

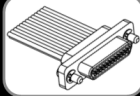


M-Series: High-Temperature Connectors



M
SERIES

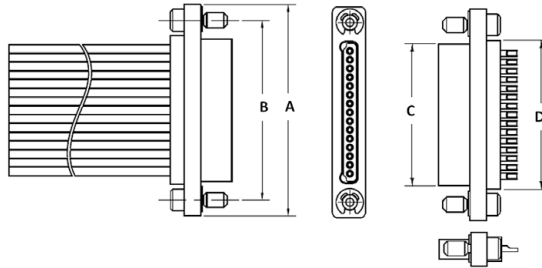
MICRO
0.050"
(1.27 mm)



MMHT – Single-Row I/O Cable (Male)

MMHT interconnects are used in rigorous, high-temperature applications and have a variety of termination, hardware and wiring options. Custom lengths are available on wire termination products.

DIMENSIONS



DIMENSIONS				
SIZE	A	B	C (MAX)	D
4	.655	.475	.260	.297
5	.705	.525	.310	.347
6	.755	.575	.360	.397
9	.905	.725	.510	.547
12	1.055	.875	.660	.697
15	1.205	1.025	.810	.847
21	1.505	1.325	1.110	1.147
25	1.705	1.525	1.310	1.347

ORDER FORM

Sample Part Number Format: MMHT-112-015-161-41WQ

ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
MMHT								
SERIES 0.050" Rugged Metal I/O Connector (Male)	ROWS 1 – 1-Row (4-25 contacts)	BODY STYLE 1 – Plug, straight	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell 5 – High-temp with stainless steel shell	SIZE 004 – 4 Contacts 005 – 5 Contacts 006 – 6 Contacts 009 – 9 Contacts 012 – 12 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts	PLATING 1 – 50 μ" Au contacts 3 – 50 μ" Au contacts; Au terminations	CONTACT/TERMINATION TYPE 1A – Pin, straight, 24 awg solder cup 11 – Pin, straight, 26 awg solder cup 1E – Pin, straight, 0.125" lead length* 13 – Pin, straight, 0.250" lead length* 14 – Pin, straight, 0.500" lead length* 16 – Pin, straight, crimped wire	HARDWARE 00 – No hardware 22 – Two fixed jacknut assemblies 41 – Two turning jackscrews, allen head 45 – Two turning jackscrews, allen head, captivated**	WIRING 00 – None XX – See Wiring Codes

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

- * 0.018 diameter
- ** Captivated hardware is factory-installed and non-removable

MATERIALS and FINISHES

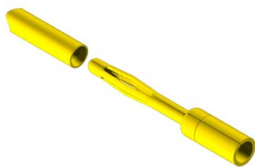
Pin Contacts: Copper-based alloy strip
Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11
or 6061-T6511 per SAE AMS-QQ-A-200/8
Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 μ" minimum or
303 stainless steel per ASTM A581/A581M or ASTM A582/A582M,
passivated per SAE AMS-2700
Molded Insulators: High-temp thermoplastic
Embedment: High-temp epoxy
Hardware: Corrosion-resistant steel per ASTM A582/A582M,
passivated per ASTM A967, SAE AMS-QQ-P-35
Tolerances: Angles: ±5°
(unless otherwise specified) Decimals: ±0.010; Fractions: ±1/64"
Wire lengths – insulated/stranded: +1.0"/-0.0"
uninsulated/solid: +0.02"/-0.0"

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

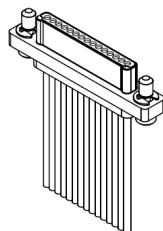
Contact Rating: 3 amperes maximum
Operating Temperature: -55° C to 205° C
Test Voltage: 600V, RMS, 60Hz
Insulation Resistance: 5,000 megohms minimum @ 500 VDC
Durability: 500 connector mating cycles
Contact Engaging Force: 6.0 ounces maximum/contact
Contact Separating Force: 0.5 ounces minimum/contact
Mating and Unmating Force: 10 ounces maximum/contact

MMHT-112-015-161-41WQ

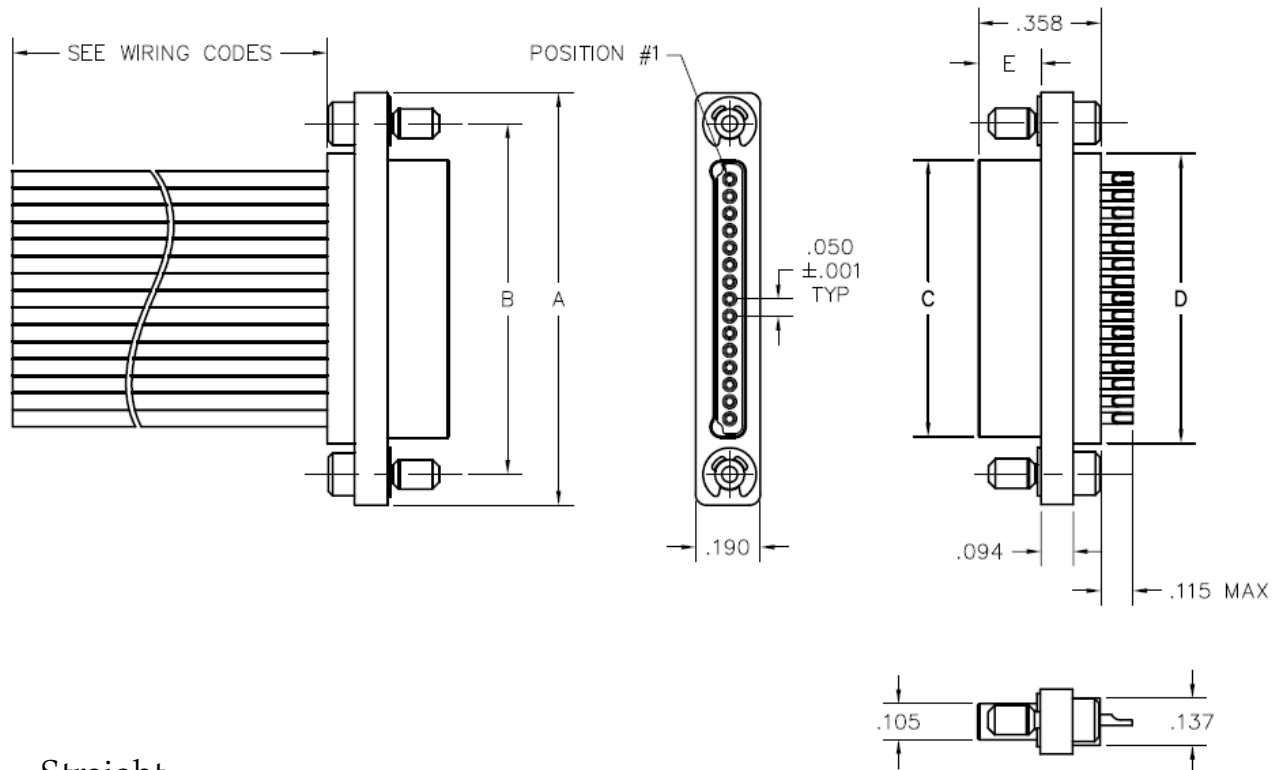


High-Reliability Contact

MIL-DTL-83513



MMHT SINGLE-ROW MALE DRAWINGS



Straight
Single-Row
Cable-to-Cable

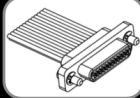
DIMENSIONS						
SIZE	A	B	C (MAX)	D	E (MAX)	HW
4	.655	.475	.260	.297	.186	#2-56 UNC THD (Ø.092 THRU)
5	.705	.525	.310	.347		
6	.755	.575	.360	.397		
9	.905	.725	.510	.547		
12	1.055	.875	.660	.697		
15	1.205	1.025	.810	.847		
21	1.505	1.325	1.110	1.147		
25	1.705	1.525	1.310	1.347		

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.



M
SERIES

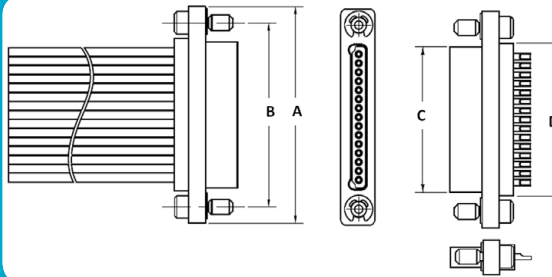
MICRO
0.050"
(1.27 mm)



MMHT – Single-Row I/O Cable (Female)

MMHT interconnects are used in rigorous, high-temperature applications and have a variety of termination, hardware and wiring options. Custom lengths are available on wire termination products.

DIMENSIONS



DIMENSIONS				
SIZE	A	B	C (MAX)	D
4	.655	.475	.260	.297
5	.705	.525	.310	.347
6	.755	.575	.360	.397
9	.905	.725	.510	.547
12	1.055	.875	.660	.697
15	1.205	1.025	.810	.847
21	1.505	1.325	1.110	1.147
25	1.705	1.525	1.310	1.347

ORDER FORM

Sample Part Number Format: MMHT-122-015-261-22WQ

ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
MMHT							
SERIES 0.050" Rugged Metal I/O Connector (Female)	ROWS 1 – 1-Row (4-25 contacts)	BODY STYLE 2 – Receptacle, straight	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell 5 – High-temp with stainless steel shell	SIZE 004 – 4 Contacts 005 – 5 Contacts 006 – 6 Contacts 009 – 9 Contacts 012 – 12 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts	PLATING 1 – 50 μ" Au contacts 3 – 50 μ" Au contacts; Au terminations	CONTACT/TERMINATION TYPE 2A – Socket, straight, 24 awg solder cup 21 – Socket, straight, 26 awg solder cup 2E – Socket, straight, 0.125" lead length* 23 – Socket, straight, 0.250" lead length* 24 – Socket, straight, 0.500" lead length* 26 – Socket, straight, crimped wire	WIRING 00 – None XX – See Wiring Codes
						HARDWARE 00 – No hardware 22 – Two fixed jacknut assemblies 41 – Two turning jackscrews, allen head 45 – Two turning jackscrews, allen head, captivated**	

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

- * 0.018 diameter
- ** Captivated hardware is factory-installed and non-removable

MATERIALS and FINISHES

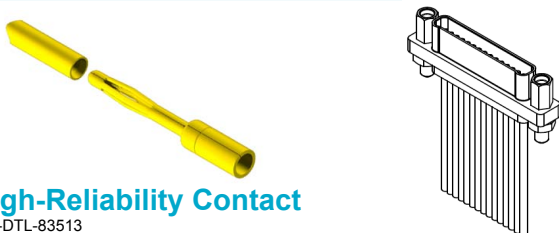
Socket Contact: Brass per ASTM B121/B121M or ASTM B16/B16M or ASTM B453
Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11
or 6061-T6511 per SAE AMS-QQ-A-200/8
Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 μ" minimum or
303 stainless steel per ASTM A581/A581M or ASTM A582/A582M,
passivated per SAE AMS-2700
Molded Insulators: High-temp thermoplastic
Embedment: High-temp epoxy
Hardware: Corrosion-resistant steel per ASTM A582/A582M,
passivated per ASTM A967, SAE AMS-QQ-P-35
Interfacial Seal Gaskets: Fluorosilicone per SAE AMS-R-25988
Tolerances: Angles: ±5°
Decimals: ±0.010"; Fractions: ±1/64"
(unless otherwise specified)
Wire lengths – insulated/stranded: +1.0"/-0.0"
uninsulated/solid: +0.02"/-0.0"

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

Contact Rating: 3 amperes maximum
Operating Temperature: -55° C to 205° C
Test Voltage: 600V, RMS, 60Hz
Insulation Resistance: 5,000 megohms minimum @ 500 VDC
Durability: 500 connector mating cycles
Contact Engaging Force: 6.0 ounces maximum/contact
Contact Separating Force: 0.5 ounces minimum/contact
Mating and Unmating Force: 10 ounces maximum/contact

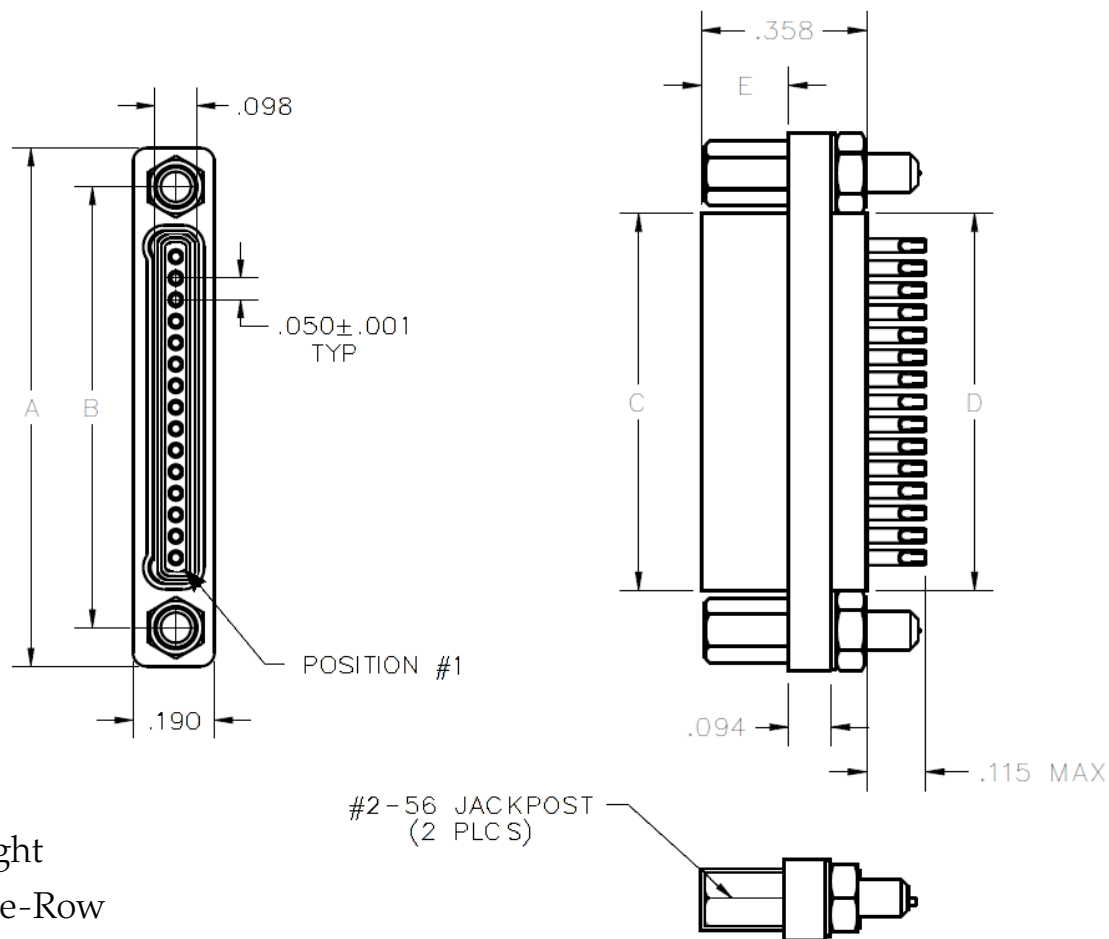
MMHT-122-015-261-22WQ



High-Reliability Contact

MIL-DTL-83513

MMHT SINGLE-ROW FEMALE DRAWINGS



Straight
Single-Row
Cable-to-Cable

DIMENSIONS						
SIZE	A	B	C (MAX)	D	E (MAX)	HW
4	.655	.475	.263	.297	.198	#2-56 UNC THD (Ø.092 THRU)
5	.705	.525	.313	.347		
6	.755	.575	.363	.397		
9	.905	.725	.513	.547		
12	1.055	.875	.663	.697		
15	1.205	1.025	.813	.847		
21	1.505	1.325	1.113	1.147		
25	1.705	1.525	1.313	1.347		

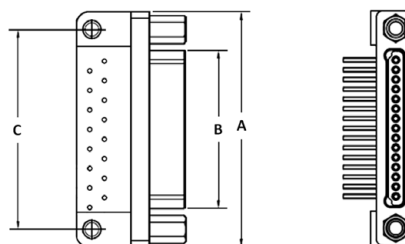
PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.



MKHT – Single-Row, Right Angle Board-Mount (Male)

MKHT interconnects are used in rugged, high-temperature applications where a right angle, plated thru-hole termination is desired for mounting. The narrow footprint on this connector helps save space on the board.

DIMENSIONS



Please reference MKHTM-DIM-1 for more detail.

SIZE	DIMENSIONS			MOUNTING HOLE
	A	B (MAX)	C	
4	.655	.260	.475	#2-56 UNC THREADED INSERT
5	.705	.310	.525	
6	.755	.360	.575	
9	.905	.510	.725	
12	1.055	.660	.875	
15	1.205	.810	1.025	
21	1.505	1.110	1.325	
25	1.705	1.310	1.525	

ORDER FORM

Sample Part Number Format: MKHT-152-015-325-220S

ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
MKHT								
SERIES 0.050" Rugged Metal Right Angle PTH Connector (Male)	ROWS 1 – 1-Row (4-25 contacts)	BODY STYLE 5 – Plug, right angle, standard footprint with thread insert	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell 5 – High-temp with stainless steel shell	SIZE 004 – 4 Contacts 005 – 5 Contacts 006 – 6 Contacts 009 – 9 Contacts 012 – 12 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts	PLATING 3 – 50 μ " Au contacts; Au terminations	CONTACT/TERMINATION TYPE 32 – Pin, right angle, 0.109" x 0.020" dia 33 – Pin, right angle, 0.140" x 0.020" dia 34 – Pin, right angle, 0.172" x 0.020" dia A2 – Pin, right angle, 0.109" x 0.020" dia with ground pin option A3 – Pin, right angle, 0.140" x 0.020" dia with ground pin option A4 – Pin, right angle, 0.172" x 0.020" dia with ground pin option	HARDWARE 00 – No hardware 22 – Two fixed jacknut assemblies	WIRING 0S – Standard body polarization

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

MATERIALS and FINISHES

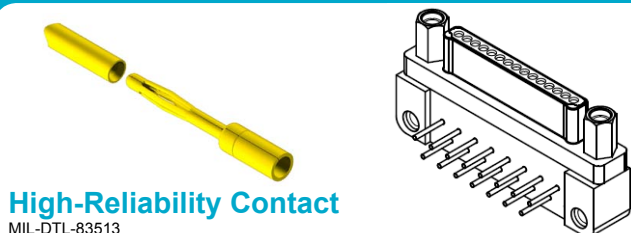
Pin Contacts: Copper-based alloy strip
Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11 or 6061-T6511 per SAE AMS-QQ-A-200/8
Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 μ " minimum or 303 stainless steel per ASTM A581/A581M or ASTM A582/A582M, passivated per SAE AMS-2700
Molded Insulators: High-temp thermoplastic
Embedment: High-temp epoxy
Hardware: Corrosion-resistant steel per ASTM A582/A582M, passivated per ASTM A967, SAE AMS-QQ-P-35
Tolerances: Angles: $\pm 5^\circ$
(unless otherwise specified) Decimals: ± 0.010 ; Fractions: $\pm 1/64$ "
Wire lengths – insulated/stranded: +1.0"/-0.0"
uninsulated/solid: +0.02"/-0.0"

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

Contact Rating: 3 amperes maximum
Operating Temperature: -55° C to 205° C
Test Voltage: 600V, RMS, 60Hz
Insulation Resistance: 5,000 megohms minimum @ 500 VDC
Durability: 500 connector mating cycles
Contact Engaging Force: 6.0 ounces maximum/contact
Contact Separating Force: 0.5 ounces minimum/contact
Mating and Unmating Force: 10 ounces maximum/contact

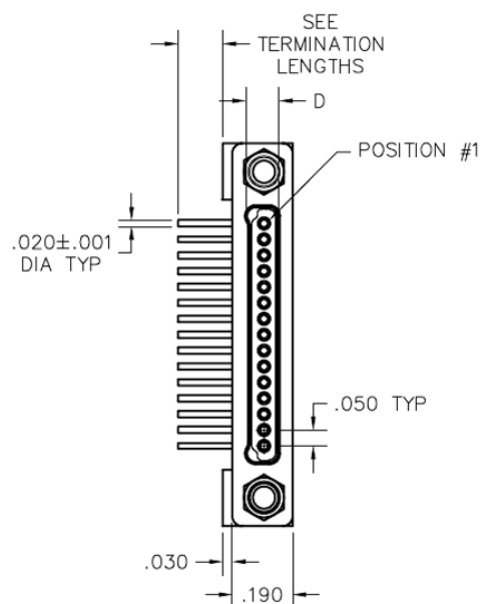
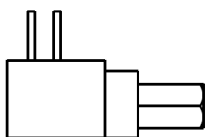
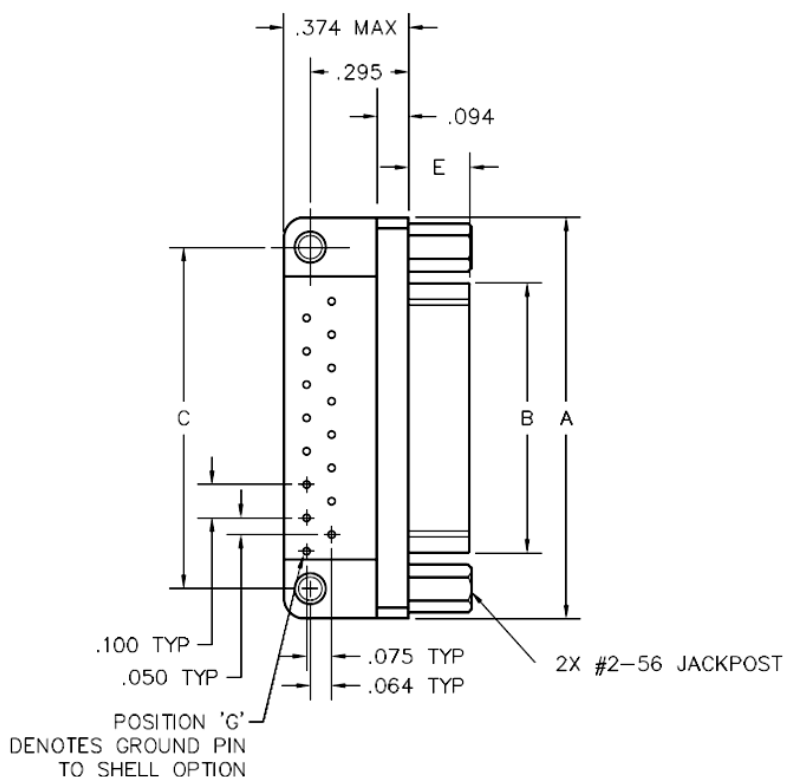
MKHT-152-015-325-220S



High-Reliability Contact

MIL-DTL-83513

MKHT SINGLE-ROW MALE DRAWINGS



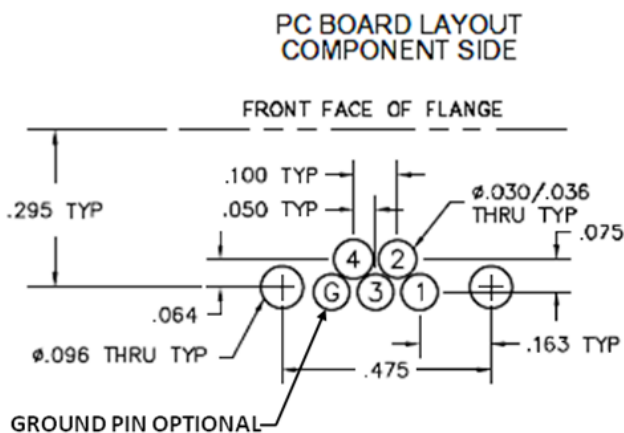
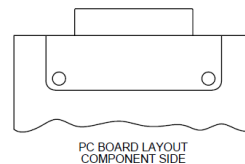
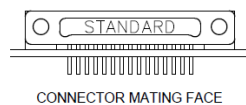
Right Angle
Narrow Footprint
Threaded Inserts
Interfacial Seal

DIMENSIONS						
SIZE	A	B (MAX)	C	D (MAX)	E (MAX)	MOUNTING HOLE
4	.655	.260	.475	.110	.186	#2-56 UNC THREADED INSERT
5	.705	.310	.525			
6	.755	.360	.575			
9	.905	.510	.725			
12	1.055	.660	.875			
15	1.205	.810	1.025			
21	1.505	1.110	1.325			
25	1.705	1.310	1.525			

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

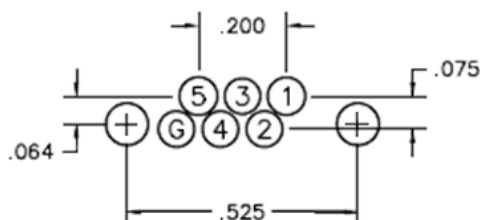
Recommended PC Board Layouts – MKHT Male

Right Angle
Single Row
Standard Polarization
Sizes 4–9

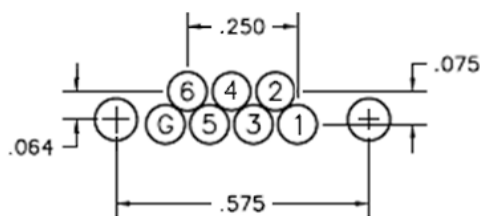


CONNECTOR
MATING FACE

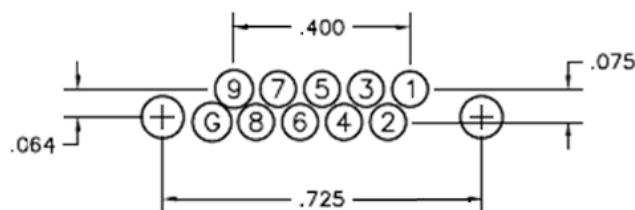
① ○ ○ ○ ④
4 POSITION



① ○ ○ ○ ○ ⑤
5 POSITION

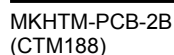
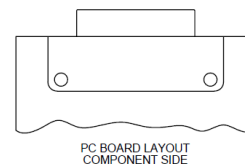
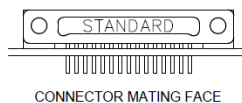


① ○ ○ ○ ○ ○ ⑥
6 POSITION



① ○ ○ ○ ○ ○ ○ ○ ⑨
9 POSITION

Right Angle
Single Row
Standard Polarization
Sizes 12–25

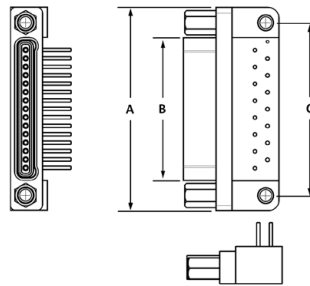




MKHT – Single-Row, Right Angle Board-Mount (Female)

MKHT interconnects are used in rugged, high-temperature applications where a right angle, plated thru-hole termination is desired for mounting. The narrow footprint on this connector helps save space on the board.

DIMENSIONS



Please reference MKHTF-DIM-1 for more detail.

DIMENSIONS				
SIZE	A	B (MAX)	C	MOUNTING HOLE
4	.655	.297	.475	#2-56 UNC THREADED INSERT
5	.705	.347	.525	
6	.755	.397	.575	
9	.905	.547	.725	
12	1.055	.697	.875	
15	1.205	.847	1.025	
21	1.505	1.147	1.325	
25	1.705	1.347	1.525	

ORDER FORM

Sample Part Number Format: MKHT-162-015-435-220S

	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
MKHT								
SERIES 0.050" Rugged Metal Right Angle PTH Connector (Female)	ROWS 1 – 1-Row (4-25 contacts)	BODY STYLE 6 – Receptacle, right angle, standard footprint with thread inserts and interfacial seal	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell 5 – High-temp with stainless steel shell	SIZE 004 – 4 Contacts 005 – 5 Contacts 006 – 6 Contacts 009 – 9 Contacts 012 – 12 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts	PLATING 3 – 50 μ " Au contacts; Au terminations	CONTACT/TERMINATION TYPE 43 – Socket, right angle, 0.109" x 0.020" dia 44 – Socket, right angle, 0.140" x 0.020" dia 45 – Socket, right angle, 0.172" x 0.020" dia B3 – Socket, right angle, 0.109" x 0.020" dia with ground pin option B4 – Socket, right angle, 0.140" x 0.020" dia with ground pin option B5 – Socket, right angle, 0.172" x 0.020" dia with ground pin option	HARDWARE 00 – No hardware 22 – Two fixed jacknut assemblies	WIRING 0S – Standard body polarization

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

MATERIALS and FINISHES

Socket Contact: Brass per ASTM B121/B121M or ASTM B16/B16M or ASTM B453
Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11 or 6061-T6511 per SAE AMS-QQ-A-200/8
Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 μ " minimum or 303 stainless steel per ASTM A581/A581M or ASTM A582/A582M, passivated per SAE AMS-2700
Molded Insulators: High-temp thermoplastic
Embedment: High-temp epoxy
Hardware: Corrosion-resistant steel per ASTM A582/A582M, passivated per ASTM A967, SAE AMS-QQ-P-35
Interfacial Seal Gaskets: Fluorosilicone per SAE AMS-R-25988
Tolerances: Angles: $\pm 5^\circ$
Decimals: ± 0.010 ; Fractions: $\pm 1/64$ "
(unless otherwise specified) Wire lengths – insulated/stranded: $+1.0"/-0.0"$
uninsulated/solid: $+0.02"/-0.0"$

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

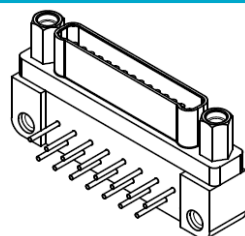
Contact Rating: 3 amperes maximum
Operating Temperature: -55°C to 205°C
Test Voltage: 600V, RMS, 60Hz
Insulation Resistance: 5,000 megohms minimum @ 500 VDC
Durability: 500 connector mating cycles
Contact Engaging Force: 6.0 ounces maximum/contact
Contact Separating Force: 0.5 ounces minimum/contact
Mating and Unmating Force: 10 ounces maximum/contact

MKHT-162-015-435-220S

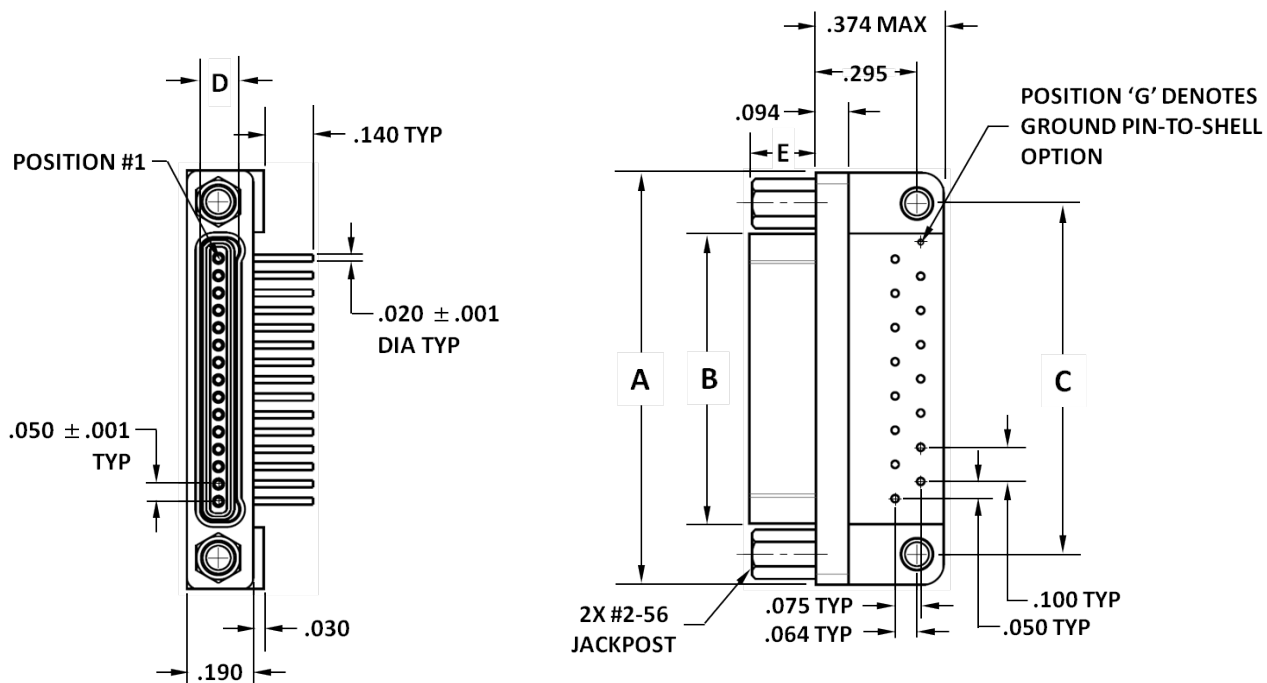


High-Reliability Contact

MIL-DTL-83513



MKHT SINGLE-ROW FEMALE DRAWINGS



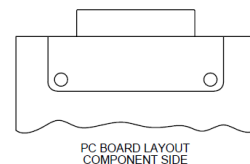
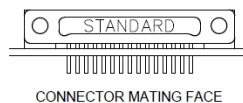
Right Angle
Narrow Footprint
Threaded Inserts
Interfacial Seal

DIMENSIONS						
SIZE	A	B (MAX)	C	D (MAX)	E (MAX)	MOUNTING HOLE
4	.655	.297	.475	.142	.198	#2-56 UNC THREADED INSERT
5	.705	.347	.525			
6	.755	.397	.575			
9	.905	.547	.725			
12	1.055	.697	.875			
15	1.205	.847	1.025			
21	1.505	1.147	1.325			
25	1.705	1.347	1.525			

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

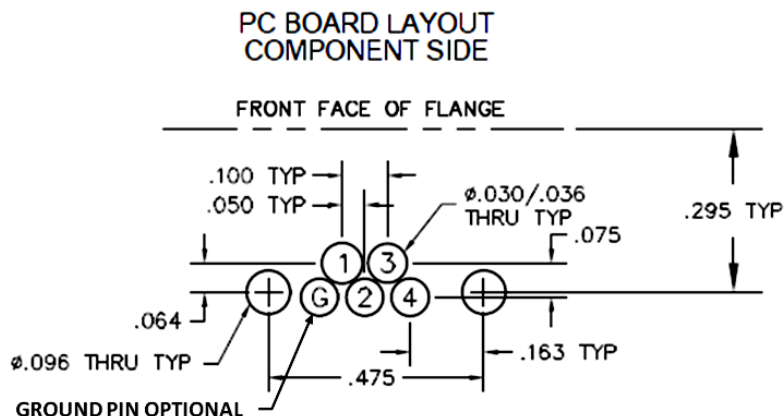
Recommended PC Board Layouts – MKHT Female

Right Angle
Single Row
Standard Polarization
Sizes 4–9

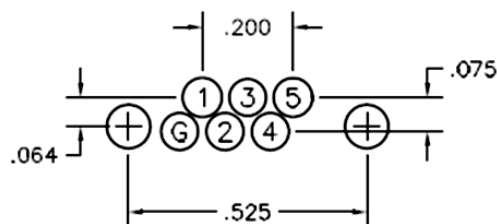


CONNECTOR
MATING FACE

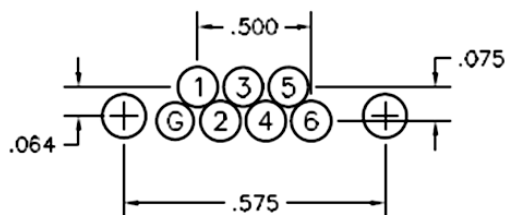
④ ○ ○ ○ ①
4 POSITION



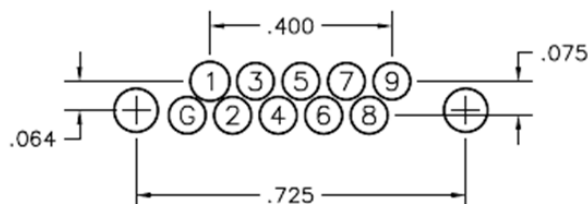
⑤ ○ ○ ○ ○ ①
5 POSITION



⑥ ○ ○ ○ ○ ○ ①
6 POSITION

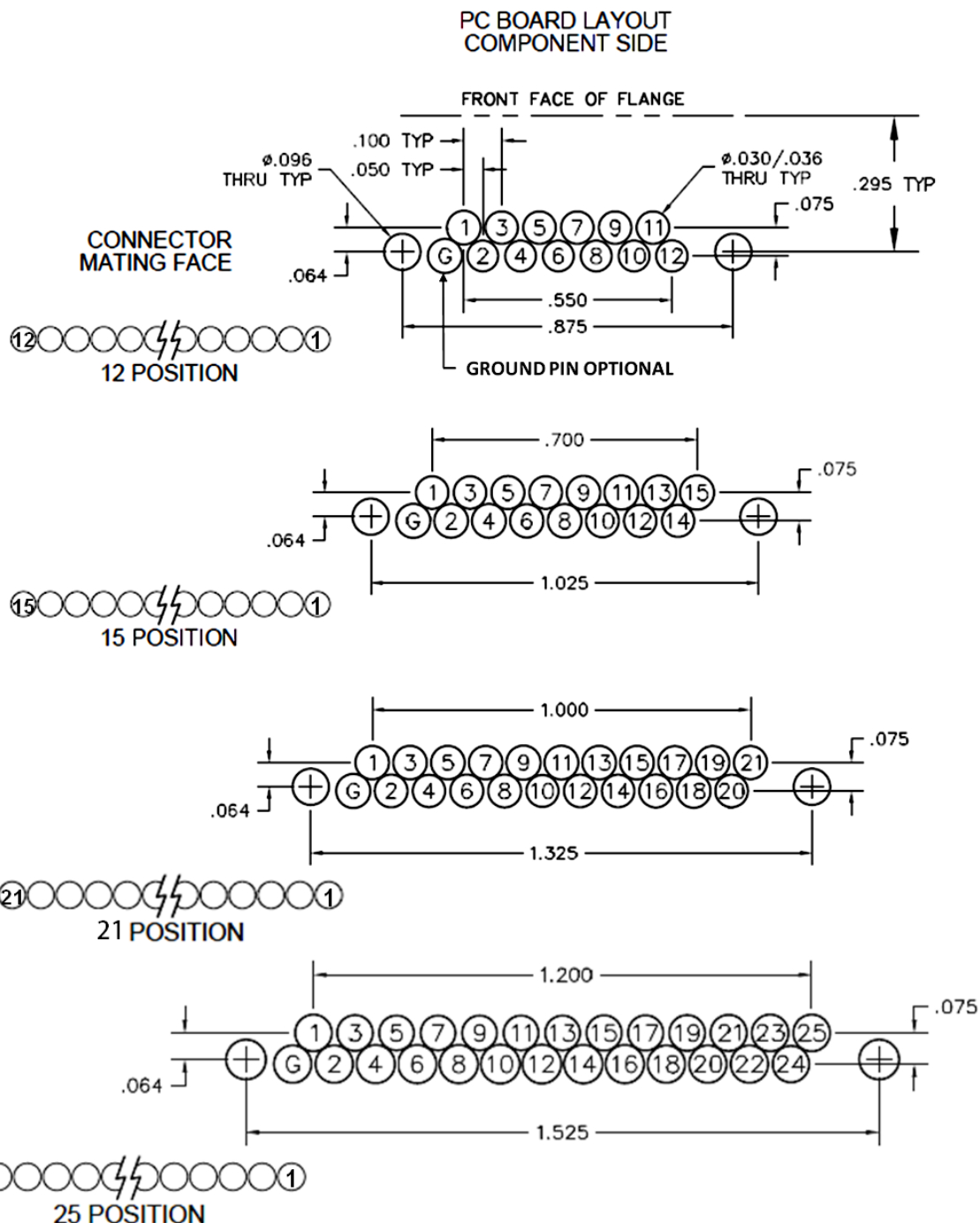
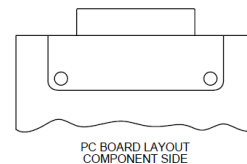
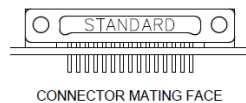


⑨ ○ ○ ○ ○ ○ ○ ○ ○ ①
9 POSITION



Recommended PC Board Layouts – MKHT Female

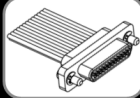
Right Angle
Single Row
Standard Polarization
Sizes 12–25





M
SERIES

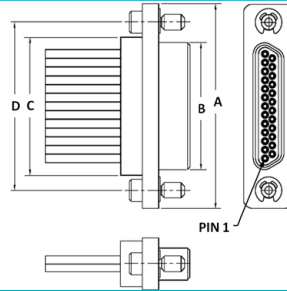
MICRO
0.050"
(1.27 mm)



MMHT – I/O Cable (Male)

MMHT interconnects are used in high-temperature applications. These rugged cable connectors come with a variety of termination, hardware and wiring options. Custom lengths are available on wire termination products.

DIMENSIONS



Please reference
MMHTM-DIM-2
for more detail.

DIMENSIONS					
SIZE	ROWS	A	B (MAX)	C	D
9	2	.755	.334	.390	.565
15		.925	.484	.540	.715
21		1.075	.634	.690	.865
25		1.175	.734	.790	.965
31		1.325	.884	.940	1.115
37	3	1.475	1.034	1.090	1.265
51		1.425	.984	1.040	1.215
100	4	2.160	1.384	1.432	1.800

ORDER FORM

Sample Part Number Format: MMHT-212-025-161-41WA

MMHT	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
SERIES 0.050" Rugged Metal I/O Connector (Male)	ROWS 2 – 2-Row (9-37 contacts) 3 – 3-Row (51 & 69 contacts) 4 – 4-Row (100 contacts)	BODY STYLE 1 – Plug	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell 4 – High-temp thermoplastic with hard black anodized shell 5 – High-temp with stainless steel shell	SIZE 009 – 9 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts 031 – 31 Contacts 037 – 37 Contacts 051 – 51 Contacts 069 – 69 Contacts 100 – 100 Contacts	PLATING 1 – 50 μ" Au contacts (crimp wire) 3 – 50 μ" Au contacts; Au terminations (solder cup, pigtail)	CONTACT/TERMINATION TYPE 11 – Pin, straight, 26 awg solder cup 1A – Pin, straight, 24 awg solder cup 1E – Pin, straight, 0.125" lead length†† 13 – Pin, straight, 0.250" lead length†† 14 – Pin, straight, 0.500" lead length†† 16 – Pin, straight, crimped wire	HARDWARE 00 – No hardware 22 – Two fixed jacknut assemblies (62)*** 41 – Two turning jackscrews, allen head, retaining ring (81)*** 42 – Two long turning jackscrews, al- len head, retaining ring (82)*** 43 – Two turning jackscrews, slot head, retaining ring (83)*** 44 – Two long turning jackscrews, slot head, retaining ring (84)*** 45 – Two turning jackscrews, allen head, captivated** (85)*** FF – Float-mount: front panel mounting FR – Float-mount: rear panel mounting	WIRING 00 – None XX – See Wiring Codes

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

- * 0.018 diameter
- ** Captivated hardware is factory-installed and non-removable
- *** Numbers in parentheses are to be used when ordering size 100
- † Leads are soft copper, suitable for forming.

MATERIALS and FINISHES

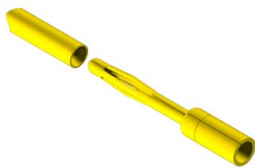
Pin Contacts: Copper-based alloy strip
Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11
or 6061-T6511 per SAE AMS-QQ-A-200/8
Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 μ" minimum or black
anodized per MIL-A-8625, Type III Class 2, or 303 stainless steel per ASTM
A581/A581M or ASTM A582/A582M, passivated per SAE AMS-2700
Molded Insulators: High-temp thermoplastic
Embedment: High-temp epoxy
Hardware: Corrosion-resistant steel per ASTM A582/A582M,
passivated per ASTM A967, SAE AMS-QQ-P-35
Tolerances: Angles: ±5°
(unless otherwise specified) Decimals: ±0.010"; Fractions: ±1/64"
Wire lengths – insulated/stranded: +1.0"/-0.0"
uninsulated/solid: +0.02"/-0.0"

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

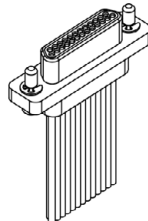
Contact Rating: 3 amperes maximum
Operating Temperature: -55° C to 205° C
Test Voltage: 600V, RMS, 60Hz
Insulation Resistance: 5,000 megohms minimum @ 500 VDC
Durability: 500 connector mating cycles
Contact Engaging Force: 6.0 ounces maximum/contact
Contact Separating Force: 0.5 ounces minimum/contact
Mating and Unmating Force: 10 ounces maximum/contact

MMHT-212-025-161-41WA

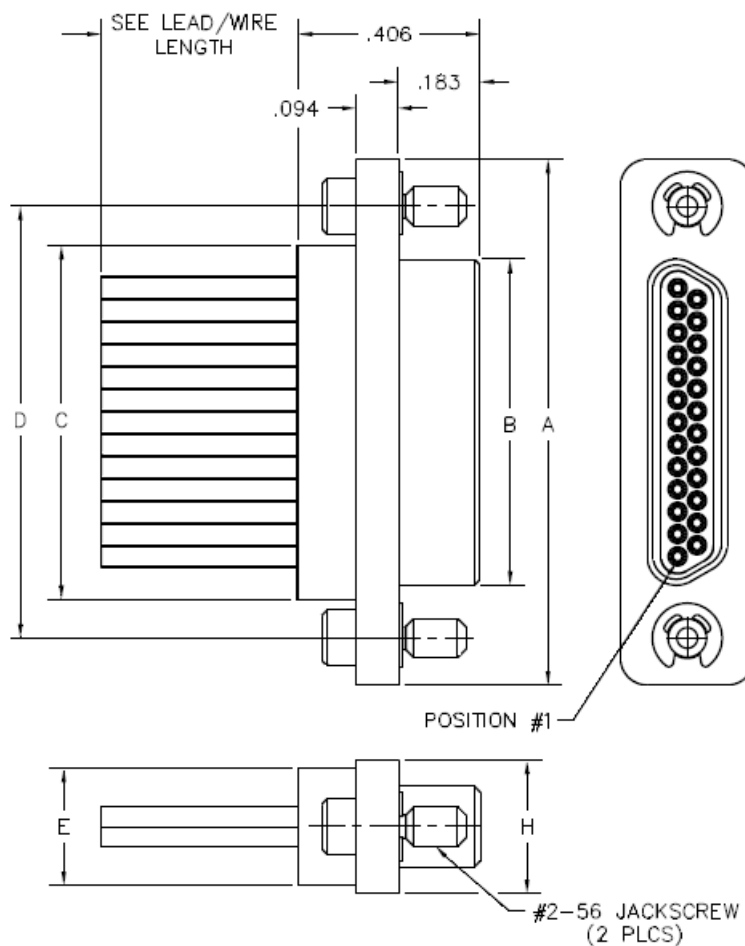


High-Reliability Contact

MIL-DTL-83513



MMHT MALE DRAWINGS



Straight
Multi-Row
Cable-to-Cable

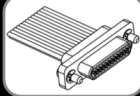
DIMENSIONS								
SIZE	ROWS	A	B (MAX)	C	D	E (MAX)	H	HARDWARE
9	2	.755	.334	.390	.565	.270	.298	#2-56 UNC THD (Ø.092 THRU)
15		.925	.484	.540	.715			
21		1.075	.634	.690	.865			
25		1.175	.734	.790	.965			
31		1.325	.884	.940	1.115			
37		1.475	1.034	1.090	1.265			
51	3	1.425	.984	1.040	1.215	.310	.341	#4-40 UNC THD (Ø.147 THRU)
100	4	2.160	1.384	1.432	1.800	.360	.384	

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.



M
SERIES

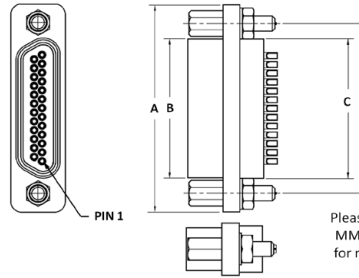
MICRO
0.050"
(1.27 mm)



MMHT – I/O Cable (Female)

MMHT interconnects are used in high-temperature applications. These rugged cable connectors come with a variety of termination, hardware and wiring options. Custom lengths are available on wire termination products.

DIMENSIONS



Please reference
 MMHT-DIM-2
 for more detail.

DIMENSIONS					
SIZE	ROWS	A	B (MAX)	C	D
9	2	.755	.400	.390	.565
15		.925	.550	.540	.715
21		1.075	.700	.690	.865
25		1.175	.800	.790	.965
31		1.325	.950	.940	1.115
37	3	1.475	1.100	1.090	1.265
51		1.425	1.050	1.040	1.215
100		2.160	1.508	1.432	1.800

ORDER FORM

Sample Part Number Format: MMHT-222-025-2A3-2200

ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
MMHT								
SERIES 0.050" Rugged Metal I/O Connector (Female)	ROWS 2 – 2-Row (9-37 contacts) 3 – 3-Row (51 & 69 contacts) 4 – 4-Row (100 contacts)	BODY STYLE 2 – Receptacle	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell 4 – High-temp thermoplastic with hard black anodized shell 5 – High-temp with stainless steel shell	SIZE 009 – 9 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts 031 – 31 Contacts 037 – 37 Contacts 051 – 51 Contacts 069 – 69 Contacts 100 – 100 Contacts	CONTACT/TERMINATION TYPE 21 – Socket, straight, 26 awg solder cup 2A – Socket, straight, 24 awg solder cup 2E – Socket, straight, 0.125" lead length* 23 – Socket, straight, 0.250" lead length* 24 – Socket, straight, 0.500" lead length*† 26 – Socket, straight, crimped wire	PLATING 1 – 50 µ" Au contacts (crimp wire) 3 – 50 µ" Au contacts; Au terminations (solder cup, pigtail)	HARDWARE 00 – No hardware 22 – Two fixed jacknut assemblies (62)*** 41 – Two turning jackscrews, allen head, retaining ring (81)*** 42 – Two long turning jackscrews, allen head, retaining ring (82)*** 43 – Two turning jackscrews, slot head, retaining ring (83)*** 44 – Two long turning jackscrews, slot head, retaining ring (84)*** 45 – Two turning jackscrews, allen head, captivated** (85)*** FF – Float-mount: front panel mounting FR – Float-mount: rear panel mounting	WIRING 00 – None XX – See Wiring Codes

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

- * 0.018 diameter
- ** Captivated hardware is factory-installed and non-removable
- *** Numbers in parentheses are to be used when ordering size 100
- † Leads are soft copper, suitable for forming.

MATERIALS and FINISHES

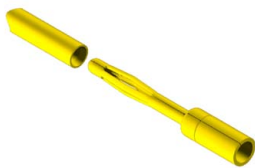
Socket Contact: Brass per ASTM B121/B121M or ASTM B16/B16M or ASTM B453
 Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
 Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11
 or 6061-T6511 per SAE AMS-QQ-A-200/8
 Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 µ" minimum or black
 anodized per MIL-A-8625, Type III Class 2, or 303 stainless steel per ASTM
 A581/A581M or ASTM A582/A582M, passivated per SAE AMS-2700
 Molded Insulators: High-temp thermoplastic
 Embedment: High-temp epoxy
 Hardware: Corrosion-resistant steel per ASTM A582/A582M,
 passivated per ASTM A967, SAE AMS-QQ-P-35
 Interfacial Seal Gaskets: Fluorosilicone per SAE AMS-R-25988
 Tolerances: Angles: ±5°
 Decimals: ±0.010"; Fractions: ±1/64"
 (unless otherwise specified)
 Wire lengths – insulated/stranded: +1.0"/-0.0"
 uninsulated/solid: +0.02"/-0.0"

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

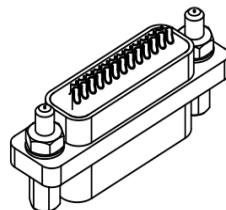
Contact Rating: 3 amperes maximum
 Operating Temperature: -55° C to 205° C
 Test Voltage: 600V, RMS, 60Hz
 Insulation Resistance: 5,000 megohms minimum @ 500 VDC
 Durability: 500 connector mating cycles
 Contact Engaging Force: 6.0 ounces maximum/contact
 Contact Separating Force: 0.5 ounces minimum/contact
 Mating and Unmating Force: 10 ounces maximum/contact

MMHT-222-025-2A3-2200



High-Reliability Contact

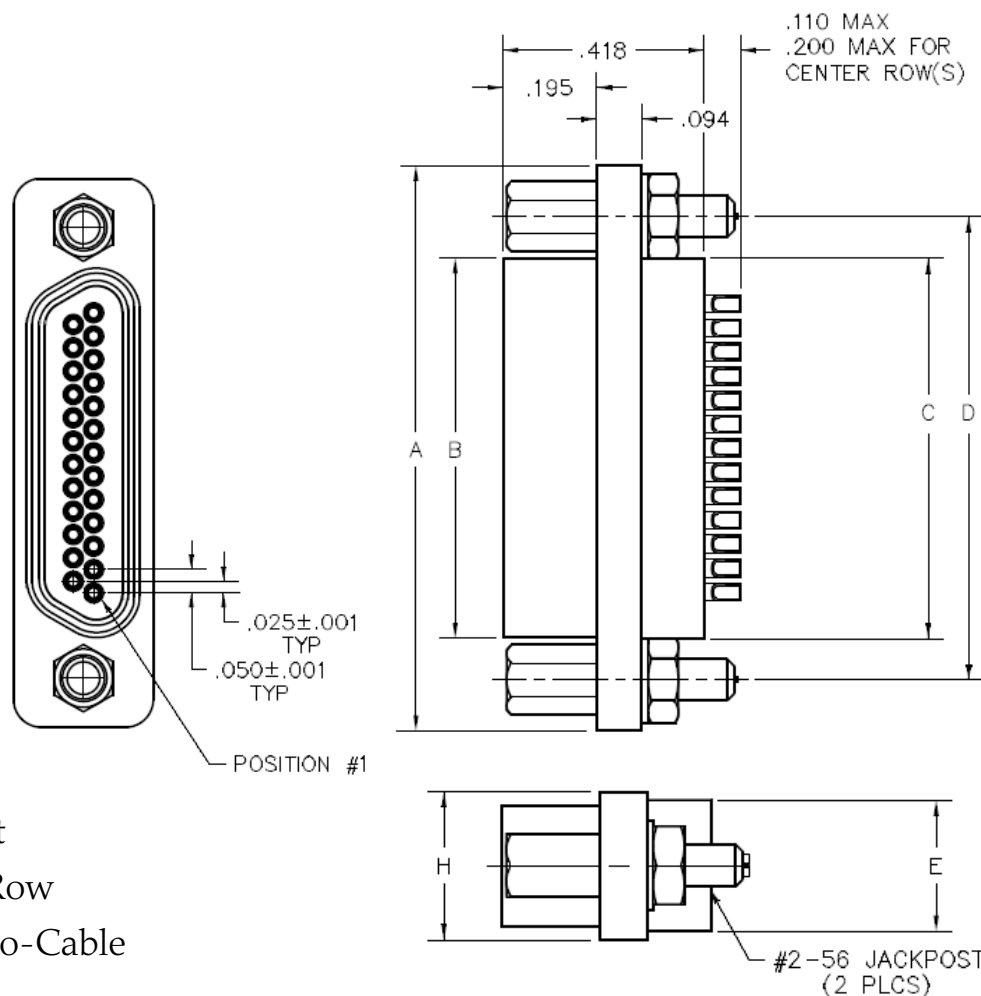
MIL-DTL-83513



MMHTF-PNB-2E
 (CTMHT008)

www.airborn.com
(512) 863-5585

MMHT FEMALE DRAWINGS



Straight
Multi-Row
Cable-to-Cable

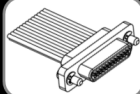
DIMENSIONS								
SIZE	ROWS	A	B (MAX)	C	D	E (MAX)	H	HARDWARE
9	2	.755	.400	.390	.565	.270	.298	#2-56 UNC THD (Ø.092 THRU)
15		.925	.550	.540	.715			
21		1.075	.700	.690	.865			
25		1.175	.800	.790	.965			
31		1.325	.950	.940	1.115			
37		1.475	1.100	1.090	1.265			
51	3	1.425	1.050	1.040	1.215	.310	.341	#4-40 UNC THD (Ø.147 THRU)
100	4	2.160	1.508	1.432	1.800	.360	.384	

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.



M
SERIES

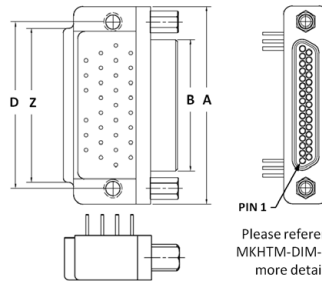
MICRO
0.050"
(1.27 mm)



MKHT – Right Angle Board-Mount (Male)

MKHT interconnects are used in high-temperature applications where a right angle, plated thru-hole termination is desired for mounting. The narrow footprint on this connector helps save board space.

DIMENSIONS



Please reference
MKHTM-DIM-2 for
more detail.

DIMENSIONS						
SIZE	ROWS	A	B (MAX)	D	Z	HARDWARE
9	2	.755	.334	.565	.775	#2-56 UNC THREADED INSERT
15		.925	.484	.715	.925	
21		1.075	.634	.865	1.075	
25		1.175	.734	.965	1.175	
31		1.325	.884	1.115	1.080	
37	3	1.475	1.034	1.265	1.180	#4-40 UNC THREADED INSERT
51		1.425	0.984	1.215	1.220	
69		1.725	1.284	1.515	1.450	
100	4	2.160	1.384	1.800	1.810	

ORDER FORM

Sample Part Number Format: MKHT-252-031-323-220S

ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
MKHT								
SERIES 0.050" Rugged Metal PC Board- Mount Connector (Male)	ROWS 2 – 2-Row (9-37 contacts) 3 – 3-Row (51 & 69 contacts) 4 – 4-Row (100 contacts)	BODY STYLE 5 – Plug, right angle, narrow footprint with threaded inserts	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell 4 – High-temp thermoplastic with hard black anodized shell 5 – High-temp with stainless steel shell	SIZE 009 – 9 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts 031 – 31 Contacts 037 – 37 Contacts 051 – 51 Contacts 069 – 69 Contacts 100 – 100 Contacts	PLATING 3 – 50 µ" Au contacts; Au terminations	CONTACT/TERMINATION TYPE 32 – Pin, right angle, 0.109" x 0.020" dia 33 – Pin, right angle, 0.140" x 0.020" dia 34 – Pin, right angle, 0.172" x 0.020" dia	HARDWARE 00 – No hardware 22 – Two fixed jacknut assemblies (62)*	WIRING 0S – Standard body polarization

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

* Number in parentheses to be used when ordering size 100

MATERIALS and FINISHES

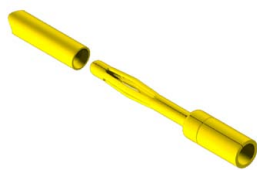
Pin Contacts: Copper-based alloy strip
Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11
or 6061-T6511 per SAE AMS-QQ-A-200/8
Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 µ" minimum or black
anodized per MIL-A-8625, Type III Class 2, or 303 stainless steel per ASTM
A581/A581M or ASTM A582/A582M, passivated per SAE AMS-2700
Molded Insulators: High-temp thermoplastic
Embedment: High-temp epoxy
Hardware: Corrosion-resistant steel per ASTM A582/A582M,
passivated per ASTM A967, SAE AMS-QQ-P-35
Tolerances: Angles: ±5°
(unless otherwise specified) Decimals: ±0.010; Fractions: ±1/64"
Wire lengths – insulated/stranded: +1.0"/-0.0"
uninsulated/solid: +0.02"/-0.0"

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

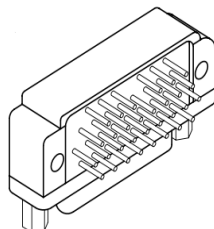
Contact Rating: 3 amperes maximum
Operating Temperature: -55° C to 205° C
Test Voltage: 600V, RMS, 60Hz
Insulation Resistance: 5,000 megohms minimum @ 500 VDC
Durability: 500 connector mating cycles
Contact Engaging Force: 6.0 ounces maximum/contact
Contact Separating Force: 0.5 ounces minimum/contact
Mating and Unmating Force: 10 ounces maximum/contact

MKHT-252-031-323-220S



High-Reliability Contact

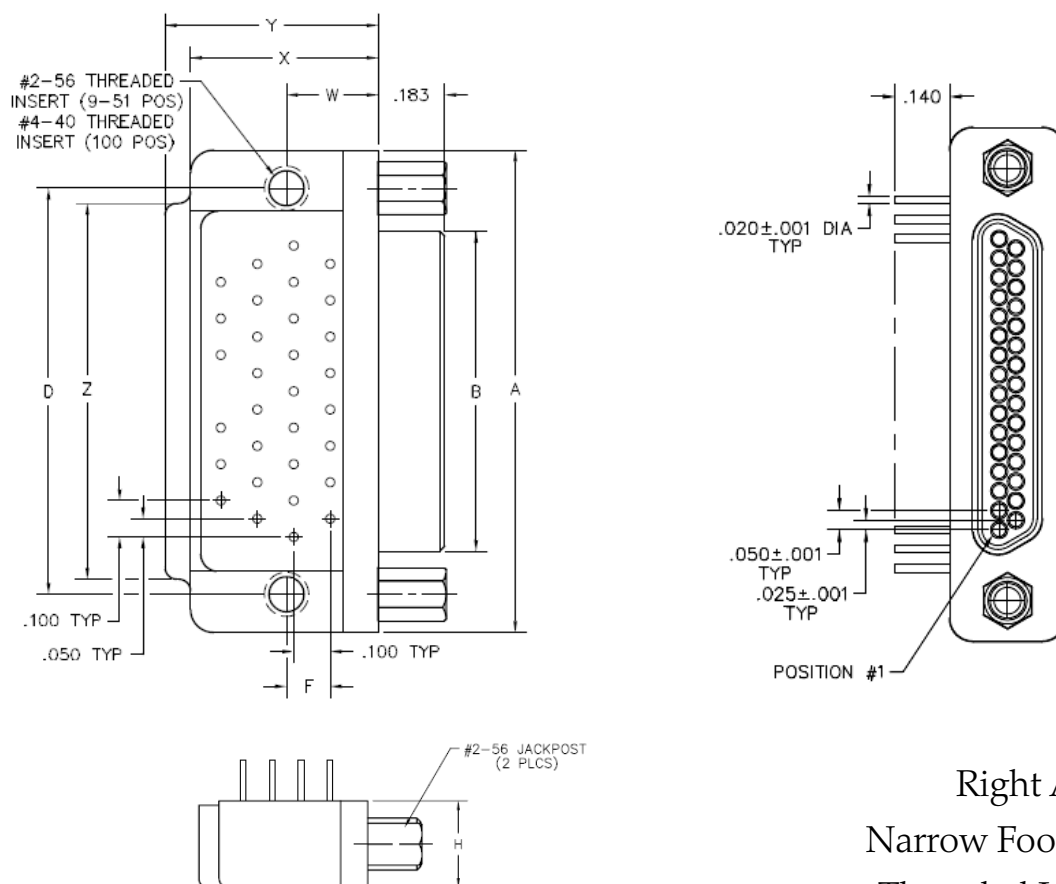
MIL-DTL-83513



MKHTM-PNB-2E
(CTMHT032)

www.airborn.com
(512) 863-5585

MKHT MALE DRAWINGS



Right Angle
Narrow Footprint
Threaded Inserts

DIMENSIONS											
SIZE	ROWS	A	B (MAX)	D	F	H	W	X (MAX)	Y (MAX)	Z	HARDWARE
9	2	.755	.334	.565	.020	.298	.250	.420	.420	.775	#2-56 UNC THD
15		.925	.484	.715	.120					.925	
21		1.075	.634	.865						1.075	
25		1.175	.734	.965						1.175	
31		1.325	.884	1.115				.450	.520	1.080	
37		1.475	1.034	1.265	1.180						
51	3	1.425	.984	1.215	.150	.341	.300	.430	.650	1.220	
69		1.725	1.284	1.515					.755	1.450	
100	4	2.160	1.384	1.800	.200	.384	.400	.590	1.000	1.810	#4-40 UNC THD

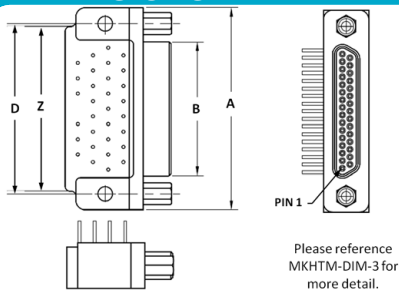
PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.



MKHT – Right Angle Board-Mount with Blind Clearance Cut (Male)

MKHT interconnects are used in high-temperature applications where a right angle, plated thru-hole termination is desired for mounting. The narrow footprint on this connector helps save board space.

DIMENSIONS



DIMENSIONS							
SIZE	ROWS	A	B (MAX)	D	Z	HARDWARE	MOUNTING HOLE
9	2	.755	.334	.565	.775	#2-56 UNC THD	#2-56 UNC THREADED INSERT
15		.925	.484	.715	.925		
21		1.075	.634	.865	1.075		
25		1.175	.734	.965	1.175		
31		1.325	.884	1.115	1.080		
37	3	1.475	1.034	1.265	1.180	#4-40 UNC THD	#4-40 UNC INSERT
51		1.425	.984	1.215	1.220		
69		1.725	1.284	1.515	1.450		
100	4	2.160	1.384	1.800	1.810		

Please reference MKHTM-DIM-3 for more detail.

ORDER FORM

Sample Part Number Format: MKHT-2T2-031-335-220S

ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
MKHT								
SERIES 0.050" Rugged Metal PC Board-Mount Connector (Male)	ROWS 2 – 2-Row (9-37 contacts) 3 – 3-Row (51 & 69 contacts) 4 – 4-Row (100 contacts)	BODY STYLE T – Plug, right angle (blind clearance cut), narrow footprint with threaded inserts	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell 4 – High-temp thermoplastic with hard black anodized shell 5 – High-temp with stainless steel shell	SIZE 009 – 9 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts 031 – 31 Contacts 037 – 37 Contacts 051 – 51 Contacts 069 – 69 Contacts 100 – 100 Contacts	PLATING 3 – 50 µ" Au contacts; Au terminations	CONTACT/TERMINATION TYPE 32 – Pin, right angle, 0.109" 33 – Pin, right angle, 0.140" 34 – Pin, right angle, 0.172"	HARDWARE 00 – No hardware 22 – Two fixed jacknut assemblies (62)*	WIRING 0R – Reversed body polarization 0S – Standard body polarization

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

* Number in parentheses to be used when ordering size 100

MATERIALS and FINISHES

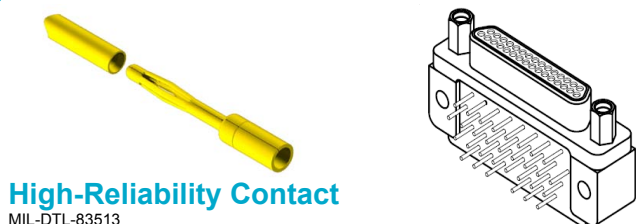
Pin Contacts: Copper-based alloy strip
Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11 or 6061-T6511 per SAE AMS-QQ-A-200/8
Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 µ" minimum or black anodized per MIL-A-8625, Type III Class 2, or 303 stainless steel per ASTM A581/A581M or ASTM A582/A582M, passivated per SAE AMS-2700
Molded Insulators: High-temp thermoplastic
Embedment: High-temp epoxy
Hardware: Corrosion-resistant steel per ASTM A582/A582M, passivated per ASTM A967, SAE AMS-QQ-P-35
Tolerances: Angles: ±5°
(unless otherwise specified) Decimals: ±0.010"; Fractions: ±1/64"
Wire lengths – insulated/stranded: +1.0"/-0.0"
uninsulated/solid: +0.02"/-0.0"

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

Contact Rating: 3 amperes maximum
Operating Temperature: -55° C to 205° C
Test Voltage: 600V, RMS, 60Hz
Insulation Resistance: 5,000 megohms minimum @ 500 VDC
Durability: 500 connector mating cycles
Contact Engaging Force: 6.0 ounces maximum/contact
Contact Separating Force: 0.5 ounces minimum/contact
Mating and Unmating Force: 10 ounces maximum/contact

MKHT-2T2-031-335-220S



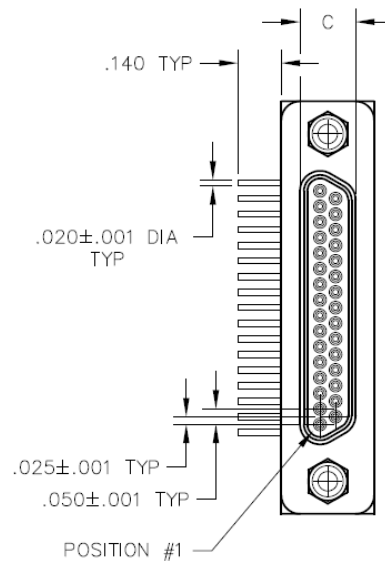
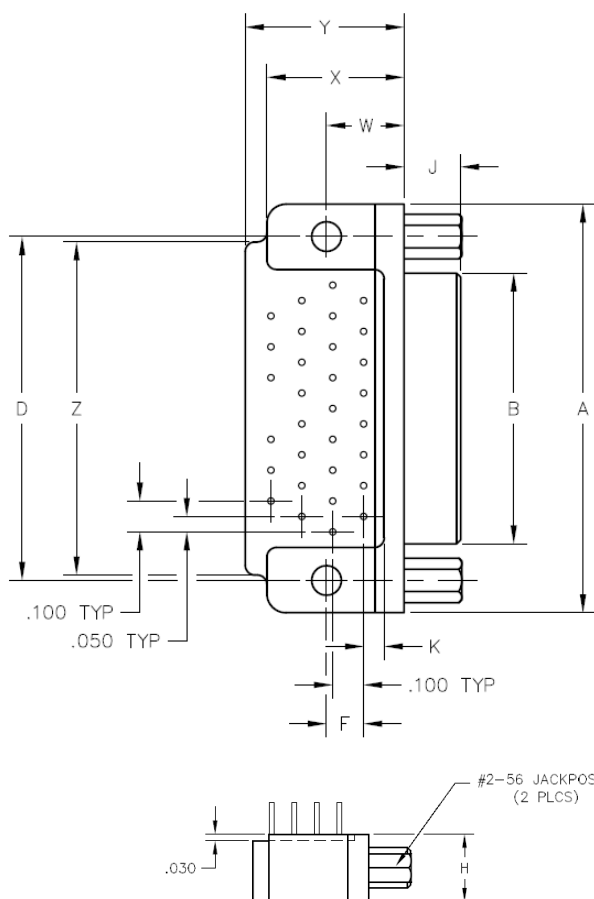
High-Reliability Contact

MIL-DTL-83513

MKHTM-PNB-3B
(CTM176)

www.airborn.com
(512) 863-5585

MKHT (BLIND CLEARANCE CUT) MALE DRAWINGS



Right Angle
Blind Clearance Cut
Narrow Footprint
Threaded Inserts

DIMENSIONS																	
SIZE	ROWS	A	B (MAX)	C	D	F	H	J	K	W	X (MAX)	Y (MAX)	Z	HARDWARE	MOUNTING HOLE		
9	2	.755	.334	.185	.565	.020	.298	.183	.067	.250	.420	.420	.775	#2-56 UNC THD	#2-56 UNC THREADED INSERT		
15		.925	.484		.715	.120							.925				
21		1.075	.634		.865								1.075				
25		1.175	.734		.965								1.175				
31		1.325	.884		1.115						1.080						
37		1.475	1.034		1.265						1.180						
51	3	1.425	.984	.228	1.215	.150	.341		.087	.300	.430	.650	1.220			#4-40 UNC THD	#4-40 UNC INSERT
69		1.725	1.284		1.515							.755	1.450				
100	4	2.160	1.384	.271	1.800	.200	.384		.137	.400	.590	1.000	1.810				

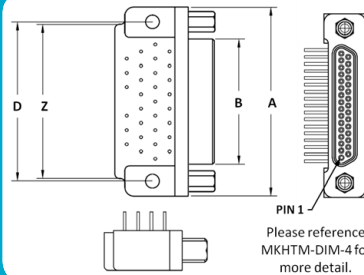
PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.



MKHT – Right Angle Board-Mount with Thru Clearance Cut (Male)

MKHT interconnects are used in high-temperature applications where a right angle, plated thru-hole termination is desired for mounting. The narrow footprint on this connector helps save board space.

DIMENSIONS



DIMENSIONS						
SIZE	ROWS	A	B (MAX)	D	Z	HARDWARE
9	2	.755	.334	.565	.775	#2-56 UNC THREADED INSERT
15		.925	.484	.715	.925	
21		1.075	.634	.865	1.075	
25		1.175	.734	.965	1.175	
31		1.325	.884	1.115	1.080	
37	3	1.475	1.034	1.265	1.180	
51		1.425	0.984	1.215	1.220	
69		1.725	1.284	1.515	1.450	

ORDER FORM

Sample Part Number Format: MKHT-2R2-031-335-220S

ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
MKHT								
SERIES 0.050" Rugged Metal PC Board-Mount Connector (Male)	ROWS 2 – 2-Row (9-37 contacts) 3 – 3-Row (51 & 69 contacts)	BODY STYLE R – Plug, right angle (thru clearance cut), narrow footprint with threaded insert	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell 4 – High-temp thermoplastic with hard black anodized shell 5 – High-temp with stainless steel shell	SIZE 009 – 9 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts 031 – 31 Contacts 037 – 37 Contacts 051 – 51 Contacts 069 – 69 Contacts	PLATING 3 – 50 µ" Au contacts; Au terminations	CONTACT/TERMINATION TYPE 32 – Pin, right angle, 0.109" 33 – Pin, right angle, 0.140" 34 – Pin, right angle, 0.172" x 0.020" dia	HARDWARE 00 – No hardware 22 – Two fixed jacknut assemblies	WIRING 0S – Standard body polarization

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

MATERIALS and FINISHES

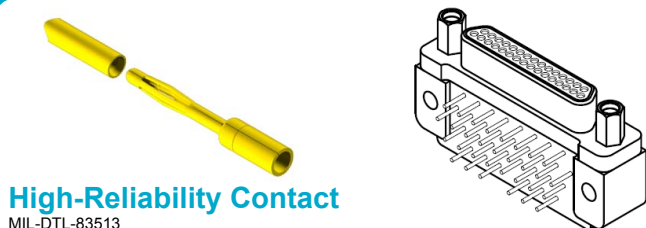
Pin Contacts: Copper-based alloy strip
Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11
or 6061-T6511 per SAE AMS-QQ-A-200/8
Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 µ" minimum or black anodized per MIL-A-8625, Type III Class 2, or 303 stainless steel per ASTM A581/A581M or ASTM A582/A582M, passivated per SAE AMS-2700
Molded Insulators: High-temp thermoplastic
Embedment: High-temp epoxy
Hardware: Corrosion-resistant steel per ASTM A582/A582M, passivated per ASTM A967, SAE AMS-QQ-P-35
Tolerances: Angles: ±5°
(unless otherwise specified) Decimals: ±0.010"; Fractions: ±1/64"
Wire lengths – insulated/stranded: +1.0"/-0.0"
uninsulated/solid: +0.02"/-0.0"

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

Contact Rating: 3 amperes maximum
Operating Temperature: -55° C to 205° C
Test Voltage: 600V, RMS, 60Hz
Insulation Resistance: 5,000 megohms minimum @ 500 VDC
Durability: 500 connector mating cycles
Contact Engaging Force: 6.0 ounces maximum/contact
Contact Separating Force: 0.5 ounces minimum/contact
Mating and Unmating Force: 10 ounces maximum/contact

MKHT-2R2-031-335-220S



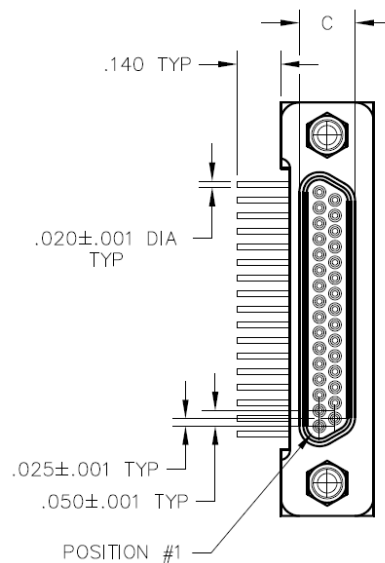
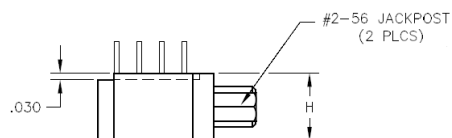
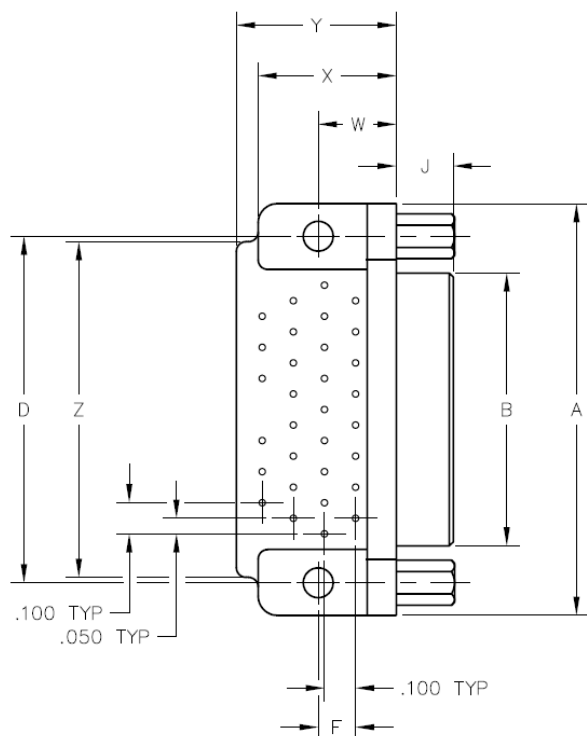
High-Reliability Contact

MIL-DTL-83513

MKHTM-PNB-4H
(CTM032)

www.airborn.com
(512) 863-5585

MKHT (THRU CLEARANCE CUT) MALE DRAWINGS



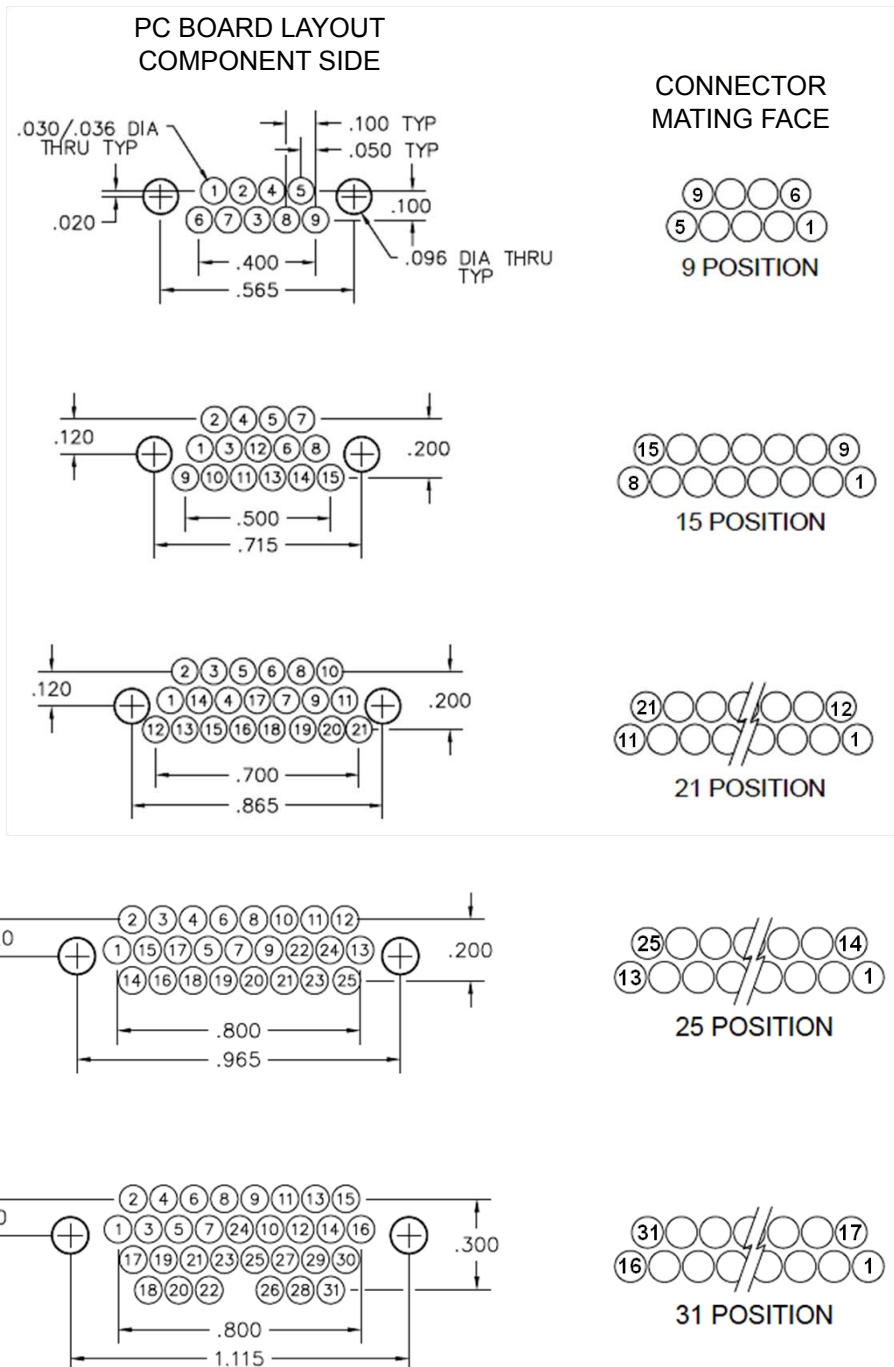
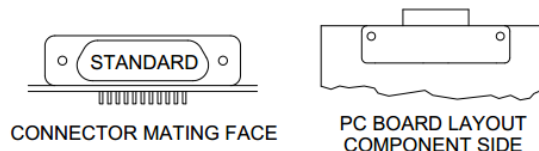
Right Angle
Thru Clearance Cut
Narrow Footprint
Threaded Inserts

DIMENSIONS																	
SIZE	ROWS	A	B (MAX)	C	D	F	H	J	K	W	X (MAX)	Y (MAX)	Z	HARDWARE	MOUNTING HOLE		
9	2	.755	.334	.185	.565	.020	.298	.183	.067	.250	.420	.420	.775	#2-56 UNC THD	#2-56 UNC THREADED INSERT		
15		.925	.484		.715	.120							.925				
21		1.075	.634		.865								1.075				
25		1.175	.734		.965								1.175				
31		1.325	.884		1.115						1.080						
37		1.475	1.034		1.265						1.180						
51	3	1.425	.984	.228	1.215	.150	.341		.087	.300	.430	.650	1.220				
69		1.725	1.284		1.515							.755	1.450				

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

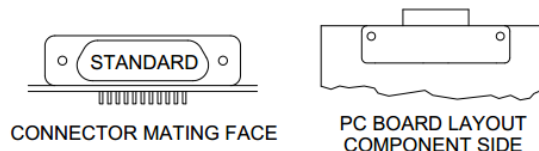
Recommended PC Board Layouts – MKHT Male

Right Angle
Narrow Footprint
Standard Polarization
Sizes 9–31

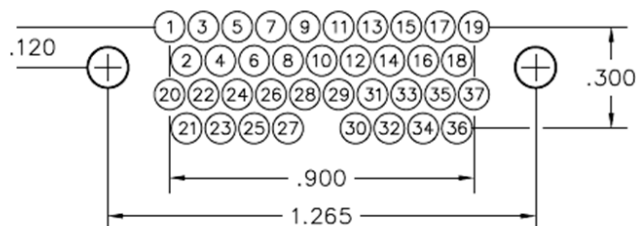


Recommended PC Board Layouts – MKHT Male

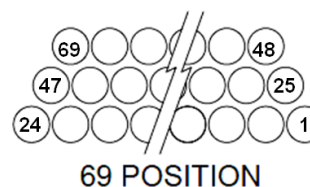
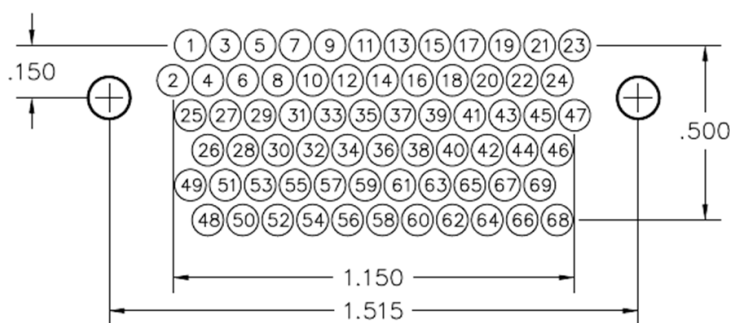
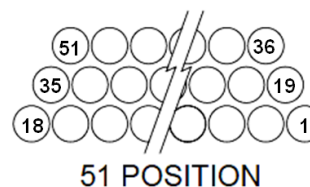
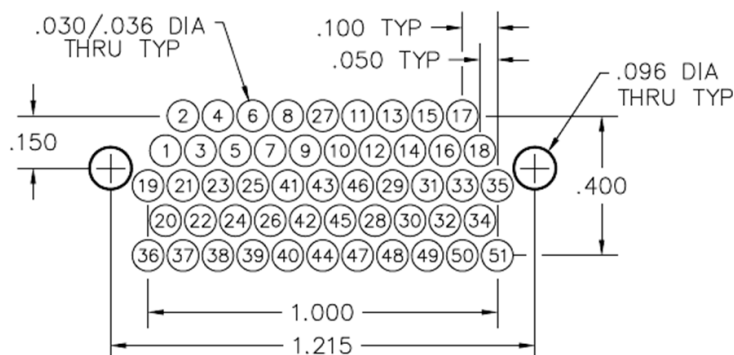
Right Angle
Narrow Footprint
Standard Polarization
Sizes 37–69



PC BOARD LAYOUT
COMPONENT SIDE



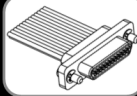
CONNECTOR
MATING FACE





M
SERIES

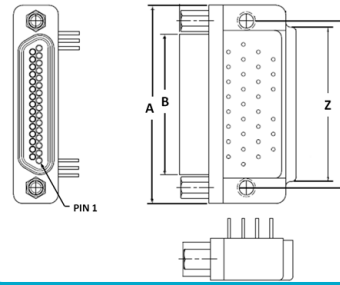
MICRO
0.050"
(1.27 mm)



MKHT – Right Angle Board-Mount (Female)

MKHT interconnects are used in high-temperature applications where a right angle, plated thru-hole termination is desired for mounting. The narrow footprint on this connector helps save board space.

DIMENSIONS



DIMENSIONS						
SIZE	ROWS	A	B (MAX)	D	Z	HARDWARE
9	2	.755	.400	.565	.775	#2-56 UNC THD (Ø.092 THRU)
15		.925	.550	.715	.925	
21		1.075	.700	.865	1.075	
25		1.175	.800	.965	1.175	
31		1.325	.950	1.115	1.080	
37		1.475	1.100	1.265	1.180	

Please reference MKHTF-DIM-2 for more detail.

ORDER FORM

Sample Part Number Format: MKHT-262-031-443-220S

ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
MKHT								
SERIES 0.050" Rugged Metal PC Board-Mount Connector (Female)	ROWS 2 – 2-Row (9-37 contacts) 3 – 3-Row (51 & 69 contacts) 4 – 4-Row (100 contacts)	BODY STYLE 6 – Receptacle, right angle, narrow footprint with threaded inserts and interfacial seal.	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell 4 – High-temp thermoplastic with hard black anodized shell 5 – High-temp with stainless steel shell	SIZE 009 – 9 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts 031 – 31 Contacts 037 – 37 Contacts 051 – 51 Contacts 069 – 69 Contacts 100 – 100 Contacts	PLATING 3 – 50 µ" Au contacts; Au terminations	CONTACT/TERMINATION TYPE 43 – Socket, right angle, 0.109" x 0.020" dia 44 – Socket, right angle, 0.140" x 0.020" dia 45 – Socket, right angle, 0.172" x 0.020" dia	HARDWARE 00 – No hardware 22 – Two fixed jacknut assemblies (62)*	POLARIZATION 0S – Standard body polarization

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

* Number in parentheses to be used when ordering size 100

MATERIALS and FINISHES

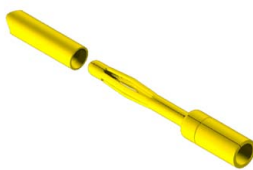
Socket Contact: Brass per ASTM B121/B121M or ASTM B16/B16M or ASTM B453
Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11
or 6061-T6511 per SAE AMS-QQ-A-200/8
Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 µ" minimum or black anodized per MIL-A-8625, Type III Class 2, or 303 stainless steel per ASTM A581/A581M or ASTM A582/A582M, passivated per SAE AMS-2700
Molded Insulators: High-temp thermoplastic
Embedment: High-temp epoxy
Hardware: Corrosion-resistant steel per ASTM A582/A582M, passivated per ASTM A967, SAE AMS-QQ-P-35
Interfacial Seal Gaskets: Fluorosilicone per SAE AMS-R-25988
Tolerances: Angles: ±5°
Decimals: ±0.010"; Fractions: ±1/64"
(unless otherwise specified) Wire lengths – insulated/stranded: +1.0"/-0.0"
uninsulated/solid: +0.02"/-0.0"

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

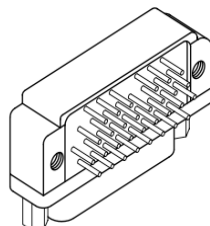
Contact Rating: 3 amperes maximum
Operating Temperature: -55° C to 205° C
Test Voltage: 600V, RMS, 60Hz
Insulation Resistance: 5,000 megohms minimum @ 500 VDC
Durability: 500 connector mating cycles
Contact Engaging Force: 6.0 ounces maximum/contact
Contact Separating Force: 0.5 ounces minimum/contact
Mating and Unmating Force: 10 ounces maximum/contact

MKHT-262-031-443-220S



High-Reliability Contact

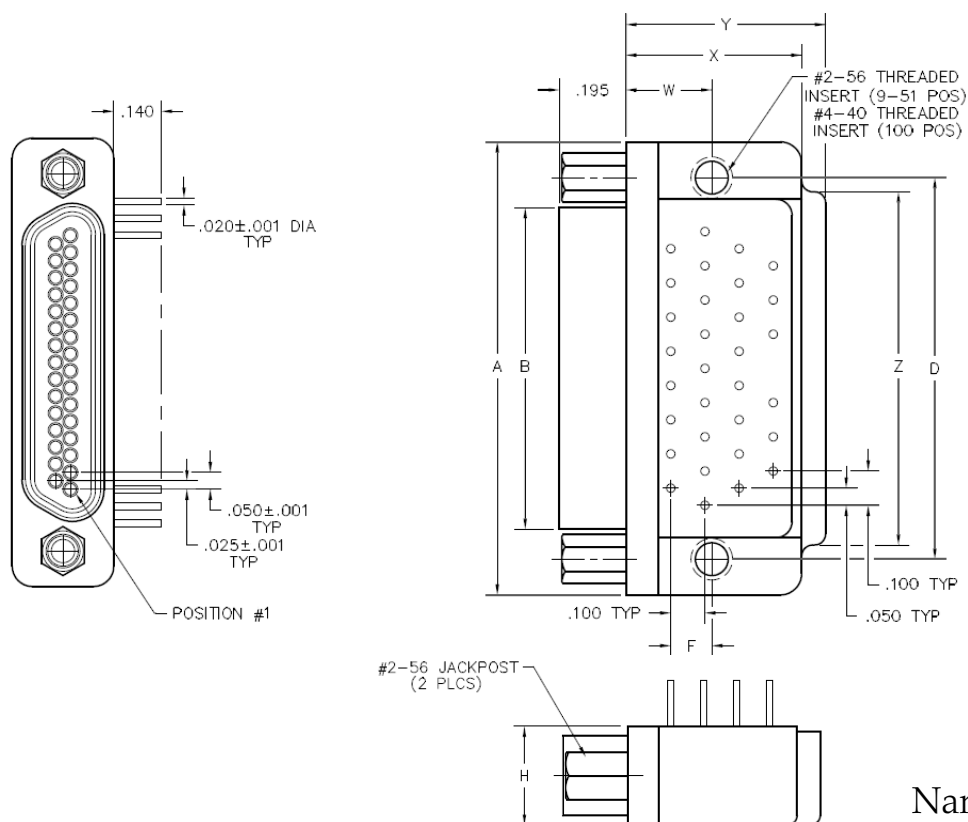
MIL-DTL-83513



MKHTF-PNB-2F
(CTMHT012)

www.airborn.com
(512) 863-5585

MKHT FEMALE DRAWINGS



Right Angle
Narrow Footprint
Threaded Inserts
Interfacial Seal

DIMENSIONS												
SIZE	ROWS	A	B (MAX)	D	F	H	W	X (MAX)	Y (MAX)	Z	HARDWARE	
9	2	.755	.400	.565	.020	.298	.250	.420	.420	.775	#2-56 UNC THD	
15		.925	.550	.715	.120					.925		
21		1.075	.700	.865								1.075
25		1.175	.800	.965								1.175
31		1.325	.950	1.115				.450	.520			1.080
37		1.475	1.100	1.265								1.180
51	3	1.425	1.050	1.215	.150	.341	.300	.430	.650			1.220
69		1.725	1.350	1.515					.755	1.450		
100	4	2.160	1.508	1.800	.200	.384	.400	.590	1.000	1.810	#4-40 UNC THD	

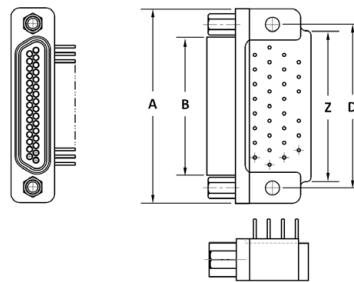
PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.



MKHT – Right Angle Board-Mount with Blind Clearance Cut (Female)

MKHT interconnects are used in high-temperature applications where a right angle, plated thru-hole termination is desired for mounting. The narrow footprint on this connector helps save board space.

DIMENSIONS



DIMENSIONS					
SIZE	ROWS	A	B (MAX)	D	Z
9	2	.755	.334	.565	.775
15		.925	.484	.715	.925
21		1.075	.634	.865	1.075
25		1.175	.734	.965	1.175
31		1.325	.884	1.115	1.080
37	3	1.475	1.034	1.265	1.180
51		1.425	0.984	1.215	1.220
69		1.725	1.284	1.515	1.450
100	4	2.160	1.384	1.800	1.810

Please reference MKHTF-DIM-3 for more detail.

ORDER FORM

Sample Part Number Format: MKHT-2V2-031-445-220S

ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
MKHT							
SERIES 0.050" Rugged Metal PC Board-Mount Connector (Female)	ROWS 2 – 2-Row (9-37 contacts) 3 – 3-Row (51 & 69 contacts) 4 – 4-Row (100 contacts)	BODY STYLE V – Receptacle, right angle (blind clearance cut), narrow footprint with threaded inserts and interfacial seal	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell 4 – High-temp thermoplastic with hard black anodized shell 5 – High-temp with stainless steel shell	SIZE 009 – 9 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts 031 – 31 Contacts 037 – 37 Contacts 051 – 51 Contacts 069 – 69 Contacts 100 – 100 Contacts	PLATING 3 – 50 µ" Au contacts; Au terminations	CONTACT/TERMINATION TYPE 43 – Socket, right angle, 0.109" x 0.020" dia 44 – Socket, right angle, 0.140" x 0.020" dia 45 – Socket, right angle, 0.172" x 0.020" dia	WIRING 0R – Reversed body polarization 0S – Standard body polarization
					HARDWARE 00 – No hardware 22 – Two fixed jacknut assemblies (62)*		

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

* Number in parentheses to be used when ordering size 100

MATERIALS and FINISHES

Pin Contacts: Copper-based alloy strip
Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11 or 6061-T6511 per SAE AMS-QQ-A-200/8
Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 µ" minimum or black anodized per MIL-A-8625, Type III Class 2, or 303 stainless steel per ASTM A581/A581M or ASTM A582/A582M, passivated per SAE AMS-2700
Molded Insulators: High-temp thermoplastic
Embedment: High-temp epoxy
Hardware: Corrosion-resistant steel per ASTM A582/A582M, passivated per ASTM A967, SAE AMS-QQ-P-35
Tolerances: Angles: ±5° (unless otherwise specified)
Decimals: ±0.010"; Fractions: ±1/64"
Wire lengths – insulated/stranded: +1.0"/-0.0"
uninsulated/solid: +0.02"/-0.0"

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

Contact Rating: 3 amperes maximum
Operating Temperature: -55° C to 205° C
Test Voltage: 600V, RMS, 60Hz
Insulation Resistance: 5,000 megohms minimum @ 500 VDC
Durability: 500 connector mating cycles
Contact Engaging Force: 6.0 ounces maximum/contact
Contact Separating Force: 0.5 ounces minimum/contact
Mating and Unmating Force: 10 ounces maximum/contact

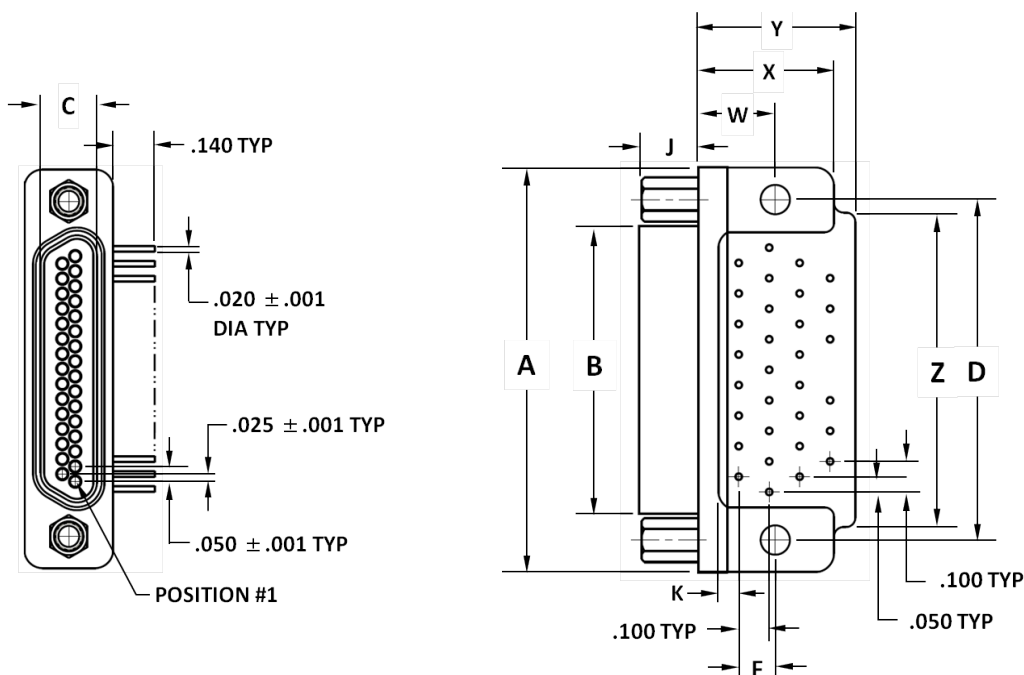
MKHT-2V2-031-445-220S



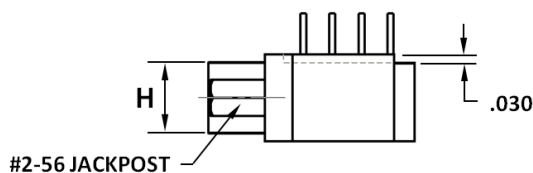
High-Reliability Contact

MIL-DTL-83513

MKHT (BLIND CLEARANCE CUT) FEMALE DRAWINGS



Right Angle
Blind Clearance Cut
Narrow Footprint
Threaded Inserts

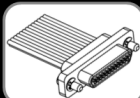


DIMENSIONS																	
SIZE	ROWS	A	B (MAX)	C	D	F	H	J	K	W	X (MAX)	Y (MAX)	Z	HARDWARE	MOUNTING HOLE		
9	2	.755	.400	.251	.565	.020	.298	.195	.067	.250	.420	.420	.775	#2-56 UNC THD	#2-56 UNC THREADED INSERT		
15		.925	.550		.715	.120							.925				
21		1.075	.700		.865								1.075				
25		1.175	.800		.965								1.175				
31		1.325	.950		1.115						1.080						
37		1.475	1.100		1.265						1.180						
51	3	1.425	1.050	.294	1.215	.150	.341		.087	.300	.430	.650	1.220			#4-40 UNC THD	#4-40 UNC INSERT
69		1.725	1.350		1.515							.755	1.450				
100	4	2.160	1.508	.394	1.800	.200	.384			.137	.400	.590	1.000	1.810			

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

M
SERIES

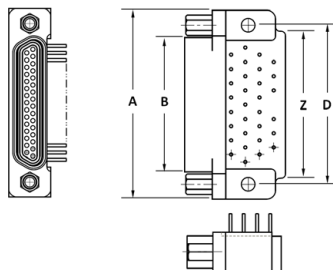
MICRO
0.050"
(1.27 mm)



MKHT – Right Angle Board-Mount with Thru Clearance Cut (Female)

MKHT interconnects are used in high-temperature applications where a right angle, plated thru-hole termination is desired for mounting. The narrow footprint on this connector helps save board space.

DIMENSIONS



DIMENSIONS					
SIZE	ROWS	A	B (MAX)	D	Z
9	2	.755	.334	.565	.775
15		.925	.484	.715	.925
21		1.075	.634	.865	1.075
25		1.175	.734	.965	1.175
31		1.325	.884	1.115	1.080
37	3	1.475	1.034	1.265	1.180
51		1.425	0.984	1.215	1.220
69		1.725	1.284	1.515	1.450

Please reference MKHT-DIM-4 for more detail.

ORDER FORM

Sample Part Number Format: MKHT-2S2-031-445-220S

ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
MKHT								
SERIES 0.050" Rugged Metal PC Board-Mount Connector (Female)	ROWS 2 – 2-Row (9-37 contacts) 3 – 3-Row (51 & 69 contacts)	BODY STYLE S – Receptacle, right angle (thru clearance cut), narrow footprint with threaded inserts and interfacial seal	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell 4 – High-temp thermoplastic with hard black anodized shell 5 – High-temp with stainless steel shell	SIZE 009 – 9 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts 031 – 31 Contacts 037 – 37 Contacts 051 – 51 Contacts 069 – 69 Contacts	PLATING 3 – 50 μ " Au contacts; Au terminations	CONTACT/TERMINATION TYPE 43 – Socket, right angle, 0.109" x 0.020" dia 44 – Socket, right angle, 0.140" x 0.020" dia 45 – Socket, right angle, 0.172" x 0.020" dia	HARDWARE 00 – No hardware 22 – Two fixed jacknut assemblies	WIRING 0S – Standard body polarization

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

MATERIALS and FINISHES

Pin Contacts: Copper-based alloy strip
Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11 or 6061-T6511 per SAE AMS-QQ-A-200/8
Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 μ " minimum or black anodized per MIL-A-8625, Type III Class 2, or 303 stainless steel per ASTM A581/A581M or ASTM A582/A582M, passivated per SAE AMS-2700
Molded Insulators: High-temp thermoplastic
Embedment: High-temp epoxy
Hardware: Corrosion-resistant steel per ASTM A582/A582M, passivated per ASTM A967, SAE AMS-QQ-P-35
Tolerances: Angles: $\pm 5^\circ$ (unless otherwise specified)
Decimals: ± 0.010 ; Fractions: $\pm 1/64$ "
Wire lengths – insulated/stranded: $+1.0"/-0.0"$
uninsulated/solid: $+0.02"/-0.0"$

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

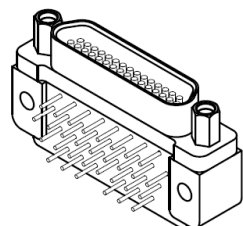
Contact Rating: 3 amperes maximum
Operating Temperature: -55°C to 205°C
Test Voltage: 600V, RMS, 60Hz
Insulation Resistance: 5,000 megohms minimum @ 500 VDC
Durability: 500 connector mating cycles
Contact Engaging Force: 6.0 ounces maximum/contact
Contact Separating Force: 0.5 ounces minimum/contact
Mating and Unmating Force: 10 ounces maximum/contact

MKHT-2S2-031-445-220S

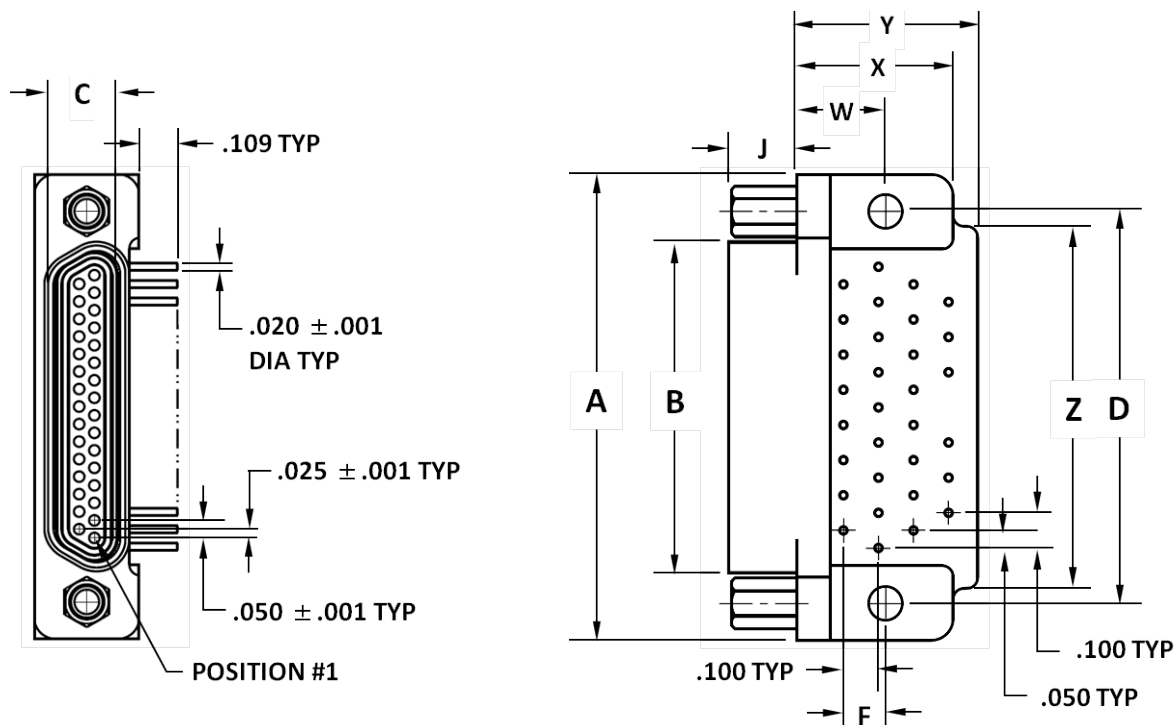


High-Reliability Contact

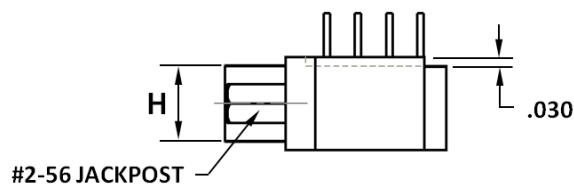
MIL-DTL-83513



MKHT (THRU CLEARANCE CUT) FEMALE DRAWINGS



Right Angle
Thru Clearance Cut
Narrow Footprint
Threaded Inserts

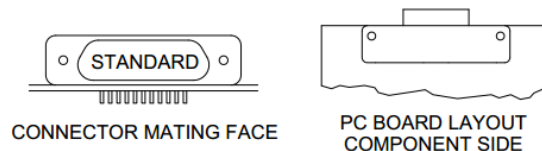


DIMENSIONS																	
SIZE	ROWS	A	B (MAX)	C	D	F	H	J	K	W	X (MAX)	Y (MAX)	Z	HARDWARE	MOUNTING HOLE		
9	2	.755	.400	.251	.565	.020	.298	.195	.067	.250	.420	.420	.775	#2-56 UNC THD	#2-56 UNC THREADED INSERT		
15		.925	.550		.715	.120							.925				
21		1.075	.700		.865								1.075				
25		1.175	.800		.965								1.175				
31		1.325	.950		1.115						1.080						
37		1.475	1.100		1.265						1.180						
51	3	1.425	1.050	.294	1.215	.150	.341		.087	.300	.430	.650	1.220				
69		1.725	1.350		1.515							.755	1.450				

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

Recommended PC Board Layouts – MKHT Female

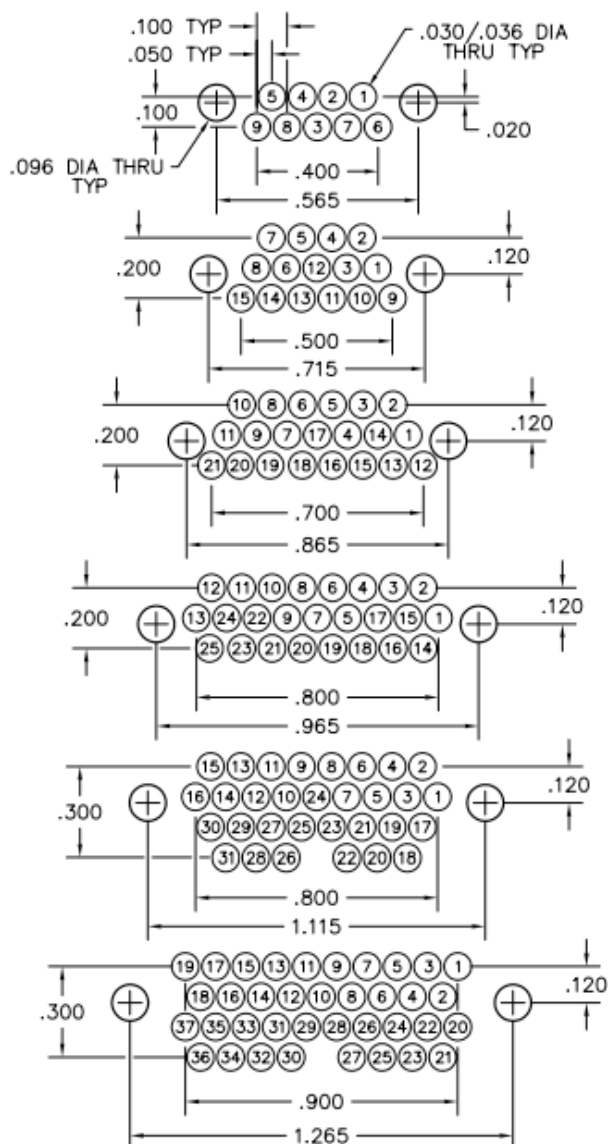
Right Angle
Narrow Footprint
Standard Polarization
Sizes 9–37



CONNECTOR
MATING FACE

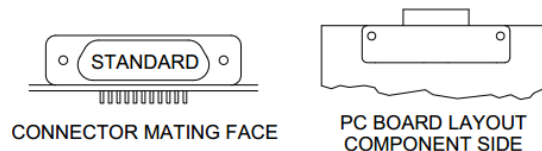


PC BOARD LAYOUT
COMPONENT SIDE

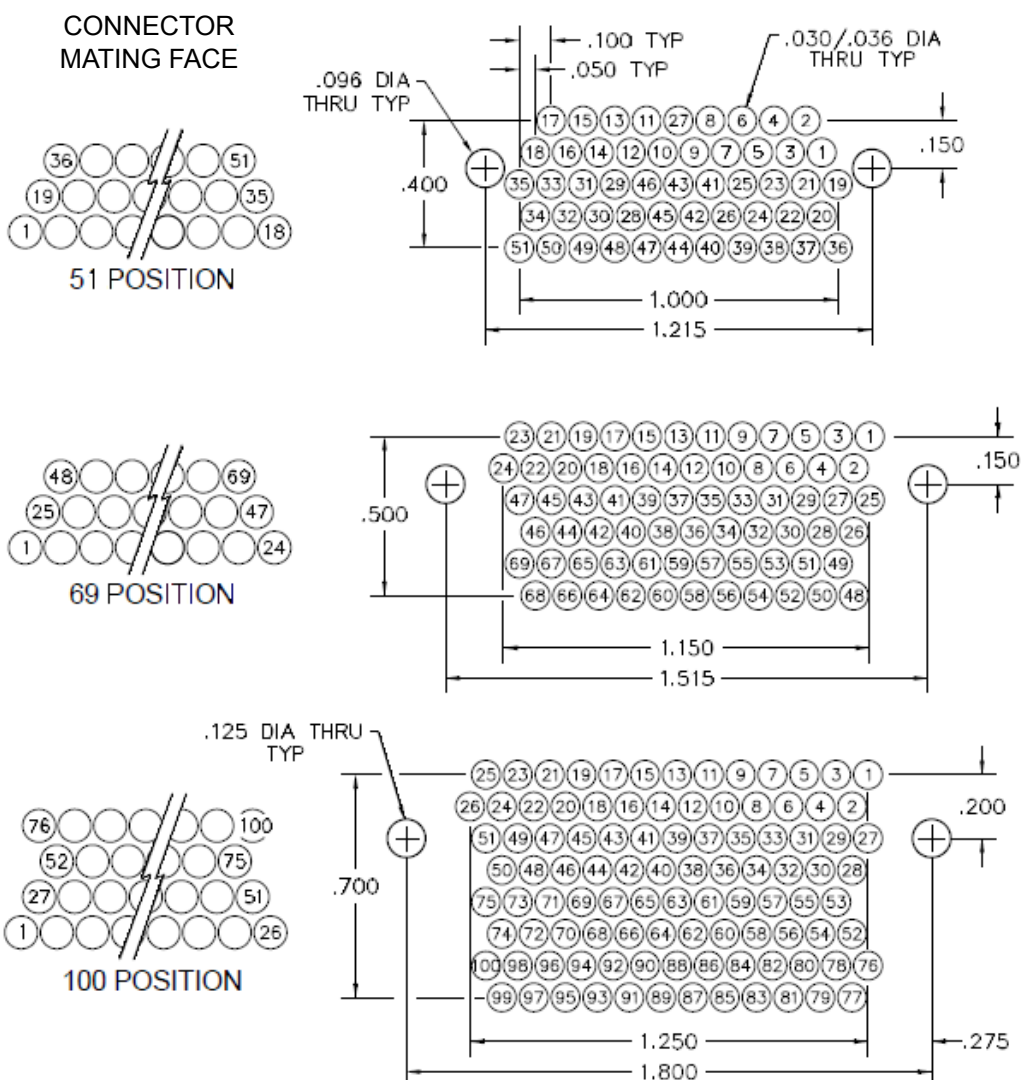


Recommended PC Board Layouts – MKHT Female

Right Angle
Narrow Footprint
Standard Polarization
Sizes 51–100



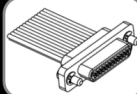
PC BOARD LAYOUT COMPONENT SIDE





M
SERIES

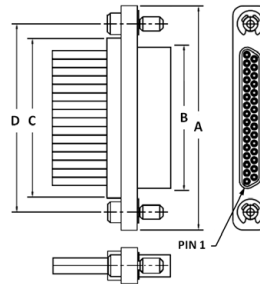
MICRO
0.050"
(1.27 mm)



MQHT – Low-Profile I/O Cable (Male)

MQHT interconnects are used in high-temperature applications. These low-profile connectors come with a variety of termination, hardware and wiring options. Custom lengths are available on wire termination products.

DIMENSIONS



DIMENSIONS					
SIZE	ROWS	A	B (MAX)	C	D
9	2	.778	.292	.398	.565
15		.928	.442	.548	.715
21		1.078	.592	.698	.865
25		1.178	.692	.798	.965
31		1.328	.842	.948	1.115
37	3	1.478	.992	1.098	1.265
51		1.428	.942	1.048	1.215

Please reference MQHTM-DIM-1 for more detail.

ORDER FORM

Sample Part Number Format: MQHT-212-031-161-41WS

ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
MQHT								
SERIES 0.050" Low-Profile Metal I/O Connector (Male)	ROWS 2 – 2-Row (9-37 contacts) 3 – 3-Row (51 contacts)	BODY STYLE 1 – Plug	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell 4 – High-temp thermoplastic with hard black anodized shell 5 – High-temp with stainless steel shell	SIZE 009 – 9 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts 031 – 31 Contacts 037 – 37 Contacts 051 – 51 Contacts	PLATING 1 – 50 μ" Au contacts (crimp wire) 3 – 50 μ" Au contacts; Au terminations (solder cup, pigtail)	CONTACT/TERMINATION TYPE 11 – Pin, straight, 26 awg solder cup 1A – Pin, straight, 24 awg solder cup 1E – Pin, straight, 0.125" lead length† 13 – Pin, straight, 0.250" lead length† 14 – Pin, straight, 0.500" lead length† 16 – Pin, straight, crimped wire	HARDWARE 00 – No hardware 22 – Two fixed jacknut assemblies 41 – Two turning jackscrews, allen head, retaining ring 42 – Two long turning jackscrews, allen head, retaining ring 43 – Two turning jackscrews, slot head, retaining ring 44 – Two long turning jackscrews, slot head, retaining ring 45 – Two turning jackscrews, allen head, captivated** FF – Float-mount: front panel mounting FR – Float-mount: rear panel mounting	WIRING 00 – None XX – See Wiring Codes

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

- * 0.018 diameter
- ** Captivated hardware is factory-installed and non-removable
- † Leads are soft copper, suitable for forming.

MATERIALS and FINISHES

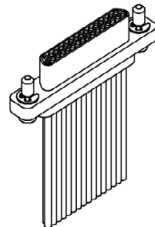
Pin Contacts: Copper-based alloy strip
Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11 or 6061-T6511 per SAE AMS-QQ-A-200/8
Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 μ" minimum or black anodized per MIL-A-8625, Type III Class 2, or 303 stainless steel per ASTM A581/A581M or ASTM A582/A582M, passivated per SAE AMS-2700
Molded Insulators: High-temp thermoplastic
Embedment: High-temp epoxy
Hardware: Corrosion-resistant steel per ASTM A582/A582M, passivated per ASTM A967, SAE AMS-QQ-P-35
Tolerances: Angles: ±5°
(unless otherwise specified) Decimals: ±0.010"; Fractions: ±1/64"
Wire lengths – insulated/stranded: +1.0"/-0.0"
uninsulated/solid: +0.02"/-0.0"

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

Contact Rating: 3 amperes maximum
Operating Temperature: -55° C to 205° C
Test Voltage: 600V, RMS, 60Hz
Insulation Resistance: 5,000 megohms minimum @ 500 VDC
Durability: 500 connector mating cycles
Contact Engaging Force: 6.0 ounces maximum/contact
Contact Separating Force: 0.5 ounces minimum/contact
Mating and Unmating Force: 10 ounces maximum/contact

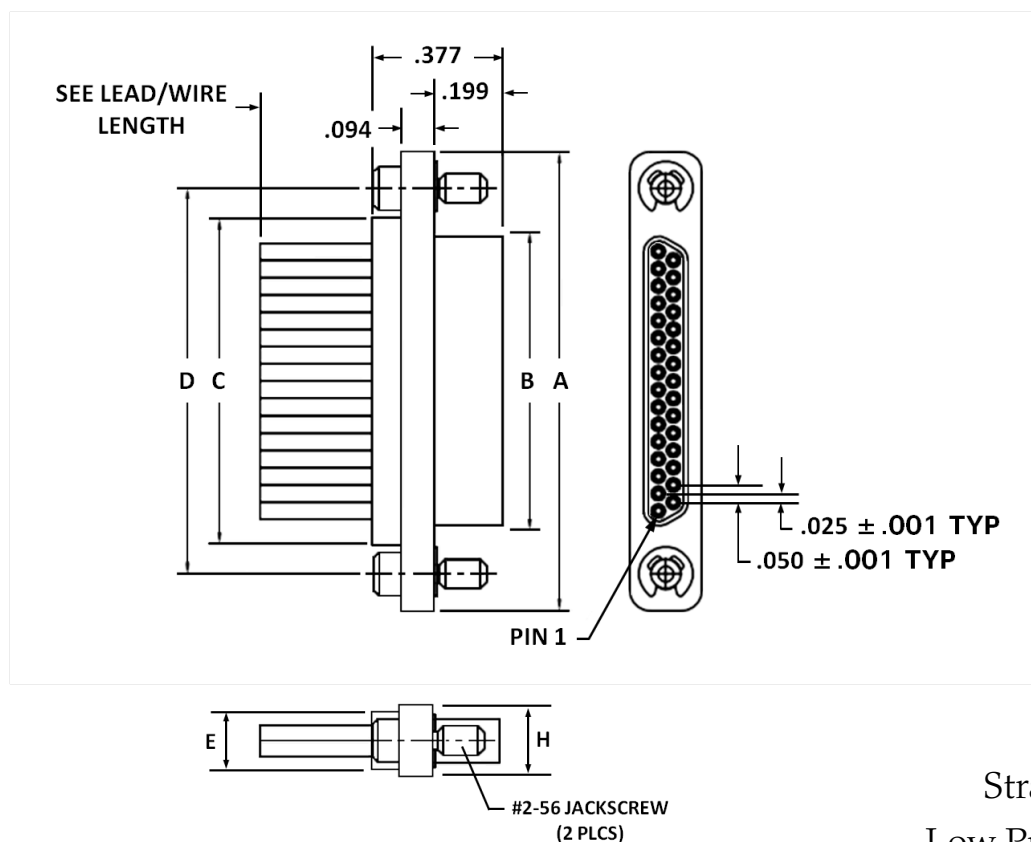
MQHT-212-031-161-41WS



High-Reliability Contact

MIL-DTL-83513

MQHT MALE DRAWINGS



Straight
Low Profile
Cable-to-Cable

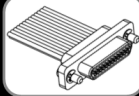
DIMENSIONS								
SIZE	ROWS	A	B (MAX)	C	D	E	H	HARDWARE
9	2	.778	.292	.398	.565	.173	.208	#2-56 UNC THD (Ø.092 THRU)
15		.928	.442	.548	.715			
21		1.078	.592	.698	.865			
25		1.178	.692	.798	.965			
31		1.328	.842	.948	1.115			
37		1.478	.992	1.098	1.265			
51	3	1.428	.942	1.048	1.215	.220	.250	

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.



M
SERIES

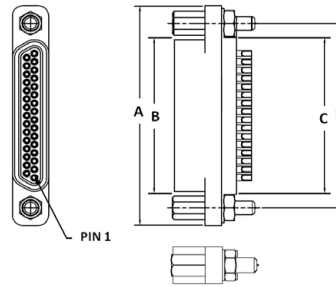
MICRO
0.050"
(1.27 mm)



MQHT – Low-Profile I/O Cable (Female)

MQHT interconnects are used in high-temperature applications. These low-profile connectors come with a variety of termination, hardware and wiring options. Custom lengths are available on wire termination products.

DIMENSIONS



DIMENSIONS					
SIZE	ROWS	A	B (MAX)	C	D
9	2	.778	.378	.398	.565
15		.928	.528	.548	.715
21		1.078	.678	.698	.865
25		1.178	.778	.798	.965
31		1.328	.928	.948	1.115
37	3	1.478	1.078	1.098	1.265
51		1.428	1.028	1.048	1.215

Please reference MQHTF-DIM-1 for more detail.

ORDER FORM

Sample Part Number Format: MQHT-222-031-2A3-2200

MQHT	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
SERIES 0.050" Low-Profile Metal I/O Connector (Female)	ROWS 2 – 2-Row (9-37 contacts) 3 – 3-Row (51 contacts)	BODY STYLE 2 – Receptacle	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell 4 – High-temp thermoplastic with hard black anodized shell 5 – High-temp with stainless steel shell	SIZE 009 – 9 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts 031 – 31 Contacts 037 – 37 Contacts 051 – 51 Contacts	PLATING 1 – 50 μ" Au contacts (crimp wire) 3 – 50 μ" Au contacts; Au terminations (solder cup, pigtail)	CONTACT/TERMINATION TYPE 21 – Socket, straight, 26 awg solder cup 2A – Socket, straight, 24 awg solder cup 2E – Socket, straight, 0.125" lead length* 23 – Socket, straight, 0.250" lead length* 24 – Socket, straight, 0.500" lead length* 26 – Socket, straight, crimped wire	HARDWARE 00 – No hardware 22 – Two fixed jacknut assemblies 41 – Two turning jackscrews, allen head, retaining ring 42 – Two long turning jackscrews, allen head, retaining ring 43 – Two turning jackscrews, slot head, retaining ring 44 – Two long turning jackscrews, slot head, retaining ring 45 – Two turning jackscrews, allen head, captivated** FF – Float-mount: front panel mounting FR – Float-mount: rear panel mounting	WIRING 00 – None XX – See Wiring Codes

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

- * 0.018 diameter
- ** Captivated hardware is factory-installed and non-removable
- † Leads are soft copper, suitable for forming.

MATERIALS and FINISHES

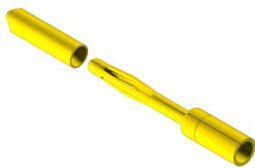
Socket Contact: Brass per ASTM B121/B121M or ASTM B16/B16M or ASTM B453
 Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
 Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11 or 6061-T6511 per SAE AMS-QQ-A-200/8
 Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 μ" minimum or black anodized per MIL-A-8625, Type III Class 2, or 303 stainless steel per ASTM A581/A581M or ASTM A582/A582M, passivated per SAE AMS-2700
 Molded Insulators: High-temp thermoplastic
 Embedment: High-temp epoxy
 Hardware: Corrosion-resistant steel per ASTM A582/A582M, passivated per ASTM A967, SAE AMS-QQ-P-35
 Interfacial Seal Gaskets: Fluorosilicone per SAE AMS-R-25988
 Tolerances: Angles: ±5°
 Decimals: ±0.010"; Fractions: ±1/64"
 Wire lengths – insulated/stranded: +1.0"/-0.0"
 uninsulated/solid: +0.02"/-0.0"

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

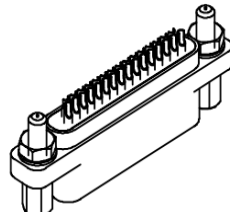
Contact Rating: 3 amperes maximum
 Operating Temperature: -55° C to 205° C
 Test Voltage: 600V, RMS, 60Hz
 Insulation Resistance: 5,000 megohms minimum @ 500 VDC
 Durability: 500 connector mating cycles
 Contact Engaging Force: 6.0 ounces maximum/contact
 Contact Separating Force: 0.5 ounces minimum/contact
 Mating and Unmating Force: 10 ounces maximum/contact

MQHT-222-031-2A3-2200



High-Reliability Contact

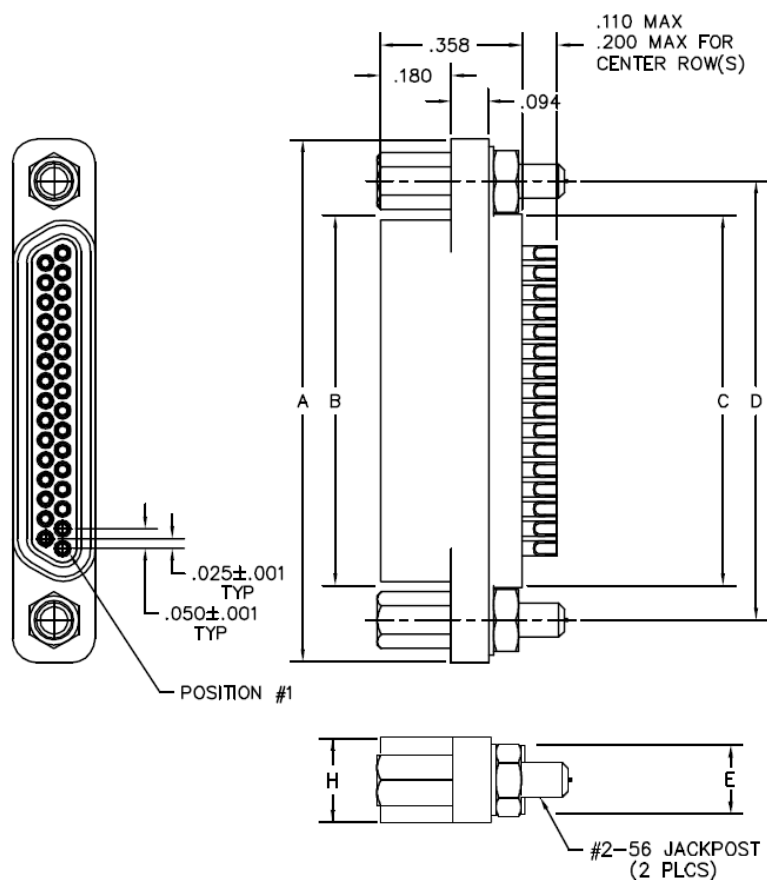
MIL-DTL-83513



MQHTF-PNB-1E
 (CTMHT010)

www.airborn.com
(512) 863-5585

MQHT FEMALE DRAWINGS



Straight
Low Profile
Cable-to-Cable

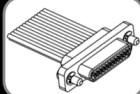
DIMENSIONS								
SIZE	ROWS	A	B (MAX)	C	D	E	H	HARDWARE
9	2	.778	.378	.398	.565	.173	.208	#2-56 UNC THD (Ø.092 THRU)
15		.928	.528	.548	.715			
21		1.078	.678	.698	.865			
25		1.178	.778	.798	.965			
31		1.328	.928	.948	1.115			
37		1.478	1.078	1.098	1.265			
51	3	1.428	1.028	1.048	1.215	.220	.250	

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.



M
SERIES

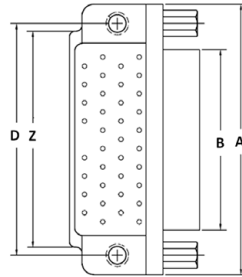
MICRO
0.050"
(1.27 mm)



MSHT – Low-Profile, Right Angle Board-Mount (Male)

MSHT interconnects are used in high-temperature applications where a right angle, plated thru-hole termination is desired for mounting. The narrow footprint on this connector helps save board space.

DIMENSIONS



DIMENSIONS					
SIZE	ROWS	A	B (MAX)	D	Z
9	2	.778	.292	.565	.775
15		.928	.442	.715	.925
21		1.078	.592	.865	1.075
25		1.178	.692	.965	1.175
31		1.328	.842	1.115	1.080
37		1.478	.992	1.265	1.180
51	3	1.428	.942	1.215	1.220

Please reference MSHTM-DIM-1 for more detail.

ORDER FORM

Sample Part Number Format: MSHT-252-037-323-220S

MSHT	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
SERIES 0.050" Low-Profile Metal PC Board-Mount Connector (Male)	ROWS 2 – 2-Row (9-37 contacts) 3 – 3-Row (51 contacts)	BODY STYLE 5 – Plug, right angle, narrow footprint with threaded inserts.	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell 4 – High-temp thermoplastic with hard black anodized shell 5 – High-temp with stainless steel shell	SIZE 009 – 9 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts 031 – 31 Contacts 037 – 37 Contacts 051 – 51 Contacts	PLATING 3 – 50 µ" Au contacts; Au terminations	CONTACT/TERMINATION TYPE 32 – Pin, right angle, 0.109" x 0.020" dia 33 – Pin, right angle, 0.140" x 0.020" dia 34 – Pin, right angle, 0.172" x 0.020" dia	HARDWARE 00 – No hardware 22 – Two fixed jacknut assemblies	POLARIZATION 0S – Standard body polarization

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

MATERIALS and FINISHES

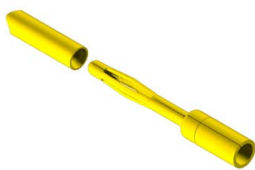
Pin Contacts: Copper-based alloy strip
Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11
or 6061-T6511 per SAE AMS-QQ-A-200/8
Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 µ" minimum or black anodized per MIL-A-8625, Type III Class 2, or 303 stainless steel per ASTM A581/A581M or ASTM A582/A582M, passivated per SAE AMS-2700
Molded Insulators: High-temp thermoplastic
Embedment: High-temp epoxy
Hardware: Corrosion-resistant steel per ASTM A582/A582M, passivated per ASTM A967, SAE AMS-QQ-P-35
Tolerances: Angles: ±5°
(unless otherwise specified) Decimals: ±0.010; Fractions: ±1/64"
Wire lengths – insulated/stranded: +1.0"/-0.0"
uninsulated/solid: +0.02"/-0.0"

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

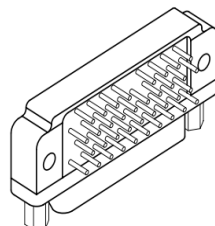
Contact Rating: 3 amperes maximum
Operating Temperature: -55° C to 205° C
Test Voltage: 600V, RMS, 60Hz
Insulation Resistance: 5,000 megohms minimum @ 500 VDC
Durability: 500 connector mating cycles
Contact Engaging Force: 6.0 ounces maximum/contact
Contact Separating Force: 0.5 ounces minimum/contact
Mating and Unmating Force: 10 ounces maximum/contact

MSHT-252-037-323-220S

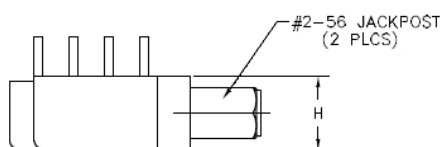
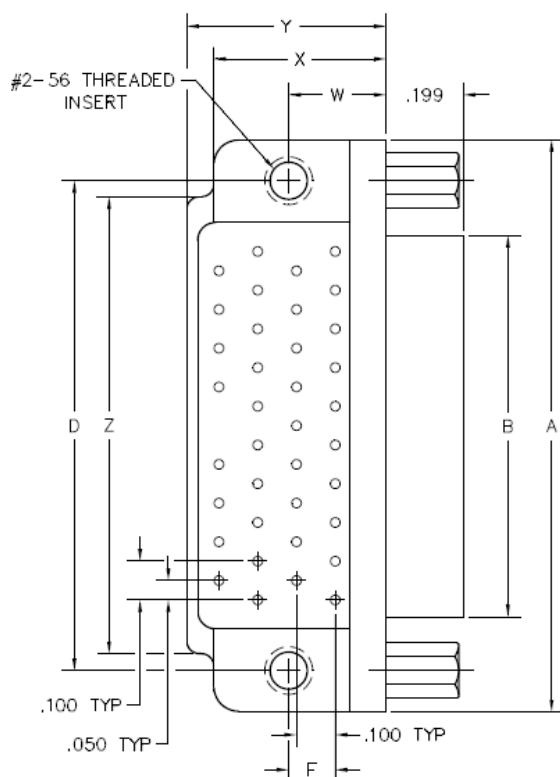


High-Reliability Contact

MIL-DTL-83513



MSHT MALE DRAWINGS



Right Angle
Narrow Footprint
Threaded Inserts

DIMENSIONS											
SIZE	ROWS	A	B (MAX)	D	F	H	W	X (MAX)	Y (MAX)	Z	HARDWARE
9	2	.778	.292	.565	.020	.208	.250	.420	.420	.775	#2-56 UNC THD
15		.928	.442	.715	.120					.925	
21		1.078	.592	.865						1.075	
25		1.178	.692	.965						1.175	
31		1.328	.842	1.115				.450	.520	1.080	
37		1.478	.992	1.265						1.180	
51	3	1.428	.942	1.215	.150	.250	.300	.425	.650	1.220	

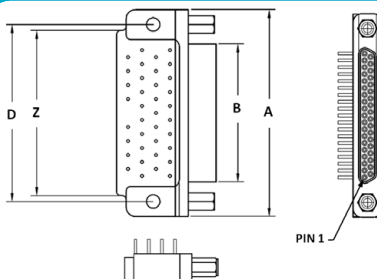
PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.



MSHT – Right Angle, Board-Mount with Blind Clearance Cut (Male)

MSHT interconnects are used in high-temperature applications where a right angle, plated thru-hole termination is desired for mounting. The narrow footprint on this connector helps save board space.

DIMENSIONS



DIMENSIONS						
SIZE	ROWS	A	B (MAX)	D	Z	HARDWARE
9	2	.758	.292	.565	.775	#2-56 UNC THREADED INSERT
15		.928	.422	.715	.925	
21		1.078	.592	.865	1.075	
25		1.178	.692	.965	1.175	
31		1.328	.842	1.115	1.080	
37	3	1.478	.992	1.265	1.180	
51		1.428	.942	1.215	1.220	

Please reference MSHTM-DIM-2 for more detail.

ORDER FORM

Sample Part Number Format: MSHT-2T3-037-323-220S

MSHT	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
SERIES 0.050" Low-Profile Metal PC Board-Mount Connector (Male)	ROWS 2 – 2-Row (9-37 contacts) 3 – 3-Row (51 contacts)	BODY STYLE T – Plug, right angle (blind clearance cut), narrow footprint with threaded inserts	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell 4 – High-temp thermoplastic with hard black anodized shell	SIZE 009 – 9 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts 031 – 31 Contacts 037 – 37 Contacts 051 – 51 Contacts	PLATING 3 – 50 µ" Au contacts; Au terminations	CONTACT/TERMINATION TYPE 32 – Pin, right angle, PCB leads, 0.109" x 0.020" dia 33 – Pin, right angle, PCB leads, 0.140" x 0.020" dia 34 – Pin, right angle, PCB leads, 0.172" x 0.020" dia	HARDWARE 00 – No hardware 22 – Two fixed jacknut assemblies	WIRING 0S – Standard body polarization

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

MATERIALS and FINISHES

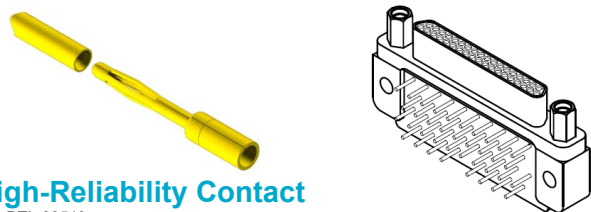
Pin Contacts: Copper-based alloy strip
Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11
or 6061-T6511 per SAE AMS-QQ-A-200/8
Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 µ" minimum or black anodized per MIL-A-8625, Type III Class 2, or 303 stainless steel per ASTM A581/A581M or ASTM A582/A582M, passivated per SAE AMS-2700
Molded Insulators: High-temp thermoplastic
Embedment: High-temp epoxy
Hardware: Corrosion-resistant steel per ASTM A582/A582M, passivated per ASTM A967, SAE AMS-QQ-P-35
Tolerances: Angles: ±5°
(unless otherwise specified) Decimals: ±0.010"; Fractions: ±1/64"
Wire lengths – insulated/stranded: +1.0"/-0.0"
uninsulated/solid: +0.02"/-0.0"

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

Contact Rating: 3 amperes maximum
Operating Temperature: -55° C to 205° C
Test Voltage: 600V, RMS, 60Hz
Insulation Resistance: 5,000 megohms minimum @ 500 VDC
Durability: 500 connector mating cycles
Contact Engaging Force: 6.0 ounces maximum/contact
Contact Separating Force: 0.5 ounces minimum/contact
Mating and Unmating Force: 10 ounces maximum/contact

MSHT-2T3-037-323-220S



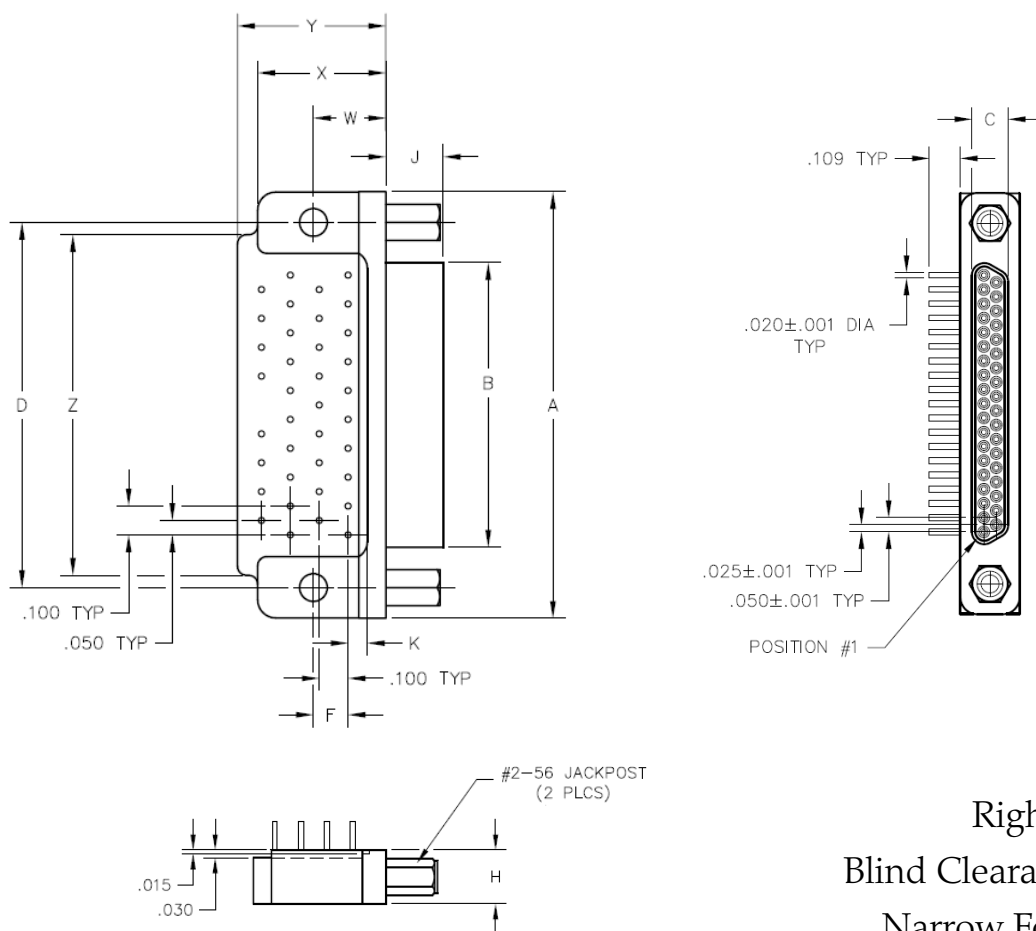
High-Reliability Contact

MIL-DTL-83513

MSHTM-PNB-2H
(CTM040)

www.airborn.com
(512) 863-5585

MSHT (BLIND CLEARANCE CUT) MALE DRAWINGS



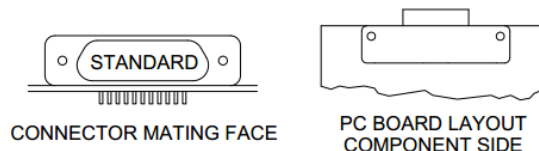
Right Angle
Blind Clearance Cut
Narrow Footprint
Threaded Inserts

DIMENSIONS															
SIZE	ROWS	A	B (MAX)	C	D	F	H	J	K	W	X (MAX)	Y (MAX)	Z	HARDWARE	MOUNTING HOLE
9	2	.758	.292	.134	.565	.020	.208	.199	.067	.250	.420	.420	.775	#2-56 UNC THD	#2-56 UNC THREADED INSERT
15		.928	.422		.715	.120							.925		
21		1.078	.592		.865								1.075		
25		1.178	.692		.965								1.175		
31		1.328	.842		1.115						.450	.520	1.080		
37		1.478	.992		1.265								1.180		
51	3	1.428	.942	.177	1.215	.150	.250		.087	.300	.425	.650	1.220		

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

Recommended PC Board Layouts – MSHT Male

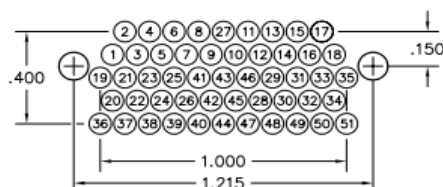
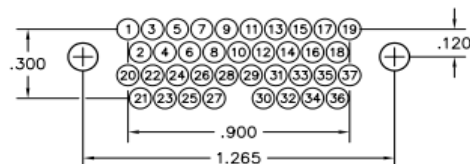
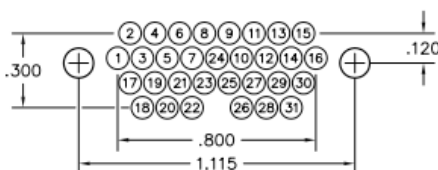
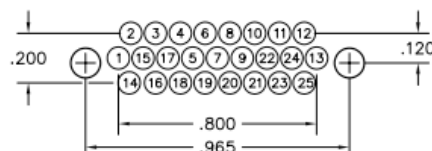
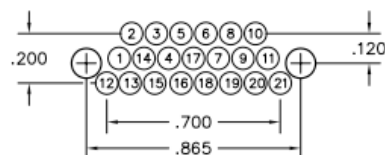
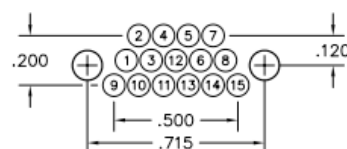
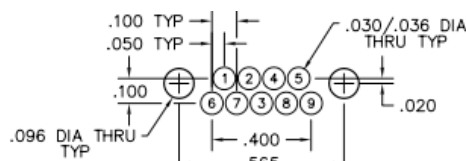
Right Angle
Narrow Footprint
Standard Polarization



CONNECTOR
MATING FACE



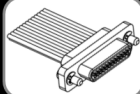
PC BOARD LAYOUT
COMPONENT SIDE





M
SERIES

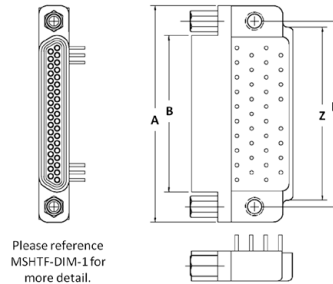
MICRO
0.050"
(1.27 mm)



MSHT – Low-Profile, Right Angle Board-Mount (Female)

MSHT interconnects are used in high-temperature applications where a right angle, plated thru-hole termination is desired for mounting. The narrow footprint on this connector helps save board space.

DIMENSIONS



Please reference
MSHTF-DIM-1 for
more detail.

DIMENSIONS						
SIZE	ROWS	A	B (MAX)	D	Z	HARDWARE
9	2	.778	.378	.565	.775	#2-56 UNC THD
15		.928	.528	.715	.925	
21		1.078	.678	.865	1.075	
25		1.178	.778	.965	1.175	
31		1.328	.928	1.115	1.080	
37	3	1.478	1.078	1.265	1.180	
51		1.428	1.028	1.215	1.220	

ORDER FORM

Sample Part Number Format: MSHT-262-037-433-220S

MSHT	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
SERIES 0.050" Low-Profile Metal PC Board-Mount Connector (Female)	ROWS 2 – 2-Row (9-37 contacts) 3 – 3-Row (51 contacts)	BODY STYLE 6 – Receptacle, right angle, narrow footprint with threaded inserts and interfacial seal.	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell 4 – High-temp thermoplastic with hard black anodized shell 5 – High-temp with stainless steel shell	SIZE 009 – 9 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts 031 – 31 Contacts 037 – 37 Contacts 051 – 51 Contacts	PLATING 3 – 50 µ" Au contacts; Au terminations	CONTACT/TERMINATION TYPE 43 – Socket, right angle, 0.109" x 0.020" dia, 44 – Socket, right angle, 0.140" x 0.020" dia, 45 – Socket, right angle, 0.172" x 0.020" dia,	HARDWARE 00 – No hardware 22 – Two fixed jacknut assemblies	POLARIZATION 0S – Standard body polarization

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

MATERIALS and FINISHES

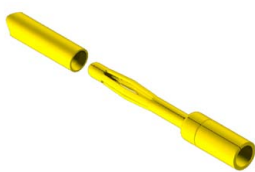
Socket Contact: Brass per ASTM B121/B121M or ASTM B16/B16M or ASTM B453
Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11
or 6061-T6511 per SAE AMS-QQ-A-200/8
Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 µ" minimum or black anodized per MIL-A-8625, Type III Class 2, or 303 stainless steel per ASTM A581/A581M or ASTM A582/A582M, passivated per SAE AMS-2700
Molded Insulators: High-temp thermoplastic
Embedment: High-temp epoxy
Hardware: Corrosion-resistant steel per ASTM A582/A582M, passivated per ASTM A967, SAE AMS-QQ-P-35
Interfacial Seal Gaskets: Fluorosilicone per SAE AMS-R-25988
Tolerances: Angles: ±5°
Decimals: ±0.010"; Fractions: ±1/64"
Wire lengths – insulated/stranded: +1.0"/-0.0"
uninsulated/solid: +0.02"/-0.0"

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

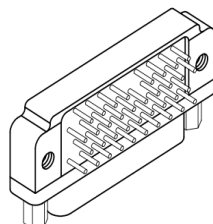
Contact Rating: 3 amperes maximum
Operating Temperature: -55° C to 205° C
Test Voltage: 600V, RMS, 60Hz
Insulation Resistance: 5,000 megohms minimum @ 500 VDC
Durability: 500 connector mating cycles
Contact Engaging Force: 6.0 ounces maximum/contact
Contact Separating Force: 0.5 ounces minimum/contact
Mating and Unmating Force: 10 ounces maximum/contact

MSHT-262-037-433-220S

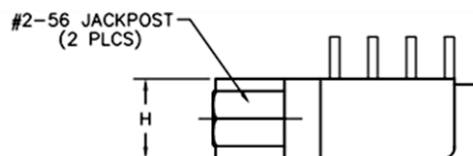
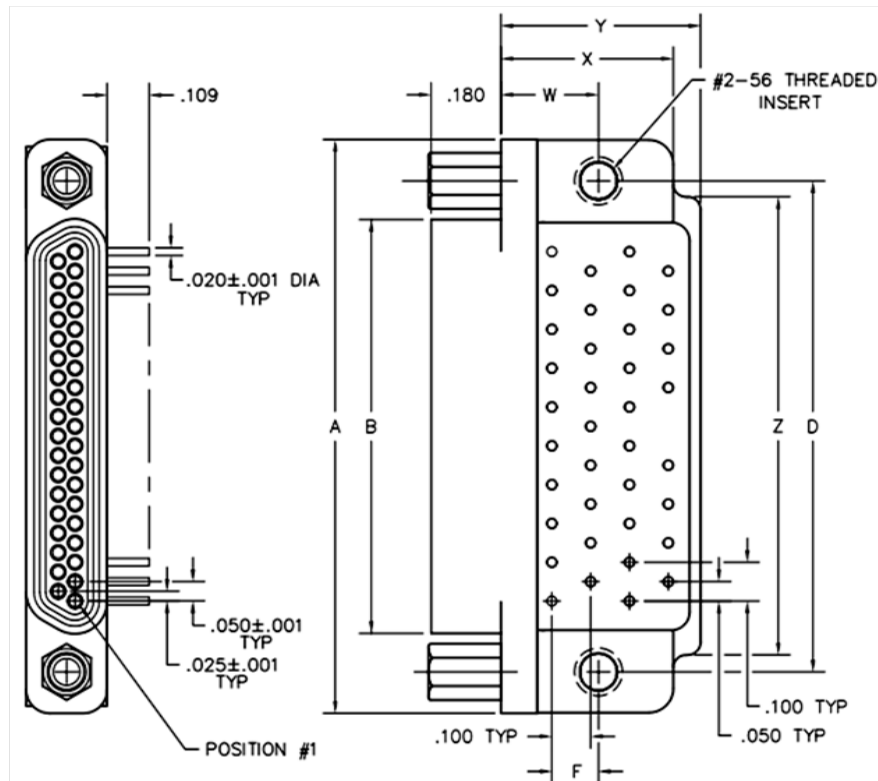


High-Reliability Contact

MIL-DTL-83513



MSHT FEMALE DRAWINGS



Right Angle
Blind Clearance Cut
Narrow Footprint
Threaded Inserts

DIMENSIONS															
SIZE	ROWS	A	B (MAX)	C	D	F	H	J	K	W	X (MAX)	Y (MAX)	Z	HARDWARE	MOUNTING HOLE
9	2	.758	.378	.218	.565	.020	.208	.180	.067	.250	.420	.420	.775	#2-56 UNC THD	#2-56 UNC THREADED INSERT
15		.928	.528		.715	.120							.925		
21		1.078	.678		.865								1.075		
25		1.178	.778		.965						1.175				
31		1.328	.928		1.115	1.080									
37		1.478	1.078		1.265	1.180									
51	3	1.428	1.028	.260	1.215	.150	.250		.087	.300	.425	.650	1.220		

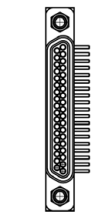
PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.



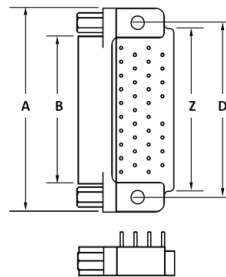
MSHT – Low-Profile, Right Angle Board-Mount with Blind Clearance Cut (Female)

MSHT interconnects are used in high-temperature applications where a right angle, plated thru-hole termination is desired for mounting. The narrow footprint on this connector helps save board space.

DIMENSIONS



Please reference
MSHTF-DIM-2
for more detail.



DIMENSIONS					
SIZE	ROWS	A	B (MAX)	D	Z
9	2	.758	.378	.565	.775
15		.928	.528	.715	.925
21		1.078	.678	.865	1.075
25		1.178	.778	.965	1.175
31		1.328	.928	1.115	1.080
37	3	1.478	1.078	1.265	1.180
51		1.428	1.028	1.215	1.220

ORDER FORM

Sample Part Number Format: MSHT-2V3-037-435-220S

MSHT	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
SERIES 0.050" Low-Profile Metal PC Board-Mount Connector (Female)	ROWS 2 – 2-Row (9-37 contacts) 3 – 3-Row (51 contacts)	BODY STYLE V – Receptacle, right angle (blind clearance cut), narrow footprint with threaded inserts	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell 4 – High-temp thermoplastic with hard black anodized shell	SIZE 009 – 9 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts 031 – 31 Contacts 037 – 37 Contacts 051 – 51 Contacts	PLATING 3 – 50 µ" Au contacts; Au terminations	CONTACT/TERMINATION TYPE 43 – Socket, right angle, 0.109" x 0.020" dia 44 – Socket, right angle, 0.140" x 0.020" dia 45 – Socket, right angle, 0.172" x 0.020" dia	HARDWARE 00 – No hardware 22 – Two fixed jacknut assemblies	WIRING 0S – Standard body polarization

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

MATERIALS and FINISHES

Socket Contact: Brass per ASTM B121/B121M or ASTM B16/B16M or ASTM B453
Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11
or 6061-T6511 per SAE AMS-QQ-A-200/8
Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 µ" minimum or black anodized per MIL-A-8625, Type III Class 2, or 303 stainless steel per ASTM A581/A581M or ASTM A582/A582M, passivated per SAE AMS-2700
Molded Insulators: High-temp thermoplastic
Embedment: High-temp epoxy
Hardware: Corrosion-resistant steel per ASTM A582/A582M, passivated per ASTM A967, SAE AMS-QQ-P-35
Interfacial Seal Gaskets: Fluorosilicone per SAE AMS-R-25988
Tolerances: Angles: ±5°
Decimals: ±0.010"; Fractions: ±1/64"
(unless otherwise specified) Wire lengths – insulated/stranded: +1.0"/-0.0"
uninsulated/solid: +0.02"/-0.0"

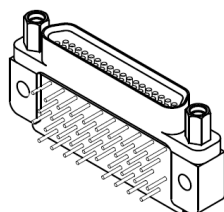
NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

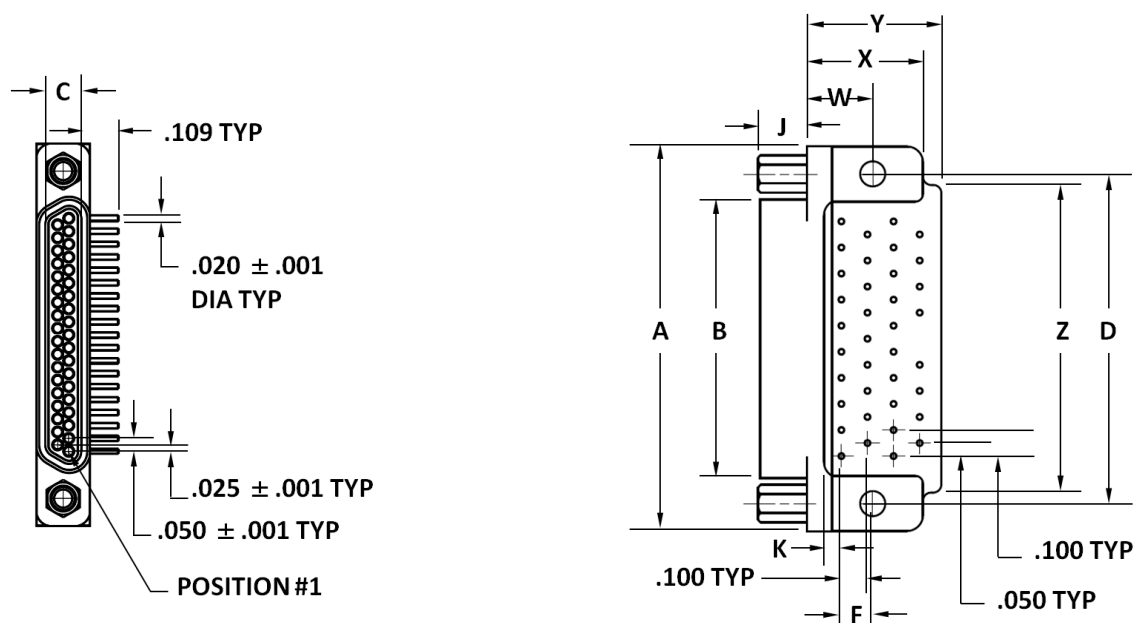
Contact Rating: 3 amperes maximum
Operating Temperature: -55° C to 205° C
Test Voltage: 600V, RMS, 60Hz
Insulation Resistance: 5,000 megohms minimum @ 500 VDC
Durability: 500 connector mating cycles
Contact Engaging Force: 6.0 ounces maximum/contact
Contact Separating Force: 0.5 ounces minimum/contact
Mating and Unmating Force: 10 ounces maximum/contact

MSHT-2V3-037-435-220S

High-Reliability Contact
MIL-DTL-83513

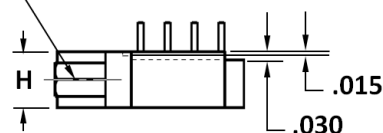


MSHT (BLIND CLEARANCE CUT) FEMALE DRAWINGS



Right Angle
Blind Clearance Cut
Narrow Footprint
Threaded Inserts

#2-56 JACKPOST
(2 PLCS)

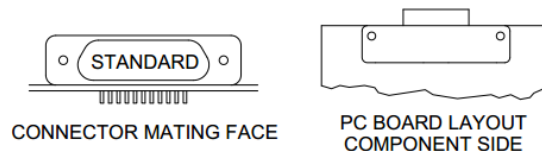


DIMENSIONS															
SIZE	ROWS	A	B (MAX)	C	D	F	H	J	K	W	X (MAX)	Y (MAX)	Z	HARDWARE	MOUNTING HOLE
9	2	.758	.378	.218	.565	.120	.208	.180	.067	.250	.420	.420	.775	#2-56 UNC THD	#2-56 UNC THREADED INSERT
15		.928	.528		.715								.925		
21		1.078	.678		.865								1.075		
25		1.178	.778		.965								1.175		
31		1.328	.928		1.115						.450	.520	1.080		
37		1.478	1.078		1.265								1.180		
51	3	1.428	1.028	.260	1.215	.150	.250		.087	.300	.425	.650	1.220		

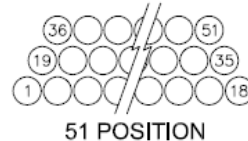
PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

Recommended PC Board Layouts – MSHT Female

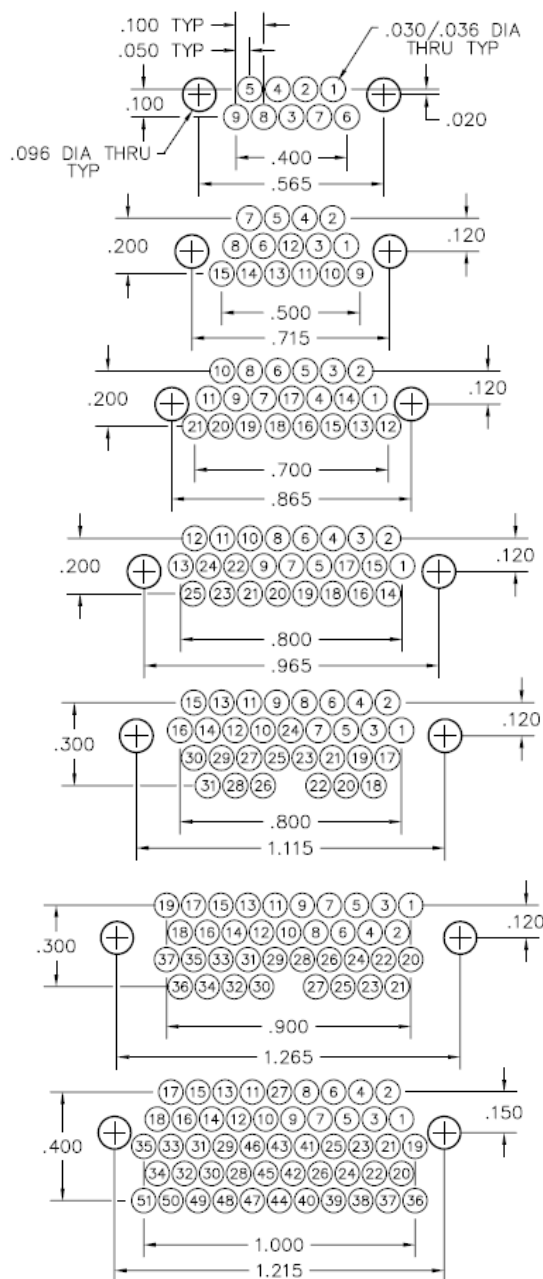
Right Angle
Narrow Footprint
Standard Polarization



CONNECTOR
MATING FACE



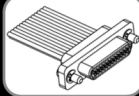
PC BOARD LAYOUT
COMPONENT SIDE





M
SERIES

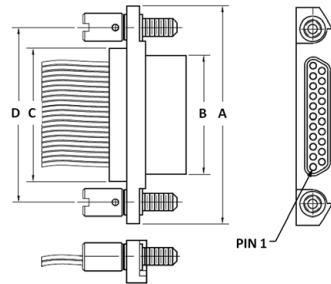
MICRO
0.050"
(1.27 mm)



MTHT – Low-Profile I/O Cable with Radius Ear (Male)

MTHT interconnects are used in high-temperature applications. These low-profile connectors come with a variety of termination, hardware and wiring options. Custom lengths are available on wire termination products.

DIMENSIONS



DIMENSIONS					
SIZE	ROWS	A	B (MAX)	C	D
9	2	.778	.292	.398	.565
15		.928	.442	.548	.715
21		1.078	.592	.698	.865
25		1.178	.692	.798	.965
31		1.328	.842	.948	1.115
37	3	1.478	.992	1.098	1.265
51		1.428	.942	1.048	1.215

Please reference MTHTM-DIM-1 for more detail.

ORDER FORM

Sample Part Number Format: MTHT-212-021-161-43WQ

MTHT	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
SERIES 0.050" Low-Profile Metal I/O Connector (Male)	ROWS 2 – 2-Row (9-37 contacts) 3 – 3-Row (51 contacts)	BODY STYLE 1 – Plug, straight with ears. Low-profile radius.	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell	SIZE 009 – 9 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts 031 – 31 Contacts 037 – 37 Contacts 051 – 51 Contacts	PLATING 1 – 50 μ" Au contacts (crimp wire) 3 – 50 μ" Au contacts; Au terminations (solder cup, pigtail)	CONTACT/TERMINATION TYPE 1A – Pin, straight, 24 awg solder cup 11 – Pin, straight, 26 awg solder cup 12 – Pin, straight, 0.125" lead length* 13 – Pin, straight, 0.250" lead length* 14 – Pin, straight, 0.500" lead length* 16 – Pin, straight, crimped wire	HARDWARE 00 – No hardware 41 – Two turning jackscrews, allen head 43 – Two turning jackscrews, slot head	WIRING 00 – None XX – See Wiring Codes

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

* 0.018 diameter

MATERIALS and FINISHES

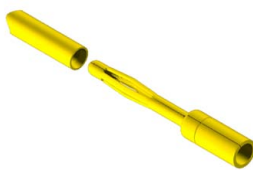
Pin Contacts: Copper-based alloy strip
 Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
 Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11 or 6061-T6511 per SAE AMS-QQ-A-200/8
 Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 μ" minimum
 Molded Insulators: High-temp thermoplastic
 Embedment: High-temp epoxy
 Hardware: Corrosion-resistant steel per ASTM A582/A582M, passivated per ASTM A967, SAE AMS-QQ-P-35
 Tolerances: Angles: ±5°
 (unless otherwise specified) Decimals: ±0.010"; Fractions: ±1/64"
 Wire lengths – insulated/stranded: +1.0"/-0.0"
 uninsulated/solid: +0.02"/-0.0"

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

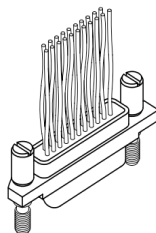
Contact Rating: 3 amperes maximum
 Operating Temperature: -55° C to 205° C
 Test Voltage: 600V, RMS, 60Hz
 Insulation Resistance: 5,000 megohms minimum @ 500 VDC
 Durability: 500 connector mating cycles
 Contact Engaging Force: 6.0 ounces maximum/contact
 Contact Separating Force: 0.5 ounces minimum/contact
 Mating and Unmating Force: 10 ounces maximum/contact

MTHT-212-021-161-43WQ

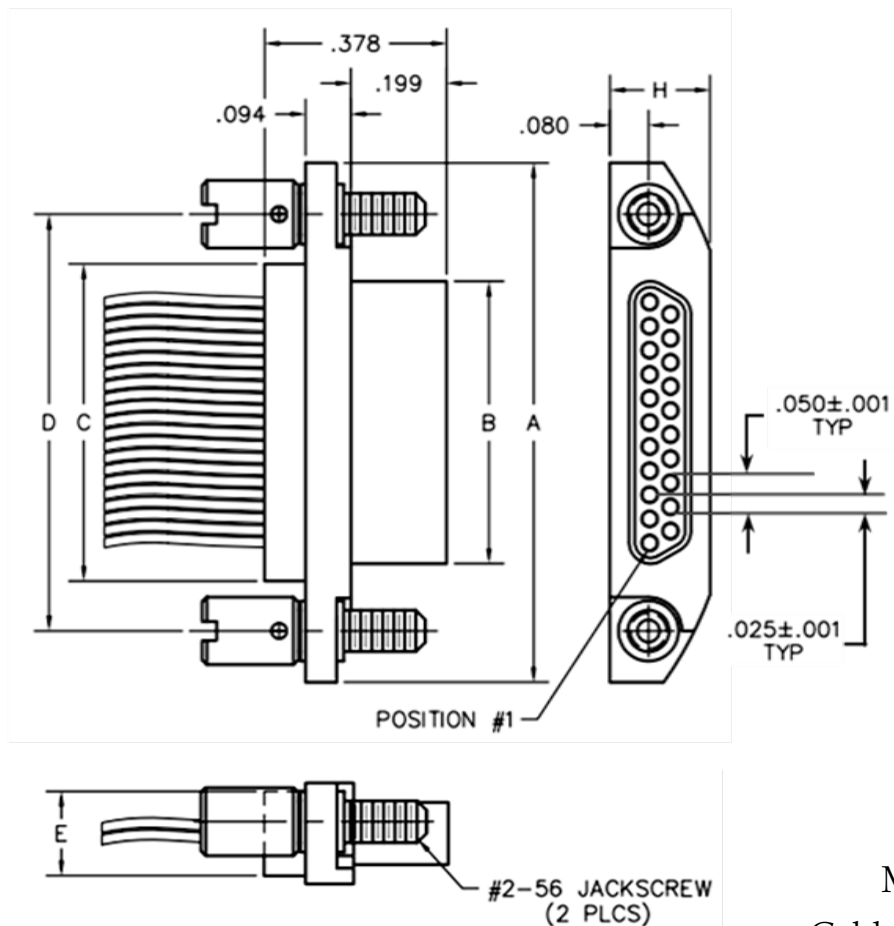


High-Reliability Contact

MIL-DTL-83513



MTHT MALE DRAWINGS



Straight
Multi-Row
Cable-to-Cable

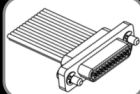
DIMENSIONS								
SIZE	ROWS	A	B (MAX)	C	D	E (MAX)	H	HARDWARE
9	2	.778	.292	.398	.565	.173	.208	#2-56 UNC THD
15		.928	.442	.548	.715			
21		1.078	.592	.698	.865			
25		1.178	.692	.798	.965			
31		1.328	.842	.948	1.115			
37	3	1.478	.992	1.098	1.265	.220	.250	#2-56 UNC THD
51		1.428	.942	1.048	1.215			

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.



M
SERIES

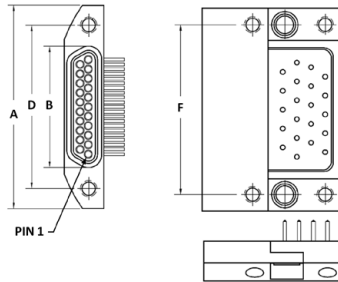
MICRO
0.050"
(1.27 mm)



MTHT – Low-Profile, Right Angle Board-Mount with Radius Ear (Female)

MTHT interconnects are used in high-temperature applications where a right angle, plated thru-hole termination is desired for mounting. The narrow footprint on this connector helps save board space.

DIMENSIONS



DIMENSIONS								
SIZE	ROWS	A	B (MAX)	D	F	H	W	Y (MAX)
9	2	.778	.378	.565	.600	.208	.250	.420
15		.928	.528	.715	.750			
21		1.078	.678	.865	.900			
25		1.178	.778	.965	1.000			
31		1.328	.928	1.115	1.150			
37	3	1.478	1.078	1.265	1.300	.250	.300	.650
51		1.428	1.028	1.215	1.250			

Please reference MTHT-DIM-1 for more detail.

ORDER FORM

Sample Part Number Format: MTHT-2E2-021-433-000S

MTHT	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE	ENTER CODE
SERIES 0.050" Low-Profile Metal PC Board-Mount Connector (Female)	ROWS 2 – 2-Row (9-37 contacts) 3 – 3-Row (51 contacts)	BODY STYLE E – Receptacle, right angle, with four mounting holes. Low-profile radius.	BODY MATERIAL 2 – High-temp thermoplastic with electroless nickel shell	SIZE 009 – 9 Contacts 015 – 15 Contacts 021 – 21 Contacts 025 – 25 Contacts 031 – 31 Contacts 037 – 37 Contacts 051 – 51 Contacts	PLATING 3 – 50 μ" Au contacts; Au terminations (solder cup, pigtail)	POLARIZATION 0S – Standard body polarization	CONTACT/TERMINATION TYPE 43 – Socket, right angle, 0.109" x 0.016" dia, 44 – Socket, right angle, 0.140" x 0.016" dia, 45 – Socket, right angle, 0.172" x 0.016" dia,	HARDWARE 00 – Integrated jacknuts

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

NOTES

MATERIALS and FINISHES

Socket Contact: Brass per ASTM B121/B121M or ASTM B16/B16M or ASTM B453
 Contact Finish: Gold plate per ASTM B488, SAE AMS-2422
 Shells: Aluminum alloy 6061-T6 per SAE AMS-QQ-A-250/11
 or 6061-T6511 per SAE AMS-QQ-A-200/8
 Shell Finishes: Electroless nickel per SAE AMS-2402, Class 3, 500 μ" minimum
 Molded Insulators: High-temp thermoplastic
 Embedment: High-temp epoxy
 Hardware: Corrosion-resistant steel per ASTM A582/A582M,
 passivated per ASTM A967, SAE AMS-QQ-P-35
 Interfacial Seal Gaskets: Fluorosilicone per SAE AMS-R-25988
 Tolerances: Angles: ±5°
 (unless otherwise specified) Decimals: ±0.010; Fractions: ±1/64"
 Wire lengths – insulated/stranded: +1.0"/-0.0"
 uninsulated/solid: +0.02"/-0.0"

NOTE: AirBorn can manufacture special configurations to your exact specifications.

PERFORMANCE

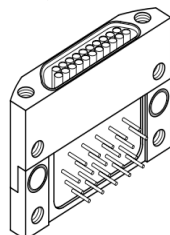
Contact Rating: 3 amperes maximum
 Operating Temperature: -55° C to 205° C
 Test Voltage: 600V, RMS, 60Hz
 Insulation Resistance 5,000 megohms minimum @ 500 VDC
 Durability: 500 connector mating cycles
 Contact Engaging Force: 6.0 ounces maximum/contact
 Contact Separating Force: 0.5 ounces minimum/contact
 Mating and Unmating Force: 10 ounces maximum/contact

MTHT-2E2-021-433-000S

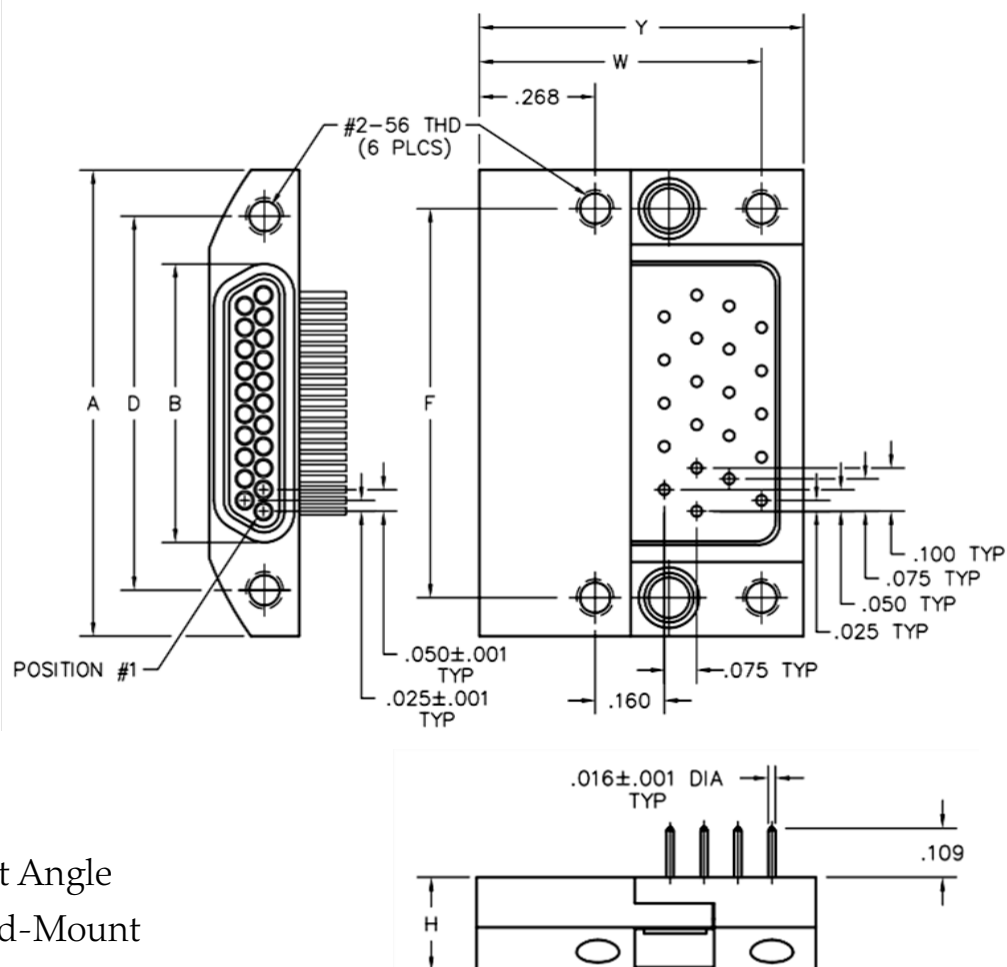


High-Reliability Contact

MIL-DTL-83513



MTHT FEMALE DRAWINGS



Right Angle
Board-Mount
Narrow Footprint

DIMENSIONS								
SIZE	ROWS	A	B (MAX)	C	D	E (MAX)	H	HARDWARE
9	2	.778	.292	.398	.565	.173	.208	#2-56 UNC THD
15		.928	.442	.548	.715			
21		1.078	.592	.698	.865			
25		1.178	.692	.798	.965			
31		1.328	.842	.948	1.115			
37	3	1.478	.992	1.098	1.265	.220	.250	#2-56 UNC THD
51		1.428	.942	1.048	1.215			

PLEASE CONSULT THE AIRBORN WEBSITE FOR THE LATEST REVISION OF THIS DOCUMENT PRIOR TO BEGINNING ANY DESIGN WORK.

Recommended PC Board Layouts – MTHT Female

Low-Profile, Right Angle
Standard Polarization
Sizes 9–25



CONNECTOR MATING FACE

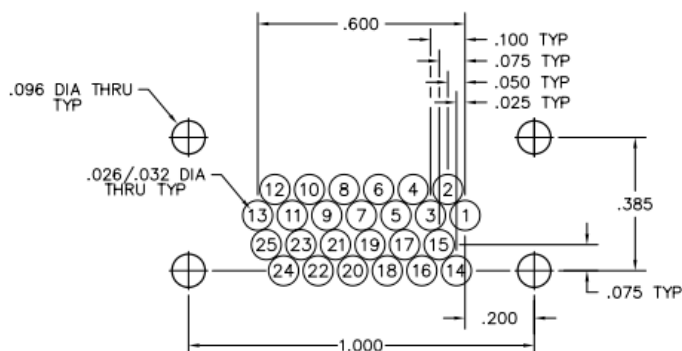
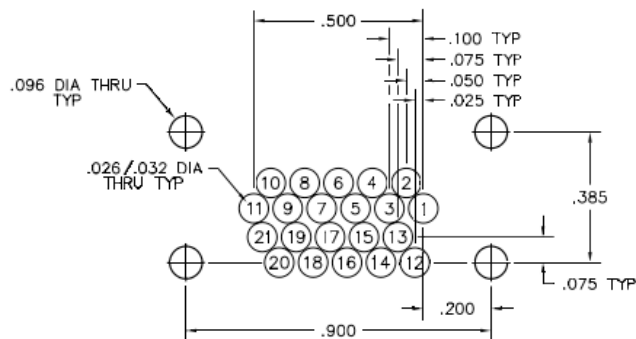
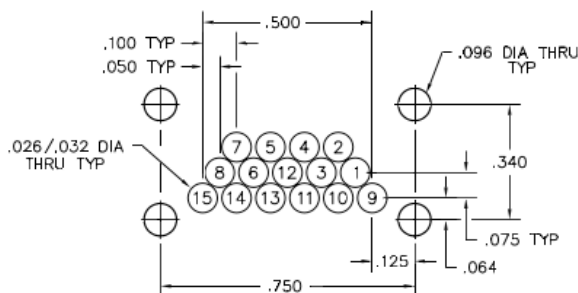
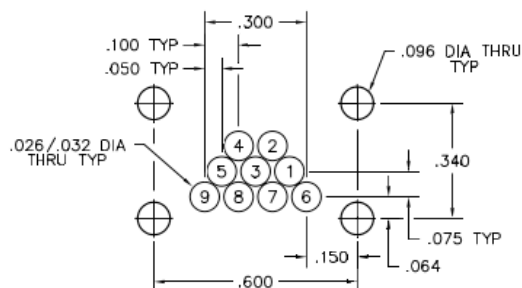


PC BOARD LAYOUT
COMPONENT SIDE

CONNECTOR
MATING FACE

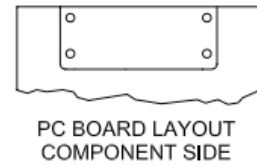
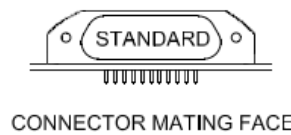


PC BOARD LAYOUT
COMPONENT SIDE



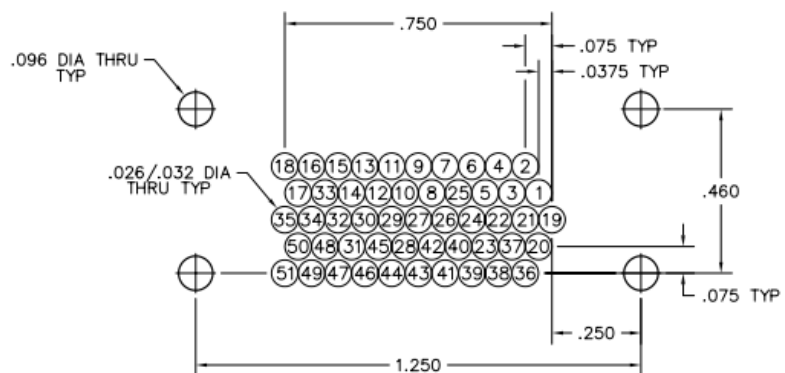
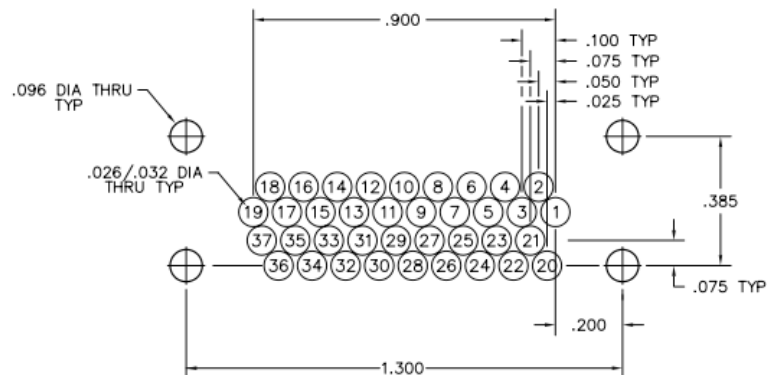
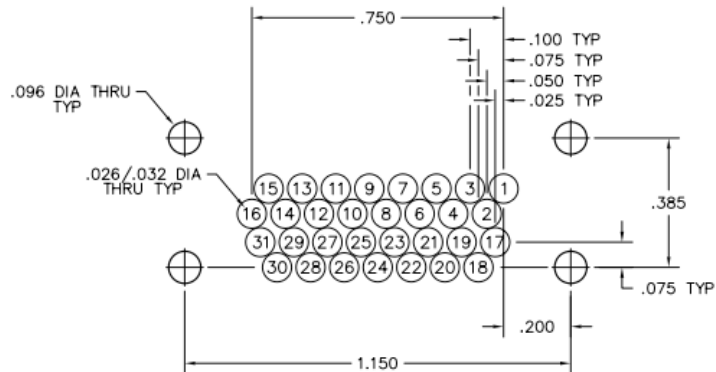
Recommended PC Board Layouts – MTHT Female

Low-Profile, Right Angle
Standard Polarization
Sizes 31–51



CONNECTOR
MATING FACE

PC BOARD LAYOUT
COMPONENT SIDE



WIRE CODES

M-Series

NEMA HP3-EXBEB (Formerly M16878/4-24 TFE 7 strand)

	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	108"	120"
MIL-STD-681*	WA	WB	WC	UD	UE	WD	UG	UH	UJ	UK	UL	UM	UN	UP	UQ	UR
WHITE	WE	WF	WG	VD	VE	WH	VG	VH	VJ	VK	VL	VM	VN	VP	VQ	VR
YELLOW	WJ	WK	WL			WM										

NEMA HP3-EXBDB (Formerly M16878/4-26 TFE 7 strand)

	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	108"	120"
MIL-STD-681*	WN	WP	WQ	YD	YE	WR	YG	YH	YJ	YK	YL	YM	YN	YP	YQ	YR
WHITE	WS	WT	WU	ZD	ZE	WV	ZG	ZH	ZJ	ZK	ZL	ZM	ZN	ZP	ZQ	ZR
YELLOW	WW	WX	WY			WZ										

NEMA HP3-EXBCB (Formerly M16878/4-28 TFE 7 strand)

	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	108"	120"
MIL-STD-681*	XA	XB	XC	1D	1E	XD	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R
WHITE	XE	XF	XG	2D	2E	XH	2G	2H	2J	2K	2L	2M	2N	2P	2Q	2R
YELLOW	XJ	XK	XL			XM										

TWISTED PAIR per NEMA WC27500-XXRC2U00 (SAE AS22759/11)

	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	108"	120"
24 AWG	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN	AP	AQ	AR
26 AWG	BA	BB	BC	BD	BE	BF	BG	BH	BJ	BK	BL	BM	BN	BP	BQ	BR

TWISTED PAIR per NEMA WC27500-XXSC2U00 (SAE AS22759/33)*** ☒

	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	108"	120"
24 AWG	JA	JB	JC	JD	JE	JF	JG	JH	JJ	JK	JL	JM	JN	JP	JQ	JR
26 AWG	KA	KB	KC	KD	KE	KF	KG	KH	KJ	KK	KL	KM	KN	KP	KQ	KR

For twisted pair wire connect charts, see page MA-9
 Twisted pair wire not available on MA, MC or Hybrid connectors

NOTES

- * Connectors with more than 100 contacts will repeat color coding after 100 colors
- ** Wire colors per M83513 are ten solid colors, repeating
- *** Per M83513, corrosion has been experienced on connectors that are pre-wired with 22759/33 and stored in sealed environments.
Option is not RoHS-compliant

WIRE CODES

M-Series

SAE AS22759/11-24

	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	108"	120"
M83513**	5A	5B	5C	5D	5E	5F	5G	5H	5J	5K	5L	5M	5N	5P	5Q	5R
MIL-STD-681*	CA	CB	CC	CD	CE	CF	CG	CH	CJ	CK	CL	CM	CN	CP	CQ	CR
WHITE	DA	DB	DC	DD	DE	DF	DG	DH	DJ	DK	DL	DM	DN	DP	DQ	DR

SAE AS22759/11-26

	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	108"	120"
M83513**	6A	6B	V1	6D	6E	V2	6G	6H	6J	6K	6L	Y6	6N	6P	6Q	6R
MIL-STD-681*	X3	X4	W3	ED	EE	W4	EG	EH	EJ	EK	EL	EM	EN	EP	EQ	ER
WHITE	X1	X2	W1	FD	FE	W2	FG	FH	FJ	FK	FL	Y5	FN	FP	FQ	FR

SAE AS22759/33-24*** ☒

	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	108"	120"
M83513**	LA	LB	LC	LD	LE	LF	LG	LH	LJ	LK	LL	LM	LN	LP	LQ	LR
WHITE	MA	MB	MC	MD	ME	MF	MG	MH	MJ	MK	ML	MM	MN	MP	MQ	MR

SAE AS22759/33-26*** ☒

	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	84"	96"	108"	120"
M83513**	NA	NB	Y3	ND	NE	Y4	NG	NH	NJ	NK	NL	Y8	NN	NP	NQ	NR
WHITE	PA	PB	Y1	PD	PE	Y2	PG	PH	PJ	PK	PL	Y7	PN	PP	PQ	PR

NOTES

- * Connectors with more than 100 contacts will repeat color coding after 100 colors
- ** Wire colors per M83513 are ten solid colors, repeating
- *** Per M83513, corrosion has been experienced on connectors that are pre-wired with 22759/33 and stored in sealed environments.
Option is not RoHS-compliant



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.