

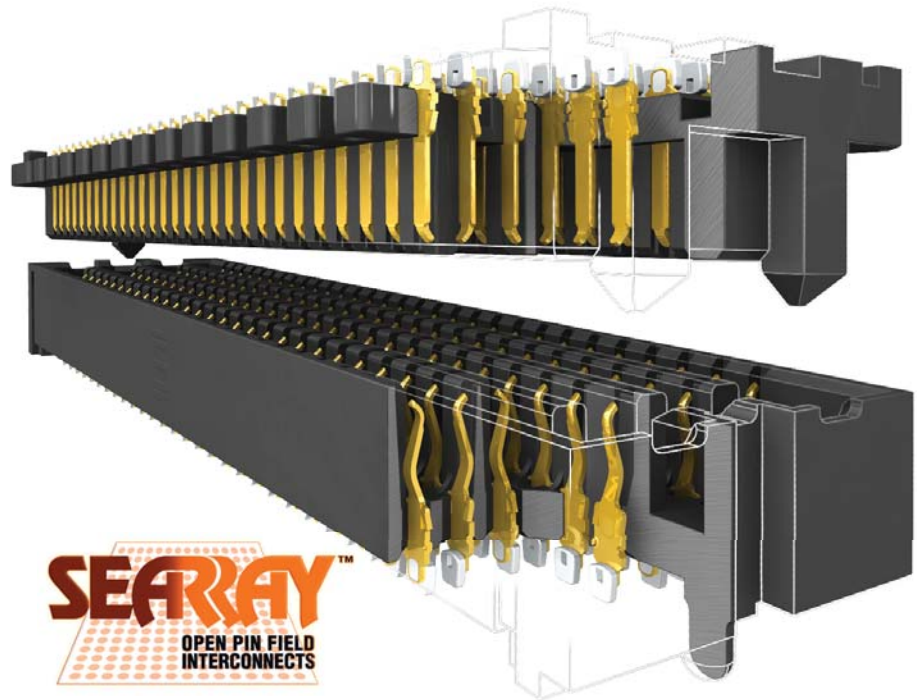
High Speed, High Density Arrays

Samtec's family of SEARAY™ high speed, high density arrays offer ultimate design flexibility that is unmatched in the connector industry. SEARAY™ products allow for maximum grounding and routing flexibility with up to 500 I/Os, and are available in vertical, right angle, and press fit orientations, and high speed cable assemblies.

SEARAY™ can be mapped as a single-ended application, differential pair application, or a combination of both. When routed as a single-ended system, SEARAY™ is rated up to 9.5 GHz @ -3dB insertion loss, and is rated up to 10.5 GHz @ -3dB insertion loss in a differential pair system.

SEARAY™ systems utilize Samtec's patented Edge Rate™ contact system for robust, high speed performance, which allows for "zippering" when mating and unmating. The Edge Rate™ contacts mate on the smooth milled surface of the contact, thus allowing for higher cycle life and superior electrical properties. This contact design also lowers insertion and extraction forces - an important consideration when designing in high-pin-count arrays.

SEARAY™ utilizes solder charge technology to simplify IR reflow termination and improve solder joint



reliability. The advantage of this technology, compared to standard BGA/solder ball attachment, is the interconnects are subject to extreme heat only once during assembly of the connector to the PCB (as opposed to twice with solder ball attachment methods). This becomes more relevant with the higher temperatures required for lead-free processing. SEARAY™ is currently available with tin-lead solder crimp as well as a lead-free tin alloy solder charge which is ROHS compliant.

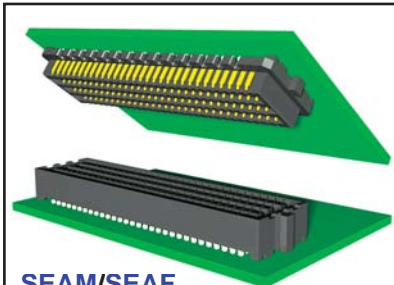
SEARAY™ products also meet Extended Life Products (E.L.P.™) standards. E.L.P.™ products are tested to rigorous standards which evaluate

contact resistance in simulated storage and field conditions. Tests include a 10 year Mixed Flowing Gas (MFG) analysis and a High Mating Cycle Assessment (250 to 2,500). For complete details on Samtec's E.L.P.™ please visit www.samtec.com/ELP

Vertical Systems

Vertical SEARAY™ connectors (SEAM/SEAF Series) are available in male and female versions and with multiple row options from a slim 4 row system up to a 10 row version. Vertical systems offer stack heights from 7mm to 17.5mm in .5mm increments. Vertical systems are also available with guidepost options for rugged and blind mating applications.

Vertical SEARAY™ connectors are certified to several Industry Standards such as Pismo 2, Vita 47,



SEAM/SEAF

Pitch: 1,27mm (.050")
Mated Height: 7 – 17.5mm
Contacts: Up to 500
Performance:
 SE – Up to 9.5 GHz
 DP – Up to 10 GHz
 Options: Latching post (-LP)

and Vita 57, and support numerous Protocols such as Fibre Channel, Rapid I/O, PCI Express®, SATA, and Infiniband for more information contact Standards@samtec.com.

Right Angle Systems

Right Angle SEARAY™ connectors ([SEAF-RA/SEAM-RA Series](#)) are available in a female version, with a male version in design, and with up to 300 I/Os. Guide post and

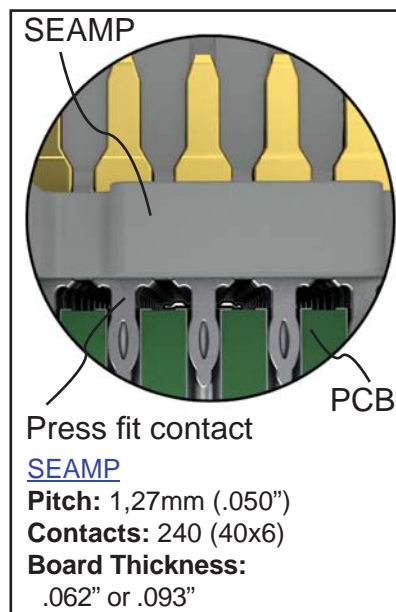


SEAM-RA/SEAF-RA

Pitch: 1,27mm (.050")
Contacts: Up to 300
Options: Guide post (-GP)
 Latching post (-LP)

latching post options allow for blind mating and increase the robustness of the connector system. High pin counts and rugged features also make the right angle versions ideal for micro-backplane applications.

The latest version of the SEARAY™ family of interconnects is the new press fit system ([SEAMP Series](#)).



Press fit contact

SEAMP

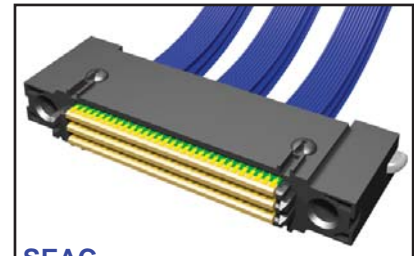
Pitch: 1,27mm (.050")
Contacts: 240 (40x6)
Board Thickness:
 .062" or .093"

Press fit SEARAY™ systems are currently available in a male version and mate to either the SEAF or SEAF-RA. SEAMP Series is compatible for .062" and .093" thick boards. For other board thicknesses contact ipg@samtec.com

Cable Systems

SEARAY™ cable assemblies ([SEAC Series](#)) are available in a male version with latching post holes in order to mate the SEAF or SEAF-RA.

SEARAY™ cable assemblies use Samtec's 36 AWG micro coax cable to carry clean high speed signals over a range of lengths.



SEAC

Pitch: 1,27mm (.050")
Contacts: Up to 240
Features: Positive latching system

Final Inch®

Final Inch® information is available for the SEARAY™ system. Final Inch® is a "reference design" for one of the most difficult design issues on the board - the Breakout Region (BOR) around the connector. Samtec can provide empirical TDR and frequency domain data, test boards, and validated electrical models for the SEARAY™ system. Final Inch® saves time and is an unmatched service in the interconnect industry.

Please visit www.samtec.com/finalinch for more information or contact our Signal Integrity Group at SIG@samtec.com.

Visit Samtec's Media Room to view a short video on [SEARAY™ Interconnects](#).

