

ACCELERATE®

SLIM, DIRECT ATTACH CABLE ASSEMBLIES

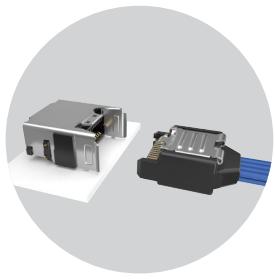
(0.635 mm) .025" PITCH



PAM4
64
Gbps



Contacts directly
soldered to the twinax for
improved signal integrity



Right-angle available.
Visit samtec.com/ARF6-RA
for specifications.

FEATURES & BENEFITS

- Slimmest cable assembly in the industry - 7.6 mm width
- High-density 2-row design; 8, 16 and 24 differential pair configurations
- Differential pair (Thinax™), single-ended (ThinSE™) and mixed signaling available
- Multiple wiring options including reverse polarity
- Mating board level socket (ARF6 Series) features standard rugged weld tabs for increased stability on the PCB
- Rugged metal latching and shielding
- Supports 64 Gbps PAM4 (32 Gbps NRZ) applications; PCIe® 6.0/CXL® 3.2 capable
- Utilizes Samtec's Flyover® Technology to simplify board layout and extend signal reach
- In development: AcceleRate® Boost cable-to-board system provides optimized 112 Gbps PAM4 performance with up to 96 differential pairs using Thinax™ ultra low skew twinax cable. This is the next evolution of Samtec's popular ARC6/ARF6 product solution.

KEY SPECIFICATIONS (ARC6/ARF6)

| CABLE | INSULATOR MATERIAL | CONTACT MATERIAL | PLATING | OPERATING TEMP RANGE | CURRENT RATING | VOLTAGE RATING |
|--|--------------------|------------------|----------------------------|----------------------|--------------------------|-----------------|
| 34 AWG, 100 Ω ultra low skew twinax cable | | | | | | |
| 34 AWG, 92 Ω Thinax™ ultra low skew twinax cable | Black LCP | Copper Alloy | Au over 50 μ" (1.27 μm) Ni | -40 °C to +125 °C | 1.2 A (1 pin powered) | 135 VAC/191 VDC |
| 34 AWG, 50 Ω ThinSE™ coax cable | | | | | | |

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(0.635 mm) .025" • SLIM CABLE & SOCKET

| ARC6 | SIGNAL TYPE | NO OF PAIRS/POSITIONS | CABLE LENGTH | END 1 | END 2 | WIRING OPTION | CABLE TYPE |
|-------------|---|--|--|--------------------------|---|---|---|
| | Leave blank for Differential Pair (-DP) | -08, -16, -24 (-DP only) | "XX.X" = Length in Inches 03.0" (76.2 mm) minimum | -LU = Latch Up | -LU = Latch Up | -2 = Pin 1 to Pin 2 (End 2-LD option only) | -1 = 34 AWG, 100 Ω ultra low skew twinax cable (-DP only) |
| | -S = Single-Ended | -13, -25, -37 (-S & -M only) | | | -LD = Latch Down (Not available with -M style) | -3 = Pin 1 to Pin N-1 (End 2-LU option only) | -3 = 34 AWG, 92 Ω Thinax™ ultra low skew twinax cable (-DP only) |
| | -M = Mixed -DP & -S | | | | | -2R = Pin 1 to Pin 2 Reversed Polarity (-DP style & End 2-LD option only) 06.0" (152.4 mm) min. cable length | -4 = 34 AWG, 50 Ω ThinSE™ coax cable (-S only) |
| | | | | | | -3R = Pin 1 to Pin N-1 Reversed Polarity (-DP style & End 2-LU option only) 06.0" (152.4 mm) min. cable length | -6 = Thinax™ (-3) and ThinSE™ (-4) cables (-M only) |

ARC6
Board Mates:
ARF6

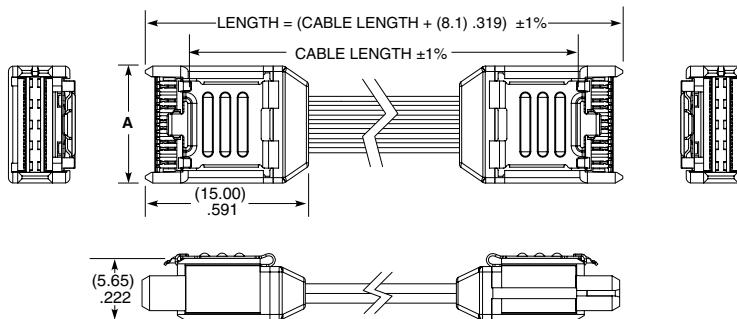


| NO. OF PAIRS/POSITIONS | A | N | N-1 |
|-------------------------------|--------------|----------|------------|
| -08/-13 | (10.90).429 | 26 | 25 |
| -16/-25 | (18.52).729 | 50 | 49 |
| -24/-37 | (26.14)1.029 | 74 | 73 |

Notes:

Cable lengths longer than 40.00" (1 meter) are not supported with S.I. test data.

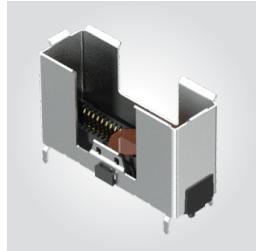
View complete specifications at: samtec.com?ARC6



ARC6-08-XX.X-LU-LU-3-X SHOWN

| ARF6 | NO. OF PAIRS |
|-------------|--------------------------|
| | -08 (13 pins/row) |
| | -16 (25 pins/row) |
| | -24 (37 pins/row) |

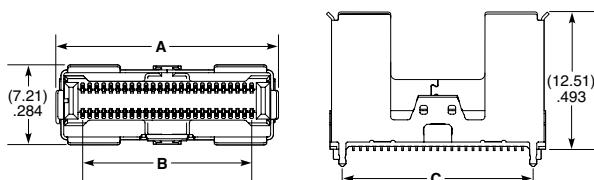
ARF6
Cable Mates:
ARC6



Notes:
Tape & Reel packaging and K-Dot are standard.

Some sizes, styles and options are non-standard, non-returnable.

| ARF6 | NO. OF PAIRS | PLATING | ROW | A | K | "X"R |
|-------------|--------------------------|---|---------------------------|------------------------------|--|--|
| | -08 (13 pins/row) | -S = 30 μ" (0.76 μm) Gold on contact area, Matte Tin on tail | -D = Double Row | -A = Alignment Pin | -K = Polyimide film Pick & Place Pad | -TR = Tape & Reel |
| | -16 (25 pins/row) | -STL = 30 μ" (0.76 μm) Gold on contact area, Matte Tin/Lead on tail | | | | -FR = Full Reel Tape & Reel (must order maximum quantity per reel; contact Samtec for quantity breaks) |
| | -24 (37 pins/row) | | | | | |



ARF6-16-S-D-A SHOWN

| NO. OF PAIRS | A | B | C |
|---------------------|--------------|-------------|-------------|
| -08 | (12.46).491 | (7.62).300 | (9.59).378 |
| -16 | (20.08).791 | (15.24).600 | (17.21).678 |
| -24 | (27.70)1.091 | (22.86).900 | (24.83).978 |

View complete specifications at: samtec.com?ARF6