

Customer Information Sheet

DRAWING No.: M80-5000000MC-XX-XXX-00-000

SHEET 5 OF 8

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
 IOILOK RETAINER = STAINLESS STEEL

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 = 10⁶MΩ @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

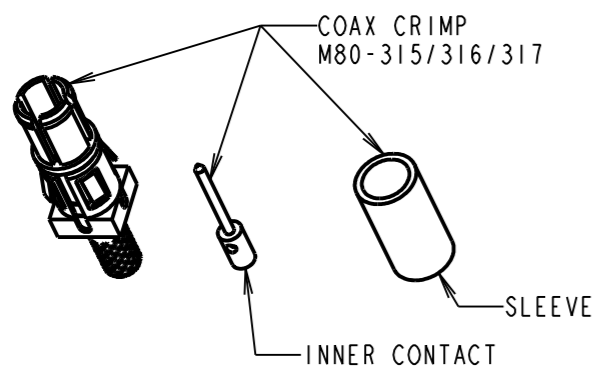
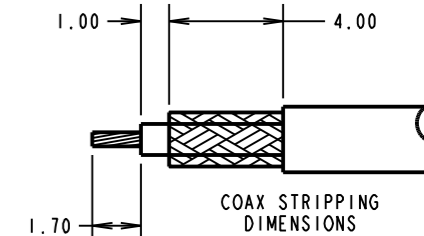
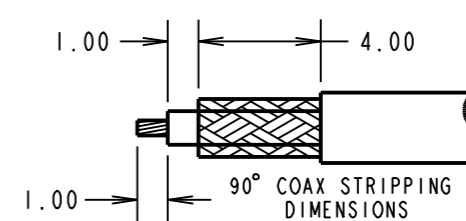
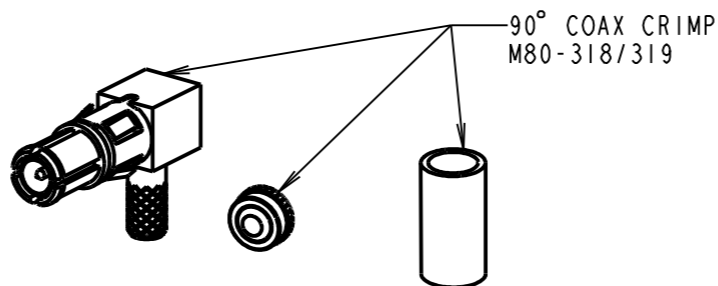
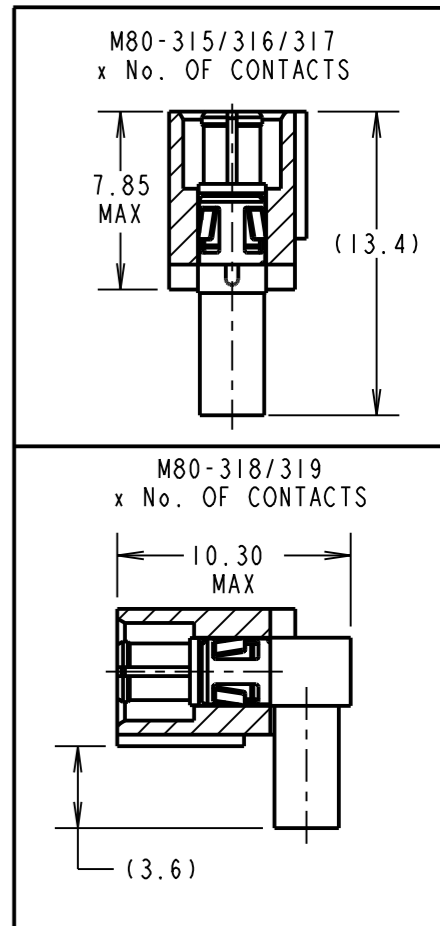
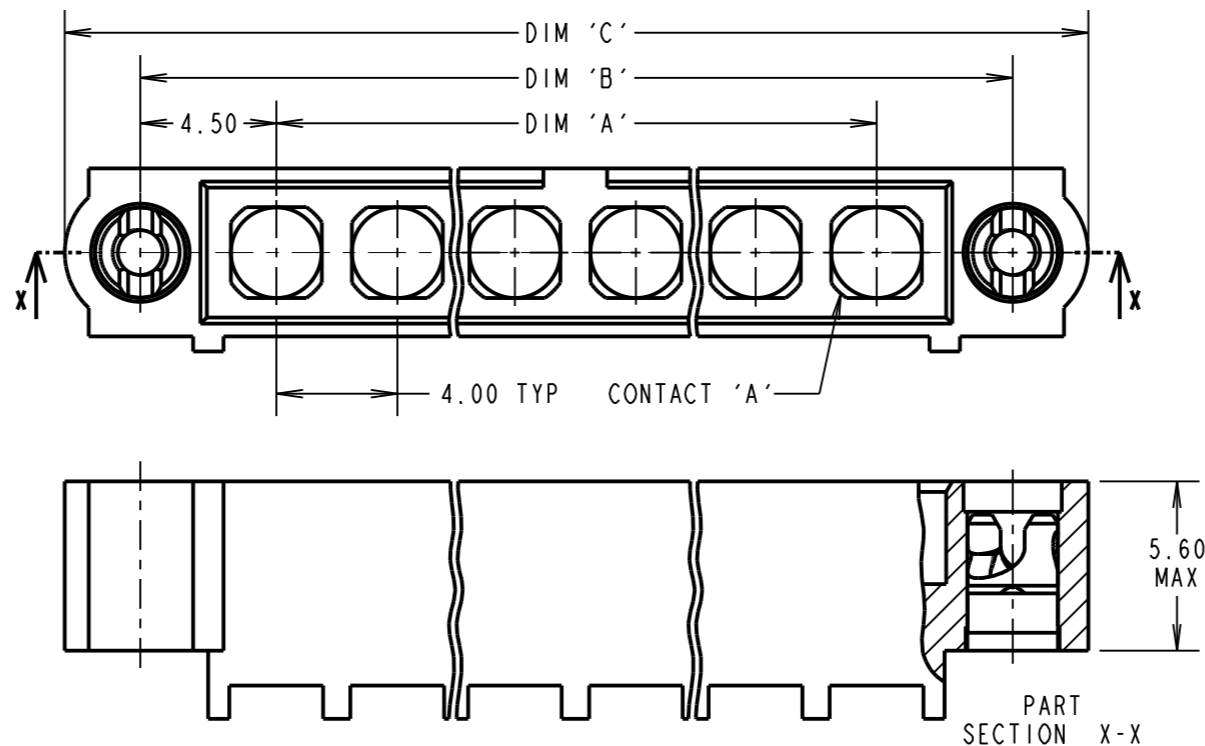
ENVIRONMENTAL:

TEMPERATURE RANGE = -55°C TO +125°C

PACKING:

BAG
 FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

CRIMP AND SOLDER 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 SEPERATE.
- FOR EXTRA COAX CONTACTS , USE PART NUMBERS M80-315/316/317/318/319
- 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)
M80-5000000MC-XX-XXX-00-000
 TOTAL No. OF CONTACTS _____
 02 TO 12
 SPECIAL CONTACTS _____
 315 = COAX CONTACT 2.00mm CRIMP M80-315
 316 = COAX CONTACT 2.40mm CRIMP M80-316
 317 = COAX CONTACT 2.70mm CRIMP M80-317
 318 = COAX CONTACT 2.00mm HORIZ' CRIMP M80-318
 319 = COAX CONTACT 2.70mm HORIZ' CRIMP M80-319

MSP	5	16.03.15	12566
NAME	ISS.	DATE	C/NOTE
APPROVED:		M.PERREN	
CHECKED:		S.BENNETT	
DRAWN:		R.ADDE	
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 + 10.00

EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS,
 M80-5000000MC-08-315-00-000
 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.00mm

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TOLERANCES
 X. = ±1mm
 X.X = ±0.50mm
 X.XX = ±0.10mm
 X.XXX = ±0.01mm
 ANGLES = ±5°
 UNLESS STATED

MATERIAL:
 SEE ABOVE
 FINISH: SEE ABOVE
 S/AREA: mm²

TITLE: DATAMATE MIX-TEK
 MALE ASSY WITH
 IOILOK RETAINER

DRAWING NUMBER:
M80-5000000MC-XX-XXX-00-000

SHT
 5 OF 8

Customer Information Sheet

DRAWING No.: M80-5000000MC-XX-XXX-00-000

SHEET 6 OF 8

IF IN DOUBT - ASK

(C)

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
 IOILOK RETAINER = STAINLESS STEEL

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

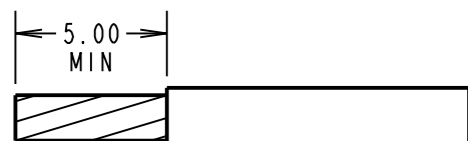
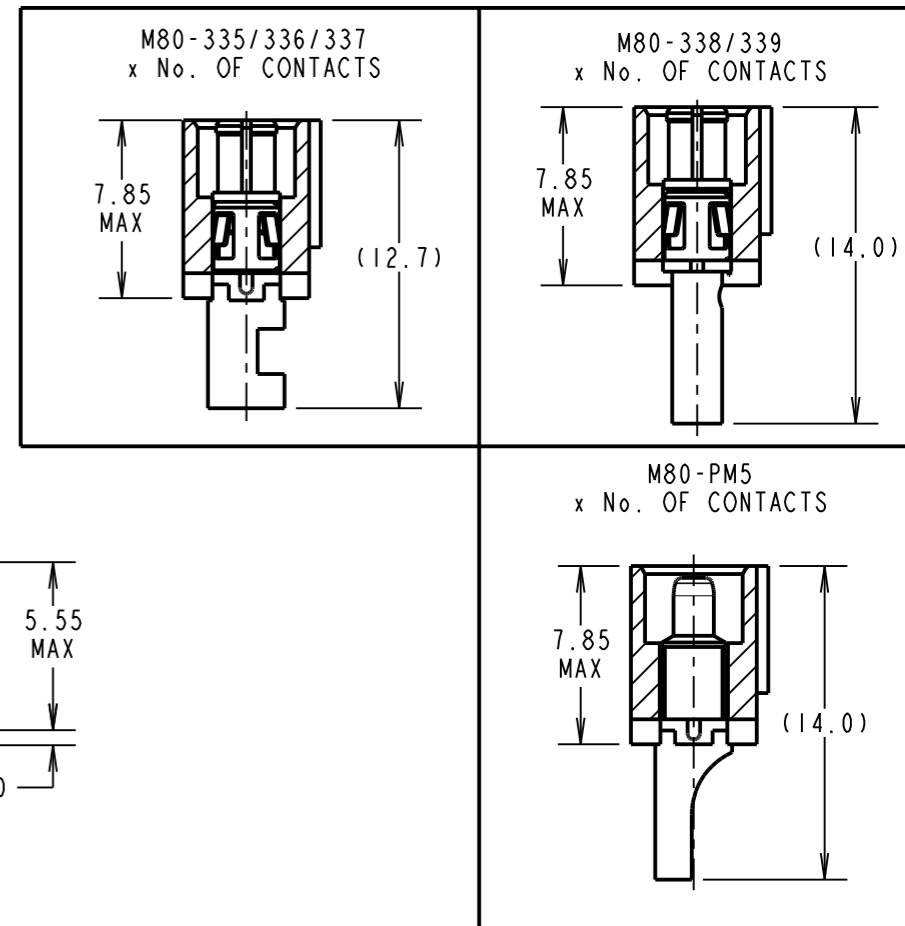
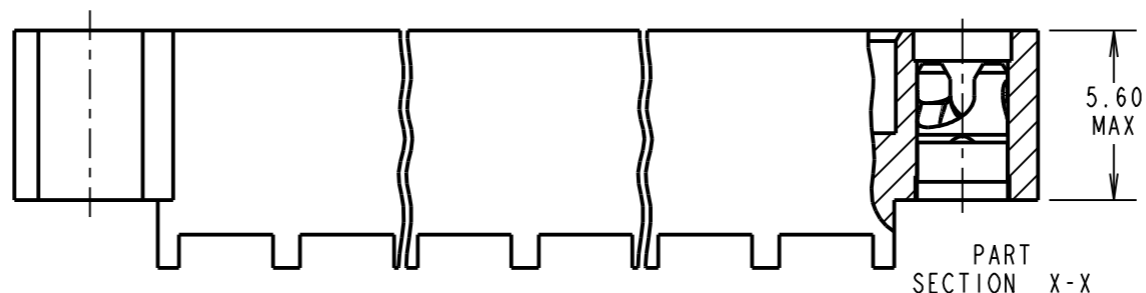
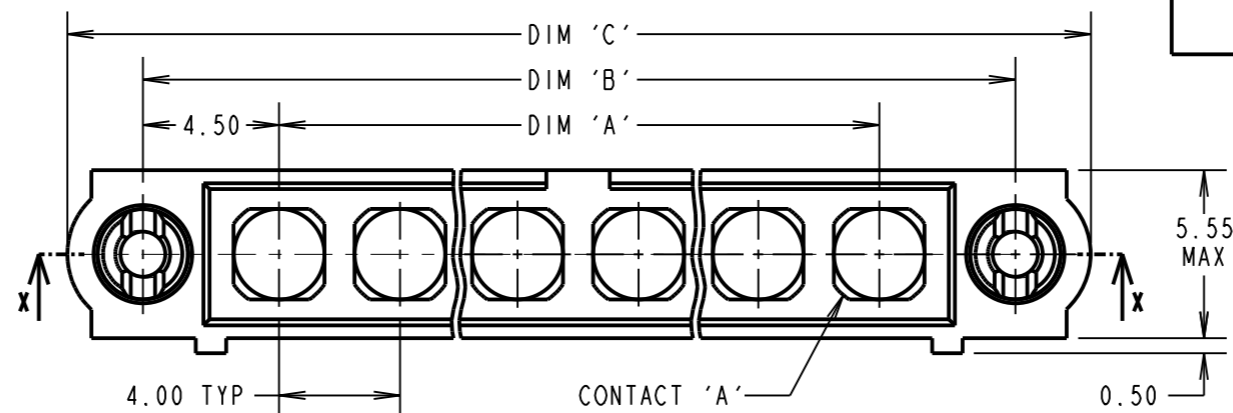
POWER CONTACT:
 CONTACT RESISTANCE = 6mΩ MAX
 CURRENT RATING = M80-335 = 20A MAX WITH 12AWG
 M80-336 = 15A MAX WITH 14AWG
 M80-337 = 10A MAX WITH 16AWG
 M80-338 = 8A MAX WITH 18AWG
 M80-339 = 5A MAX WITH 20AWG
 M80-PM5 = 40A MAX WITH 10AWG
 CONTACT AS SPECIFIED

MECHANICAL:
 DURABILITY = 500 OPERATIONS
POWER CONTACT:
 INSERTION FORCE:
 M80-335/336/337/338/339 = 8N MAX
 M80-PM5 = 15N MAX
 WITHDRAWAL FORCE = 0.5N MIN

ENVIRONMENTAL:
 TEMPERATURE RANGE:
 M80-335/336/337/338/339 = -55°C TO +125°C
 M80-PM5 = -55°C TO +150°C

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

CRIMP AND SOLDER CONTACTS ONLY



SCALE 1 POWER CABLE STRIPPING DIMENSIONS

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 + 10.00

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,
 M80-5000000MC-10-335-00-000
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm

CRIMP/SOLDER NOTES:

- CONNECTORS ARE SUPPLIED WITH CONTACTS LOOSE.
- FOR EXTRA POWER CONTACTS USE PART NUMBERS M80-335/336/337/338/339/PM5.
- POWER CONTACT EXTRACTION TOOL = Z80-290.
- RECOMMENDED HAND CRIMP TOOL FOR CONTACTS 338/339 = Z80-294 AND POSITIONER Z80-295.
- INSTRUCTION SHEETS ARE AVAILABLE.

ORDER CODE: (POWER CRIMP/SOLDER CONTACTS)

M80-5000000MC-XX-XXX-00-000

TOTAL No. OF CONTACTS _____
 02 TO 12

SPECIAL CONTACTS

- 335 = POWER CONTACT 12AWG SOLDER M80-335
- 336 = POWER CONTACT 14AWG SOLDER M80-336
- 337 = POWER CONTACT 16AWG SOLDER M80-337
- 338 = POWER CONTACT 18AWG SOLDER/CRIMP M80-338
- 339 = POWER CONTACT 20AWG SOLDER/CRIMP M80-339
- PM5 = POWER CONTACT 10AWG SOLDER M80-PM5

MSP	5	16.03.15	12566
NAME	ISS.	DATE	C/NOTE
APPROVED:		M. PERREN	
CHECKED:		S. BENNETT	
DRAWN:		R. ADDE	
CUSTOMER REF.:			
ASSEMBLY DRG:			

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TOLERANCES
 X. = ±1mm
 X.X = ±0.50mm
 X.XX = ±0.10mm
 X.XXX = ±0.01mm
ANGLES = ±5°
 UNLESS STATED

MATERIAL:
 SEE ABOVE
FINISH: SEE ABOVE
S/AREA: mm²

TITLE: DATAMATE MIX-TEK MALE ASSY WITH IOILOK RETAINER

DRAWING NUMBER:
M80-5000000MC-XX-XXX-00-000

SHT 6 OF 8

Customer Information Sheet

DRAWING No.: M80-5000000MC-XX-XXX-00-000

SHEET 7 OF 8

IF IN DOUBT - ASK

(C)

NOT TO SCALE

THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

SPECIFICATIONS:

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

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:
 M80-331/332 = 20A MAX
 M80-PM1/PM2 = 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 = 10⁶MΩ @250V AC
 OPERATING VOLTAGE = 180V AC @ 500mA
 MAXIMUM VOLTAGE = 1000V AC

MECHANICAL:
 DURABILITY = 500 OPERATIONS

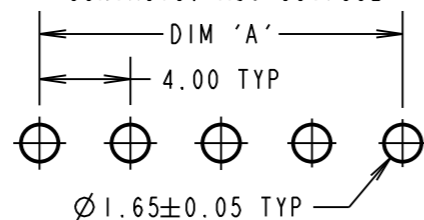
POWER CONTACT:
 INSERTION FORCE:
 M80-331/332 = 8N MAX
 M80-PM1/PM2 = 15N MAX
 WITHDRAWAL FORCE = 0.5N MIN

COAX CONTACT:
 INSERTION FORCE = 8N MAX
 WITHDRAWAL FORCE = 0.5N MIN

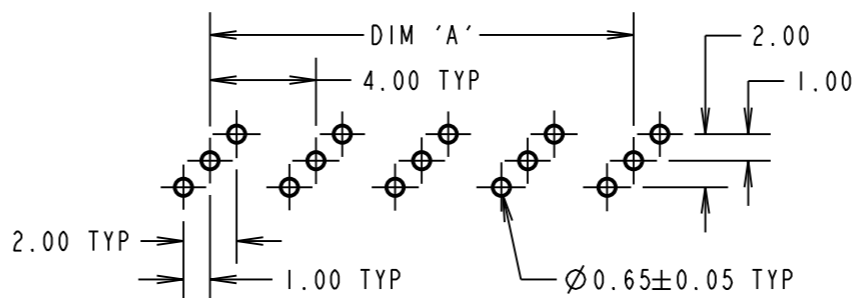
ENVIRONMENTAL:
 TEMPERATURE RANGE:
 M80-311/312/331/332 = -55°C TO +125°C
 M80-PM1/PM2 = -55°C TO +150°C

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

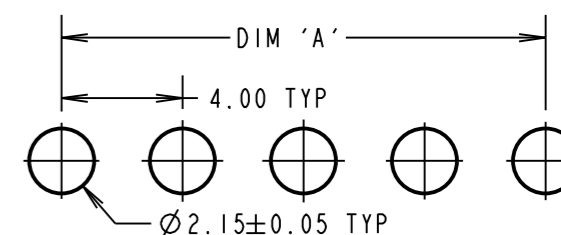
RECOMMENDED PCB LAYOUT FOR POWER CONTACTS: M80-331/332



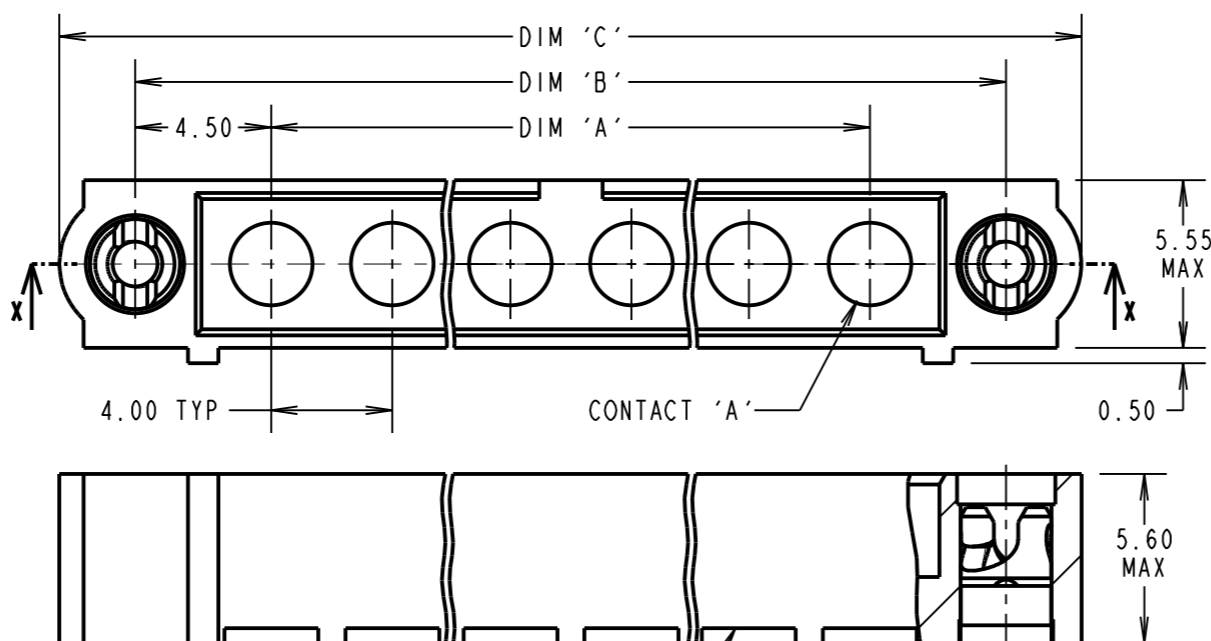
RECOMMENDED PCB LAYOUT FOR COAX CONTACTS: M80-311/312



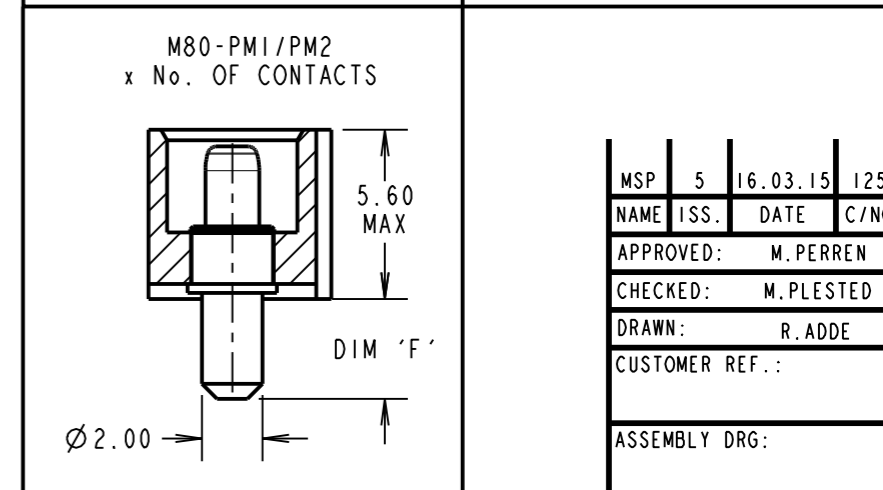
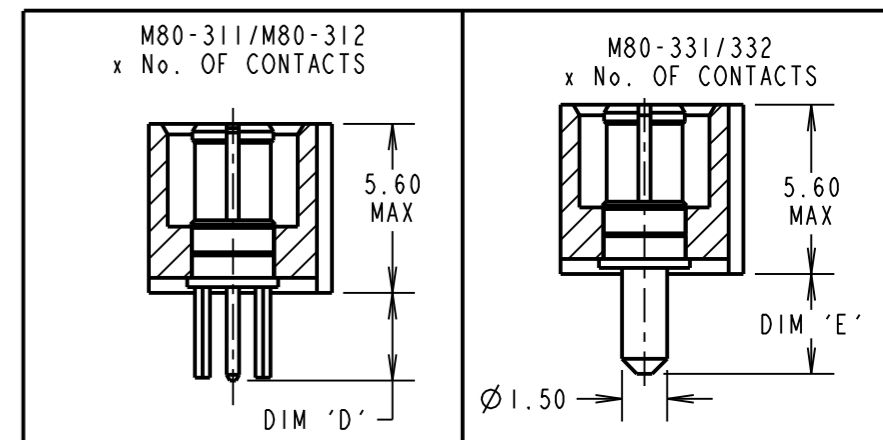
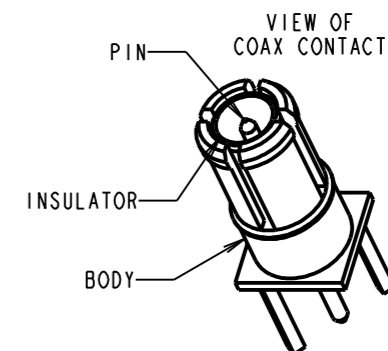
RECOMMENDED PCB LAYOUT FOR POWER CONTACTS: M80-PM1/PM2



PC TAIL CONTACTS ONLY



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



MSP	5	16.03.15	12566
NAME	ISS.	DATE	C/NOTE
APPROVED:		M. PERREN	
CHECKED:		M. PLESTED	
DRAWN:		R. ADDE	
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 + 10.00
DIM 'D'	M80-311 = 3.0mm, M80-312 = 4.5mm
DIM 'E'	M80-331 = 3.5mm, M80-332 = 5.0mm
DIM 'F'	M80-PM1 = 3.5mm, M80-PM2 = 5.0mm

EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS,
 M80-5000000MC-08-311-00-000
 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.00mm
 DIM 'D' = 3.0mm

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,
 M80-5000000MC-10-PM1-00-000
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm
 DIM 'F' = 3.5mm

ORDER CODE: (PC TAIL CONTACTS ONLY)
M80-5000000MC-XX-XXX-00-000

TOTAL No. OF CONTACTS
 02 TO 12

SPECIAL CONTACTS
 311 = COAX CONTACT 3.0mm PC TAIL M80-311
 312 = COAX CONTACT 4.5mm PC TAIL M80-312
 331 = 20A POWER CONTACT 3.5mm VERT' PC TAIL M80-331
 332 = 20A POWER CONTACT 5.0mm VERT' PC TAIL M80-332
 PM1 = 40A POWER CONTACT 3.5mm VERT' PC TAIL M80-PM1
 PM2 = 40A POWER CONTACT 5.0mm VERT' PC TAIL M80-PM2



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TOLERANCES
 X. = ±1mm
 X.X = ±0.50mm
 X.XX = ±0.10mm
 X.XXX = ±0.01mm
 ANGLES = ±5°
 UNLESS STATED

MATERIAL: SEE ABOVE
 FINISH: SEE ABOVE
 S/AREA: mm²

TITLE: DATAMATE MIX-TEK MALE ASSY WITH IOILOK RETAINER
 DRAWING NUMBER: **M80-5000000MC-XX-XXX-00-000**
 SHT 7 OF 8

Customer Information Sheet

DRAWING No.: M80-5000000MC-XX-XXX-00-000

SHEET 8 OF 8

IF IN DOUBT - ASK

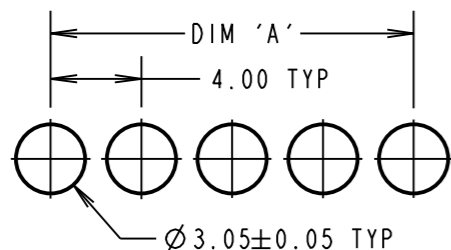
(C)

NOT TO SCALE

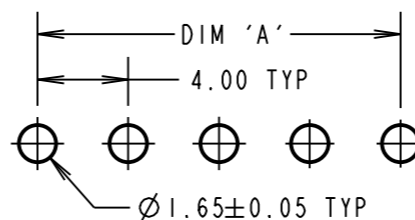
THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

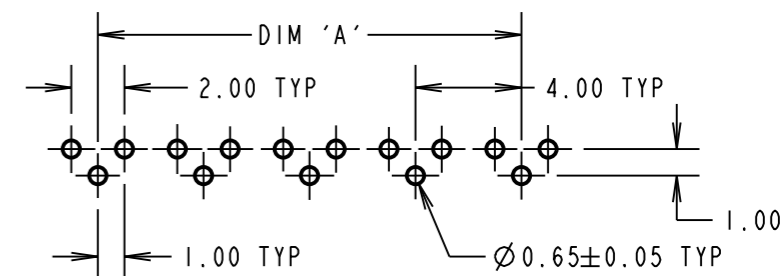
RECOMMENDED PCB LAYOUT FOR POWER SMT



RECOMMENDED PCB LAYOUT FOR POWER PC TAIL



RECOMMENDED PCB LAYOUT FOR COAX CONTACTS: M80-313/314



PC TAIL + SMT CONTACTS ONLY

SPECIFICATIONS:

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

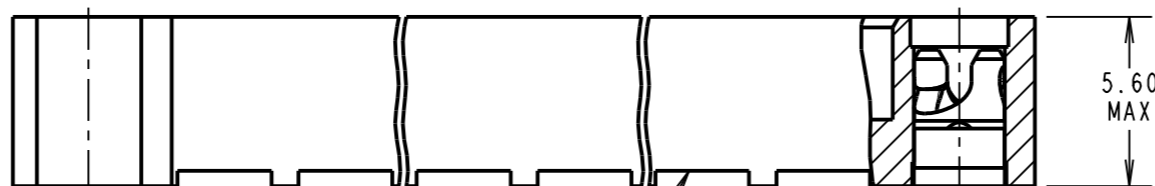
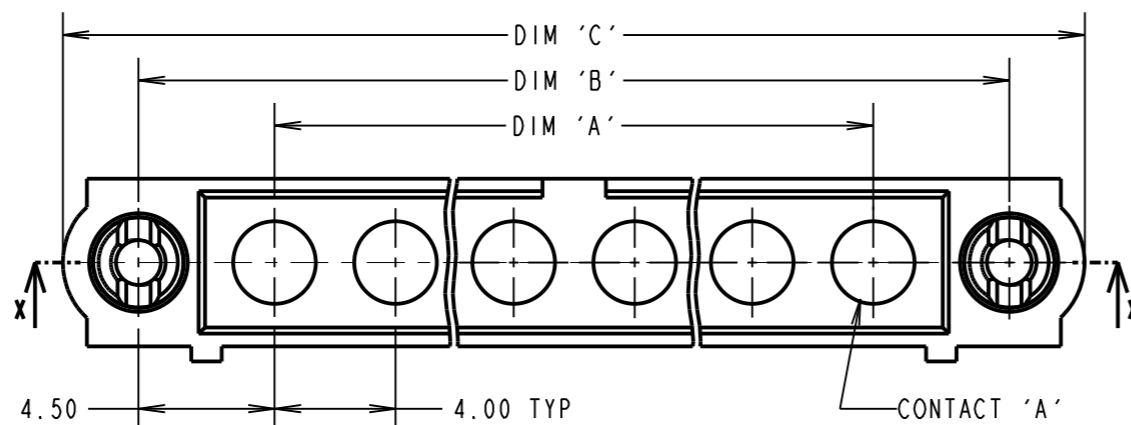
FINISH:
 POWER CONTACT: GOLD
 COAX CONTACT: BODY, INNER CONTACT = GOLD

ELECTRICAL:
 WORKING VOLTAGE = 800V AC/DC
 VOLTAGE PROOF = 1200V AC/DC
 INSULATION RESISTANCE = 100MΩ MIN
 POWER CONTACT:
 CONTACT RESISTANCE = 6mΩ MAX
 CURRENT RATING:
 M80-333/334/33A = 20A MAX
 M80-PM3/PM4 = 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 = 10⁶MΩ @250V AC
 OPERATING VOLTAGE = 180V AC @ 500mA
 MAXIMUM VOLTAGE = 1000V AC

MECHANICAL:
 DURABILITY = 500 OPERATIONS
 POWER CONTACT:
 INSERTION FORCE:
 M80-333/334/33A = 8N MAX
 M80-PM3/PM4 = 15N MAX
 WITHDRAWAL FORCE = 0.5N MIN
 COAX CONTACT:
 INSERTION FORCE = 8N MAX
 WITHDRAWAL FORCE = 0.5N MIN

ENVIRONMENTAL:
 TEMPERATURE RANGE:
 M80-313/314/333/334/33A = -55°C TO +125°C
 M80-PM3/PM4 = -55°C TO +125°C

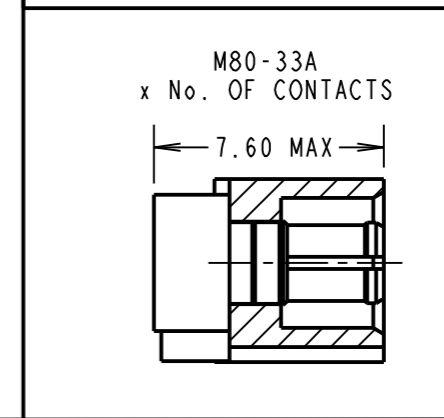
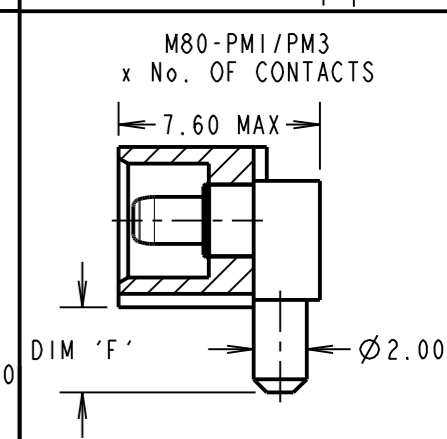
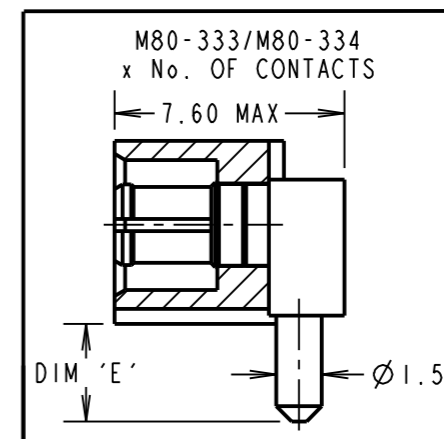
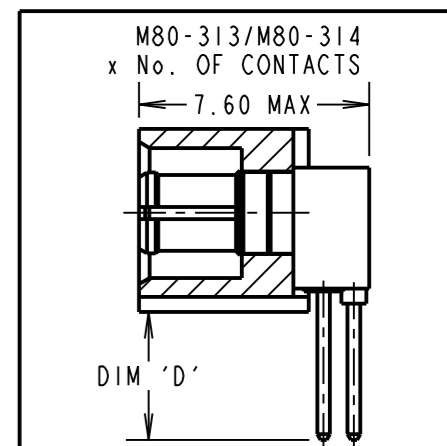
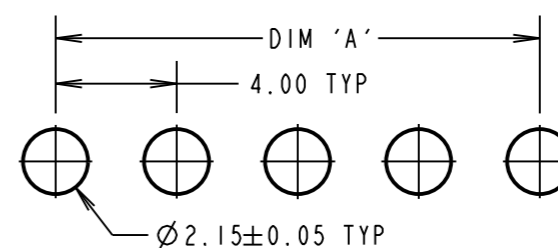
PACKING:
 TUBE
 FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)



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

PART SECTION X-X

RECOMMENDED PCB LAYOUT FOR POWER CONTACTS: M80-PM1

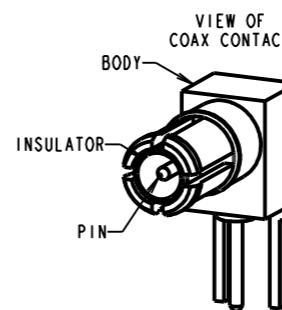


MSP	5	16.03.15	12566
NAME	ISS.	DATE	C/NOTE
APPROVED:		M. PERREN	
CHECKED:		S. BENNETT	
DRAWN:		R. ADDE	
CUSTOMER REF.:			
ASSEMBLY DRG:			

ORDER CODE: (PC TAIL CONTACTS ONLY)
M80-5000000MC-XX-XXX-00-000

TOTAL No. OF CONTACTS
 02 TO 12

SPECIAL CONTACTS
 313 = COAX CONTACT 3.0mm PC TAIL M80-313
 314 = COAX CONTACT 4.5mm PC TAIL M80-314
 333 = 20A POWER CONTACT 3.5mm HORZ' PC TAIL M80-333
 334 = 20A POWER CONTACT 5.0mm HORZ' PC TAIL M80-334
 PM3 = 40A POWER CONTACT 3.5mm HORZ' PC TAIL M80-PM3
 PM4 = 40A POWER CONTACT 5.0mm HORZ' PC TAIL M80-PM4
 33A = POWER CONTACT HORZ' SMT M80-33A



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 + 10.00
DIM 'D'	M80-313 = 3.0mm, M80-314 = 4.5mm
DIM 'E'	M80-333 = 3.5mm, M80-334 = 5.0mm
DIM 'F'	M80-PM3 = 3.5mm, M80-PM4 = 5.0mm

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,
 M80-5000000MC-10-333-00-000
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm
 DIM 'E' = 3.5mm

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TOLERANCES
 X. = ±1mm
 X.X = ±0.50mm
 X.XX = ±0.10mm
 X.XXX = ±0.01mm
 ANGLES = ±5°
 UNLESS STATED

MATERIAL:
 SEE ABOVE
FINISH: SEE ABOVE
S/AREA: mm²

TITLE: DATAMATE MIX-TEK MALE ASSY WITH IOILOK RETAINER

DRAWING NUMBER: M80-5000000MC-XX-XXX-00-000

SHT 8 OF 8