

Customer Information Sheet

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

SHEET 3 OF 4

IF IN DOUBT - ASK

©

NOT TO SCALE

THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

SPECIFICATIONS:

MATERIAL:

MOULDING: GLASS FILLED PPS, UL94V-0, BLACK
 COAX & POWER CONTACT:
 BODY, SLEEVE, INNER CONTACT, END PLUG = COPPER ALLOY
 LATCHING COLLAR = BERYLLIUM COPPER
 INSULATOR = PTFE
 JACKSCREW: STAINLESS STEEL

FINISH:

COAX & POWER CONTACT:
 BODY, SLEEVE, INNER CONTACT, END PLUG = GOLD
 LATCHING COLLAR = NICKEL

ELECTRICAL:

WORKING VOLTAGE = 120V AC/DC
 VOLTAGE PROOF = 360V 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
 CONTACT AS SPECIFIED

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:

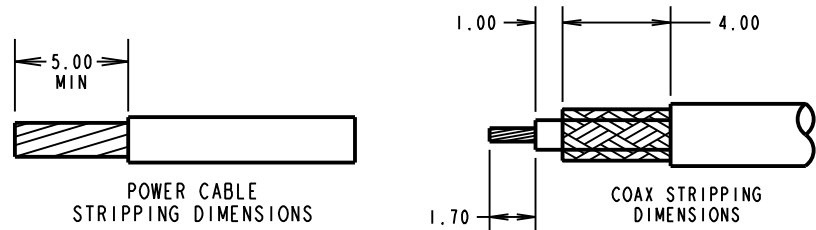
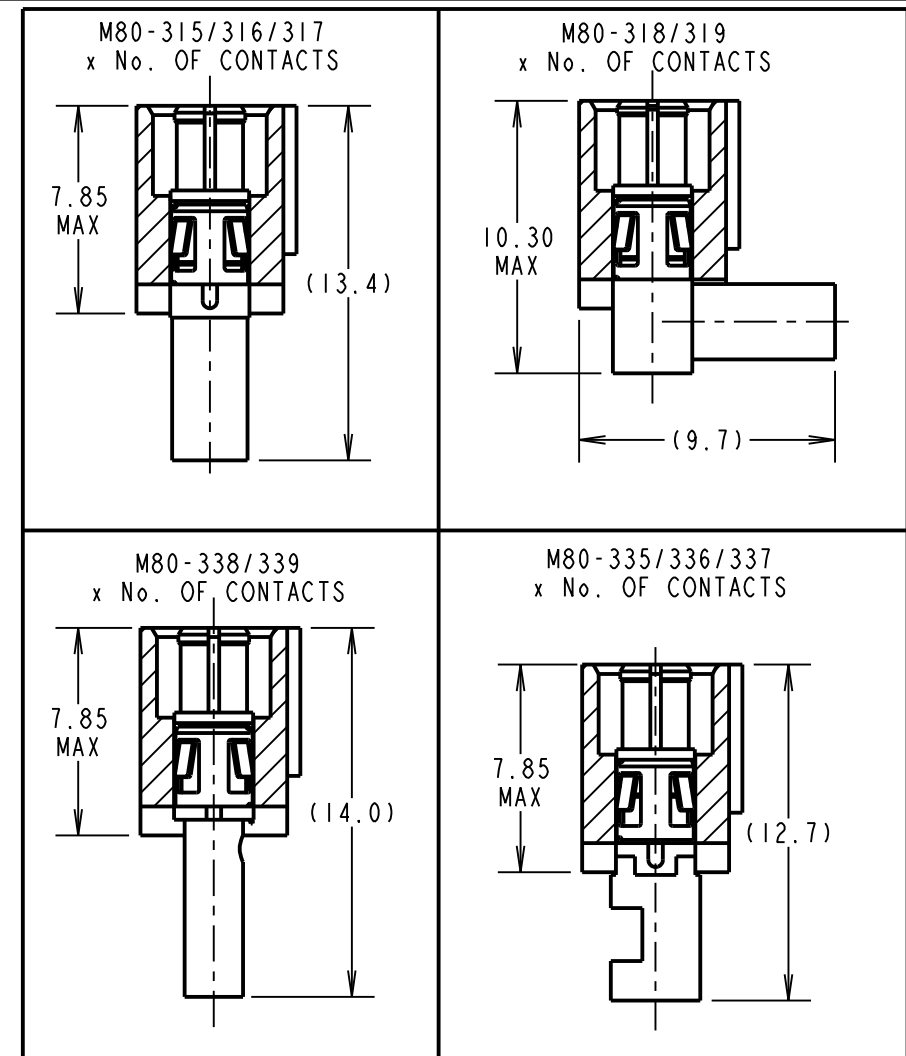
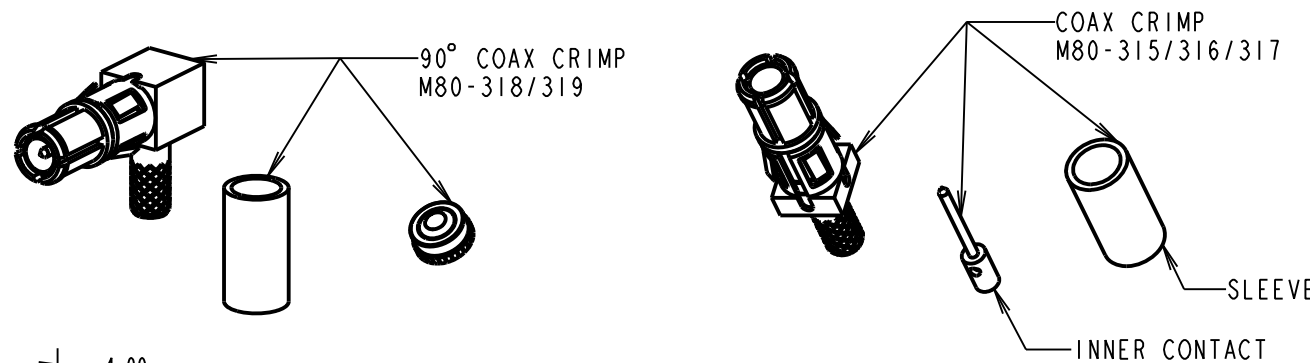
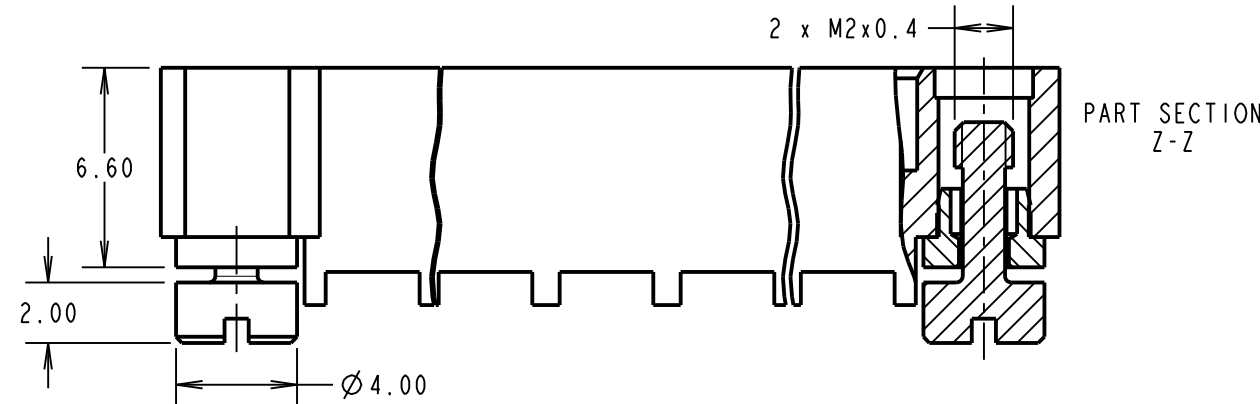
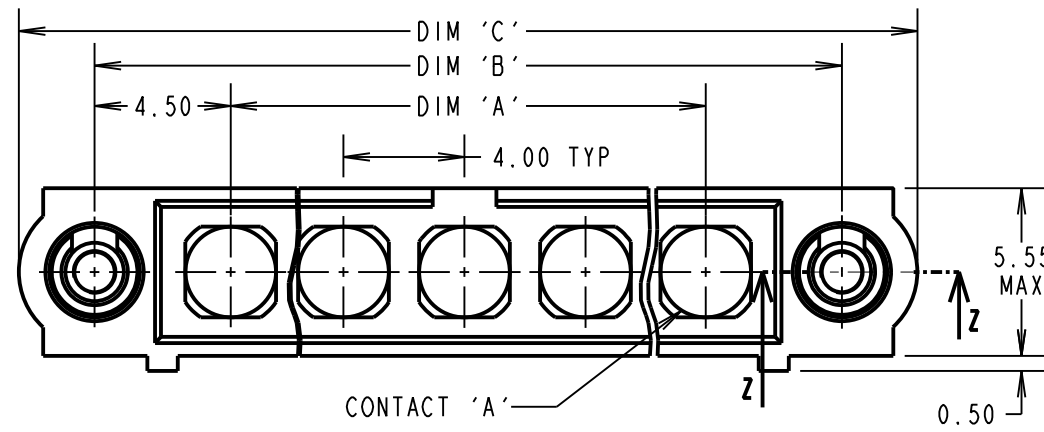
DURABILITY = 500 OPERATIONS
 COAX & POWER CONTACT:
 INSERTION FORCE = 5N MAX
 WITHDRAWAL FORCE = 0.5N MIN

ENVIRONMENTAL:

TEMPERATURE RANGE = -55°C TO +125°C

PACKING:

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



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,
 M80-5000000MA-08-315-00-000
 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm,
 DIM 'C' = 42.00mm

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

ORDER CODE: (CRIMP/SOLDER CONTACTS)
M80-5000000MA-XX-XXX-00-000

TOTAL No. OF CONTACTS
 02 TO 12

SPECIAL CONTACTS (CRIMP)

315 = COAX CONTACT 2.0mm CRIMP M80-315
 316 = COAX CONTACT 2.4mm CRIMP M80-316
 317 = COAX CONTACT 2.7mm CRIMP M80-317
 318 = COAX CONTACT 2.0mm HORZ' CRIMP M80-318
 319 = COAX CONTACT 2.7mm HORZ' CRIMP M80-319
 335 = POWER CONTACT 12AWG SOLDER
 336 = POWER CONTACT 14AWG SOLDER
 337 = POWER CONTACT 16AWG SOLDER
 338 = POWER CONTACT 18AWG SOLDER/CRIMP M80-338
 339 = POWER CONTACT 20AWG SOLDER/CRIMP M80-339

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 M80-315/316/317/318/319.
- FOR EXTRA POWER CONTACTS USE PART NUMBERS M80-335/336/337/338/339.
- COAX & POWER CONTACT EXTRACTION TOOL = Z80-290.
- RECOMMENDED HAND CRIMP TOOL FOR CONTACTS M80-338/339 = Z80-294 AND POSITIONER Z80-295.
- 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.

SM	2	25.11.11	11556
NAME	ISS.	DATE	C/NOTE
APPROVED: S. MCCULLAGH			
CHECKED: M. G. PLESTED			
DRAWN:		R. ADDE	
CUSTOMER REF.:			
ASSEMBLY DRG:			

HARWIN

www.harwin.com
 technical@harwin.com

THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER SET OUT HEREON ARE CONFIDENTIAL AND COPYRIGHT PROPERTY OF THE HARWIN GROUP AND MUST NOT BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING, TENDERING OR FOR ANY OTHER PURPOSE WITHOUT THEIR WRITTEN PERMISSION.

TOLERANCES
 X. = ±1mm
 X.X = ±0.25mm
 X.XX = ±0.10mm
 X.XXX = ±0.01mm
 ANGLES = ±5°
 UNLESS STATED

MATERIAL:

SEE ABOVE

FINISH: SEE ABOVE

S/AREA:

mm²

TITLE: DATAMATE MIXED-TEK
 MALE ASSY WITH
 REVERSE FIX SLOTTED J/SCREW

DRAWING NUMBER:

M80-5000000MA-XX-XXX-00-000

SHT
 3 OF 4

Customer Information Sheet

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

SHEET 4 OF 4

IF IN DOUBT - ASK

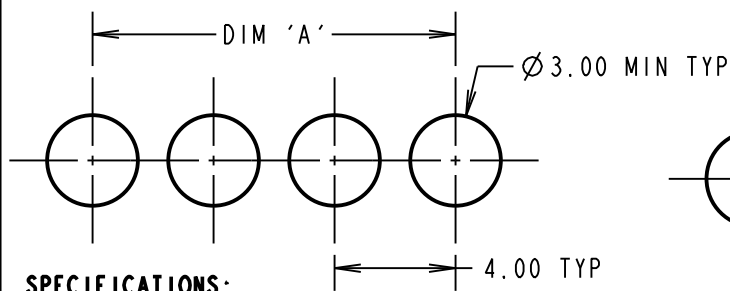
©

NOT TO SCALE

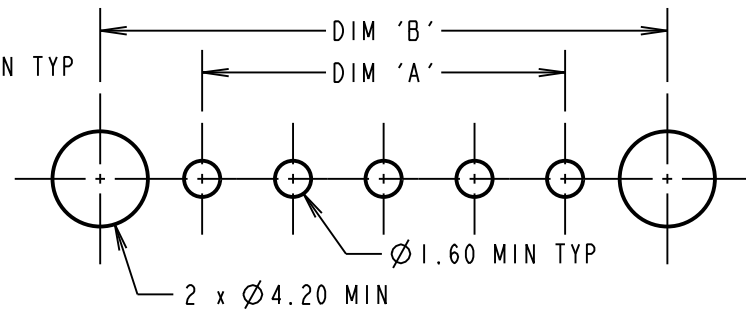
THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

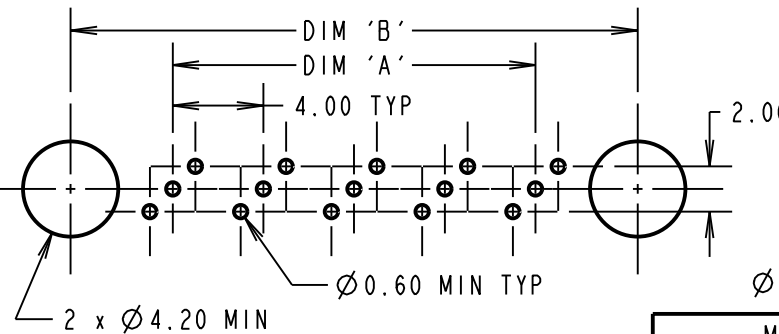
RECOMMENDED PCB LAYOUT FOR SMT



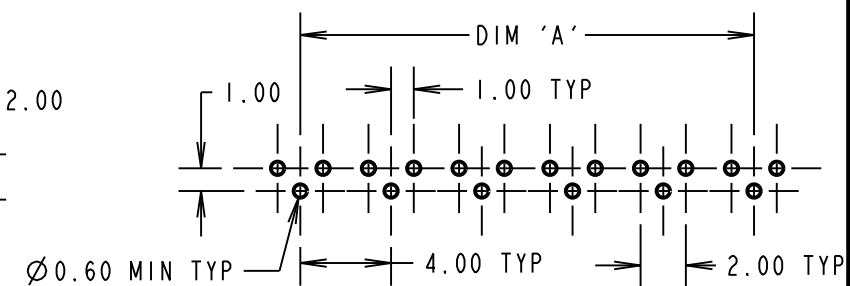
RECOMMENDED PCB LAYOUT FOR POWER (VERTICAL ONLY)



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

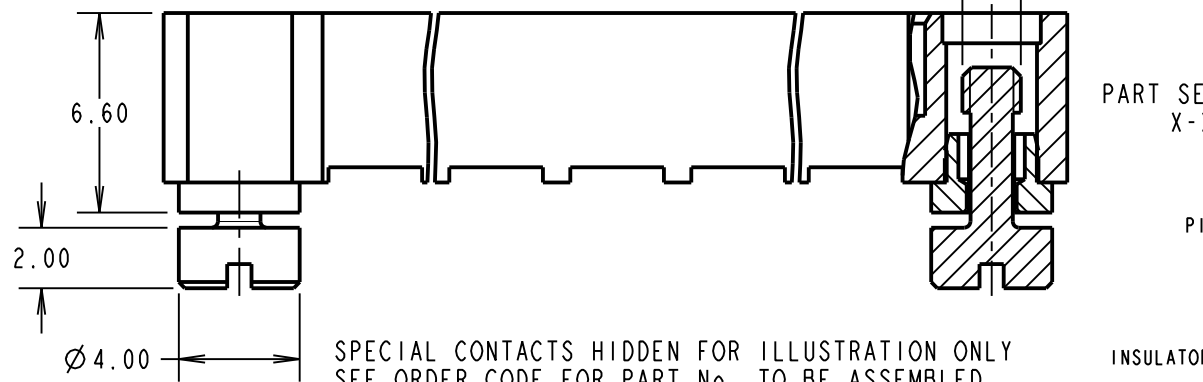
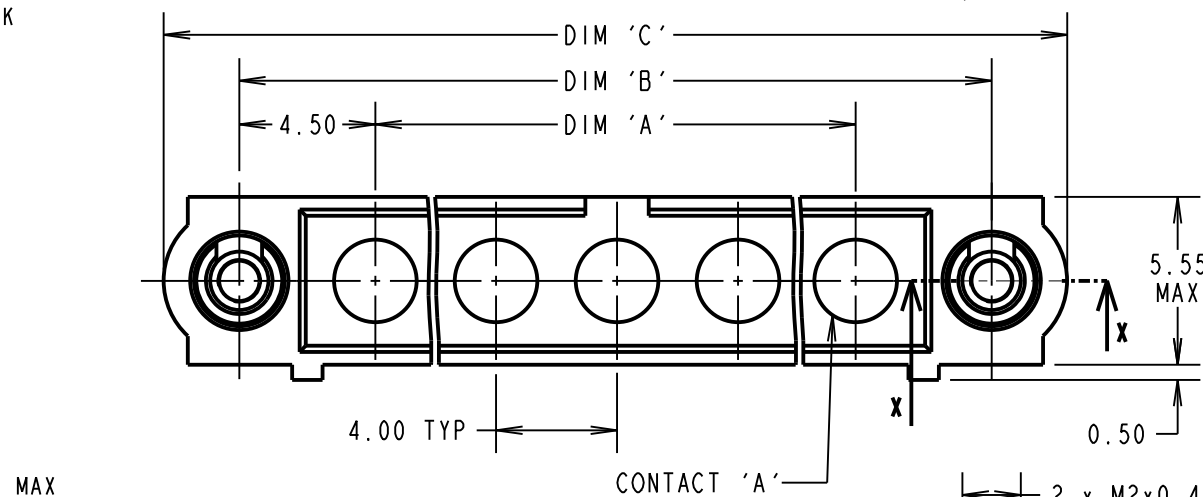


RECOMMENDED PCB LAYOUTS FOR COAX CONTACTS: M80-313/314

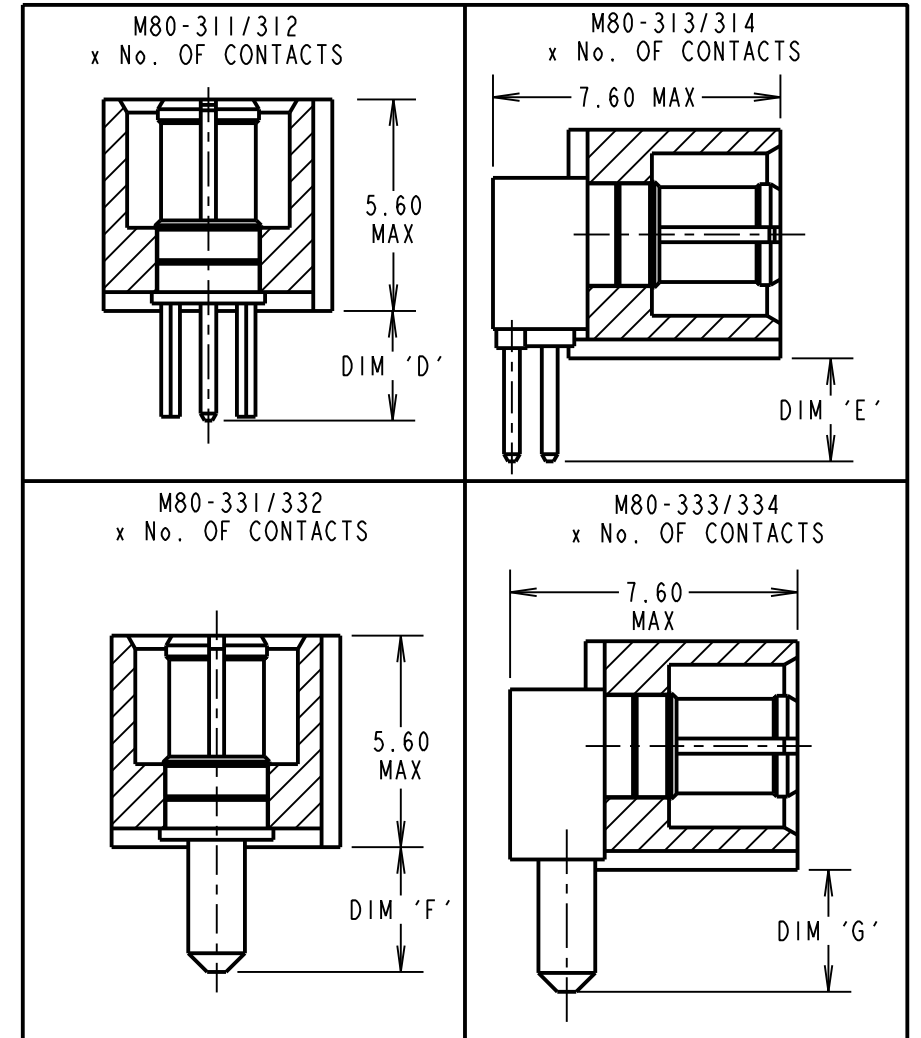


SPECIFICATIONS:

MATERIAL:
 MOULDING: GLASS FILLED PPS, UL94V-0, BLACK
 COAX & POWER CONTACT:
 BODY, INNER CONTACT, = COPPER ALLOY
 INSULATOR = PTFE
 JACKSCREW: STAINLESS STEEL
FINISH:
 COAX & POWER CONTACT:
 BODY, INNER CONTACT, = GOLD
ELECTRICAL:
 WORKING VOLTAGE = 120V AC/DC
 VOLTAGE PROOF = 360V AC/DC
 INSULATION RESISTANCE = 100MΩ MIN
POWER CONTACT:
 CONTACT RESISTANCE 6mΩ MAX
 CURRENT RATING = 20A MAX
COAX CONTACT:
 FREQUENCY RANGE = 6GHz
 IMPEDANCE = 50 Ω
 V.S.W.R = 1.05 + (0.04 x FREQUENCY) GHz MAX
 CONTACT RESISTANCE 6 mΩ MAX
 INSULATION RESISTANCE = 10⁶MΩ @250V AC
 OPERATING VOLTAGE = 180V AC @ 500mA
 MAXIMUM VOLTAGE = 1000V AC
MECHANICAL:
 DURABILITY = 500 OPERATIONS
 COAX & POWER CONTACT:
 INSERTION FORCE = 5N MAX
 WITHDRAWAL FORCE = 0.5N MIN
ENVIRONMENTAL:
 TEMPERATURE RANGE = -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.



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'	M80-313 = 3.0mm, M80-314 = 4.5mm
DIM 'F'	M80-331 = 3.5mm, M80-332 = 5.0mm
DIM 'G'	M80-333 = 3.0mm, M80-334 = 4.5mm

EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS,
 M80-5000000MA-08-313-00-000
 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.00mm
 DIM 'D' = 3.0mm

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,
 M80-5000000MA-10-334-00-000
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm
 DIM 'E' = 3.5mm

ORDER CODE: (PC TAIL CONTACTS ONLY)

M80-5000000MA-XX-XXX-00-000

TOTAL No. OF CONTACTS
 02 TO 12

SPECIAL CONTACTS (PC TAIL)

- 311 = COAX CONTACT 3.0mm PC TAIL M80-311
- 312 = COAX CONTACT 4.5mm PC TAIL M80-312
- 313 = COAX CONTACT 3.0mm HORZ' PC TAIL M80-313
- 314 = COAX CONTACT 4.5mm HORZ' PC TAIL M80-314
- 331 = POWER CONTACT 3.5mm VERT' PC TAIL M80-331
- 332 = POWER CONTACT 5.0mm VERT' PC TAIL M80-332
- 333 = POWER CONTACT 3.0mm HORZ' PC TAIL M80-333
- 33A = POWER CONTACT HORZ' SMT M80-33A
- 334 = POWER CONTACT 4.5mm HORZ' PC TAIL M80-334

HARWIN

www.harwin.com
 technical@harwin.com

THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER SET OUT HEREON ARE CONFIDENTIAL AND COPYRIGHT PROPERTY OF THE HARWIN GROUP AND MUST NOT BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING, TENDERING OR FOR ANY OTHER PURPOSE WITHOUT THEIR WRITTEN PERMISSION.

TOLERANCES
 X. = ±1mm
 X.X = ±0.25mm
 X.XX = ±0.10mm
 X.XXX = ±0.01mm
 ANGLES = ±5°
 UNLESS STATED

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

TITLE: DATAMATE MIXED-TEK MALE ASSY WITH REVERSE FIX SLOTTED J/SCREW
 DRAWING NUMBER: **M80-5000000MA-XX-XXX-00-000**
 SHT 4 OF 4

SM	2	25.11.11	11556
NAME	ISS.	DATE	C/NOTE
APPROVED: S. MCCULLAGH			
CHECKED: M. G. PLESTED			
DRAWN: R. ADDE			
CUSTOMER REF.:			
ASSEMBLY DRG:			