

A blue wireframe illustration of a car chassis, showing the frame, wheels, and suspension components, set against a dark blue background with a grid of dots.

ACTIVE
INT*3 +
TTS SENSOR GROUP 3 TZ

IRISO ELECTRONICS

10120 SERIES

BOARD-TO-BOARD CONNECTORS



SAFE

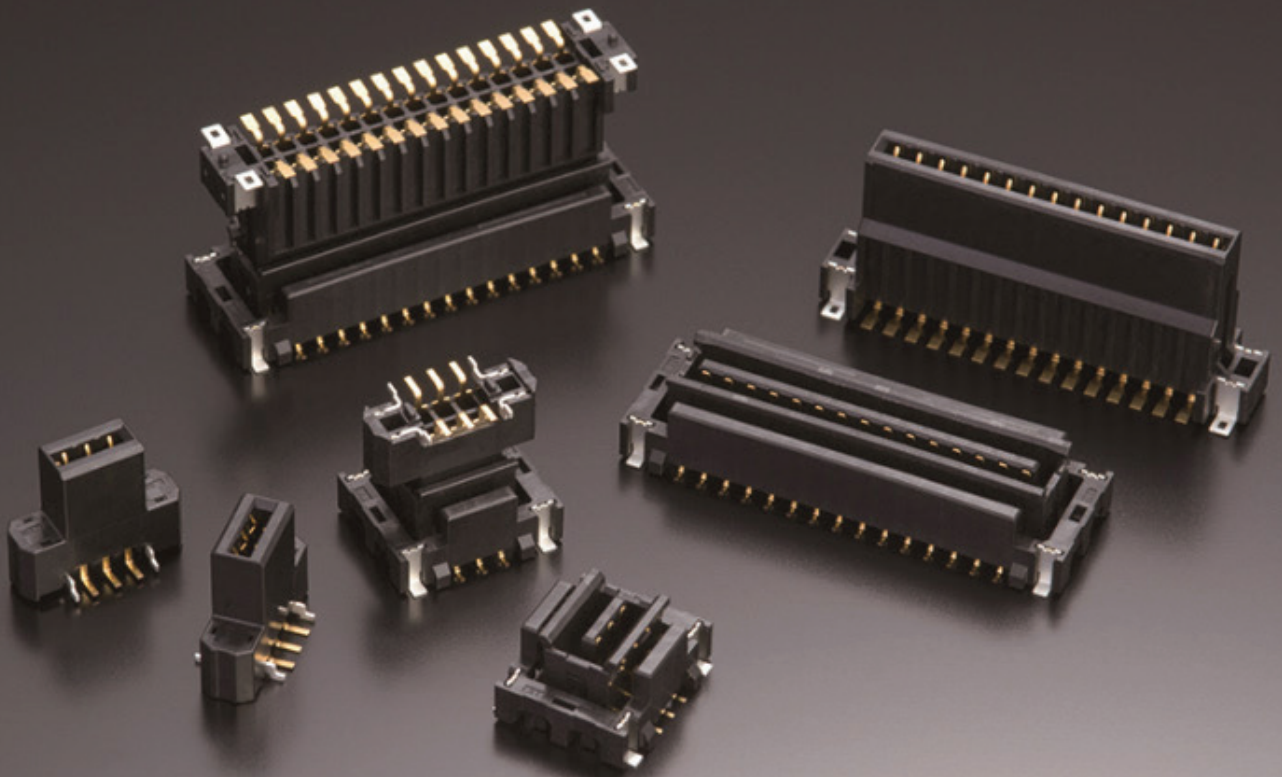
1G-2 +

TTS P-34.34-1

Applications:

The 10120 Series is reliable in the harshest environments, including under high vibration and temperature conditions in electric vehicle powertrains and industrial equipment.

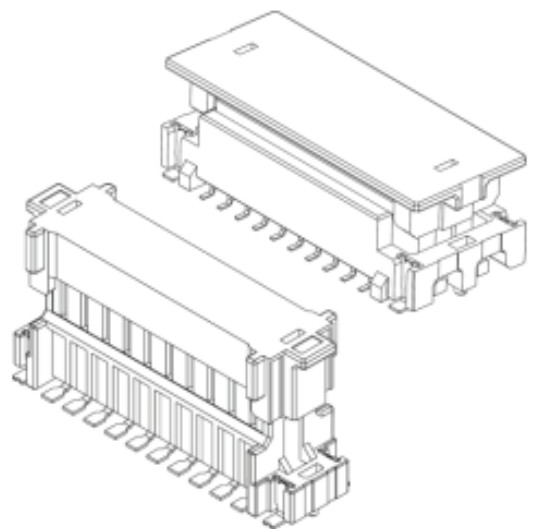




PRODUCT INFORMATION

The 10120 Series is a board-to-board connector with a 0.4mm pitch in two rows.

This series is one of our most space-saving floating connectors with high-speed compliance (8.0 Gbps) and the ability to operate within a wide range of temperatures (-40°C – 125°C) for the automotive market. It is also suitable for robot automation assembly with its unique self-alignment feature.

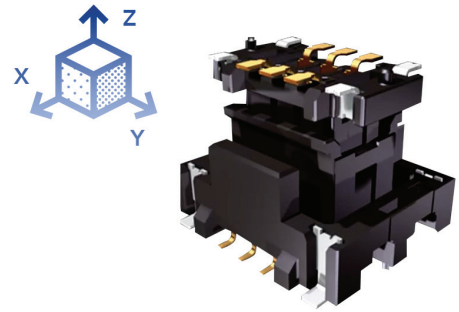


PRODUCT FEATURES

1: Z-MOVE™ TECHNOLOGY

IRISO's proprietary Z-Move™ technology uses the terminals' spring feature and allows free movement in the X, Y and Z directions. This helps absorb surface vibrations caused in harsh operating conditions. The floating feature allows the mated terminals to avoid relative movement between themselves, thus preventing contacts' fretting.

When multiple connectors are stack mounted between two boards, there is a chance that connectors might misalign. IRISO's Z-Move™ floating technology helps the connectors self-align and prevent stress on solder joints.



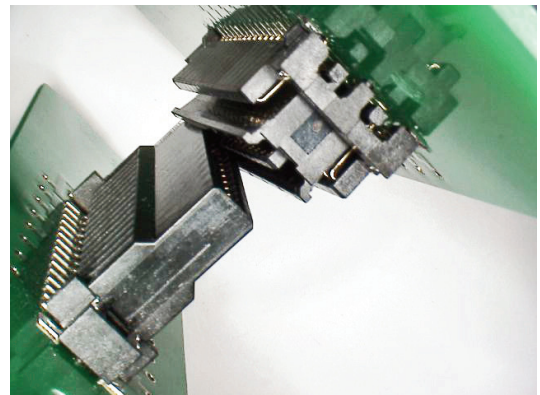
2: HIGH RESISTANCE IN HARSH TEMPERATURE CONDITIONS



The 10120 Series has the ability to perform in harsh temperature environments ranging from -40°C to 125°C . The series is designed to minimize displacements caused by changing temperatures and conditions where vibration is a factor.

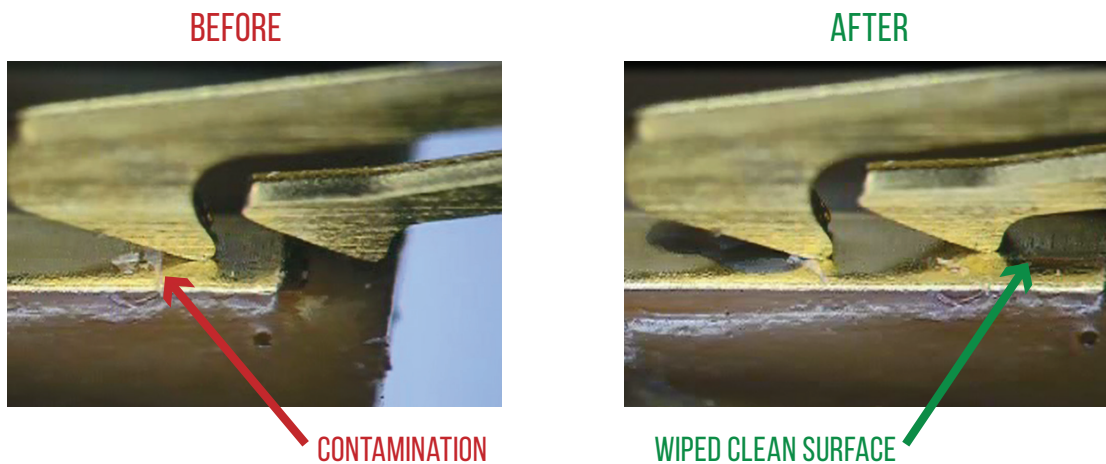
3: PREVENTION OF STRESS ON THE SOLDER JOINT

There are certain situations when multiple connectors are mounted on the same pair of PCBs. Stresses on the solder joints can be a big concern. However, Z-Move™ has a $\pm 0.7\text{mm}$ to accommodate any misalignment. The two mated PCBs will be fixed together by chassis or standoff/screws, which create "residual stress." The floating feature protects the solder joints and the connector itself from residual stress.

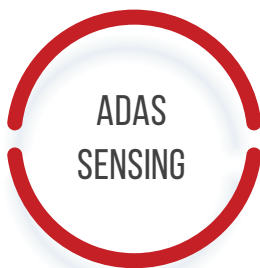


4: TWO-POINT CONTACT

Another feature that makes the 10120 series stand out is its' dependable two-point contact. The two-point contact not only raises the chances of making clean contact but allows the front to wipe potential foreign materials away before the rear contact on the same path reaches the contact position.



COMMON APPLICATIONS



PRODUCT SPECS

IMSA-10120B-**-Y***
IMSA-10120S-**-Y***

Item	Specification	Unit
Pitch	2.0	mm
Floating	X: ± 0.65 Y: ± 0.7	mm
Mating Height	11 ~ 20	mm
Pin Counts	6 ~ 30	Circuit
Connecting Type	Stacking	-
Operating Temperature Range	-40 ~ +125	°C
Rated Current	1	A
Rated Voltage	125	V
Contact Resistance	50	mΩ
Withstand Voltage	500	V
Durability (Insertion/Withdrawl)	30	Times

*For packaging info, please refer to our packaging drawing

PLUG

Parts	Material	Plating
Housing	PA9T	-
Contact	Copper Alloy	Gold
Metal Flange	Copper Alloy	Tin

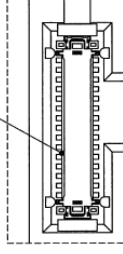
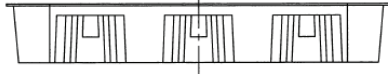
SOCKET

Parts	Material	Plating
Housing	PA9T	-
Contact	Copper Alloy	Gold
Metal Flange	Copper Alloy	Tin

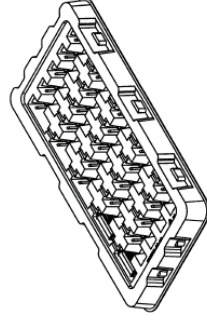
*Specification is subject to change without prior notice in order to improve the performance of the product. Dimensions and specifications described herein are limited to major items. When applying the products, please confirm the details on the drawing and specification sheets which will be provided upon request.

A
B
C
D
E
F
G
H

箱数 CMT	箱号 PACKING No.	製品番号 PRODUCT No.	A	B	梱包数量/ PACKING QTY
6	101205-067504 (505)	101205-06718 (719) -GFN4	245	30	45
10	101205-105054 (505)	101205-10218 (719) -GFN4	234	39	35
20	101205-202154 (505)	101205-20218 (719) -GFN4	230	46	30
30	101205-302504 (505)	101205-30218 (719) -GFN4	220	55	25











①



MATERIAL. 材質

△									
△									
△									
△									
△									
△									
Z/A	18-97	NOTE REV	N.A.	T.S	'18.10.18				
Z/L	180460	RELEASED	N.A.	T.S	'18.07.13				
A/-	-	DIM REV	T.S	H.K	'18/3/12				
A/-	-	SKEETCHED	T.S	H.K	'18/2/27				
PAGE NO	E/CN No	REVISION RECORD	DR	CNK	JDATE 40				

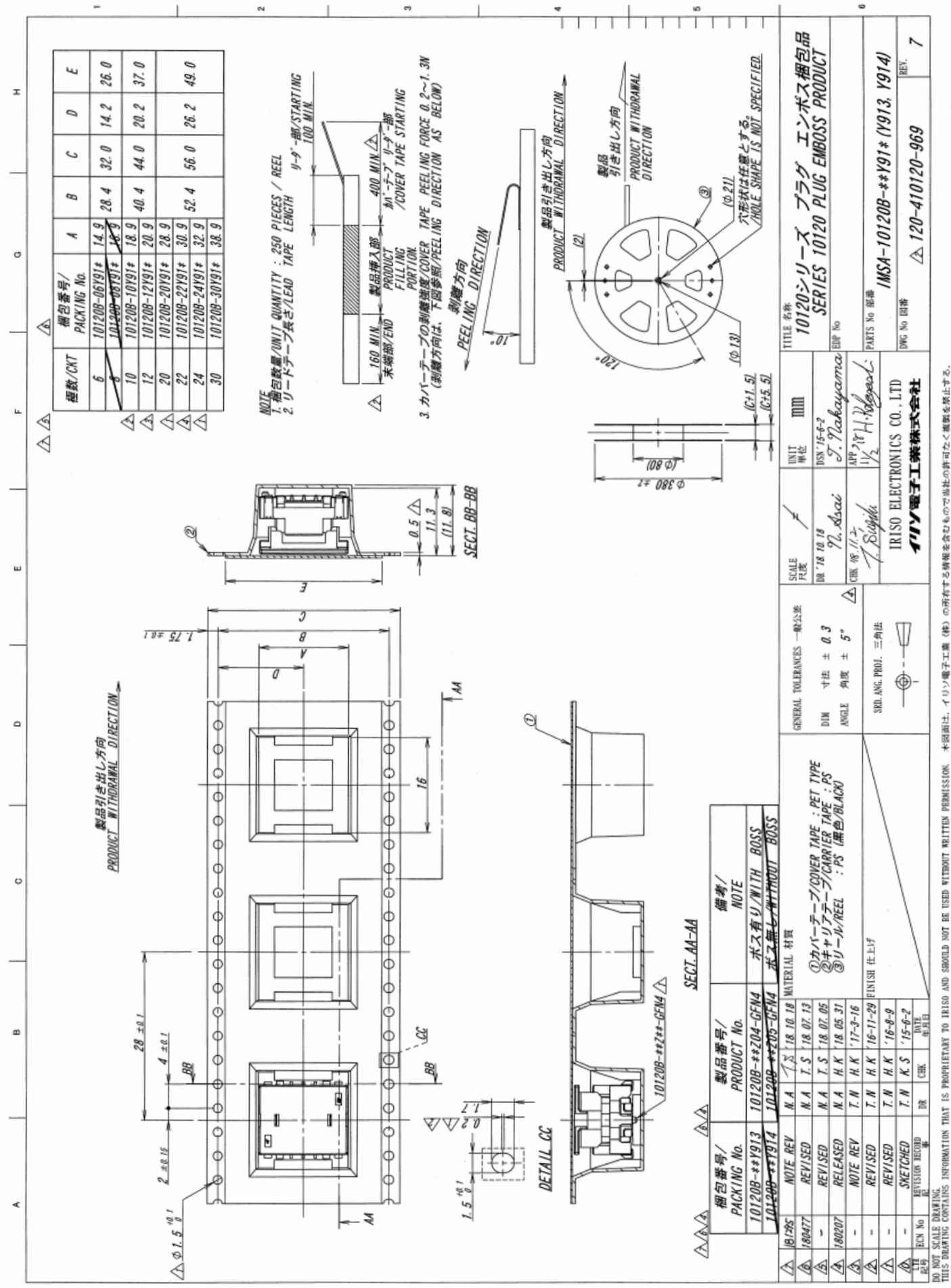
<p>GENERAL TOLERANCES 一般公差</p>	<p>3RD. ANG. PROJ. 三角法</p> 
<p>GENERAL TOLERANCES 一般公差</p>	<p>3RD. ANG. PROJ. 三角法</p> 
<p>GENERAL TOLERANCES 一般公差</p>	<p>3RD. ANG. PROJ. 三角法</p> 
<p>GENERAL TOLERANCES 一般公差</p>	<p>3RD. ANG. PROJ. 三角法</p> 
<p>GENERAL TOLERANCES 一般公差</p>	<p>3RD. ANG. PROJ. 三角法</p> 
<p>GENERAL TOLERANCES 一般公差</p>	<p>3RD. ANG. PROJ. 三角法</p> 
<p>GENERAL TOLERANCES 一般公差</p>	<p>3RD. ANG. PROJ. 三角法</p> 
<p>GENERAL TOLERANCES 一般公差</p>	<p>3RD. ANG. PROJ. 三角法</p> 

SCALE 尺度	≠	UNIT 單位	mm
DR '18.10.18 9. Saei		DSN '18.2.27	T. Sugiki
CHK '18.11.2 T. Sugiki		APP. '18. H. Kobayashi 1/2	
IRISO ELECTRONICS CO., LTD			
IIR 電子工業株式会社			

TITLE 名称	10120 シリーズ ソケット プリスター-梱包品 SERIES 10120 SOCKET BLISTER PRODUCT
EDP No	
PARTS No 部番	1MSA-10120S-**-Y504 (505)
DWG No 図番	△ 120-410120-722
	REV. 3

DO NOT SCALE DRAWING.
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO IRISO AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION. 本図面は、イリソ電子工業（株）の所有する情報を含むもので当社の許可なく複製を禁止する。

PLUG PACKAGING DRAWING



梱数/CKT	梱包番号/ PACKING No.	A	B	C	D	E
6	101208-06Y91*	14.9	28.4	32.0	14.2	26.0
10	101208-10Y91*	18.9	40.4	44.0	20.2	37.0
12	101208-12Y91*	20.9	52.4	56.0	26.2	49.0
20	101208-20Y91*	28.9				
22	101208-22Y91*	30.9				
24	101208-24Y91*	32.9				
30	101208-30Y91*	38.9				

梱包番号/ PACKING No.	製品番号/ PRODUCT No.	備考/ NOTE
101208-06Y913	101208-06Y913	ボスあり/WITH BOSS
101208-06Y914	101208-06Y914	ボスなし/WITHOUT BOSS

REV	DATE	REVISION RECORD
1	18.07.13	1
2	18.07.13	2
3	18.07.05	3
4	18.05.31	4
5	17-3-16	5
6	16-11-29	6
7	16-8-9	7
8	15-6-2	8

TITLE 名称 10120シリーズ プラグ エンボス梱包品 SERIES 10120 PLUG EMBOSS PRODUCT	
UNIT 単位	mm
SCALE 尺度	1:1
GENERAL TOLERANCES 一般公差	DIM 寸法 ± 0.3 ANGLE 角度 ± 5°
3RD ANG. PROT. 三角法	
DESIGNER 設計者 T. Nakayama	
APP. 承認 承認者 H. H. H. H.	
IRISO ELECTRONICS CO., LTD イリス電子工業株式会社	
PARTS No 部番 IMSA-101208-06Y91* (Y913, Y914)	
DWG No 図番 120-410120-969	
REV. 7	

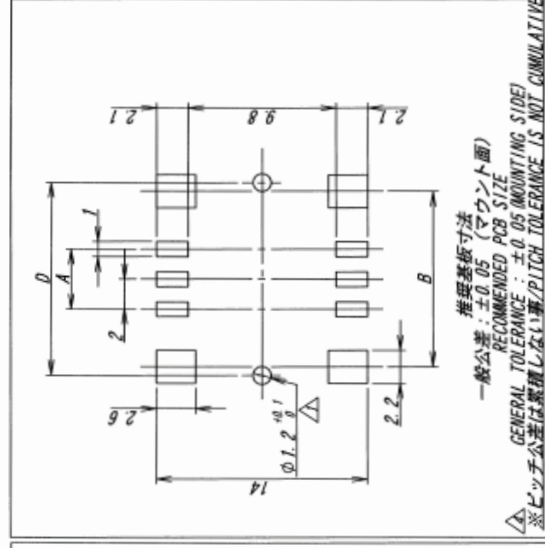
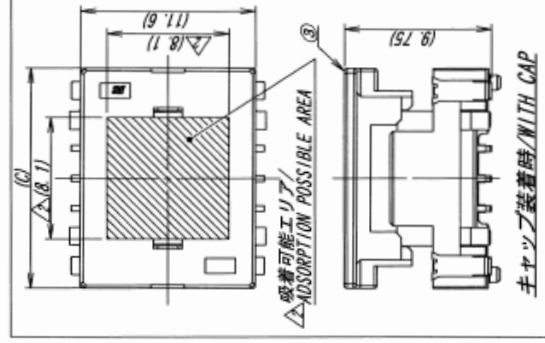
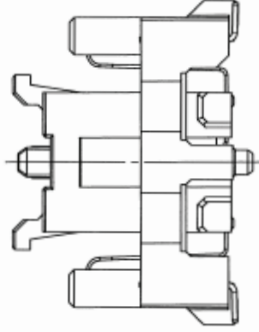
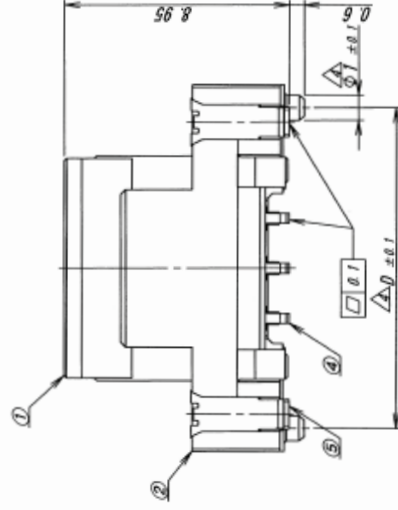
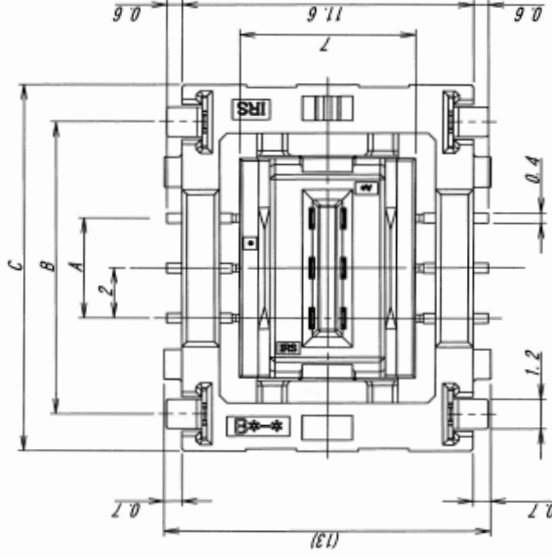
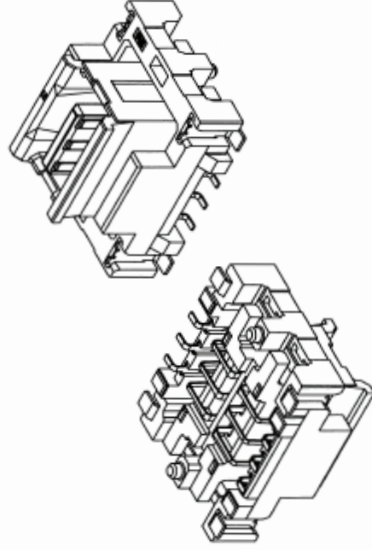
DO NOT SCALE DRAWING.
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO IRISO AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION. 本図面は、イリス電子工業（株）の所有する特許を含むもので当社の許可なく複製を禁止する。

PLUG DRAWING

製品番号 PRODUCTS No.	ボス/BOSS
101208-**Z04-GFN4	ボス有りWITH BOSS
101208-**Z05-GFN4	ボス無しWITHOUT BOSS

板数 CKT	製品番号 PRODUCT No.	A	B	C	D
6	101208-062** -GF N4	4.0	11.7	14.7	12.85
8	101208-062**-GFN4	6.0	13.7	16.7	14.85
10	101208-102** -GF N4	8.0	15.7	18.7	16.85
12	101208-122** -GF N4	10.0	17.7	20.7	18.85
20	101208-202** -GF N4	18.0	25.7	28.7	26.85
22	101208-222** -GF N4	20.0	27.7	30.7	28.85
24	101208-242** -GF N4	22.0	29.7	32.7	30.85
30	101208-302** -GF N4	28.0	35.7	37.7	36.85

△ NOTE
1. コンプラナリティ/COPLANARITY: 0.1MAX



推奨基板寸法
一般公差: ± 0.05 (マウント面)

RECOMMENDED PCB SIZE

RECOMMENDED PCB SIZE
GENERAL TOLERANCE : ± 0.05 (MOUNTING SIDE)

△ GENERAL TOLERANCE : ± 0.05 (MOUNTING SIDE)
※ ドット公差は累積しない裏/PITCH TOLERANCE IS NOT

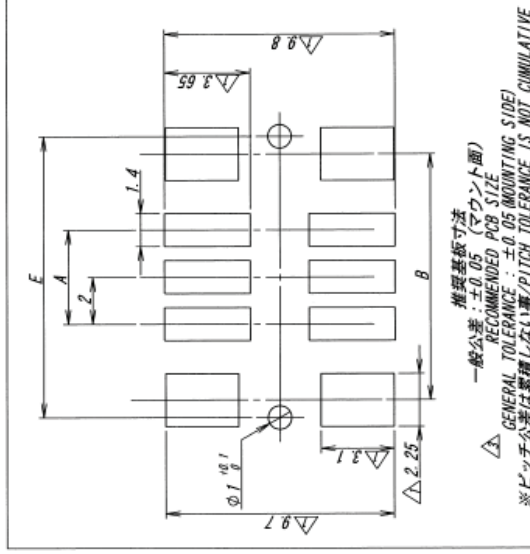
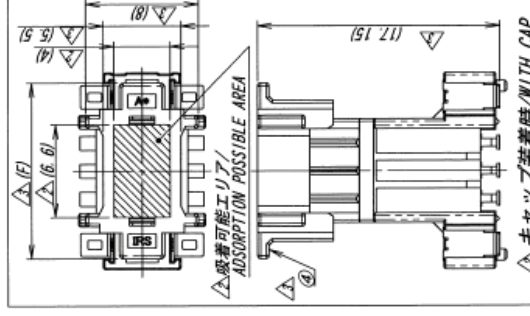
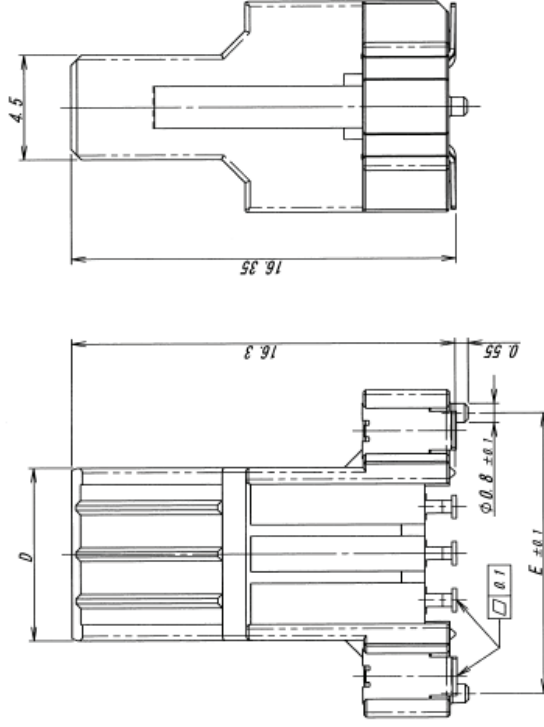
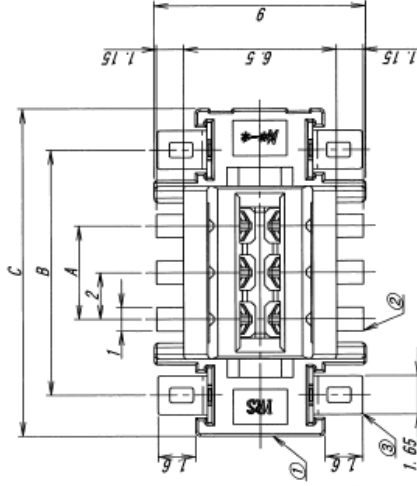
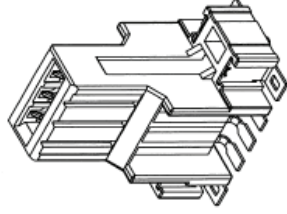
10120シリーズ プラグ SERIES 10120 PLUG	TITLE 名称	UNIT 単位		mm	
		DSN 75-1-21		J. Nakayama	
		EDP No			
		APPROV		H. Kobayashi	
		PARTS No 部品		IRISO ELECTRONICS CO., LTD	
		DWG No 図番		IMSA-10120B-***GFN4 (Z04, Z05)	
		REV.		7	
		110-410120-406		イリス電子工業株式会社	

DO NOT SCALE DRAWING
THIS DRAWING CONTAINS
INFORMATION THAT IS PROPRIETARY TO IRISO AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION
本図面は、イリソ電子工業（株）の所有する特許を含むもので当該社の許可なく複製を禁止する。

SOCKET DRAWING

製品番号 PRODUCT No.	ボス/BOSS
10120S-#Z18-CFN4	ボス有り/WITH BOSS
10120S-#Z19-CFN4	ボス無し/WITHOUT BOSS

板数 CNT	製品番号 PRODUCT No.	A	B	C	D	E	F
6	10120S-062**GFN4	4.0	10.5	14.0	7.4	12.0	12.5
10	10120S-102**GFN4	8.0	14.5	18.0	11.4	16.0	16.5
20	10120S-202**GFN4	18.0	24.5	28.0	21.4	26.0	26.5
30	10120S-302**GFN4	28.0	34.5	38.0	31.4	36.0	36.5



NOTE
1. コプラナリティ/コプラナリティ・0.1MAX

					MATERIAL	材質
△						
△						
△						
△	18/304	NOTE REV	N.A.	T.S.	18. 10. 18	①ハルゲン ②チタニウム ③銅合金C706 ④ステンレス ⑤キャップ
△	180063	RELEASED	N.A.	T.S.	18. 07. 13	
△	-	NOTE REV	T.N	H.K.	'17-3-7	FINISH 仕上げ
△	-	NOTE REV	T.N	H.K.	'15-6-9	⑥下地めっき ⑦めっき加工 ⑧めっき後処理
△	-	SKETCHED	T.N	H.K.	'15-2-26	⑨下地めっき ⑩銅光亮剤
△	ECN No	REVISION RECORD	DR	CHK	DATE	

MATERIAL 材質

①ハウジング/NOUSING-PART 黒色BRAK
②カム/COMBAT コルソール/COXSON BROWE
③機軸/METAL FLANGE-黒色BRASS
④ギヤリング/GAP PART 黒色BLACK

△

FINISH 仕上り

①下地めっき OVER NI PLATE
②油つきのZINC PLATE チーム/CONTACT AREA-0.12mm MIN
③下地めっき OVER NI PLATE
④油を剥ぎ取りZINC PLATE 板-27μm厚

GENERAL TOLERANCES 一般公差

DIM	寸法	± 0.3
ANGLE	角度	$\pm 5^\circ$

3RD. ANG. PROJ. 三角法



SCALE 尺度	\neq
DATE 日期	18.10.18
SIGNATURE 署名	N. Asai
NAME 姓名	T. Sugita

IRISO ELECTRONICS
イリス電子工業

mm
15-1-22
Nakayama
H. Kiyosaki
SS CO., LTD
株式会社

TEL 名称	10120シリーズ ソケット SERIES 10120 SOCKET
品 No	
XTS No 機種	IMS4-10120S-***-GFN4 (Z18.
G No 器番	△ 110-410120-357

DO NOT SCALE DRAWING.
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO IRISQ AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION. 本図面は、イリシ電子工業（株）の所有する情報を含むもので当社の許可なく複製を禁止する。

ABOUT

IRISO ELECTRONICS



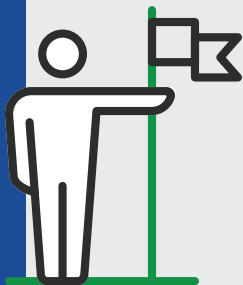
It started with a single pin...

IRISO has been contributing to the development of the electronics industry worldwide for over 50 years since its foundation as a comprehensive connector manufacturer in 1966. Our more than 3000 employees support customers worldwide on a wide range of innovative new products designed to meet the needs of our industry both today and tomorrow.



Connected with our customers...

Our customers are at the core of our business. Based on the concept of “market-in”, we develop and manufacture products that are closely linked to customer needs. We listen carefully to customer feedback, verify any issues that may exist in all processes from concept to the production line, and incorporate the feedback into the product design. We take a consultative approach to developing custom products in order to ensure a successful partnership.

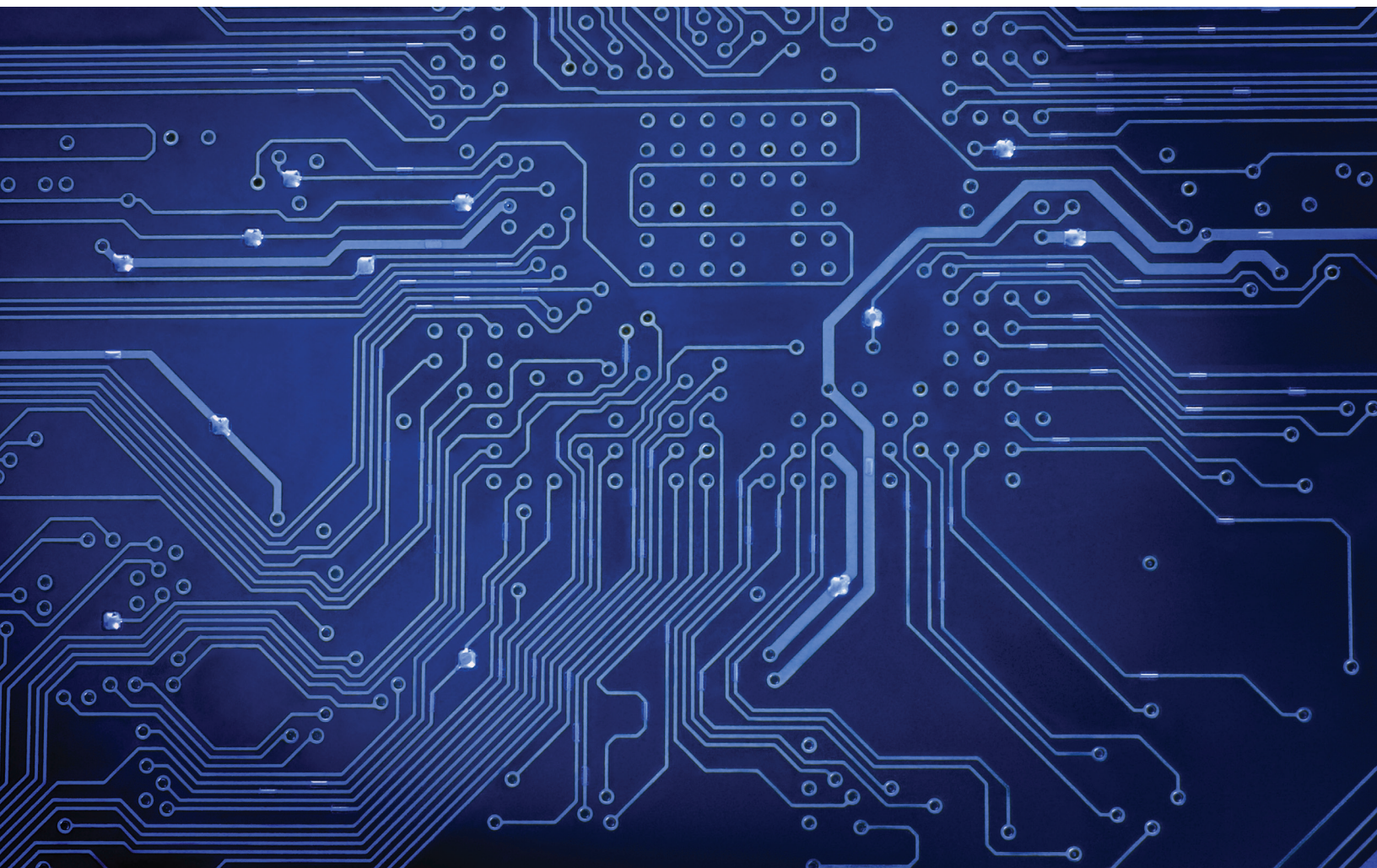


As a bridge to the future...

With beginnings in the Car AV and electronics, IRISO has established itself as a leading company in the development of connectors for the automotive market. For more than fifty years we have continued to devote ourselves to developing the field of electronics. Over the years, we have significantly expanded the range of our automotive product development to include a wide range of connectors for ADAS, electric powertrain and infotainment applications of today and tomorrow.

LEARN MORE AT: IRISOCONNECTORS.COM

Connecting a Better Future.



IRISO USA, INC.
IRISO ELECTRONICS CO., LTD.



34405 W 12 Mile Rd. #237
Farmington Hills, MI 48331 USA



(248) 324-9780



info@irisoconnectors.com



www.iriso.co.jp/us