

## High Temperature 3-Slot Full Crimp Plug to Plug, 48 inch M17/176-00002 Twinax Cable

The 78 ohm TRB 3-Slot plug to 78 ohm TRB 3-Slot plug 48 inch cable using 78 ohm M17/176-00002 twinax, part number FM3CA2001-48, from Fairview Microwave is in-stock and ships same day. This Fairview TRB 3-Slot to TRB 3-Slot cable assembly has a plug to plug gender configuration with 78 ohm flexible M17/176-00002 twinax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FM3CA2001-48 TRB 3-Slot plug to TRB 3-Slot plug cable assembly operates to 10 MHz.

Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other RF cable assembly value added services including connector orientation or clocking, heat shrink booting and labeling are also available. RF testing can also be performed to document the electrical performance of your cable assembly.

### Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	DC		10	MHz
Capacitance		24 [78.74]		pF/ft [pF/m]
Operating Voltage (AC)			750,000	Vrms

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	1	3	5	7	10	MHz
Insertion Loss (Typ.)	0.26	0.29	0.32	0.34	0.38	dB

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax and connectors used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.1 dB per connector.

### Mechanical Specifications

#### Cable Assembly

Length*	48 in [121.92 cm]
Weight	0.17 lbs [77.11 g]

#### Cable

Cable Type	M17/176-00002
Impedance	78 Ohms
Inner Conductor Type	Stranded
Inner Conductor Material and Plating	Copper, Silver
Dielectric Type	PTFE
Shield Layer 1	Silver Plated Copper
Jacket Material	PFA, Blue

One Time Minimum Bend Radius	1.5 in [38.1 mm]
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### Configuration:

- TRB 3-Slot Plug
- TRB 3-Slot Plug
- M17/176-00002

### Features:

- Max Frequency 10 MHz
- PFA Jacket
- MIL-STD-1553
- -55°C to +200°C
- 78 ohms

### Applications:

- General Purpose
- Laboratory Use
- MIL-STD-1553
- Vehicle High Temperature
- Laboratory Implementations
- Data

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**Connectors**

Description	Connector 1	Connector 2
Type	TRB 3-Slot Plug Bayonet	TRB 3-Slot Plug Bayonet
Impedance	78 Ohms	78 Ohms
Contact Material & Plating	Bronze, Gold 30 micro inches	Bronze, Gold 30 micro inches
Contact Plating Spec.	ASTM-B-488	ASTM-B-488
Dielectric Type	Teflon	Teflon
Outer Cond Material & Plating	Phosphor Bronze, Gold	Phosphor Bronze, Gold
Outer Cond Plating Spec.	30 micro inches	30 micro inches
Body Material & Plating	Brass, Nickel	Brass, Nickel
Body Plating Spec.	ASTM-B-733	ASTM-B-733

**Environmental Specifications**  
**Temperature**

Operating Range -55 to +200 deg C

**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

Notes:

**How to Order**

Part Number Configuration: **FM3CA2001 - xx uu**

cm = Centimeters  
<blank> = Inches

Length

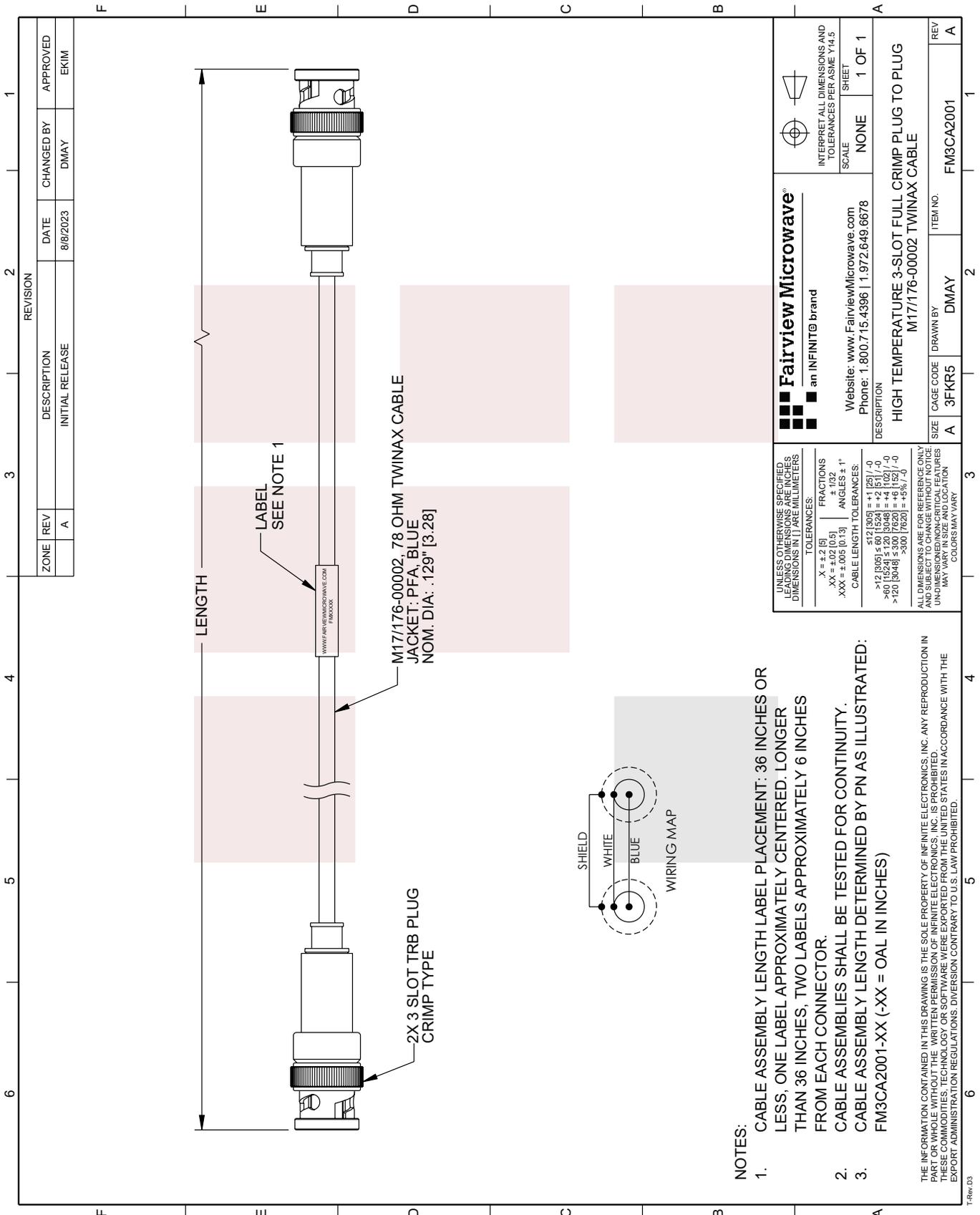
Example: FM3CA2001-12 = 12 inches long cable  
FM3CA2001-100cm = 100 cm long cable

High Temperature 3-Slot Full Crimp Plug to Plug, 48 inch M17/176-00002 Twinax Cable from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [High Temperature 3-Slot Full Crimp Plug to Plug, 48 inch M17/176-00002 Twinax Cable FM3CA2001-48](#)

URL: <https://www.fairviewmicrowave.com/1553-trb-3-slot-plug-to-trb-3-slot-plug-cable-78-ohm-m17-176-00002-coax-in-48-inch-fm3ca2001-48-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.



**NOTES:**

1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
2. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
3. CABLE ASSEMBLY LENGTH DETERMINED BY PN AS ILLUSTRATED: FM3CA2001-XX (-XX = OAL IN INCHES)

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UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE MILLIMETERS.	
TOLERANCES:	FRACTIONS
.X = ±.2 [5]	±.02 [0.5]
.XX = ±.02 [0.5]	±.132
.XXX = ±.005 [0.13]	ANGLES ± 1°
CABLE LENGTH TOLERANCES:	
≤ 12 [305]	±.12 [3.05]
≤ 24 [609]	±.24 [6.09]
≤ 36 [914]	±.36 [9.14]
≤ 48 [1219]	±.48 [12.19]
≤ 60 [1524]	±.60 [15.24]
≤ 72 [1829]	±.72 [18.29]
≤ 84 [2134]	±.84 [21.34]
≤ 96 [2438]	±.96 [24.38]
≤ 108 [2743]	±.108 [27.43]
≤ 120 [3048]	±.120 [30.48]
≤ 132 [3353]	±.132 [33.53]
≤ 144 [3658]	±.144 [36.58]
≤ 156 [3963]	±.156 [39.63]
≤ 168 [4268]	±.168 [42.68]
≤ 180 [4573]	±.180 [45.73]
≤ 192 [4878]	±.192 [48.78]
≤ 204 [5183]	±.204 [51.83]
≤ 216 [5488]	±.216 [54.88]
≤ 228 [5793]	±.228 [57.93]
≤ 240 [6098]	±.240 [60.98]
≤ 252 [6403]	±.252 [64.03]
≤ 264 [6708]	±.264 [67.08]
≤ 276 [7013]	±.276 [70.13]
≤ 288 [7318]	±.288 [73.18]
≤ 300 [7623]	±.300 [76.23]
≤ 312 [7928]	±.312 [79.28]
≤ 324 [8233]	±.324 [82.33]
≤ 336 [8538]	±.336 [85.38]
≤ 348 [8843]	±.348 [88.43]
≤ 360 [9148]	±.360 [91.48]
≤ 372 [9453]	±.372 [94.53]
≤ 384 [9758]	±.384 [97.58]
≤ 396 [10063]	±.396 [100.63]
≤ 408 [10368]	±.408 [103.68]
≤ 420 [10673]	±.420 [106.73]
≤ 432 [10978]	±.432 [109.78]
≤ 444 [11283]	±.444 [112.83]
≤ 456 [11588]	±.456 [115.88]
≤ 468 [11893]	±.468 [118.93]
≤ 480 [12198]	±.480 [121.98]
≤ 492 [12503]	±.492 [125.03]
≤ 504 [12808]	±.504 [128.08]
≤ 516 [13113]	±.516 [131.13]
≤ 528 [13418]	±.528 [134.18]
≤ 540 [13723]	±.540 [137.23]
≤ 552 [14028]	±.552 [140.28]
≤ 564 [14333]	±.564 [143.33]
≤ 576 [14638]	±.576 [146.38]
≤ 588 [14943]	±.588 [149.43]
≤ 600 [15248]	±.600 [152.48]
≤ 612 [15553]	±.612 [155.53]
≤ 624 [15858]	±.624 [158.58]
≤ 636 [16163]	±.636 [161.63]
≤ 648 [16468]	±.648 [164.68]
≤ 660 [16773]	±.660 [167.73]
≤ 672 [17078]	±.672 [170.78]
≤ 684 [17383]	±.684 [173.83]
≤ 696 [17688]	±.696 [176.88]
≤ 708 [17993]	±.708 [179.93]
≤ 720 [18298]	±.720 [182.98]
≤ 732 [18603]	±.732 [186.03]
≤ 744 [18908]	±.744 [189.08]
≤ 756 [19213]	±.756 [192.13]
≤ 768 [19518]	±.768 [195.18]
≤ 780 [19823]	±.780 [198.23]
≤ 792 [20128]	±.792 [201.28]
≤ 804 [20433]	±.804 [204.33]
≤ 816 [20738]	±.816 [207.38]
≤ 828 [21043]	±.828 [210.43]
≤ 840 [21348]	±.840 [213.48]
≤ 852 [21653]	±.852 [216.53]
≤ 864 [21958]	±.864 [219.58]
≤ 876 [22263]	±.876 [222.63]
≤ 888 [22568]	±.888 [225.68]
≤ 900 [22873]	±.900 [228.73]
≤ 912 [23178]	±.912 [231.78]
≤ 924 [23483]	±.924 [234.83]
≤ 936 [23788]	±.936 [237.88]
≤ 948 [24093]	±.948 [240.93]
≤ 960 [24398]	±.960 [243.98]
≤ 972 [24703]	±.972 [247.03]
≤ 984 [25008]	±.984 [250.08]
≤ 996 [25313]	±.996 [253.13]
≤ 1008 [25618]	±.1008 [256.18]
≤ 1020 [25923]	±.1020 [259.23]
≤ 1032 [26228]	±.1032 [262.28]
≤ 1044 [26533]	±.1044 [265.33]
≤ 1056 [26838]	±.1056 [268.38]
≤ 1068 [27143]	±.1068 [271.43]
≤ 1080 [27448]	±.1080 [274.48]
≤ 1092 [27753]	±.1092 [277.53]
≤ 1104 [28058]	±.1104 [280.58]
≤ 1116 [28363]	±.1116 [283.63]
≤ 1128 [28668]	±.1128 [286.68]
≤ 1140 [28973]	±.1140 [289.73]
≤ 1152 [29278]	±.1152 [292.78]
≤ 1164 [29583]	±.1164 [295.83]
≤ 1176 [29888]	±.1176 [298.88]
≤ 1188 [30193]	±.1188 [301.93]
≤ 1200 [30498]	±.1200 [304.98]
≤ 1212 [30803]	±.1212 [308.03]
≤ 1224 [31108]	±.1224 [311.08]
≤ 1236 [31413]	±.1236 [314.13]
≤ 1248 [31718]	±.1248 [317.18]
≤ 1260 [32023]	±.1260 [320.23]
≤ 1272 [32328]	±.1272 [323.28]
≤ 1284 [32633]	±.1284 [326.33]
≤ 1296 [32938]	±.1296 [329.38]
≤ 1308 [33243]	±.1308 [332.43]
≤ 1320 [33548]	±.1320 [335.48]
≤ 1332 [33853]	±.1332 [338.53]
≤ 1344 [34158]	±.1344 [341.58]
≤ 1356 [34463]	±.1356 [344.63]
≤ 1368 [34768]	±.1368 [347.68]
≤ 1380 [35073]	±.1380 [350.73]
≤ 1392 [35378]	±.1392 [353.78]
≤ 1404 [35683]	±.1404 [356.83]
≤ 1416 [35988]	±.1416 [359.88]
≤ 1428 [36293]	±.1428 [362.93]
≤ 1440 [36598]	±.1440 [365.98]
≤ 1452 [36903]	±.1452 [369.03]
≤ 1464 [37208]	±.1464 [372.08]
≤ 1476 [37513]	±.1476 [375.13]
≤ 1488 [37818]	±.1488 [378.18]
≤ 1500 [38123]	±.1500 [381.23]
≤ 1512 [38428]	±.1512 [384.28]
≤ 1524 [38733]	±.1524 [387.33]
≤ 1536 [39038]	±.1536 [390.38]
≤ 1548 [39343]	±.1548 [393.43]
≤ 1560 [39648]	±.1560 [396.48]
≤ 1572 [39953]	±.1572 [399.53]
≤ 1584 [40258]	±.1584 [402.58]
≤ 1596 [40563]	±.1596 [405.63]
≤ 1608 [40868]	±.1608 [408.68]
≤ 1620 [41173]	±.1620 [411.73]
≤ 1632 [41478]	±.1632 [414.78]
≤ 1644 [41783]	±.1644 [417.83]
≤ 1656 [42088]	±.1656 [420.88]
≤ 1668 [42393]	±.1668 [423.93]
≤ 1680 [42698]	±.1680 [426.98]
≤ 1692 [43003]	±.1692 [430.03]
≤ 1704 [43308]	±.1704 [433.08]
≤ 1716 [43613]	±.1716 [436.13]
≤ 1728 [43918]	±.1728 [439.18]
≤ 1740 [44223]	±.1740 [442.23]
≤ 1752 [44528]	±.1752 [445.28]
≤ 1764 [44833]	±.1764 [448.33]
≤ 1776 [45138]	±.1776 [451.38]
≤ 1788 [45443]	±.1788 [454.43]
≤ 1800 [45748]	±.1800 [457.48]
≤ 1812 [46053]	±.1812 [460.53]
≤ 1824 [46358]	±.1824 [463.58]
≤ 1836 [46663]	±.1836 [466.63]
≤ 1848 [46968]	±.1848 [469.68]
≤ 1860 [47273]	±.1860 [472.73]
≤ 1872 [47578]	±.1872 [475.78]
≤ 1884 [47883]	±.1884 [478.83]
≤ 1896 [48188]	±.1896 [481.88]
≤ 1908 [48493]	±.1908 [484.93]
≤ 1920 [48798]	±.1920 [487.98]
≤ 1932 [49103]	±.1932 [491.03]
≤ 1944 [49408]	±.1944 [494.08]
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≤ 1968 [50018]	±.1968 [500.18]
≤ 1980 [50323]	±.1980 [503.23]
≤ 1992 [50628]	±.1992 [506.28]
≤ 2004 [50933]	±.2004 [509.33]
≤ 2016 [51238]	±.2016 [512.38]
≤ 2028 [51543]	±.2028 [515.43]
≤ 2040 [51848]	±.2040 [518.48]
≤ 2052 [52153]	±.2052 [521.53]
≤ 2064 [52458]	±.2064 [524.58]
≤ 2076 [52763]	±.2076 [527.63]
≤ 2088 [53068]	±.2088 [530.68]
≤ 2100 [53373]	±.2100 [533.73]
≤ 2112 [53678]	±.2112 [536.78]
≤ 2124 [53983]	±.2124 [539.83]
≤ 2136 [54288]	±.2136 [542.88]
≤ 2148 [54593]	±.2148 [545.93]
≤ 2160 [54898]	±.2160 [548.98]
≤ 2172 [55203]	±.2172 [552.03]
≤ 2184 [55508]	±.2184 [555.08]
≤ 2196 [55813]	±.2196 [558.13]
≤ 2208 [56118]	±.2208 [561.18]
≤ 2220 [56423]	±.2220 [564.23]
≤ 2232 [56728]	±.2232 [567.28]
≤ 2244 [57033]	±.2244 [570.33]
≤ 2256 [57338]	±.2256 [573.38]
≤ 2268 [57643]	±.2268 [576.43]
≤ 2280 [57948]	±.2280 [579.48]
≤ 2292 [58253]	±.2292 [582.53]
≤ 2304 [58558]	±.2304 [585.58]
≤ 2316 [58863]	±.2316 [588.63]
≤ 2328 [59168]	±.2328 [591.68]
≤ 2340 [59473]	±.2340 [594.73]
≤ 2352 [59778]	±.2352 [597.78]
≤ 2364 [60083]	±.2364 [600.83]
≤ 2376 [60388]	±.2376 [603.88]
≤ 2388 [60693]	±.2388 [606.93]
≤ 2400 [60998]	±.2400 [609.98]
≤ 2412 [61303]	±.2412 [613.03]
≤ 2424 [61608]	±.2424 [616.08]
≤ 2436 [61913]	±.2436 [619.13]
≤ 2448 [62218]	±.2448 [622.18]
≤ 2460 [62523]	±.2460 [625.23]
≤ 2472 [62828]	±.2472 [628.28]
≤ 2484 [63133]	±.2484 [631.33]
≤ 2496 [63438]	±.2496 [634.38]
≤ 2508 [63743]	±.2508 [637.43]
≤ 2520 [64048]	±.2520 [640.48]
≤ 2532 [64353]	±.2532 [643.53]
≤ 2544 [64658]	±.2544 [646.58]
≤ 2556 [64963]	±.2556 [649.63]
≤ 2568 [65268]	±.2568 [652.68]
≤ 2580 [65573]	±.2580 [655.73]
≤ 2592 [65878]	±.2592 [658.78]
≤ 2604 [66183]	±.2604 [661.83]
≤ 2616 [66488]	±.2616 [664.88]
≤ 2628 [66793]	±.2628 [667.93]
≤ 2640 [67098]	±.2640 [670.98]
≤ 2652 [67403]	±.2652 [674.03]
≤ 2664 [67708]	±.2664 [677.08]
≤ 2676 [68013]	±.2676 [680.13]
≤ 2688 [68318]	±.2688 [683.18]
≤ 2700 [68623]	±.2700 [686.23]
≤ 2712 [68928]	±.2712 [689.28]
≤ 2724 [69233]	±.2724 [692.33]
≤ 2736 [69538]	±.2736 [695.38]
≤ 2748 [69843]	±.2748 [698.43]
≤ 2760 [70148]	±.2760 [701.48]
≤ 2772 [70453]	±.2772 [704.53]
≤ 2784 [70758]	±.2784 [707.58]
≤ 2796 [71063]	±.2796 [710.63]
≤ 2808 [71368]	±.2808 [713.68]
≤ 2820 [71673]	±.2820 [716.73]
≤ 2832 [71978]	±.2832 [719.78]
≤ 2844 [72283]	±.2844 [722.83]
≤ 2856 [72588]	±.2856 [725.88]
≤ 2868 [72893]	±.2868 [728.93]
≤ 2880 [73198]	±.2880 [731.98]
≤ 2892 [73503]	±.2892 [735.03]
≤ 2904 [73808]	±.2904 [738.08]
≤ 2916 [74113]	±.2916 [741.13]
≤ 2928 [74418]	±.2928 [744.18]
≤ 2940 [74723]	±.2940 [747.23]
≤ 2952 [75028]	±.2952 [750.28]
≤ 2964 [75333]	±.2964 [753.33]
≤ 2976 [75638]	±.2976 [756.38]
≤ 2988 [75943]	±.2988 [759.43]
≤ 3000 [76248]	±.3000 [762.48]

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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 SCALE: NONE SHEET: 1 OF 1	

DESCRIPTION: HIGH TEMPERATURE 3-SLOT FULL CRIMP PLUG TO PLUG M17176-00002 TWINAX CABLE	ITEM NO. FM3CA2001
DRAWN BY DMAY	REVISION A
CAGE CODE 3FKR5	ITEM NO. FM3CA2001

T-Rev D3