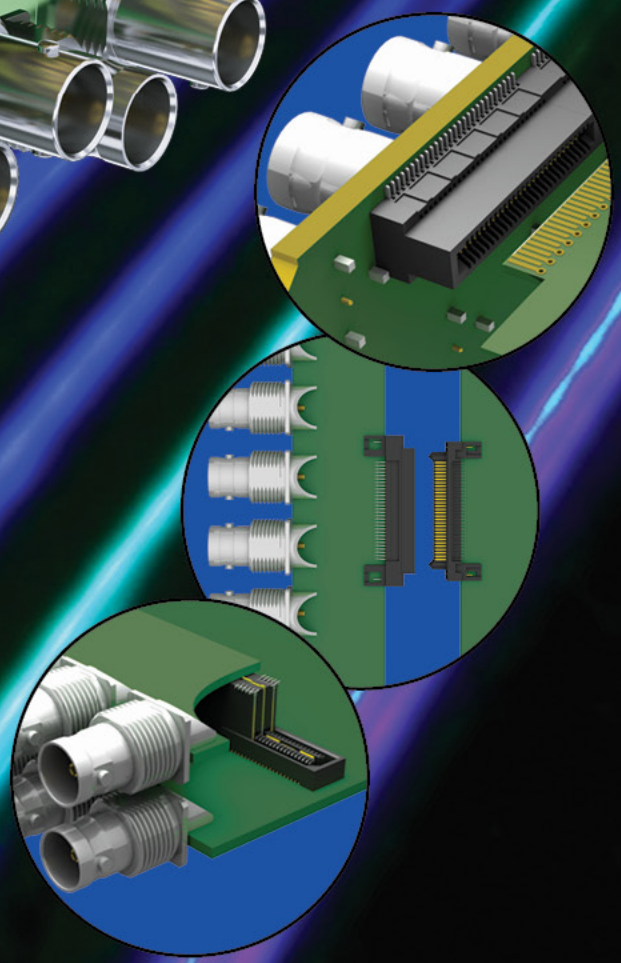


BROADCAST VIDEO SOLUTIONS



BROADCAST VIDEO SOLUTIONS

Common 3G SDI applications include Routers, Switchers, Video Servers, Distribution Amplifiers (DAs), Multi-Viewers, Encoders/Decoders, Converters, Projectors, and Test & Measurement.

3G SDI CHALLENGES

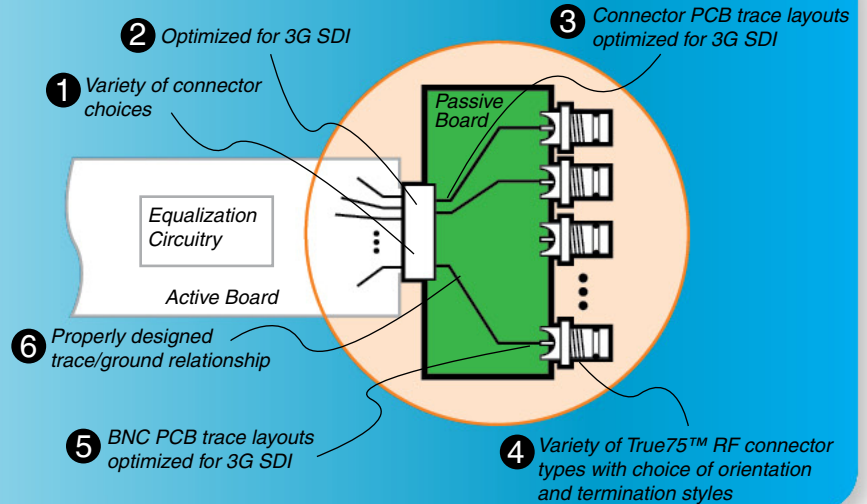
Samtec's signal integrity expertise and high speed interconnect solutions are ideal for the physical and electrical routing challenges facing the broadcast video industry.

With the advent of 3 Gbps* Serial Digital Interface (SDI), signal integrity design expertise is more important than ever to ensure the required bandwidth is available in the finished product.

Samtec provides a full range of design support for rear panel passive I/O cards.

*True bit rates are 2.97 Gbps or 2.97 Gbps/1.001

Typical Interconnect Panels



High bandwidth BNC launch

Passive board/trace layout optimized for 3 Gbps SDI performance

Active board design by Brioconcept Consulting

Gennum equalizers

Samtec True75™ BNC connectors (BNC7T Series)

Samtec high speed edge card socket (HSEC8 Series)

Gennum cable drivers

High bandwidth SMA launch

Standard PCB materials and manufacturing processes

3G SDI DEMONSTRATION KITS

In an effort to help engineers in the broadcast video industry get a leg up on the critical front end for 3G SDI, Samtec in collaboration with Brioconcept Consulting and Gennum, has developed a customized demonstration kit for 75Ω 3G protocol. The demonstration kit is exceptionally accurate at measuring 3G SDI signal quality in the connector breakout regions. It simulates the entire transmission line path from the BNCs through the high speed interconnect (the Samtec HSEC8 Series Edge Rate™ connector) and the equalizers and cable drivers on the active board.

This careful consideration of measuring 3G SDI signal quality ensures that the breakout region and the PCB will not significantly contribute to signal degradation.

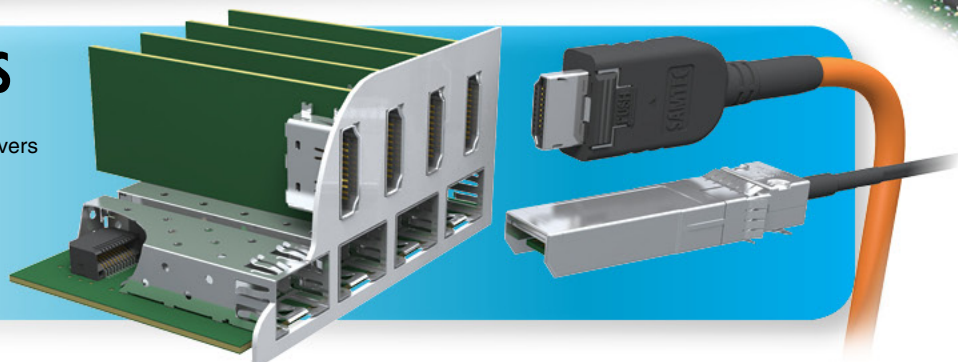
The demonstration kit utilizes high quality Samtec SMA connectors to launch signals to/from the system for performance measurement. The True75™ BNC is also integrated into the passive interface cards with all three typical orientations represented: edge launch (BNC7T-J-P-HN-ST-EM1), vertical mount (BNC7T-J-P-HN-ST-TH1), and right angle (BNC7T-J-P-HN-RA-BH1).

To read the 3G SDI Application Note published by Samtec and Brioconcept Consulting, go to www.samtec.com/3GSDIappnote. Contact 3GSDI@samtec.com for more information.

HIGH SPEED I/O INTERFACES

- SFP & SFP+ transceiver interfaces and cages
 - Mates with SFP, SFP+, XFP or XENPAK transceivers
- HDMI™ high speed I/O receptacles
 - Mates with Samtec HPLSP, HPDPI Series high speed cable systems and industry standard HDMI™ cable assemblies

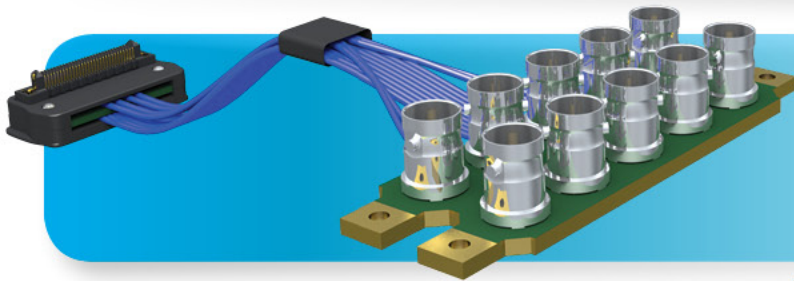
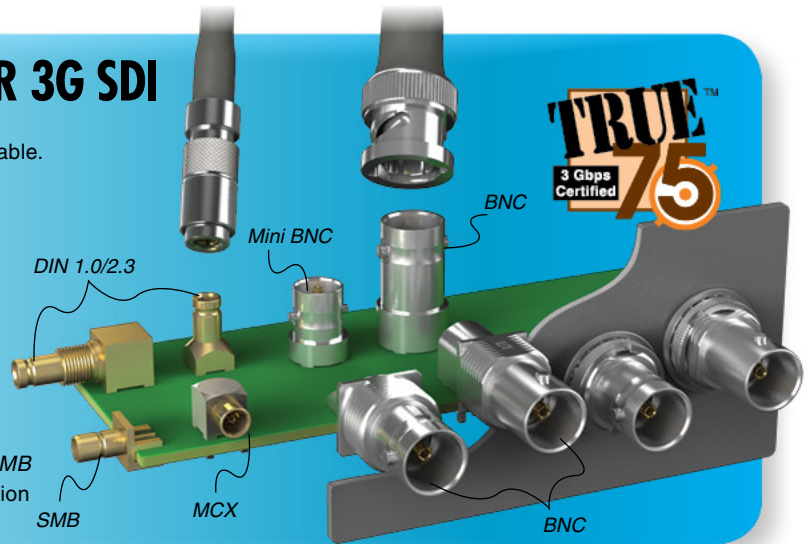
HDMI™ is a trademark of HDMI Licensing LLC.



75Ω RF SYSTEMS OPTIMIZED FOR 3G SDI

Vertical and edge mount connectors are certified 75Ω +/-3Ω. Right angles are certified to +/-4Ω. Characterization data is available.

- Vertical 75Ω JACKS: *BNC, Mini BNC, DIN 1.0/2.3, MCX, SMB*
- Right angle 75Ω JACKS: *BNC, DIN 1.0/2.3, MCX, SMB*
- Edge mount 75Ω JACKS: *BNC (for .062" (1,6mm) and .093" (2,4mm) boards), SMB (for .062" (1,6mm) PCBs)*
- Straight 75Ω PLUGS on RG 6, Belden 1694A, and Belden 1855A Cables: *BNC, Mini BNC, DIN 1.0/2.3*
- Right angle 75Ω PLUGS on RG 6, Belden 1694A, and Belden 1855A Cables: *BNC, Mini BNC*
- Straight 75Ω PLUGS on RG 179 Cable: *BNC, Mini BNC, DIN 1.0/2.3, MCX, SMB*
- Right angle 75Ω PLUGS on RG 179 Cable: *Mini BNC, MCX, SMB*
- 75Ω PLUGS also available for customer-installed field termination to cable

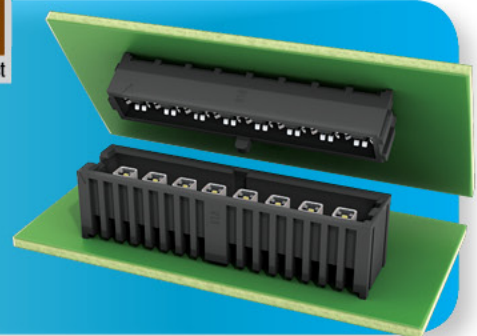
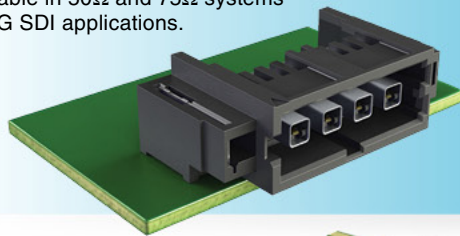


FULL TURNKEY MODULES

Samtec has the expertise to design full passive interconnect modules for 3G SDI applications, including the unique ability to integrate high speed cable or flex circuitry into module designs to help overcome unique packaging requirements and design challenges.

ISORATE® HIGH ISOLATION SYSTEMS

Board-to-board, right angle, and cable assemblies available in 50Ω and 75Ω systems for 3G SDI applications.



BOARD-TO-BOARD MICRO BACKPLANE CONNECTORS

Samtec board-to-board interconnects meet or exceed requirements for 3G SDI rear panel I/O card interfaces.

- Available in coplanar, right angle, and mezzanine orientations for maximum design, density, and routing flexibility
- High speed edge card systems (*HSEC8 Series*) with Edge Rate™ contacts
- Rugged high speed two-piece systems (*ERM8, ERF8 Series*) with Edge Rate™ contacts
- High density SEARAY™ (*SEAM, SEAF Series*) arrays with Edge Rate™ contacts
- Rugged Q2™ high speed strips (*QMS, QFS Series*) with ground/power planes
- Q Series® (*QTH, QSH Series*) high speed stacking interconnects with ground/power planes





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