

# Customer Information Sheet

DRAWING No.: M80-40000000-XX-XXX-00-000

IF IN DOUBT - ASK

©

NOT TO SCALE

THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

## SPECIFICATIONS:

**MATERIAL:**  
 MOULDING: GLASS FILLED PPS, UL94V-0, BLACK  
 COAX CONTACT:  
 BODY, SLEEVE, INNER CONTACT, END PLUG = COPPER ALLOY  
 LATCHING COLLAR = BERYLLIUM COPPER  
 INSULATOR = PTFE

**FINISH:**  
 COAX CONTACT:  
 BODY, SLEEVE, INNER CONTACT, END PLUG = GOLD  
 LATCHING COLLAR = NICKEL

**ELECTRICAL:**  
 WORKING VOLTAGE = 800V AC/DC  
 VOLTAGE PROOF = 1200V AC/DC  
 INSULATION RESISTANCE = 100MΩ MIN  
 COAX CONTACT:  
 FREQUENCY RANGE = 6GHz  
 IMPEDANCE = 50Ω  
 V.S.W.R = 1.05 + (0.04 x FREQUENCY) GHz MAX  
 CONTACT RESISTANCE = 6mΩ MAX

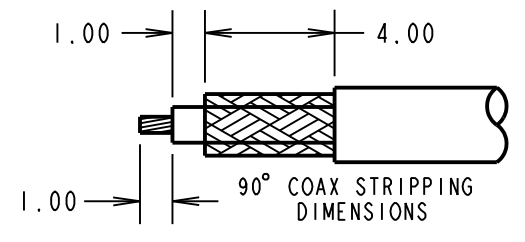
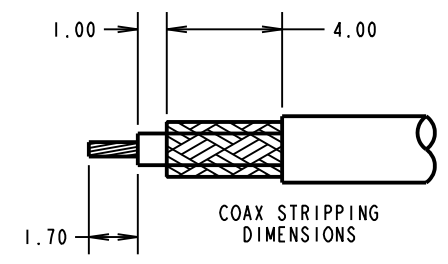
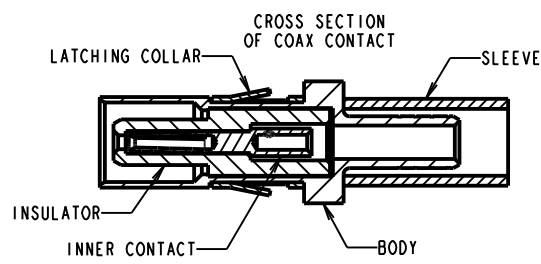
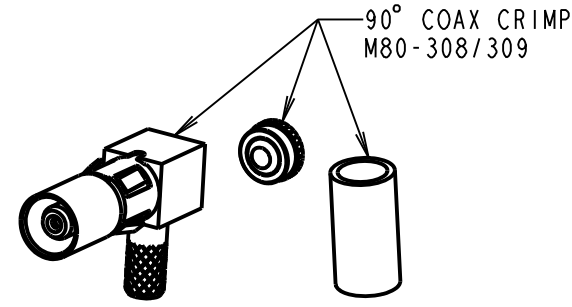
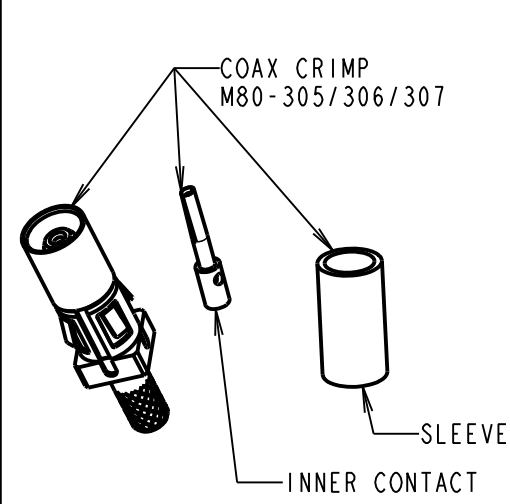
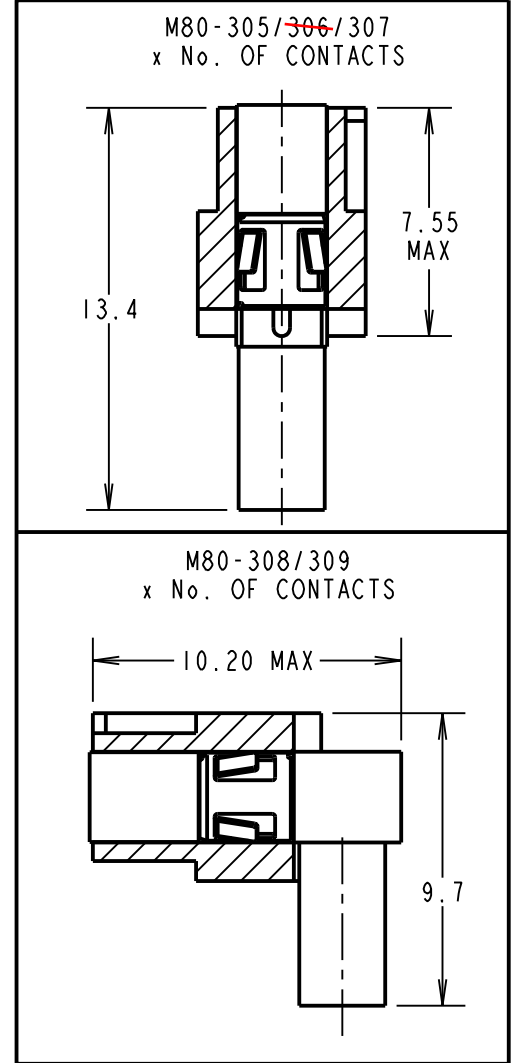
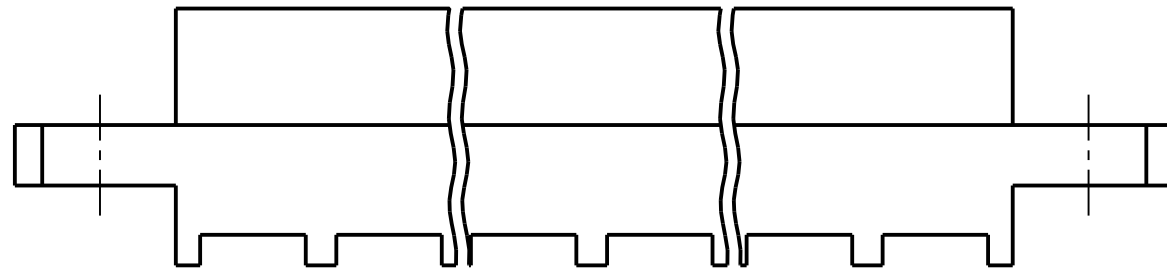
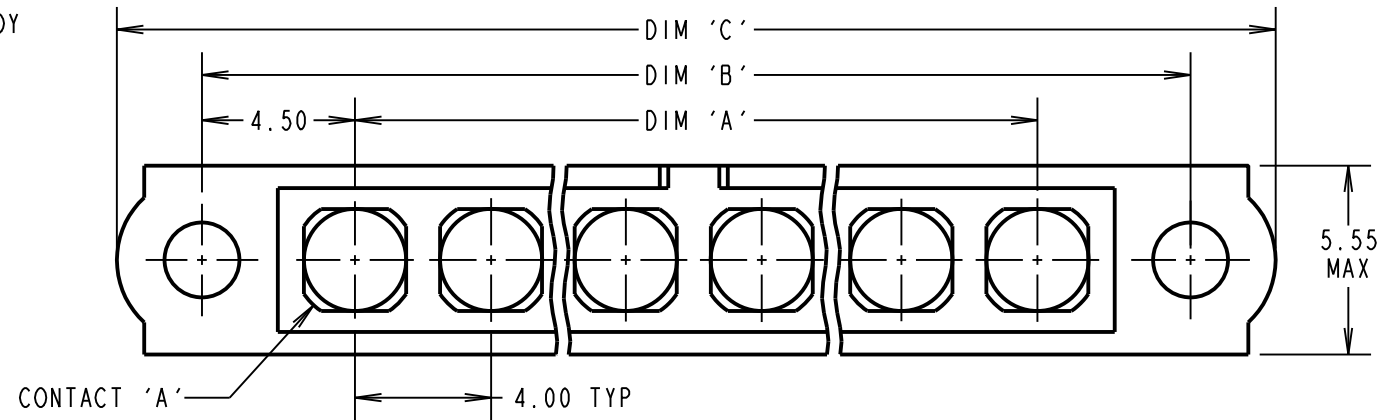
INSULATION RESISTANCE = 10<sup>6</sup>MΩ @250V AC  
 OPERATING VOLTAGE = 180V AC @ 500mA  
 MAXIMUM VOLTAGE = 1000V AC

**MECHANICAL:**  
 DURABILITY = 500 OPERATIONS  
 COAX CONTACT:  
 INSERTION FORCE = 8N MAX  
 WITHDRAWAL FORCE = 0.5N MIN

**ENVIRONMENTAL:**  
 TEMPERATURE RANGE = -55°C TO +125°C

**PACKING:**  
 BAG  
 FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

## COAX CRIMP CONTACTS ONLY



- CRIMP/SOLDER NOTES:**
- CONNECTORS ARE SUPPLIED WITH CONTACTS LOOSE.
  - COAX CONTACT IS SUPPLIED AS A KIT OF PARTS: BODY, MAIN INSULATOR, INNER CONTACT AND LATCHING COLLAR ARE PRE-ASSEMBLED AND SLEEVE AND INSULATED END PLUG ASSEMBLY ARE SEPARATE.
  - FOR EXTRA COAX CONTACTS, USE PART NUMBERS M80-305/306/307/308/309.
  - COAX CONTACT EXTRACTION TOOL = Z80-290.
  - RECOMMENDED HAND CRIMP TOOL FOR INNER COAX CONTACT = Z80-292 WITH POSITIONER Z80-291. RECOMMENDED HAND CRIMP TOOL AND DIE SET FOR SLEEVE = Z80-293.
  - INSTRUCTION SHEETS ARE AVAILABLE.

ORDER CODE: (COAX CRIMP CONTACTS ONLY)  
**M80-40000000-XX-XXX-00-000**

TOTAL No. OF CONTACTS \_\_\_\_\_  
 02 TO 12

SPECIAL CONTACTS  
 305 = COAX CONTACT 2.00mm CRIMP M80-305  
~~306 = COAX CONTACT 2.40mm CRIMP M80-306~~  
 307 = COAX CONTACT 2.70mm CRIMP M80-307  
 308 = COAX CONTACT 2.00mm HORIZ' CRIMP M80-308  
 309 = COAX CONTACT 2.70mm HORIZ' CRIMP M80-309

MGP	7	04.12.19	21540
NAME	ISS.	DATE	C/NOTE
APPROVED: MGP			
CHECKED: SB			
DRAWN: C.PENROSE			
CUSTOMER REF.:			
ASSEMBLY DRG:			

DIMENSION	CALCULATION
DIM 'A'	4 x No. OF CONTACTS - 4.00
DIM 'B'	4 x No. OF CONTACTS + 5.00
DIM 'C'	4 x No. OF CONTACTS + 10.0

EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS,  
 M80-40000000-08-305-00-000  
 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.0mm

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**TOLERANCES**  
 X. = ±1mm  
 X.X = ±0.50mm  
 X.XX = ±0.20mm  
 X.XXX = ±0.01mm  
**ANGLES = ±5°**  
 UNLESS STATED

**MATERIAL:**  
 SEE ABOVE  
**FINISH:** SEE ABOVE  
**S/AREA:** mm<sup>2</sup>

**TITLE:**  
 DATAMATE MIX-TEK FEMALE ASSEMBLY  
**DRAWING NUMBER:**  
 M80-40000000-XX-XXX-00-000  
 SHT 5 OF 8

# Customer Information Sheet

DRAWING No.: M80-40000000-XX-XXX-00-000

IF IN DOUBT - ASK

©

NOT TO SCALE

THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

## SPECIFICATIONS:

**MATERIAL:**  
 MOULDING: GLASS FILLED PPS, UL94V-0, BLACK  
**POWER CONTACT:**  
 BODY, SLEEVE, INNER CONTACT, END PLUG = COPPER ALLOY  
 LATCHING COLLAR = BERYLLIUM COPPER  
 INSULATOR = PTFE

**FINISH:**  
**POWER CONTACT:**  
 BODY, SLEEVE, INNER CONTACT, END PLUG = GOLD  
 LATCHING COLLAR = NICKEL

**ELECTRICAL:**  
 WORKING VOLTAGE = 800V AC/DC  
 VOLTAGE PROOF = 1200V AC/DC  
 INSULATION RESISTANCE = 100MΩ MIN

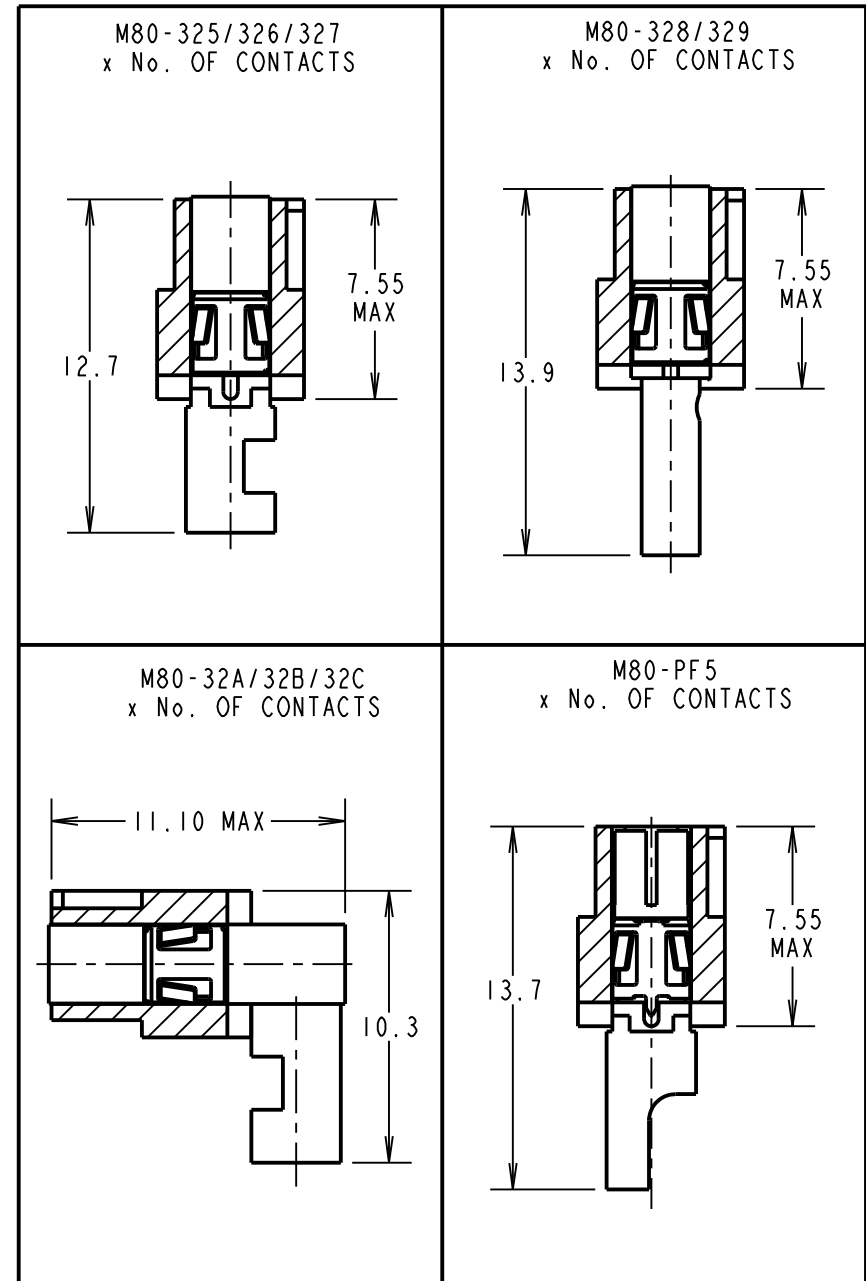
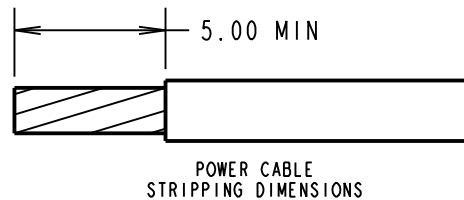
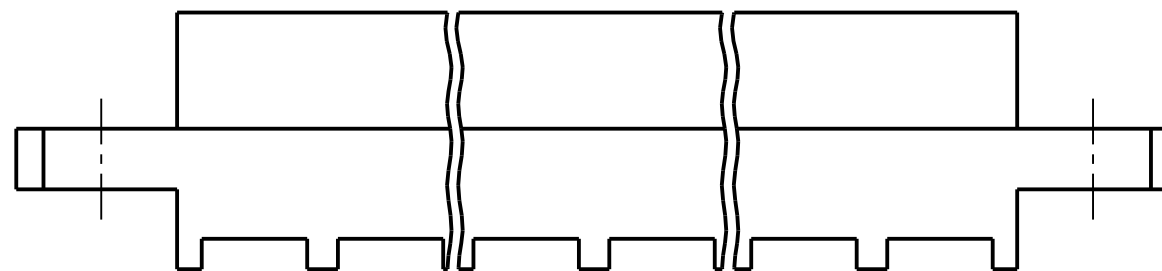
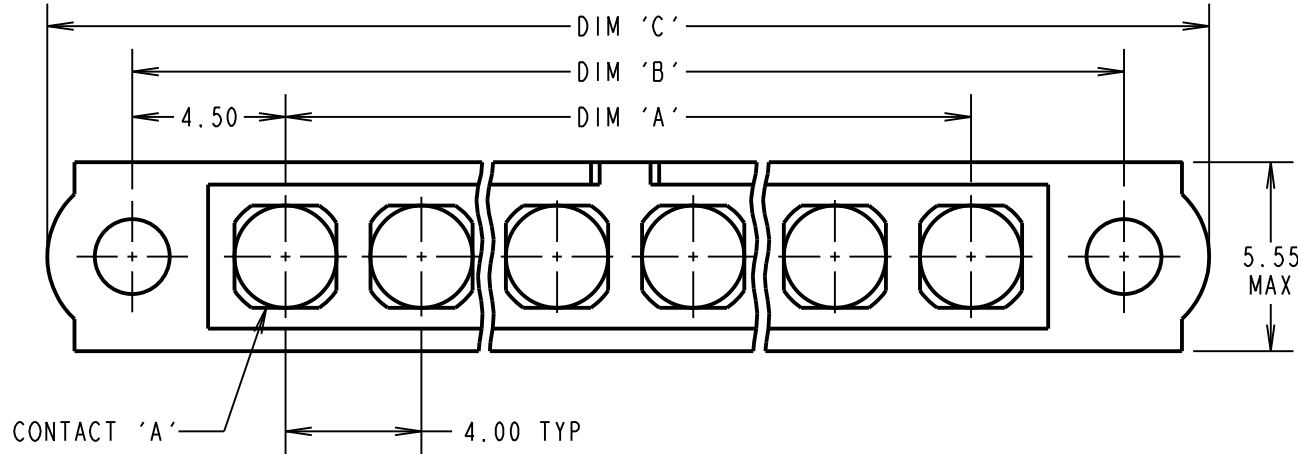
**POWER CONTACT:**  
 CONTACT RESISTANCE = 6mΩ MAX  
 CURRENT RATING = M80-325 = 20A MAX WITH 12AWG  
 M80-326 = 15A MAX WITH 14AWG  
 M80-327 = 10A MAX WITH 16AWG  
 M80-328 = 8A MAX WITH 18AWG  
 M80-329 = 5A MAX WITH 20AWG  
 M80-32A = 20A MAX WITH 12AWG  
 M80-32B = 15A MAX WITH 14AWG  
 M80-32C = 10A MAX WITH 16AWG  
 M80-PF5 = 40A MAX WITH 10AWG  
 CONTACT AS SPECIFIED

**MECHANICAL:**  
 DURABILITY = 500 OPERATIONS  
**POWER CONTACT:**  
 INSERTION FORCE:  
 M80-325/326/327/328/329/  
 32A/32B/32C = 8N MAX  
 M80-PF5 = 15N MAX  
 WITHDRAWAL FORCE = 0.5N MIN

**ENVIRONMENTAL:**  
 TEMPERATURE RANGE:  
 M80-325/326/327/328/329/  
 32A/32B/32C = -55°C TO +125°C  
 M80-PF5 = -55°C TO +150°C

**PACKING:**  
 BAG  
 FOR COMPLETE SPECIFICATION SEE COMPONENT  
 SPECIFICATION C005XX (LATEST ISSUE)

## POWER CRIMP & SOLDER CONTACTS ONLY



DIMENSION	CALCULATION
DIM 'A'	4 x No. OF CONTACTS - 4.00
DIM 'B'	4 x No. OF CONTACTS + 5.00
DIM 'C'	4 x No. OF CONTACTS + 10.0

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,  
 M80-50000000-10-325-00-000  
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.0mm

- CRIMP/SOLDER NOTES:**
- CONNECTORS ARE SUPPLIED WITH CONTACTS LOOSE.
  - FOR EXTRA POWER CONTACTS USE PART NUMBERS M80-325/326/327/328/329/32A/32B/32C/PM5.
  - POWER CONTACT EXTRACTION TOOL = Z80-290.
  - RECOMMENDED HAND CRIMP TOOL FOR CONTACTS 328/329 = Z80-294 AND POSITIONER Z80-295.
  - INSTRUCTION SHEETS ARE AVAILABLE.

ORDER CODE: (POWER CRIMP/SOLDER CONTACTS ONLY)  
**M80-40000000-XX-XXX-00-000**

TOTAL No. OF CONTACTS \_\_\_\_\_  
 02 TO 12

SPECIAL CONTACTS \_\_\_\_\_  
 325 = POWER CONTACT 12AWG SOLDER M80-325  
 326 = POWER CONTACT 14AWG SOLDER M80-326  
 327 = POWER CONTACT 16AWG SOLDER M80-327  
 328 = POWER CONTACT 18AWG SOLDER/CRIMP M80-328  
 329 = POWER CONTACT 20AWG SOLDER/CRIMP M80-329  
 32A = POWER CONTACT 12AWG HORIZ' SOLDER M80-32A  
 32B = POWER CONTACT 14AWG HORIZ' SOLDER M80-32B  
 32C = POWER CONTACT 16AWG HORIZ' SOLDER M80-32C  
 PF5 = POWER CONTACT 10AWG SOLDER M80-PF5

MGP	7	04.12.19	21540
NAME	ISS.	DATE	C/NOTE
APPROVED: MGP			
CHECKED: SB			
DRAWN: C.PENROSE			
CUSTOMER REF.:			
ASSEMBLY DRG:			

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			FINISH: SEE ABOVE	DRAWING NUMBER: <b>M80-40000000-XX-XXX-00-000</b>

# Customer Information Sheet

DRAWING No.: M80-40000000-XX-XXX-00-000

IF IN DOUBT - ASK

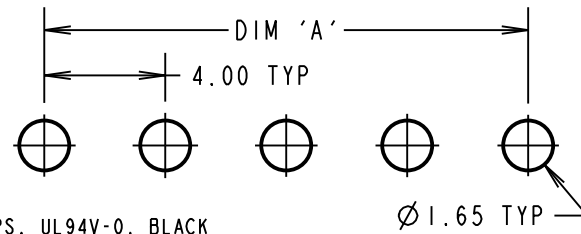
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NOT TO SCALE

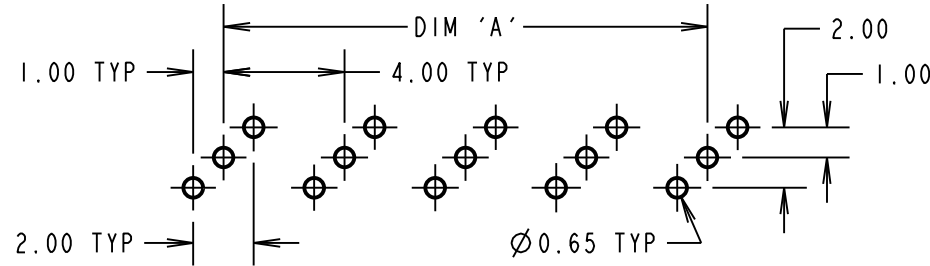
THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

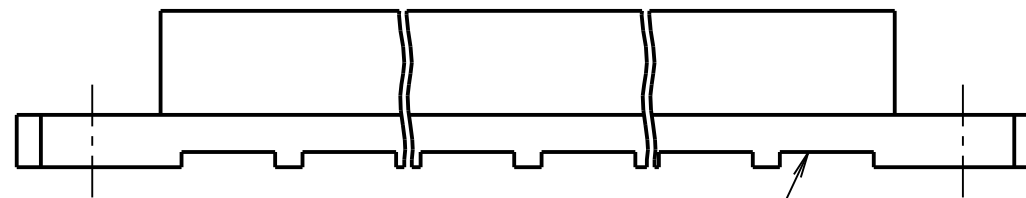
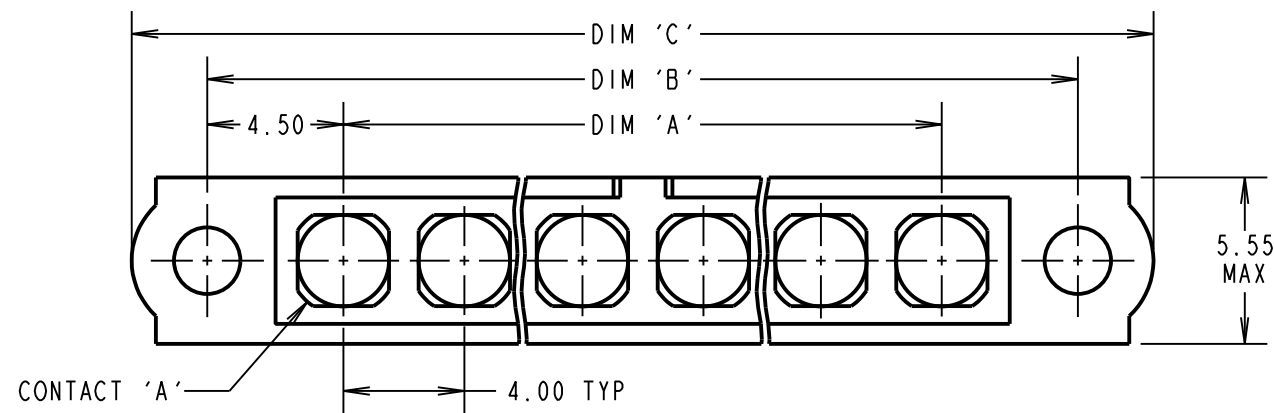
RECOMMENDED PCB LAYOUT FOR  
POWER CONTACTS: M80-321/322  
TOLERANCE = ±0.05



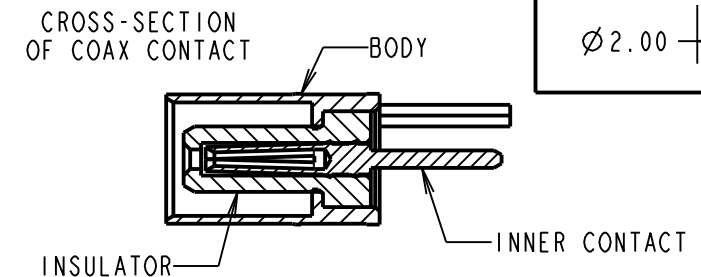
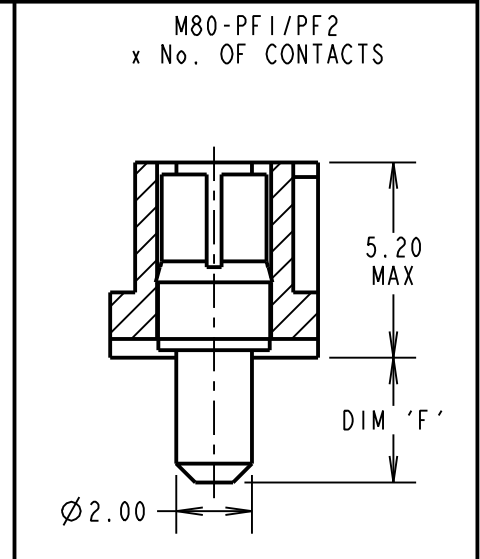
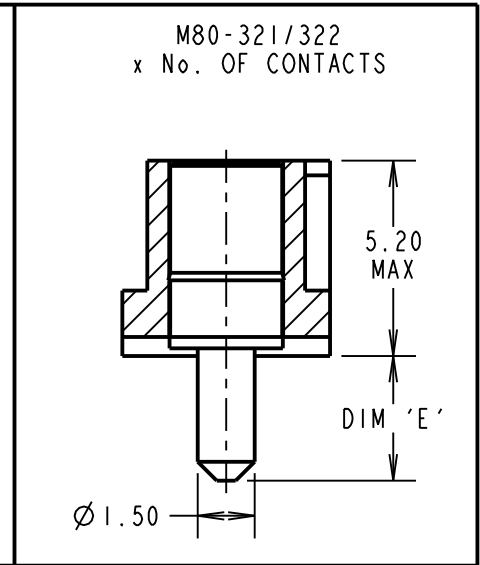
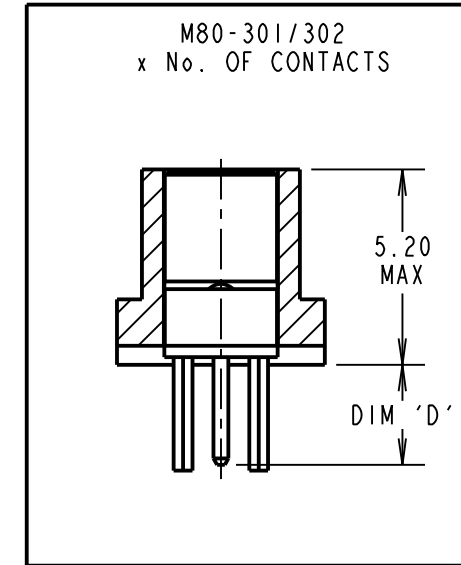
RECOMMENDED PCB LAYOUT FOR  
COAX CONTACTS: M80-301/302  
TOLERANCE = ±0.05



## VERTICAL PC TAIL CONTACTS ONLY



SPECIAL CONTACTS HIDDEN FOR ILLUSTRATION ONLY  
SEE ORDER CODE FOR PART No. TO BE ASSEMBLED



### SPECIFICATIONS:

- MATERIAL:**  
 MOULDING: GLASS FILLED PPS, UL94V-0, BLACK  
 POWER CONTACT: COPPER ALLOY  
 COAX CONTACT:  
 BODY = COPPER ALLOY  
 INNER CONTACT = COPPER ALLOY  
 INSULATOR = PTFE
- FINISH:**  
 POWER CONTACT: GOLD  
 COAX CONTACT: BODY, INNER CONTACT = GOLD
- ELECTRICAL:**  
 WORKING VOLTAGE = 800V AC/DC  
 VOLTAGE PROOF = 1200V AC/DC  
 INSULATION RESISTANCE = 100MΩ MIN
- POWER CONTACT:**  
 CONTACT RESISTANCE = 6mΩ MAX  
 CURRENT RATING:  
 M80-321/322 = 20A MAX  
 M80-PF1/PF2 = 40A MAX
- COAX CONTACT:**  
 FREQUENCY RANGE = 6GHz  
 IMPEDANCE = 50Ω  
 V.S.W.R = 1.05 + (0.04 x FREQUENCY) GHz MAX  
 CONTACT RESISTANCE = 6mΩ MAX
- INSULATION RESISTANCE = 10<sup>6</sup>MΩ @250V AC  
 OPERATING VOLTAGE = 180V AC @ 500mA  
 MAXIMUM VOLTAGE = 1000V AC
- MECHANICAL:**  
 DURABILITY = 500 OPERATIONS
- POWER CONTACT:**  
 INSERTION FORCE:  
 M80-321/322 = 8N MAX  
 M80-PF1/PF2 = 15N MAX  
 WITHDRAWAL FORCE = 0.5N MIN
- COAX CONTACT:**  
 INSERTION FORCE = 8N MAX  
 WITHDRAWAL FORCE = 0.5N MIN
- ENVIRONMENTAL:**  
 TEMPERATURE RANGE:  
 M80-301/302/321/322 = -55°C TO +125°C  
 M80-PF1/PF2 = -55°C TO +150°C
- PACKING:**  
 TUBE  
 FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

DIMENSION	CALCULATION
DIM 'A'	4 x No. OF CONTACTS - 4.00
DIM 'B'	4 x No. OF CONTACTS + 5.00
DIM 'C'	4 x No. OF CONTACTS + 10.0
DIM 'D'	M80-301 = 3.0mm, M80-302 = 4.5mm
DIM 'E'	M80-321 = 3.5mm, M80-322 = 5.0mm
DIM 'F'	M80-PF1 = 3.5mm, M80-PF2 = 5.0mm

EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS,  
 M80-40000000-08-301-00-000  
 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.0mm  
 DIM 'D' = 3.0mm

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,  
 M80-40000000-10-PF1-00-000  
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.0mm  
 DIM 'F' = 3.5mm

ORDER CODE: (PC TAIL CONTACTS ONLY)

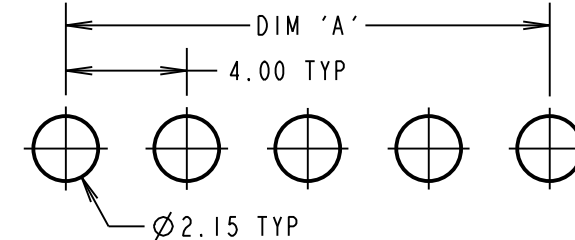
**M80-40000000-XX-XXX-00-000**

TOTAL No. OF CONTACTS  
 02 TO 12

#### SPECIAL CONTACTS

- 301 = COAX CONTACT 3.0mm PC TAIL M80-301
- 302 = COAX CONTACT 4.5mm PC TAIL M80-302
- 321 = 20A POWER CONTACT 3.5mm VERT' PC TAIL M80-321
- 322 = 20A POWER CONTACT 5.0mm VERT' PC TAIL M80-322
- PF1 = 40A POWER CONTACT 3.5mm VERT' PC TAIL M80-PF1
- PF2 = 40A POWER CONTACT 5.0mm VERT' PC TAIL M80-PF2

RECOMMENDED PCB LAYOUT FOR  
POWER CONTACTS: M80-PF1/PF2  
TOLERANCE = ±0.05



MGP	7	04.12.19	21540
NAME	ISS.	DATE	C/NOTE
APPROVED: MGP			
CHECKED: SB			
DRAWN: C.PENROSE			
CUSTOMER REF.:			
ASSEMBLY DRG:			

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**TOLERANCES**  
 X. = ±1mm  
 X.X = ±0.50mm  
 X.XX = ±0.20mm  
 X.XXX = ±0.01mm  
**ANGLES = ±5°**  
 UNLESS STATED

**MATERIAL:**  
 SEE ABOVE  
**FINISH:** SEE ABOVE  
**S/AREA:** mm<sup>2</sup>

**TITLE:**  
 DATAMATE MIX-TEK  
 FEMALE ASSEMBLY

**DRAWING NUMBER:**  
**M80-40000000-XX-XXX-00-000**

SHT  
 7 OF 8

# Customer Information Sheet

DRAWING No.: M80-40000000-XX-XXX-00-000

IF IN DOUBT - ASK

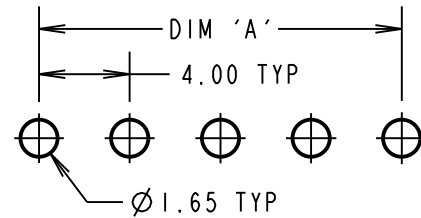
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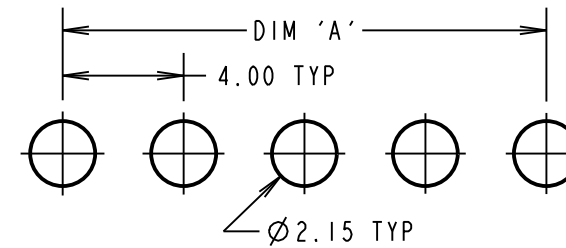
THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

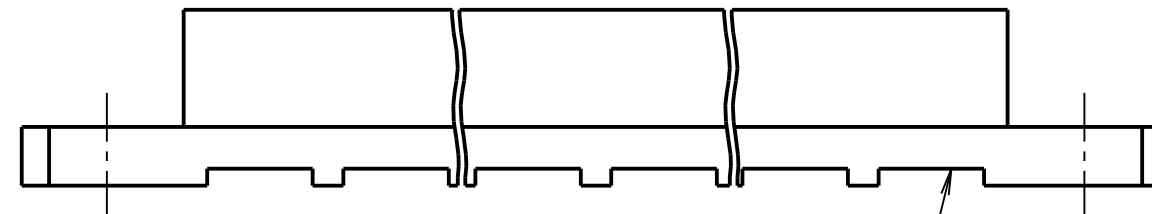
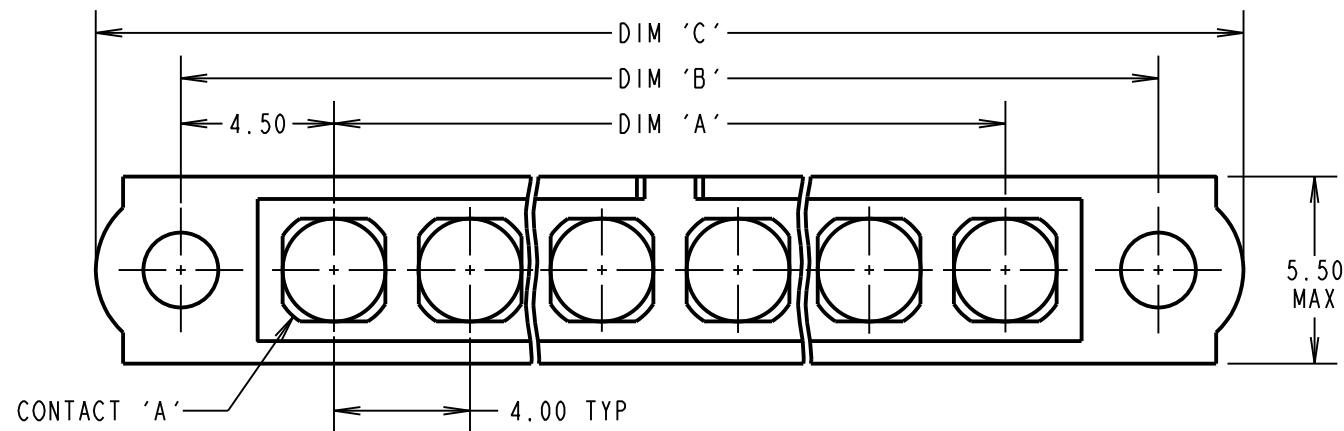
RECOMMENDED PCB LAYOUT FOR  
POWER CONTACTS: M80-323/324  
TOLERANCE =  $\pm 0.05$



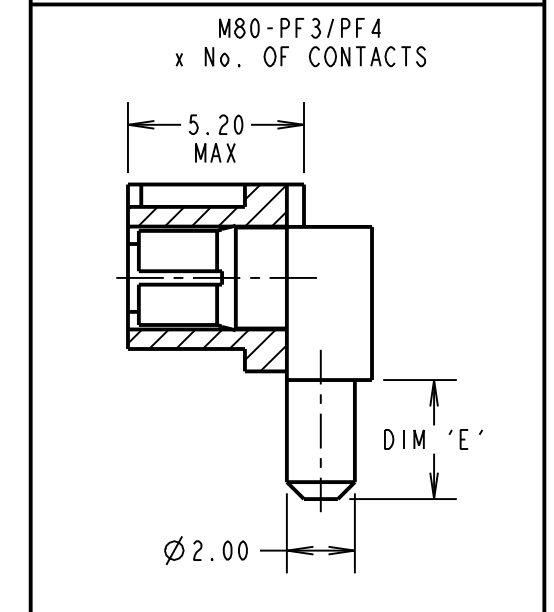
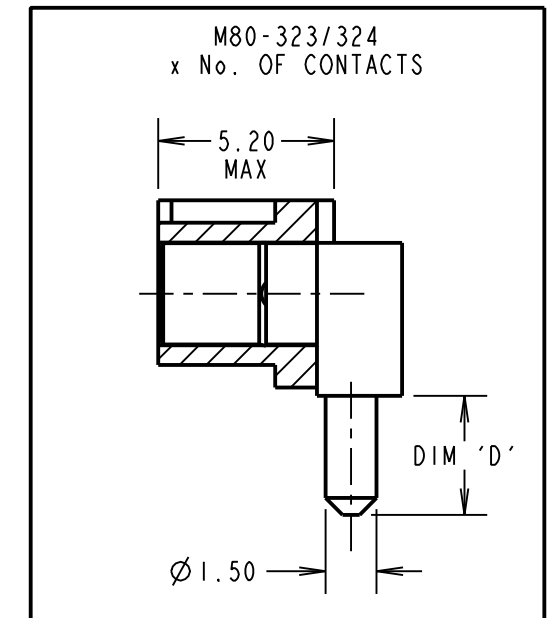
RECOMMENDED PCB LAYOUT FOR  
POWER CONTACTS: M80-PF3/PF4  
TOLERANCE =  $\pm 0.05$



## HORIZONTAL PC TAIL & SMT CONTACTS ONLY



SPECIAL CONTACTS HIDDEN FOR ILLUSTRATION ONLY  
SEE ORDER CODE FOR PART No. TO BE ASSEMBLED



### SPECIFICATIONS:

**MATERIAL:**  
MOULDING: GLASS FILLED PPS, UL94V-0, BLACK  
POWER CONTACT: COPPER ALLOY  
COAX CONTACT:  
BODY = COPPER ALLOY  
INNER CONTACT = COPPER ALLOY  
INSULATOR = PTFE

**FINISH:**  
POWER CONTACT: GOLD  
COAX CONTACT: BODY, INNER CONTACT = GOLD

**ELECTRICAL:**  
WORKING VOLTAGE = 800V AC/DC  
VOLTAGE PROOF = 1200V AC/DC  
INSULATION RESISTANCE = 100MΩ MIN

**POWER CONTACT:**  
CONTACT RESISTANCE = 6mΩ MAX  
CURRENT RATING:  
M80-323/324 = 20A MAX  
M80-PF3/PF4 = 40A MAX

**MECHANICAL:**  
DURABILITY = 500 OPERATIONS  
POWER CONTACT:  
INSERTION FORCE:  
M80-323/324 = 8N MAX  
M80-PF3/PF4 = 15N MAX  
WITHDRAWAL FORCE = 0.5N MIN

**ENVIRONMENTAL:**  
TEMPERATURE RANGE:  
M80-323/324 = -55°C TO +125°C  
M80-PF3/PF4 = -55°C TO +150°C

**PACKING:**  
TUBE  
FOR COMPLETE SPECIFICATION SEE COMPONENT  
SPECIFICATION C005XX (LATEST ISSUE)

DIMENSION	CALCULATION
DIM 'A'	4 x No. OF CONTACTS - 4.00
DIM 'B'	4 x No. OF CONTACTS + 5.00
DIM 'C'	4 x No. OF CONTACTS + 10.0
DIM 'D'	M80-323 = 3.5mm, M80-324 = 5.0mm
DIM 'E'	M80-PF3 = 3.5mm, M80-PF4 = 5.0mm

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,  
M80-40000000-10-323-00-000  
DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.0mm  
DIM 'E' = 3.5mm

ORDER CODE: (PC TAIL CONTACTS ONLY)

**M80-40000000-XX-XXX-00-000**

TOTAL No. OF CONTACTS  
02 TO 12

SPECIAL CONTACTS

323 = 20A POWER CONTACT 3.5mm HORZ' PC TAIL M80-323  
324 = 20A POWER CONTACT 5.0mm HORZ' PC TAIL M80-324  
PF3 = 40A POWER CONTACT 3.5mm HORZ' PC TAIL M80-PF3  
PF4 = 40A POWER CONTACT 5.0mm HORZ' PC TAIL M80-PF4

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OTHER PURPOSE WITHOUT  
THEIR WRITTEN PERMISSION.

TOLERANCES

X. =  $\pm 1$ mm  
X.X =  $\pm 0.50$ mm  
X.XX =  $\pm 0.20$ mm  
X.XXX =  $\pm 0.01$ mm  
ANGLES =  $\pm 5^\circ$   
UNLESS STATED

MATERIAL:

SEE ABOVE

FINISH:

SEE ABOVE

S/AREA:

mm<sup>2</sup>

TITLE:

DATAMATE MIX-TEK  
FEMALE ASSEMBLY

DRAWING NUMBER:

**M80-40000000-XX-XXX-00-000**

SHT  
8 OF 8

MGP	7	04.12.19	21540
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NAME	ISS.	DATE	C/NOTE
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APPROVED: MGP

CHECKED: SB

DRAWN: C.PENROSE

CUSTOMER REF.:

ASSEMBLY DRG: