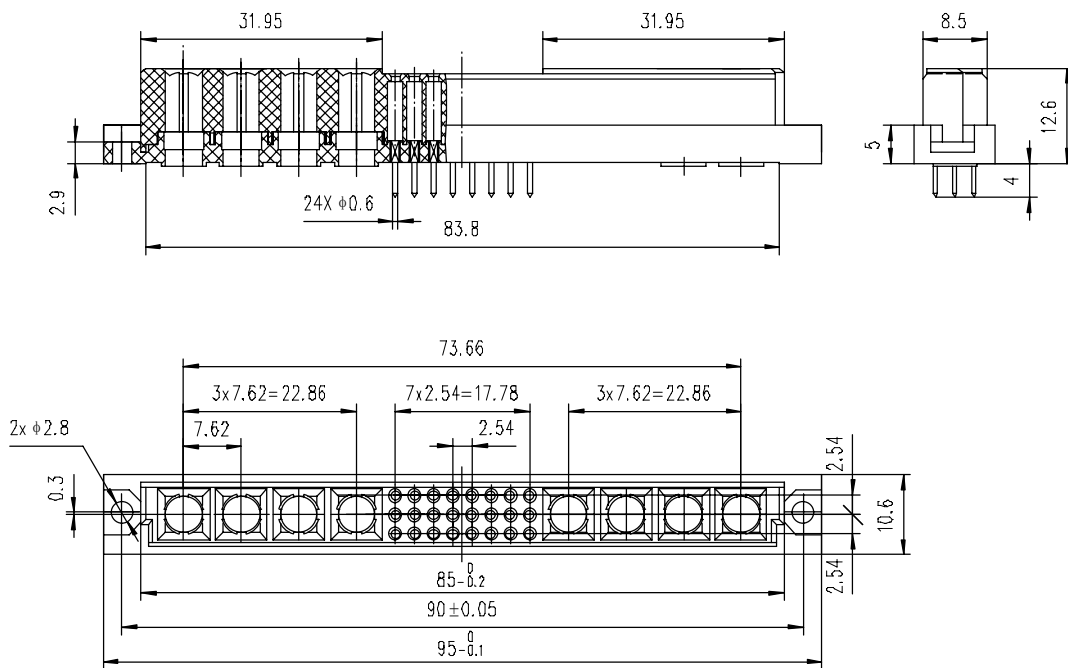
Type	L
TE34-4206-X1	2.5
TE34-4206-X2	4.0

2408 insert arrangement (24 cores LF contacts, 8 cores special contacts)

Plug



### Receptacle

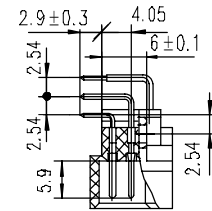
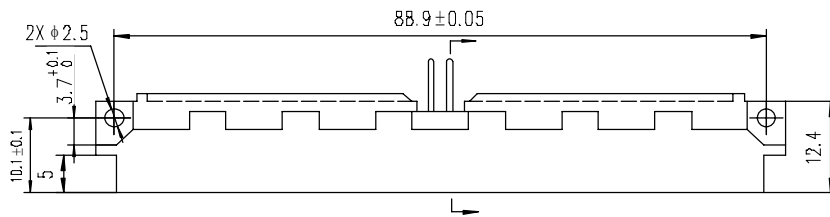
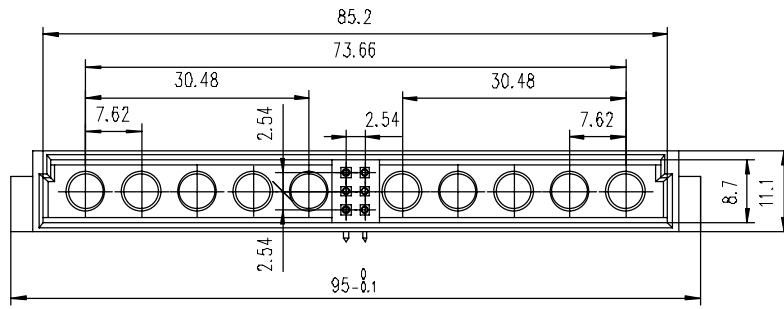


Type	L
TE34-2408-X1	2.5
TE34-2408-X2	4.0

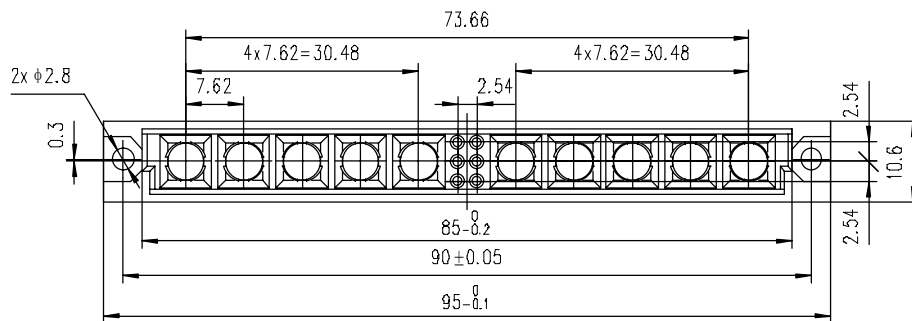
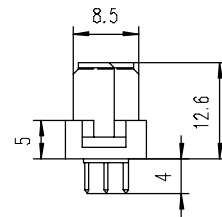
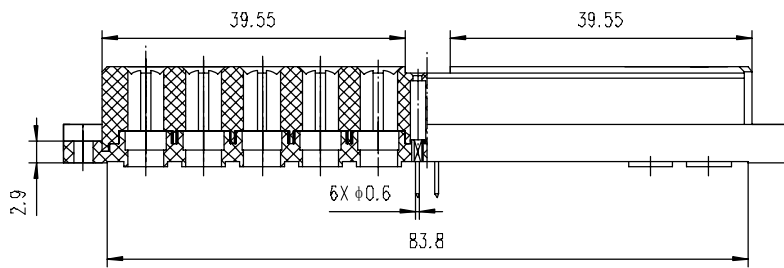
0610 insert arrangement (6 cores LF contacts, 10 cores special contacts)

Plug





**Receptacle**



Type	L
TE34-0610-X1	2.5
TE34-0610-X2	4.0