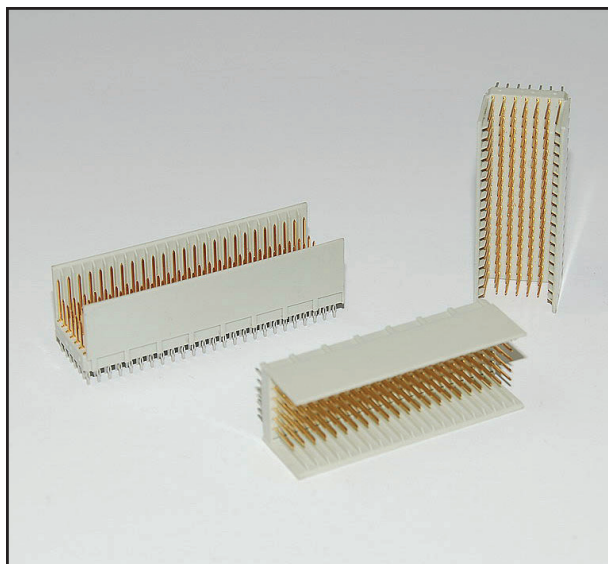


3M™ MetPak™ CP2 Press-Fit Header

2 mm Type B, 95, 110 and 125 Signal Contacts

CP2 Series



- 25 mm basic system unit
- 38, 44 and 50 mm module
- 2 mm grid spacing allows for high signal density at low cost
- “Eye of the Needle” compliant pin press-fit design helps reduce manufacturing time and cost
- Three contact mating levels for Early Mate Late Break or “Hot Swap” applications help reduce manufacturing time and cost
- Feed through termination available for midplane applications
- Additional grounding rows available for improved ground bounce and EMI immunity
- Mates with 5 row 3M™ MetPak™ HSHM, HM, and CP2 sockets
- End to end stackable with 5 row 3M™ MetPak™ HSHM, HM, and CP2 headers
- See the Regulatory Information Appendix (RIA) in the “RoHS compliance” section of www.3Mconnector.com for compliance information (RIA E1 & C1 apply)

Date Modified: January 19, 2010

TS-2267-B
Sheet 1 of 7

Physical

Insulation:

Material: Glass Filled Polyester (PBT)
Flammability: UL94V-0

Contact:

Material: Copper Alloy
Plating: See Ordering Information

Mechanical

Mating Force: $\leq 0.75\text{N/PIN}$
Withdrawl Force: $\geq 0.15\text{N/PIN}$
Mating and Un-mating Operations: 50

Electrical

Electrical Load: 1.0 A at +70°C
Contact Resistance: $\leq 20\text{ m}\Omega$
Insulation Resistance: $\geq 10,000\text{ M}\Omega$
Test Voltage: 750 VAC_{RMS}

Environmental

Temperature Ratings: -55°C to +125°C

PCB Data

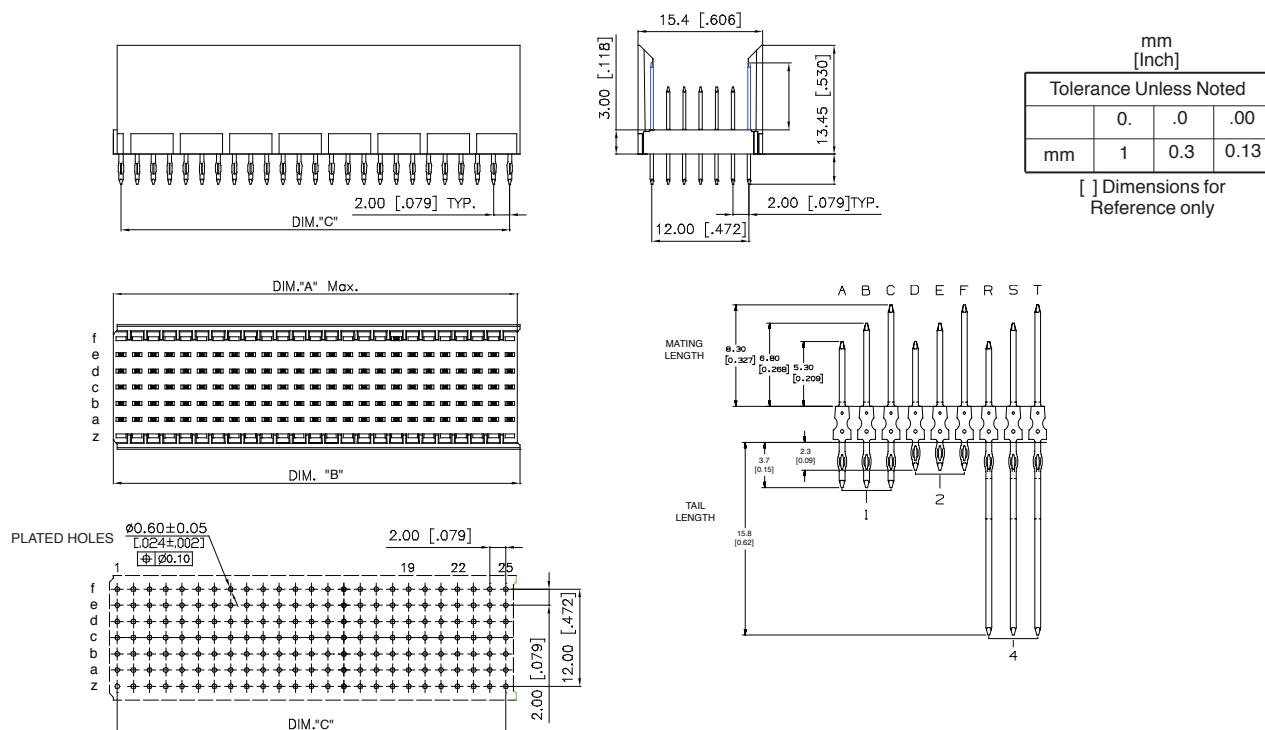
Recommended PCB Plated Through Hole: $\varnothing 0.6\pm 0.05\text{ mm}$
Drill Hole Diameter: $\varnothing 0.7\pm 0.02\text{ mm}$
Hole platings: Cu 25~50 μm , Sn or SnPb < 10 μm
PCB thickness: 2.4-5.6 mm for 3.7 mm tails, 1.4-5.6 mm for 2.3 mm tails
Press-In Force: $\leq 204\text{N/pin}$ on nominal hole diameter
Retention Force: $\geq 13.5\text{N/pin}$ on nominal hole diameter

3M™ MetPak™ CP2 Press-Fit Header

2 mm Type B, 95, 110 and 125 Signal Contacts

CP2 Series

Signal Contact Quantity	Dimension A	Dimension B	Dimension C
95	38.00	38.30	36.00
110	44.00	44.30	42.00
125	50.00	50.30	48.00



Ordering Information

CP2-HBXXX-XXX-XXXX

Number of Signal Contacts
095, 110, 125

Grounding Options:

G= with ground pins

Blank= without ground pins

Loading Configurations and EMLB Patterns
(see diagrams on following pages)

Primary Tail Length

1= 3.7 mm

2= 2.3 mm

4= 15.8 mm

Plating Options

TG30= 30~40 μ" Gold Contact Area
100~200 μ" Bright Tin-Lead
50~80 μ" Nickel Underplate
(RIA E2 & C2 apply)

FJ= 10~20 μ" Gold Contact Area
100~200 μ" Matte Tin
50~80 μ" Nickel Underplate
(RIA E1 & C1 apply)

KR= 30~40 μ" Gold Contact Area
100~200 μ" Matte Tin
50~80 μ" Nickel Underplate
(RIA E1 & C1 apply)

KV =30~40 μ" Two Gold Contact Areas
50~80 μ" Nickel Underplate
(RIA E2 & C2 apply)

• This diagram serves only for Part Number descriptive definitions.

• For standard product configuration please see following pages.

PLEASE CONTACT YOUR LOCAL SALES REPRESENTATIVE FOR CUSTOMER SPECIFIC PRODUCT CONFIGURATIONS.

TS-2267-B
Sheet 2 of 7

3M

Electronic Solutions Division
Interconnect Solutions

<http://www.3Mconnector.com>

3M and MetPak are trademarks of 3M Company.
For technical, sales or ordering information call

800-225-5373

3M™ MetPak™ CP2 Press-Fit Header

2 mm Type B, 95, 110 and 125 Signal Contacts

CP2 Series

CP2-HB095-E1-TG30

Connector Type B19

F																			
E	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
D	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
C	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Z																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

CP2-HB095-GE1-TG30

Connector Type B19

F	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
E	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
D	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
C	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Z	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

CP2-HB095-A1-TG30

Connector Type B19

F																			
E	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
D	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
C	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Z																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

CP2-HB095-GA1-TG30

Connector Type B19

F	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
E	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
D	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
C	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Z	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

TS-2267-B
Sheet 3 of 7



Electronic Solutions Division
Interconnect Solutions
<http://www.3Mconnector.com>

3M and MetPak are trademarks of 3M Company.
For technical, sales or ordering information call
800-225-5373

3M™ MetPak™ CP2 Press-Fit Header

2 mm Type B, 95, 110 and 125 Signal Contacts

CP2 Series

CP2-HB095-GA4-KV

Connector Type B19

F	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
E	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
D	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
C	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
A	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Z	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

Signal Contact Configuration Worksheet

Connector Type B19

F																			
E																			
D																			
C																			
B																			
A																			
Z																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

CP2-HB110-E1-TG30

Connector Type B22

F																						
E	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
D	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
C	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
Z																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22

CP2-HB110-GE1-TG30

Connector Type B22

F	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
E	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
D	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
C	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
Z	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22

TS-2267-B
Sheet 4 of 7



Electronic Solutions Division
Interconnect Solutions
<http://www.3Mconnector.com>

3M and MetPak are trademarks of 3M Company.
For technical, sales or ordering information call
800-225-5373

3M™ MetPak™ CP2 Press-Fit Header

2 mm Type B, 95, 110 and 125 Signal Contacts

CP2 Series

CP2-HB110-GE1-TG30

Connector Type B22

F	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
E	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
D	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
C	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Z	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22

CP2-HB110-GA1-TG30

Connector Type B22

F	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
E	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
D	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
C	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Z	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22

CP2-HB110-GA4-KV

Connector Type B22

F	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
E	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
D	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
C	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
A	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Z	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22

Signal Contact Configuration Worksheet

Connector Type B22

F																						
E																						
D																						
C																						
B																						
A																						
Z																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22

TS-2267-B
Sheet 5 of 7



Electronic Solutions Division
Interconnect Solutions
<http://www.3Mconnector.com>

3M and MetPak are trademarks of 3M Company.
For technical, sales or ordering information call
800-225-5373

3M™ MetPak™ CP2 Press-Fit Header

2 mm Type B, 95, 110 and 125 Signal Contacts

CP2 Series

CP2-HB125-E1-TG30

Connector Type B25

F																									
E	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
D	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
C	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Z																									
	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

CP2-HB125-GE1-TG30

Connector Type B25

F	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
E	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
D	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
C	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Z	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	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

CP2-HB125-A1-TG30

Connector Type B25

F																									
E	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
D	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
C	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Z																									
	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

CP2-HB125-GA1-TG30

Connector Type B25

F	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
E	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
D	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
C	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Z	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	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

TS-2267-B
Sheet 6 of 7



Electronic Solutions Division
Interconnect Solutions
<http://www.3Mconnector.com>

3M and MetPak are trademarks of 3M Company.
For technical, sales or ordering information call
800-225-5373

3M™ MetPak™ CP2 Press-Fit Header

2 mm Type B, 95, 110 and 125 Signal Contacts

CP2 Series

CP2-HB125-GA4-KV

Connector Type B25

F	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
E	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
D	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
C	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
A	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Z	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	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

CP2-HB125-A2-KR

Connector Type B25

F																									
E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
C	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
B	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
A	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
Z																									
	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

CP2-HB125-GA2-KR

Connector Type B25

F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
C	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
B	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
A	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
Z	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
	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

Signal Contact Configuration Worksheet

Connector Type B25

F																									
E																									
D																									
C																									
B																									
A																									
Z																									
	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

TS-2267-B
Sheet 7 of 7



Electronic Solutions Division
Interconnect Solutions
<http://www.3Mconnector.com>

3M and MetPak are trademarks of 3M Company.
For technical, sales or ordering information call
800-225-5373

Important Notice

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

Warranty; Limited Remedy; Limited Liability.

This product will be free from defects in material and manufacture for a period of one (1) year from the time of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**



3M Electronics Solutions Division

6801 River Place Blvd.
Austin, TX 78726-9000
U.S.A.
1-800-225-5373
www.3Mconnector.com

Please recycle. Printed in USA.
© 3M 2010. All rights reserved.
RIA-2217B-E

3M is a trademark of 3M Company.