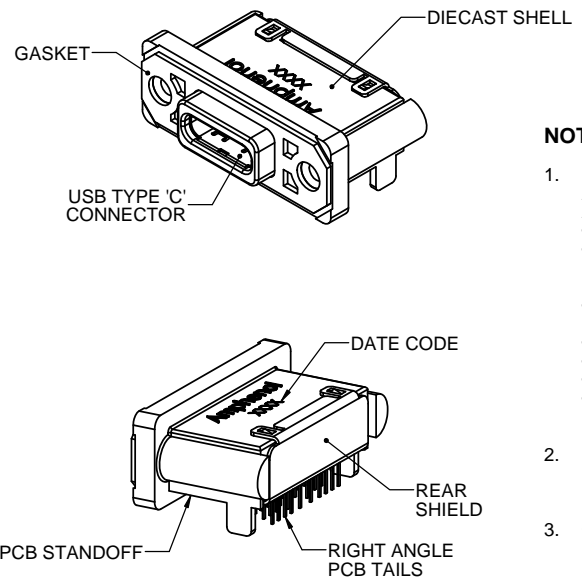
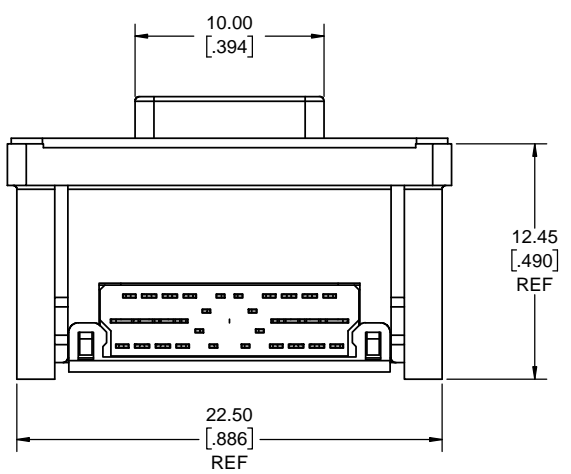
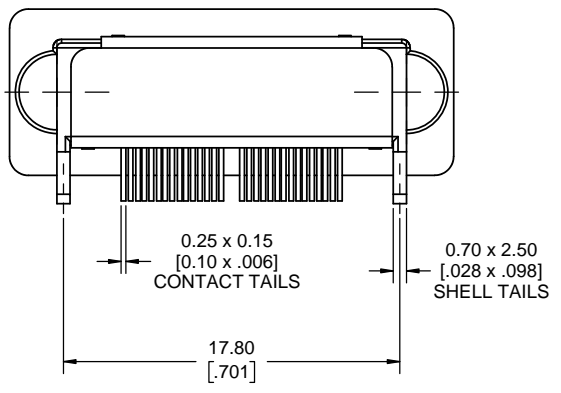
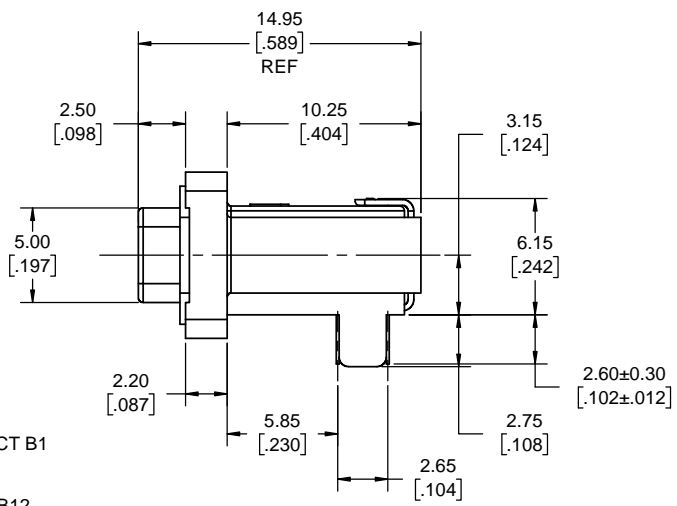
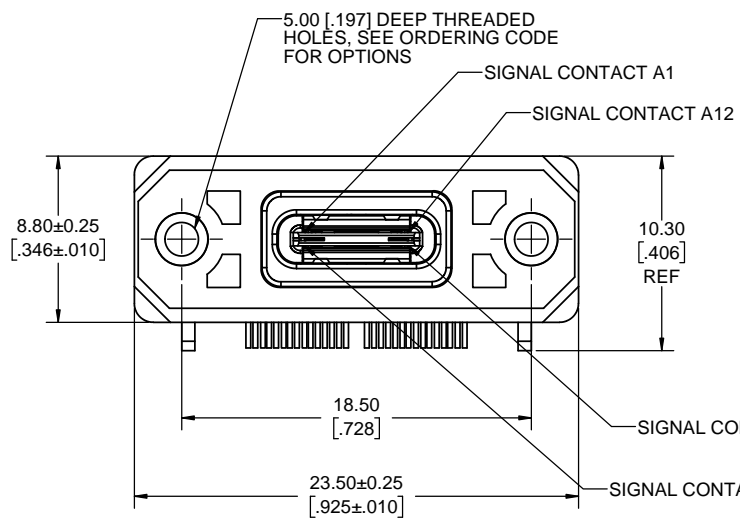


## Amphenol Canada Corp - Product Change Notice (PCN)

PCN Date	February 19, 2019
Supplier Name:	Amphenol Canada Corp.
Amphenol Canada PCN Number	PCN-C1409
Description of Change	Change standard contact tail length from 3.10mm (.122") to 2.60mm (.102") for MUSBR-Mxxx-xx Harsh Environment USB Type C connectors.
Reason for Change	Better suits common 1.57mm (1/16") thick pcb for soldering and installation
Summary of changes between new and old part	<p>Standard contact tail length shortened by 0.50 mm (from 3.10mm (.122") to 2.60mm (.102"))</p>
Traceability guidelines (lot code / date code, markings, ship date...)	New production effective with date code 1916 (April 15, 2019) and beyond
Last Time Buy Date	Not applicable
Datasheet attached? & Filename(s)	P-MUSBR-M1C1-XX, Revision E and P-MUSBR-M5C1-XX, Revision G
Qual Test data attached? & Filename(s)	

Customer Part Number	Amphenol Old Part Number	Amphenol New Part Number	PCN Effectivity Date	Samples Availability Date	Last Time Buy Date	Expected Supplier Qual Date
	MUSBR-M1C1-30	No change	Apr15/19	Feb19/19	N/A	N/A
	MUSBR-M1C1-M0	No change	Apr15/19	Feb19/19	N/A	N/A
	MUSBR-M5C1-30	No change	Apr15/19	Feb19/19	N/A	N/A
	MUSBR-M5C1-M0	No change	Apr15/19	Feb19/19	N/A	N/A
	See drawings for part numbers with dust covers included		Apr15/19	Feb19/19	N/A	N/A
	Consult with Amphenol if original tail length is required - part will be available, but with a new part number.					

REVISIONS			
REV	DESCRIPTION, ECN, EAR NO.	DATE	APP'D
D	PRODUCT DRAWING EAR 14608	SEP20/17	K.L.
E	PRODUCT DRAWING EAR 14716	FEB21/19	K.L.



**NOTES:**

- MATERIAL:**  
ALL MATERIALS ARE RoHS COMPLIANT PER EU DIRECTIVE 2011/65/EU AND AMENDMENTS
  - OUTER SHELL: DIECAST ZINC ALLOY, MATTE TIN OVER NICKEL PLATING
  - CONTACTS: COPPER ALLOY, PLATED WITH 0.76µm [30µ"] MINIMUM GOLD OVER 1.27µm [50µ"] MINIMUM NICKEL ON THE MATING AREA WITH MATTE TIN OVER NICKEL ON THE TAILS
  - USB HOUSING: ENGINEERING THERMOPLASTIC, HIGH TEMPERATURE RESISTANT, FLAMMABILITY RATING UL94V-0, BLACK
  - USB SHIELD: STAINLESS STEEL, PASSIVATED
  - REAR COVER: STAINLESS STEEL, PASSIVATED
  - GASKET: CONDUCTIVE SILICONE RUBBER, BLACK
  - DUST COVER - SILICONE RUBBER WITH NICKEL PLATED BRASS BUSHING. SEE ORDERING CODE FOR COLOUR OPTION.
- ENVIRONMENTAL PERFORMANCE PER IEC 60529 CODE IP67 FOR SEAL BETWEEN MATING AREA AND PCB SIDE OF CONNECTOR. GASKET PROVIDES SEAL TO INSIDE FACE OF ENCLOSURE PANEL.**
- CURRENT RATING: COLLECTIVELY 5A MAX. FOR PINS A4, A9, B4, & B9 PLUS 1.25A MAX. FOR PIN B5 WITH RETURN PATH SHARED THROUGH PINS A1, A12, B1 & B12. ADDITIONAL POSITIONS 0.25A MAX. EACH.**
- CONTACT RESISTANCE: 40 MILLIOHMS MAXIMUM INITIAL.**
- OPERATING TEMPERATURE: -40°C TO +105°C.**
- DUST COVERS MAY BE ORDERED SEPARATELY. SPECIFY**
  - PART NUMBER MUSBR-2M5C-004BP FOR GREY COVER OR
  - PART NUMBER MUSBR-2M5C-014BP FOR BLACK COVER

**ORDERING CODE: MUSBR-M1C1-XX**

SERIES, RUGGED USB

USB TYPE 'C' RECEPTACLE, SINGLE PORT, RIGHT ANGLE PCB TAILS, 24 CONTACTS

MOUNTING HOLE THREAD OPTION:  
3 = #2-56 UNC THREAD  
M = M2.5 X 0.45 THREAD

DUST COVER OPTION  
0 = NO DUST COVER SUPPLIED  
1 = WITH GREY DUST COVER SUPPLIED  
5 = WITH BLACK DUST COVER SUPPLIED  
SEE SHEET 2 FOR DUST COVER VIEWS



UNLESS SPECIFIED OTHERWISE	DRAWN	M.PAHULJE	MAY7/15
PRIMARY UNITS MILLIMETERS	CHECKED	K.LAMBIE	MAY14/15
SECONDARY UNITS INCHES	M.E. APP'D		
REFERENCE IN PARENTHESES	Q.A. APP'D		
GENERAL TOLERANCES	DWG APPR.		
1 DECIMAL PLACE	ENG. REL. NO.	EAR 14368	
2 DECIMAL PLACES ±0.15	REF.		
3 DECIMAL PLACES ±0.05	THIRD ANGLE PROJECTION		
ANGULAR DEGREES	DO NOT SCALE DRAWING		

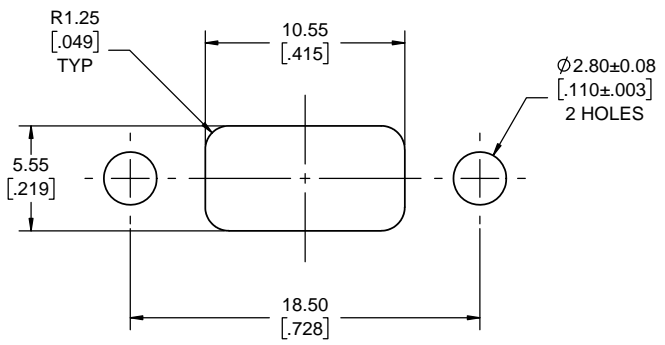
**Amphenol Canada Corp.**  
Commercial Products

**RUGGED USB TYPE 'C' RECEPTACLE, RIGHT ANGLE, PCB MOUNT, RoHS COMPLIANT**

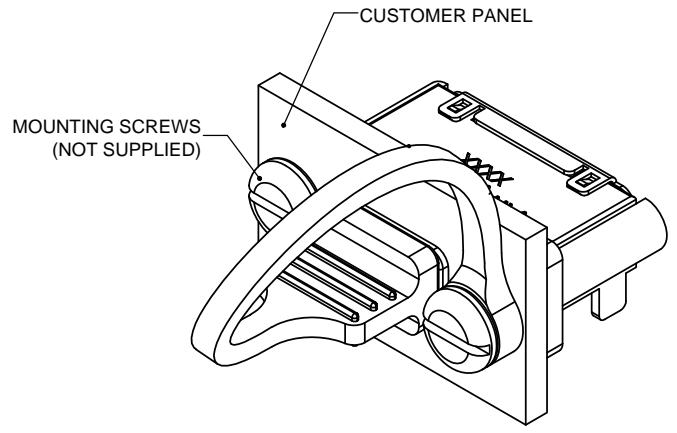
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CODE ID NO. 03554 DWG SIZE: X SCALE: 5:1 SHEET 1 OF 2

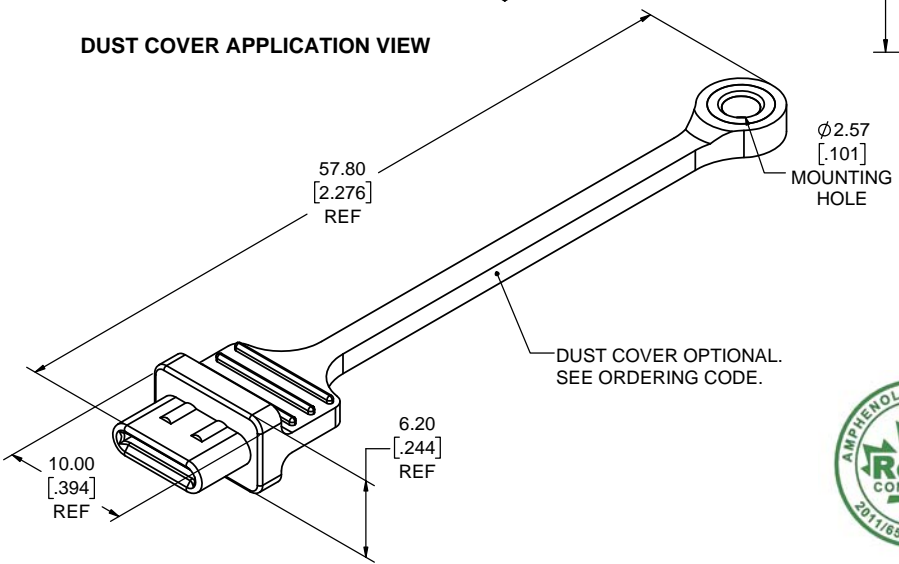
REVISIONS			
REV	DESCRIPTION, ECN, EAR NO.	DATE	APP'D
D	PRODUCT DRAWING EAR 14608	SEP20/17	K.L.
E	PRODUCT DRAWING EAR 14716	FEB21/19	K.L.



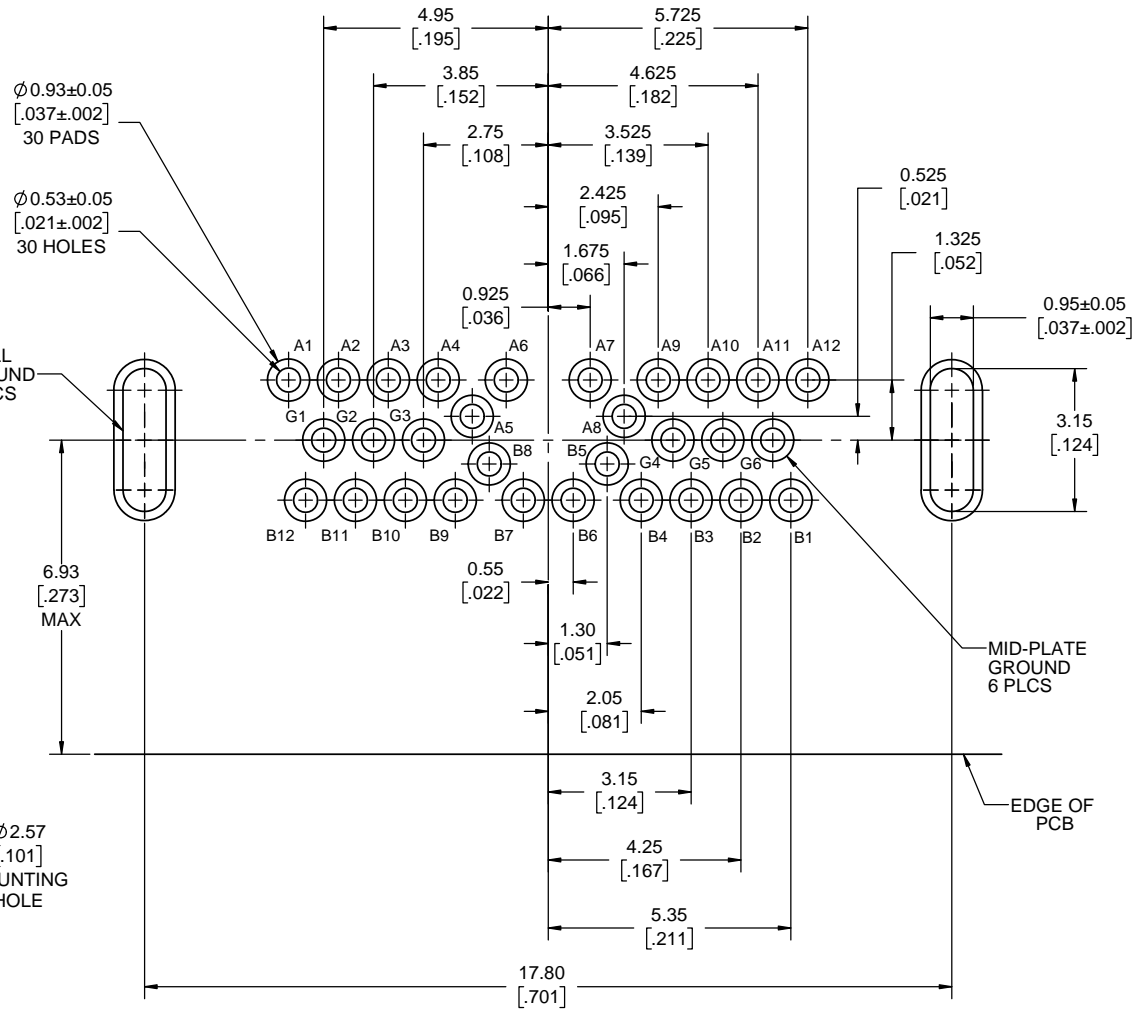
**RECOMMENDED PANEL CUTOUT  
OUTSIDE VIEW OF PANEL**



**DUST COVER APPLICATION VIEW**



**DUST COVER OPTIONAL.  
SEE ORDERING CODE.**



**RECOMMENDED PCB LAYOUT  
COMPONENT SIDE OF BOARD**

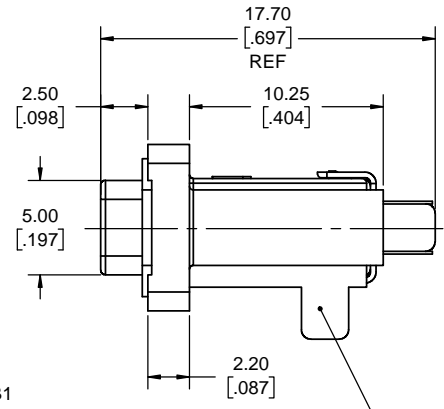
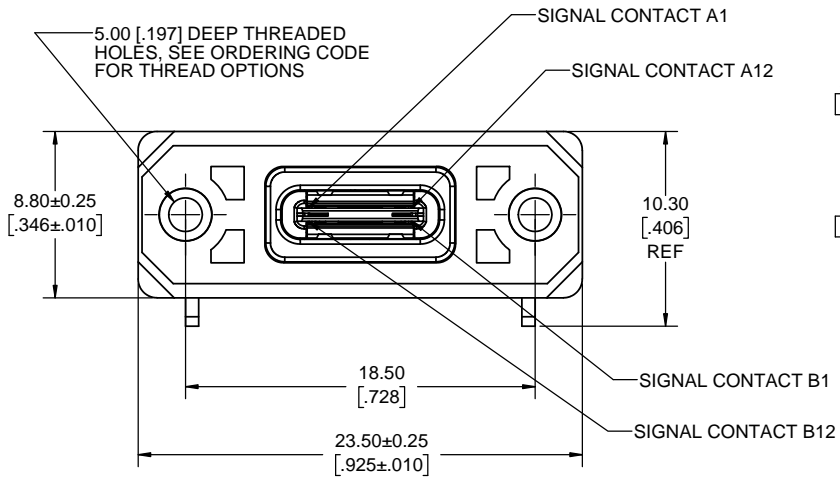
UNLESS SPECIFIED OTHERWISE	DRAWN	M.PAHULJE	MAY7/15
PRIMARY UNITS MILLIMETERS	CHECKED	K.LAMBIE	MAY14/15
SECONDARY INCHES	M.E. APP'D		
REFERENCE IN PARENTHESES	Q.A. APP'D		
GENERAL TOLERANCES	DWG APPR.		
1 DECIMAL PLACE	ENG. REL. NO.	EAR 14368	
2 DECIMAL PLACES ±0.15	REF.		
3 DECIMAL PLACES ±0.05	THIRD ANGLE PROJECTION		
ANGULAR DEGREES	DO NOT SCALE DRAWING		

**Amphenol Canada Corp.**  
Commercial Products

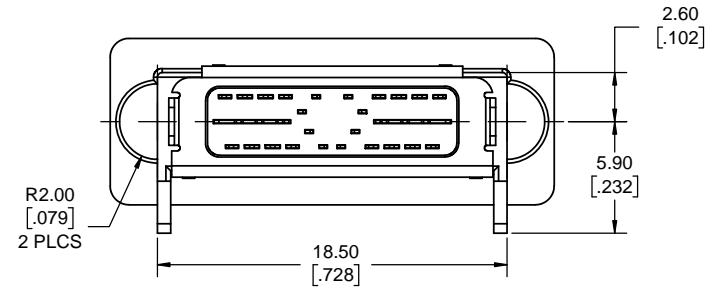
**RUGGED USB TYPE 'C' RECEPTACLE, RIGHT ANGLE, PCB MOUNT, RoHS COMPLIANT**

DWG. NO. **P-MUSBR-M1C1-XX** REV **E**

CODE ID NO. 03554 DWG SIZE: X SCALE: 5:1 SHEET 2 OF 2

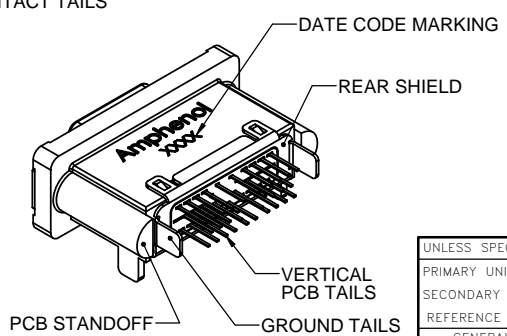
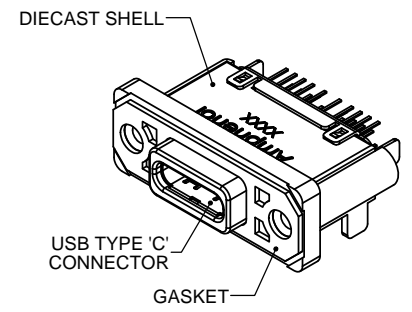
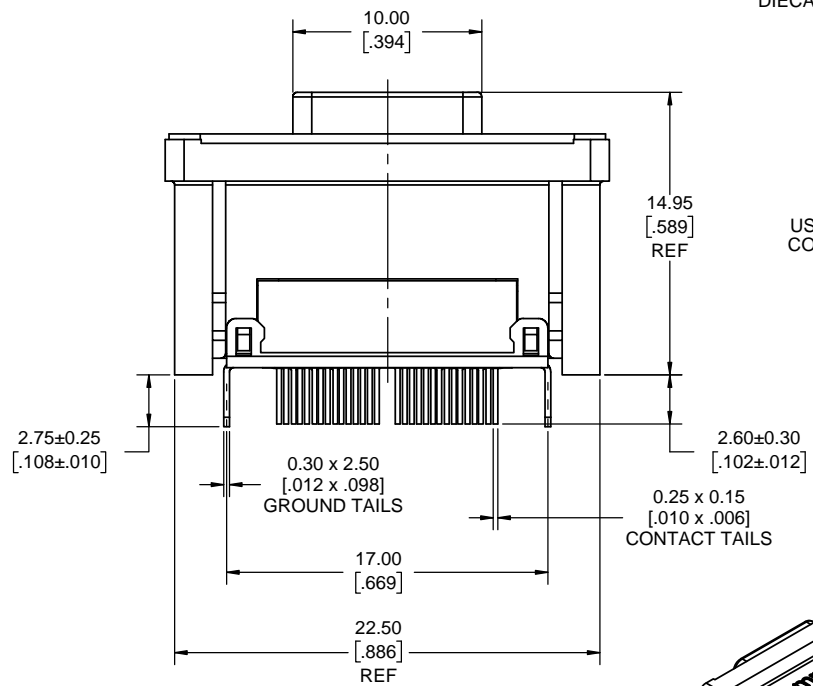


SHELL TAIL FOR RIGHT ANGLE DESIGN CONFIGURATION. NOT USED ON VERTICAL DESIGN.



**ORDERING CODE: M USBR - M 5C 1 - XX**

- SERIES, RUGGED USB
  - USB TYPE 'C' RECEPTACLE, SINGLE PORT, VERTICAL PCB TAILS, 24 CONTACTS
  - MOUNTING HOLE THREAD OPTION:
    - 3 = #2-56 UNC THREAD
    - M = M2.5 X 0.45 THREAD
  - DUST COVER OPTION
    - 0 = NO DUST COVER SUPPLIED
    - 1 = WITH GREY DUST COVER SUPPLIED
    - 5 = WITH BLACK DUST COVER SUPPLIED
- SEE SHEET 2 FOR DUST COVER VIEWS



**NOTES:**

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  - OUTER SHELL: DIECAST ZINC ALLOY, MATTE TIN OVER NICKEL PLATING
  - CONTACTS: COPPER ALLOY, PLATED WITH 0.76µm [30µ"] MINIMUM GOLD OVER 1.27µm [50µ"] MINIMUM NICKEL ON THE MATING AREA WITH MATTE TIN OVER NICKEL ON THE TAILS
  - USB HOUSING: ENGINEERING THERMOPLASTIC, HIGH TEMPERATURE RESISTANT, FLAMMABILITY RATING UL94V-0, BLACK
  - USB SHIELD: STAINLESS STEEL, PASSIVATED
  - REAR COVER: STAINLESS STEEL, MATTE TIN OVER NICKEL PLATING
  - GASKET: CONDUCTIVE SILICONE RUBBER, BLACK
  - DUST COVER - SILICONE RUBBER WITH NICKEL PLATED BRASS BUSHING. SEE ORDERING CODE FOR COLOUR OPTION.
2. ENVIRONMENTAL PERFORMANCE PER IEC 60529 CODE IP67 FOR SEAL BETWEEN MATING AREA AND PCB SIDE OF CONNECTOR. GASKET PROVIDES SEAL TO INSIDE FACE OF ENCLOSURE PANEL.
3. CURRENT RATING: COLLECTIVELY 5A MAX. FOR PINS A4, A9, B4 & B9 PLUS 1.25A MAX. FOR PIN B5 WITH RETURN PATH SHARED THROUGH PINS A1, A12, B1 & B12. ADDITIONAL POSITIONS 0.25A MAX. EACH.
4. CONTACT RESISTANCE: 40 MILLIOHMS MAXIMUM INITIAL.
5. OPERATING TEMPERATURE: -40°C TO +105°C.
6. DUST COVERS MAY BE ORDERED SEPARATELY. SPECIFY
  - PART NUMBER MUSBR-2M5C-004BP FOR GREY COVER OR
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REVISIONS			
REV	DESCRIPTION, ECN, EAR NO.	DATE	APP'D
F	PRODUCT DRAWING EAR 14608	SEP20/17	K.L.
G	PRODUCT DRAWING EAR 14716	FEB21/19	K.L.



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UNLESS SPECIFIED OTHERWISE	DRAWN	J.FISHER	MAR25/15
PRIMARY UNITS MILLIMETERS	CHECKED	K.LAMBIE	MAR26/15
SECONDARY UNITS INCHES	M.E. APP'D		
REFERENCE IN PARENTHESES	Q.A. APP'D		
GENERAL TOLERANCES	DWG APPR.		
1 DECIMAL PLACE	ENG. REL. NO.	EAR 14354	
2 DECIMAL PLACES ±0.15	REF.		
3 DECIMAL PLACES ±0.05	THIRD ANGLE PROJECTION		
ANGULAR DEGREES	DO NOT SCALE DRAWING		

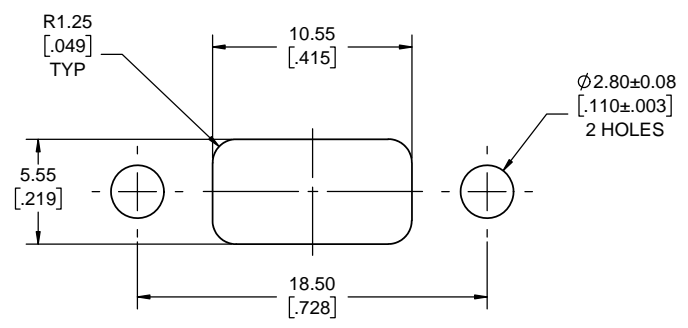
**Amphenol Canada Corp.**  
Commercial Products

RUGGED USB TYPE 'C' RECEPTACLE, VERTICAL PCB MOUNT, ROHS COMPLIANT

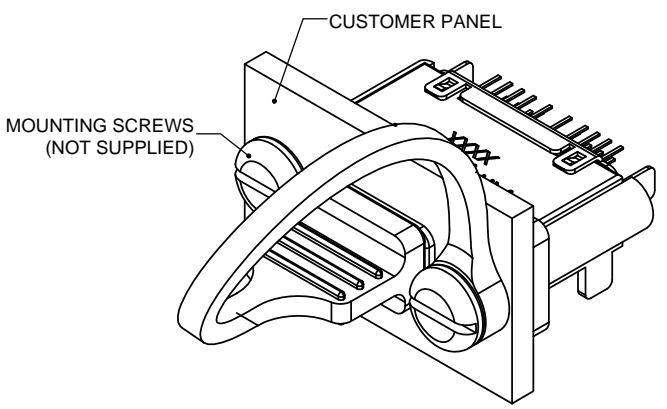
P-MUSBR-M5C1-XX

SCALE: 5:1 SHEET 1 OF 2

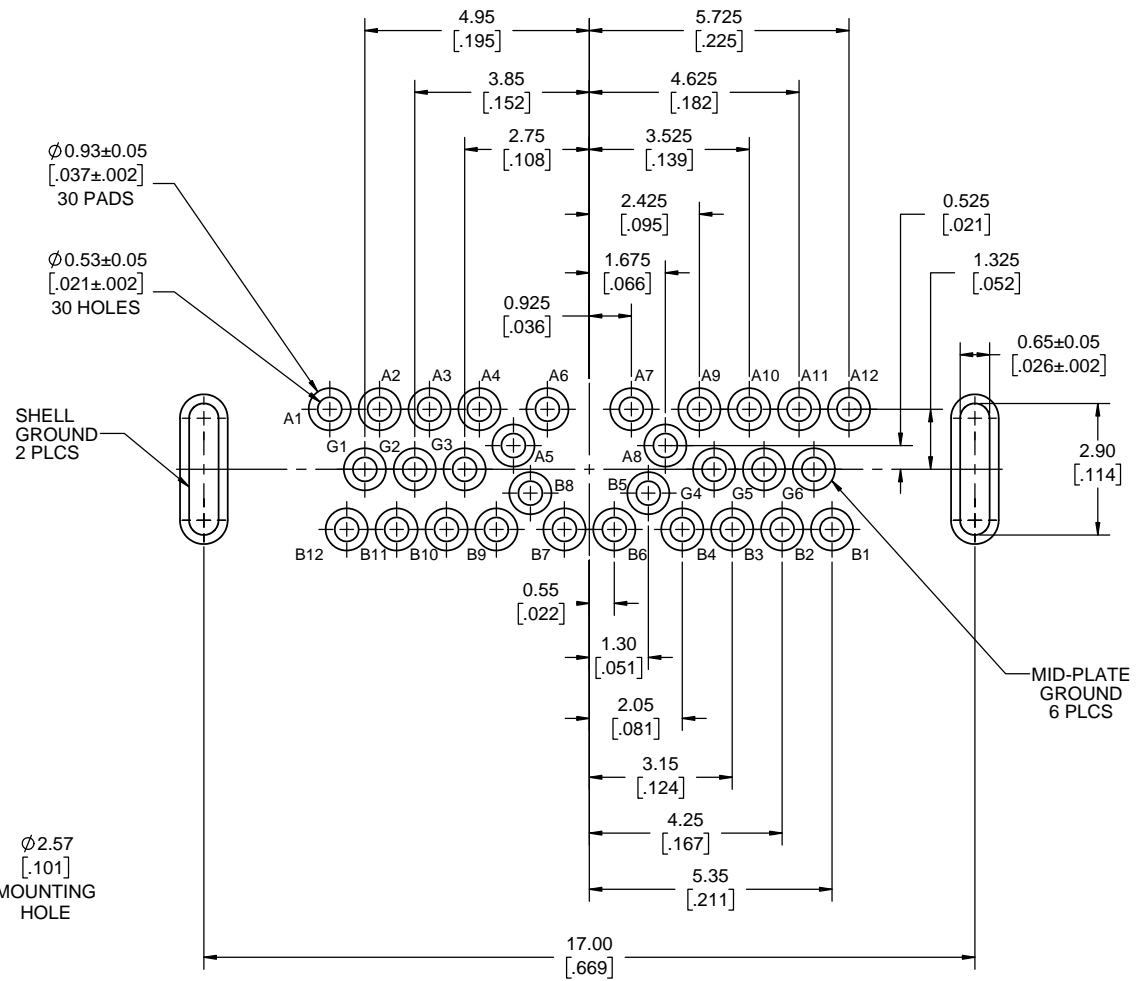
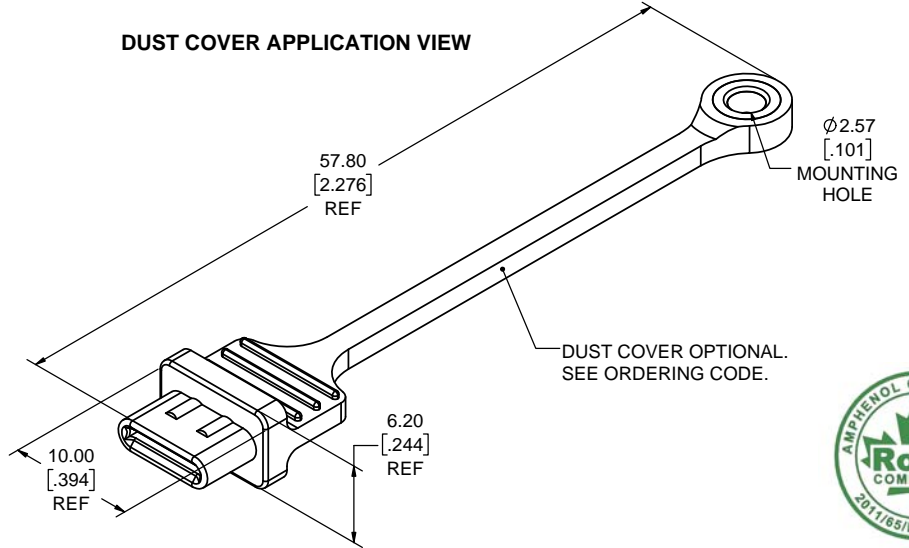
REVISIONS			
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F	PRODUCT DRAWING EAR 14608	SEP20/17	K.L.
G	PRODUCT DRAWING EAR 14716	FEB21/19	K.L.



**RECOMMENDED PANEL CUTOUT  
OUTSIDE VIEW OF PANEL**



**DUST COVER APPLICATION VIEW**



**RECOMMENDED PCB LAYOUT  
COMPONENT SIDE OF BOARD**

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3 DECIMAL PLACES ±0.05	THIRD ANGLE PROJECTION		
ANGULAR DEGREES			

**Amphenol Canada Corp.**  
Commercial Products

**RUGGED USB TYPE 'C' RECEPTACLE,  
VERTICAL PCB MOUNT, ROHS COMPLIANT**

DWG. NO. **P-MUSBR-M5C1-XX** REV **G**

CODE ID NO. 03554 DWG SIZE: X SCALE: 5:1 SHEET 2 OF 2