cStack™ Flexible Circuit Assemblies

FLEXIBLE CABLE SOLUTION FOR DEMANDING APPLICATIONS

Amphenol's cStack™ Flex is designed for high-speed flex circuit applications where space, weight, and performance are key drivers. Custom flex cable and connector designs are available.

- One piece cStack interposer provides solderless termination
- Mated height 2.5mm – 7mm above board
- Power and signal can be delivered through a single flex cable
- Connector and flex assembly from a single source
- Amphenol custom flex circuit design available

TARGET MARKETS

FEATURES	BENEFITS
Reduces space	Thinner and smaller than rigid boards
Reduces weight	Lighter than rigid boards and wired cable assemblies
Signal integrity	Flex material has lower loss and better temperature stability than FR4. Thinner cross-section results in smaller via stub and improved performance.
Three dimensional interconnect	Can be formed and routed to fit unique space constraints
Signal density	Etched polyimide circuits have greater signal density than typical rigid boards. (75 um line and space)
Multilayer construction	Three or more copper layers available for optimized routing, impedance and SI performance
Signal and power delivery	Signal and power can be routed over flex allowing a single interconnect from board to board

cStack™ Flex

TECHNICAL INFORMATION

MATERIAL

▪ Flex Circuit: Polyimide, Adhesive, Copper

▪ cStack: Thermoplastic, Copper alloy

▪ Hardware: Steel

ELECTRICAL PERFORMANCE

▪ DC: 0.5A per pin

▪ SI: 25 Gb/s

MECHANICAL PERFORMANCE

▪ Normal Force: 50 gram per contact

ENVIRONMENTAL

▪ Temp: −40°C – 105°C

SPECIFICATION

▪ Product Spec: ICS–509–PROD

▪ Application Spec: ICS–514–PROD

PACKAGING

▪ Individual

TARGET MARKETS/APPLICATIONS

Communications
Switches
Routers
Wireless Base Station

Data
Blade Server
Datacenter
Supercomputer
Processor & storage blades

Industrial & Instrumentation
Imaging
Ultrasound Equipment

Military
Military Equipment
Radar Equipment
Aerospace

PART NUMBERS

Description	Part Numbers
cStack Flex, 6 x 5 (30 position)	9952–005
cStack Flex, 6 x 10 (60 position)	9952–010
cStack Flex, 6 x 15 (90 position)	9952–015
cStack Flex, 6 x 20 (120 position)	9952–020
cStack Flex, 6 x 25 (150 position)	9952–025
cStack Flex, 6 x 30 (180 position)	9952–030
cStack Flex, 6 x 35 (210 position)	9952–035
cStack Flex, 6 x 40 (240 position)	9952–040
cStack Flex, 6 x 45 (270 position)	9952–045
cStack Flex, 6 x 50 (300 position)	9952–050