RAINEON

南京睿宁电子科技有限公司

NANJING RAINEON ELECTRONIC TECHNOLOGY CO., LTD

PRODUCT CATALOGUE

Aviation Connectors | Interconnect Technology



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Features

- Low-frequency electrical connector.
- Double-safeguard locking: a rectangular-connector locking design combining quick operation with reliability; solder terminations.
- The range is complete: pin and socket plugs; pin and socket panel-mount receptacles; pin and socket cable receptacles and other versions.
- J14A series receptacles also offer straight PCB-mount and 90 deg right-angle PCB-mount styles.
- For strategic weapon systems, space satellite systems, launch vehicles and ground support equipment; also widely used for links between electronic instruments and cables.

Environmental Conditions

- Operating temperature: -55 degC to +125 degC
- Relative humidity: 90% to 95% at 40±2 degC
- Atmospheric pressure: 101.3 kPa to 1.33 Pa
- Sinusoidal vibration: 10 Hz to 2000 Hz, acceleration 196 m/s²
- Sealing (sealed receptacles only): withstands 0.2 MPa
- Shock: 980 m/s²
- Constant acceleration: 780 m/s²

Electrical

- Rated current (A):

Mating contact dia. (mm)	0.8	1	1.5
Rated current	3	5	10

- Contact resistance (Ohm):

Mating contact dia. (mm)	0.8	1	1.5
Before life test	0.006		0.003
After life test	0.010		0.005

- Insulation resistance: standard conditions: >=2000 MOhm;
  high temperature: >=1000 MOhm;
  humid conditions: >=20 MOhm;
- Withstanding voltage: standard: 800 V;
  low pressure: 250 V;
- Mechanical life: 500 cycles;

Ordering Code

J	14	A	–	38	Z	K	1	B	2
1.	2.	3.		4.	5.	6.	7.	8.	9.

(1) Basic designation:
(2) Design number:
(3) Modification number:
(4) Number of contacts:
(5) Connector class: T - plug, Z - receptacle;
(6) Contact type: J - pin, K - socket;
(7) Contact termination: omitted - normal solder form;
1 - contact ends bent (90 deg) for right-angle PCB mounting;
2 - contact ends straight for PCB mounting. (1, 2 receptacles only);
(8) Mounting: B - panel mount, L - cable;
(9) Flange: omitted - normal horizontal-mount flange;
1 - normal horizontal-mount narrow flange;
2 - side-mount flange. (Flange styles apply to receptacles only);

Marking Examples:

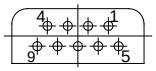
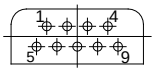
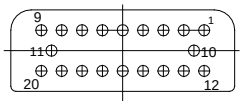
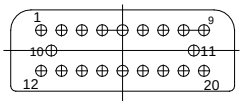
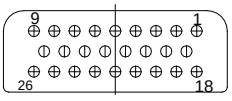
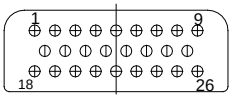
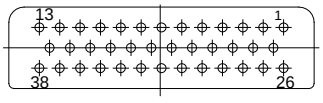
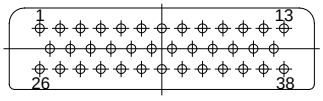
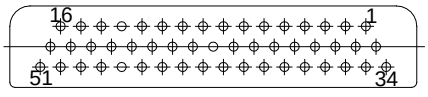
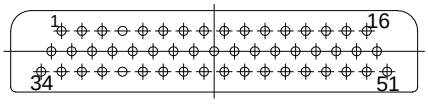
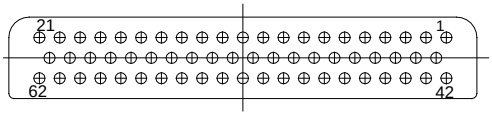
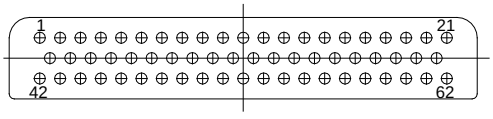
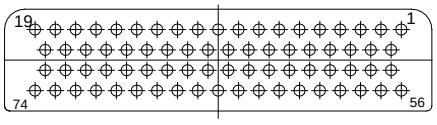
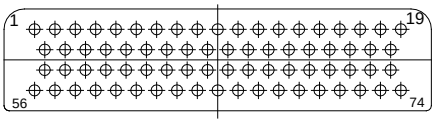
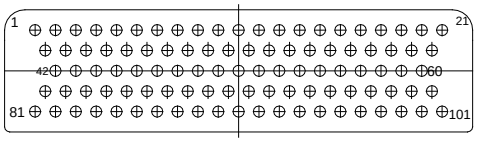
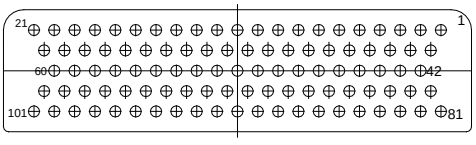
Plug: J14A series, 51-way, normal solder pin contacts - plug model J14A-51TJ.

Receptacle: J14A series, 51-way socket contacts, 90 deg right-angle PCB mount, side-mount flange - receptacle model J14A-51Zx1B2.

Mating Combinations:

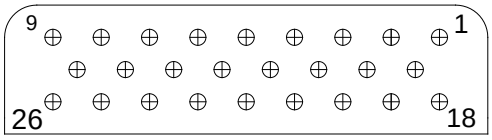
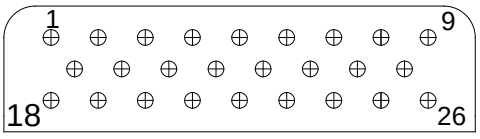
Plugs and receptacles with the same modification number and contact count (or socket-contact plugs with pin-contact receptacles) are mutually matable, e.g. J14A-51TJ with J14A-51Zx1B2, J14C-26TK with J14C-26ZJL.

Arrangements

Contacts	Pin receptacle	Socket receptacle
9		
15		
20		
26		
38		
51		
62		
74		
101		

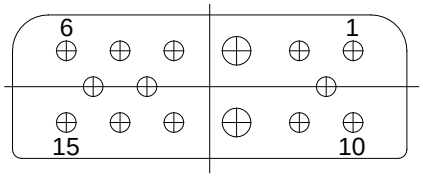
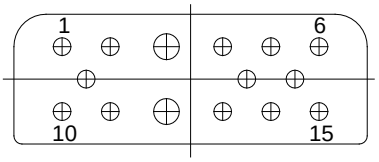
Note: rated current 3 A

J14C Series Pin Interface Arrangements

Contacts	Pin receptacle	Socket receptacle
26		

Note: rated current 5 A

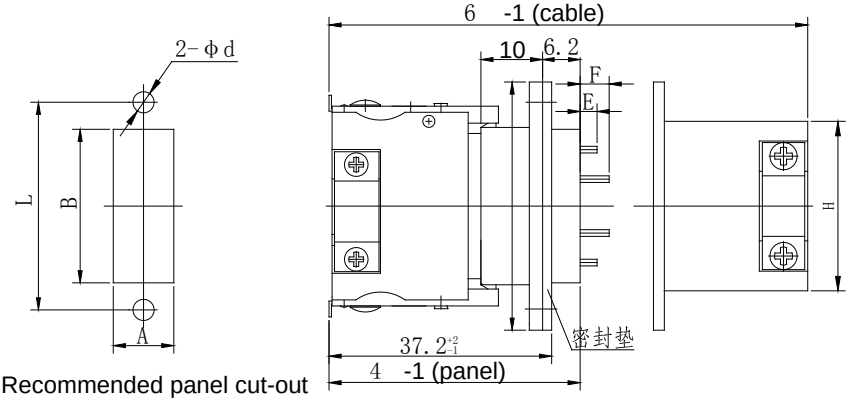
J14D Series Pin Interface Arrangements

Contacts	Pin receptacle	Socket receptacle
15		

Note: rated current: 2 x 10 A, 13 x 3 A;

Outline and Mounting Dimensions

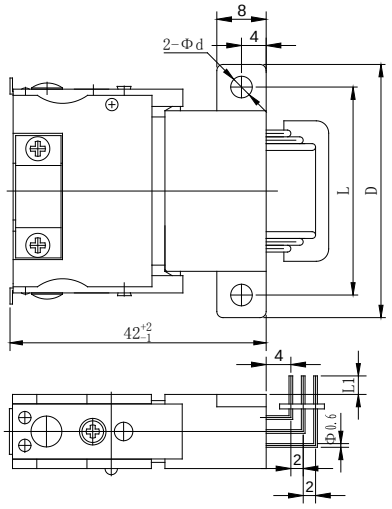
Normal plugs with normal-solder narrow-flange panel and cable receptacles



Recommended panel cut-out

Model (N = number of contacts)		Contact count	L±0.1	A	B	C	D	d	E	F	H
J14A-n	TK TJ ZKB1 ZJB1 ZJB1L ZKB1L	9	22	6.6	15.2	8.9	28	3	2.8	2.8	17
		15	28	6.6	21.2	8.9	34	3	2.8	2.8	23
		20	34	10	25	12	41	3.5	2.8	2.8	28.2
		26	34	10	25	12	41	3.5	2.8	2.8	28.2
		38	42	10	33	12	49	3.5	2.8	2.8	36.2
		51	52	10	43	12	59	3.5	2.8	2.8	46.1
		62	58	10	49	12	65	3.5	2.8	2.8	52.2
		74	54	12	45	14	61	3.5	2.8	2.8	47.4

Normal plugs with 90 deg right-angle PCB-mount receptacles

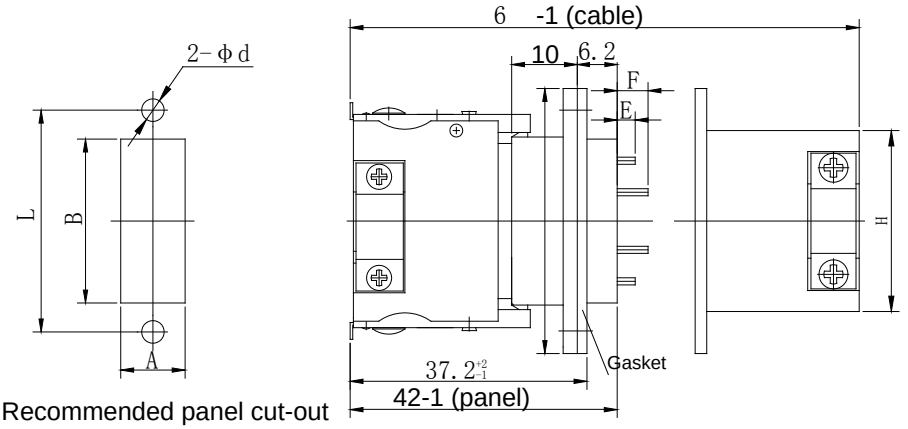


(ZK1B2) ZJ1B2

Model (N = number of contacts)		Contact count	L±0.1	A +0.25 +0.55	B +0.25 +0.55	C	D	d	Contact		L1	Dia. of pins mated with PCB	L2
									Pitch	Row spacing			
J14A-n	TK TJ ZK1B2 ZJ1B ZJ1B2 ZJ1B	9	22	6.6	15.2	12	28	3	2	2	3	Φ6	4.2
		15	28	6.6	21.2	12	34	3	2	2	3	Φ6	
		26	34	10	25	16	41	3.5	2	2	3	Φ6	
		38	42	10	33	16	49	3.5	2	2	2.5	Φ6	3.5
		51	52	10	43	16	59	3.5	2	2	2.5	Φ6	
		62	58	10	49	16	65	3.5	2	2	2.5	Φ6	

Outline and Mounting Dimensions

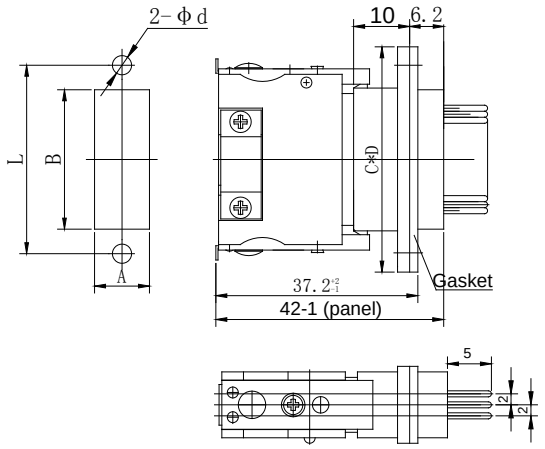
Normal plugs with normal-solder cable and panel receptacles



Recommended panel cut-out

Model (N = number of contacts)		Contact count	L±0.1	A +0.25 +0.55	B +0.25 +0.55	C	D	d	E +0.25 +0.55	F +0.25 +0.55	H	Current	Mass	
													Plug	Receptacle
J14A-n	TK TJ ZKB ZKL ZJB ZJL	9	22	6.6	15.2	8.9	28	3	2.8	2.8	17	3A	11.7	4.3
		15	28	6.6	21.2	8.9	34	3	2.8	2.8	23	3A	13	5.3
		20	34	10	25	16	41	3.5	2.8	2.8	28.2	3A	–	–
		26	34	10	25	16	41	3.5	2.8	2.8	28.2	3A	24	10
		38	42	10	33	16	49	3.5	2.8	2.8	36.2	3A	28	14.6
		51	52	10	43	16	59	3.5	2.8	2.8	46.1	3A	31	15
		62	58	10	49	16	65	3.5	2.8	2.8	52.2	3A	34	15.6
		74	54	12	45	18	61	3.5	2.8	4.8	47.4	3A	36.7	17
		101	58	14	49	20	65	3.5	2.8	4.8	52.2	3A	–	–
J14C-n		26	42	4910	33	16		3.5	2.8	–	36.2	3A	27	13
J14D-n		15	34	4110	25	16		3.5	2.8	–	28.2	13 x 3 A 2 x 10 A	22	10.5

Outline and Mounting Dimensions



Model (N = number of contacts)		Contact count	L±0.1	A +0.25 +0.55	B +0.25 +0.55	C	D	d	Contact		Dia. of pins mated with PCB
									Pitch	Row spacing	
J14A-n	TK TJ ZK2B ZJ1B ZJ2B	9	22	6.6	15.2	12	28	3	2	2	Φ0.6
		15	28	6.6	21.2	12	34	3	2	2	Φ0.6
		26	34	10	25	16	41	3.5	2	2	Φ0.6
		38	42	10	33	16	49	3.5	2	2	Φ0.6
		51	52	10	43	16	59	3.5	2	2	Φ0.6
		62	58	10	49	16	65	3.5	2	2	Φ0.6

J14B Series Features

- Low-frequency electrical connector
- Double-safeguard locking: a rectangular-connector locking design combining quick operation with reliability.
- Based on the J14A series shell, with higher contact density and rainproofing.
- Rounded anti-mismate design; small size, light weight.
- Panel-mount receptacle.
- Supplied with cable; crimp terminations; cable size and length set by the customer.
- For electrical connections between electronic instruments.

Environmental Conditions

- Operating temperature: -55 degC to +125 degC
- Relative humidity: 92% to 98% at 40±2 degC
- Atmospheric pressure: 101.3 kPa to 1.33 Pa
- Sinusoidal vibration: 10 Hz to 2000 Hz, acceleration 196 m/s²
- Shock: 980 m/s²
- Constant acceleration: 780 m/s²
- Rainproof: rainfall 5 mm/min

Electrical

- Rated current: 2 A
- Contact resistance: before life test: <=0.010 Ohm
  after life test: <=0.015 Ohm
- Insulation resistance: standard conditions: >=1000 MOhm
  high temperature: >=80 MOhm
- Rain conditions: >=5 MOhm
- Withstanding voltage: standard: 800 V
  low pressure: 250 V
- Mechanical life: 500 cycles

Ordering Code

J	14	B	–	26	T	K
1.	2.	3.		4.	5.	6.

(1) Basic designation:
(2) Design number:
(3) Modification number:
(4) Number of contacts:
(5) Connector class: T - plug, Z - receptacle;
(6) Contact type: J - pin, K - socket;

Marking Examples:

Plug: J14B series, 26-way socket contacts - plug model J14B-26TK.
Receptacle: J14B series, 34-way pin contacts - model J14B-34ZJ.
Note: J14B-26T denotes a J14B series 26-way pin-contact plug.
J14B-26Z denotes a J14B series 26-way socket-contact receptacle.
J14B-34T denotes a J14B series 34-way pin-contact plug.
J14B-26Z denotes a J14B series 34-way socket-contact receptacle.

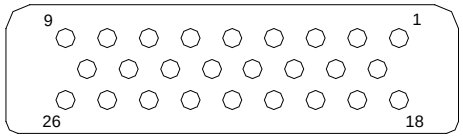
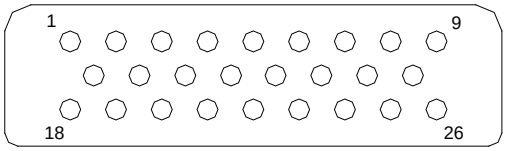
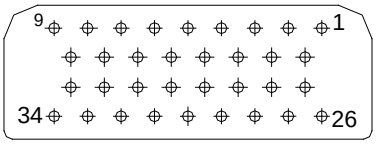
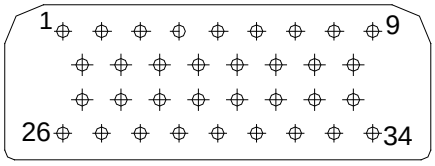
Mating Combinations

Plug model	Matching receptacle
J14B-26T	J14B-26Z
J14B-26TK	J14B-26ZJ
J14B-34T	J14B-34Z
J14B-34TK	J14B-34ZJ

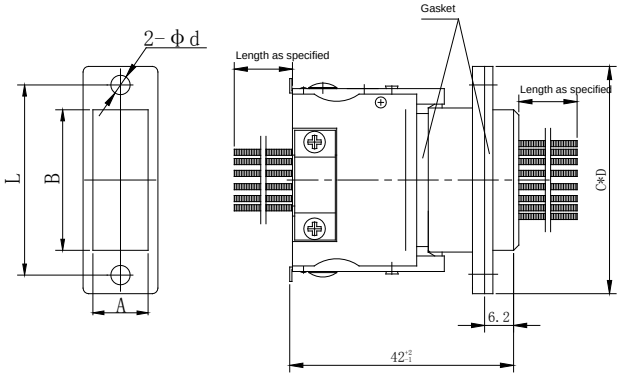
Ordering Guide

- Crimped wire type AF-1, conductor cross-section 0.15 mm²
- State the wire length in the contract;
- Other wire sizes with a conductor cross-section of 0.15 mm 2 may be used; the insulation sheath OD must not exceed 0.9 mm.

Arrangements

Contacts	Pin receptacle	Socket receptacle
26		
34		

Outline and Mounting Dimensions



Model	L	A	B	C34	D	d	Mass (g)	
							Plug	Receptacle
J14B-26T/Z J14B-26TK/ZJ	28	6.6	21.2	12	34	3	14	14
J14B-34T/Z J14B-34TK/ZJ	34	10	25	16	41	3.5	25	10.5

RAINEON J14 Series Rectangular Connectors

J14H Series Features

- Instrument-style connector: small, high density, double-safeguard locking.
- Highly reliable; locking needs no clearance; solder terminations.
- Widely used for internal signal connections in equipment of aerospace, aviation, ordnance, marine, communications, computer and other industries.



Environmental Conditions

- Operating temperature: -55 degC to +125 degC
- Relative humidity: 90% to 95% at 40±2 degC
- Atmospheric pressure: 101.3 kPa to 1.33 Pa
- Sinusoidal vibration: 10 Hz to 2000 Hz, acceleration 196 m/s²
- Shock: 980 m/s²
- Constant acceleration: 780 m/s²

Electrical

- Rated current: 3 A
- Contact resistance: before life test: <=0.006 Ohm
  after life test: <=0.010 Ohm
- Insulation resistance: standard conditions: >=2000 MOhm
  high temperature: >=300 MOhm
- Humid conditions: >=20 MOhm
- Withstanding voltage: standard: 800 V
  low pressure: 250 V
- Humid conditions: 250 V
- Mechanical life: 500 cycles

Ordering Code

J	14	H	–	9	Z	J	B
1.	2.	3.		4.	5.	6.	7.

(1) Basic designation:
(2) Design number:
(3) Modification number:
(4) Number of contacts:
(5) Connector class: T - plug, Z - receptacle;
(6) Contact type: J - pin, K - socket;
(7) Mounting (receptacles only): B - panel mount; L - cable;

Marking Examples:

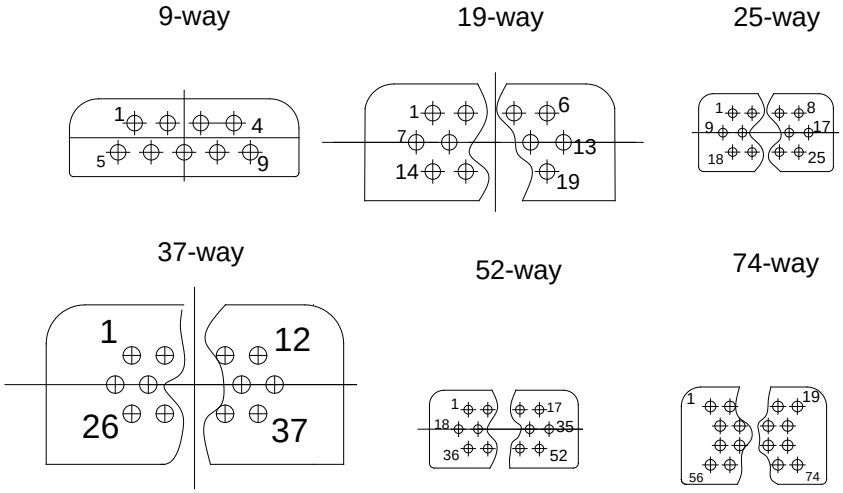
J14H series, 9 contacts, plug class, socket contacts - marked J14H-9TK.
J14H series, 9 contacts, receptacle class, socket contacts, panel mount - marked J14H-9ZJB.

Mating Combinations

Plug	Receptacle
J14H-9TK	J14H-9ZJB
J14H-9TK	J14H-9ZJB
J14H-9TK	J14H-9ZJL
J14H-19TK	J14H-19ZJL
J14H-19TK	J14H-19ZJL
J14H-25TK	J14H-25ZJL
J14H-25TK	J14H-25ZJL
J14H-37TK	J14H-37ZJL
J14H-37TK	J14H-37ZJL
J14H-52TK	J14H-52ZJL
J14H-52TK	J14H-52ZJL
J14H-74TK	J14H-74ZJL
J14H-74TK	J14H-74ZJL

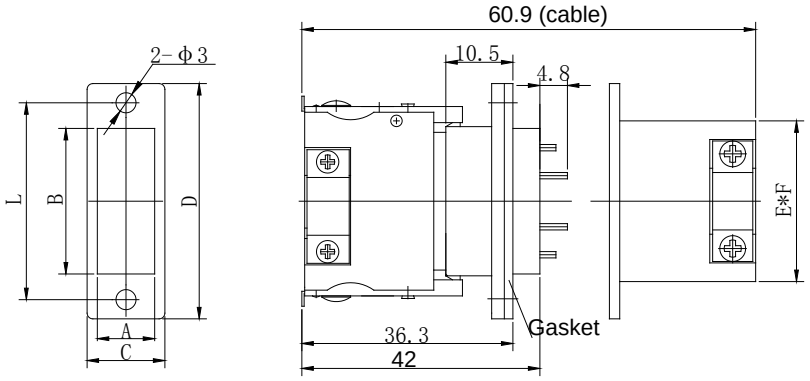
Plug	Receptacle
J14H-9TJ	J14H-9ZKB
J14H-9TJ	J14H-9ZKB
J14H-9TJ	J14H-9ZKL
J14H-19TJ	J14H-19ZK8
J14H-19TJ	J14H-19ZJL
J14H-25TJ	J14H-25ZJB
J14H-25TJ	J14H-25ZKL
J14H-37TJ	J14H-37ZKB
J14H-37TJ	J14H-37ZKL
J14H-52TJ	J14H-52ZKB
J14H-52TJ	J14H-52ZKL
J14H-74TJ	J14H-74ZKB
J14H-74TJ	J14H-74ZKL

Arrangements



Outline Dimensions

Outline dimensions use the mated plug-receptacle drawing as an example; "-" means no such dimension.



Note: the rubber washer applies to panel-mount receptacles only; for 9 contacts the dimension 4.8 becomes 2.8.

Plug	Receptacle		Contact count	L±0.1	A +0.25 +0.55	B +0.25 +0.55	C	D	E	F
J14H-nTK J14H-nTJ	J14H-n	ZJB ZKB ZJL ZKL	9	23	5	14.2	10	28	15.7	7
			19	27	8.1	18.2	12	32	20.2	10
			25	30.4	8.1	21.6	12	35.4	23.6	10
			37	37	8.1	28.2	12	42	30.2	10
			52	46	8.1	37.2	12	51	39.2	10
			74	48	9.7	39.2	12.5	53	41.2	11.7
		Z2JB Z2KB	9	23	7.4	14.2	12	28	-	-