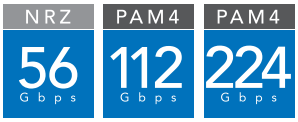
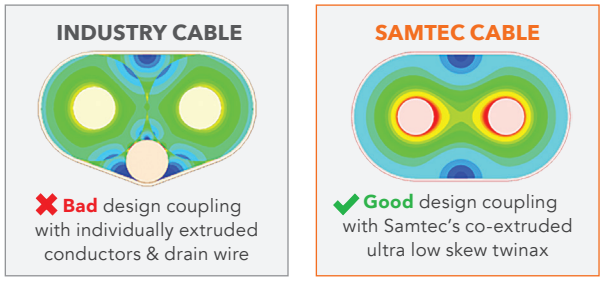
EYE SPEED® CABLE TECHNOLOGY

Ultra & Hyper Low Skew Twinax • Thin Micro Coax

Extreme Density & Performance

Samtec's ultra low skew Eye Speed® Twinax cable technology has expanded to support extreme density and performance. The technology expansion builds on the proven success of our existing Eye Speed® Twinax cable, and now offers versions with 40% smaller diameter and hyper low skew at 1.75 ps/meter max. A 50 Ω micro coax version is also available.



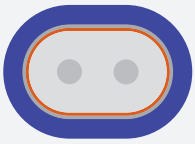


Eye Speed® cable technology is used in conjunction with Samtec's high-performance connectors to create Flyover® solutions where signals are routed through high-speed cable assemblies for signal integrity and thermal improvements.

TWINAX

Eye Speed® Twinax

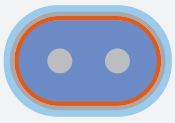
- Ultra low skew: 3.5 ps/m max
- Co-extruded: tight coupling between signal conductors
- Impedance control and perfect intra-pair sequencing
- Ideal for 112 Gbps PAM4 applications: improved bandwidth and reach
- Impedance (Ω): 92, 85 or 100



28–36 AWG

Eye Speed Thinax™

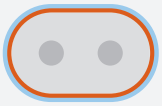
- 40% smaller cross-sectional area versus Eye Speed® Twinax
- Reduction in overall weight and maximizes air flow
- Easy to route through systems
- Ultra low skew: 3.5 ps/m max
- Impedance (Ω): 92



34 AWG

Eye Speed® Hyper Low Skew Twinax

- Hyper low skew: 1.75 ps/m max
- Ideal for 224 Gbps PAM4 applications: improved bandwidth, reach & density
- Easy to route through systems
- Insertion Loss: 14.3 dB (1 m length at 56 GHz)
- 27 AWG Eye Speed® twinax currently in development
- Impedance (Ω): 92

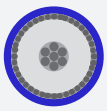


32 AWG

MICRO COAX

Eye Speed ThinSE™

- Small .024" outer diameter cable for 34 AWG variant
- Min. bend radius: 0.125 inch (one-time bend)
- Impedance (Ω): 50
- Supports single-ended and mixed signaling (-DP & -SE) of Samtec high-performance cable assemblies



32 & 34 AWG

For dimensional or performance details by cable, view cable Data Sheets in Samtec's Technical Library: samtec.com/tech-library

Flyover® Cable Assemblies **by Series**

Using Eye Speed® Cable Technology

FAMILY	SERIES	DIFFERENTIAL PAIR (-DP)			SINGLE ENDED (-SE)	MIXED SIGNALING (-DP & -SE)
		Ultra Low Skew Twinax	Thinax™	Hyper Low Skew Twinax	ThinSE™	
AcceleRate®	ARC6	ARC6	ARC6		ARC6	ARC6
AcceleRate® Mini	ARM6	ARM6	ARM6			
AcceleRate® HP	ARP6		ARP6		ARP6	ARP6
AcceleRate® HP Double Density	ART6		ART6			
Si-Fly® LP	CPC	CPC	CPC			
Si-Fly® HD Co-Packaged	SFCC			SFCC		
Si-Fly® HD Near-Chip	SFNC			SFNC		
ExaMAX®	EBCF	EBCF	EBCF		EBCF	
ExaMAX®	EBCM	EBCM	EBCM		EBCM	
ExaMAX® I/O	EBCE	EBCE				
Flyover® OSFP	FOSFP		FOSFP			
Flyover® QSFP	FQSFP	FQSFP	FQSFP			
Flyover® QSFP Double Density 400	FQSFP-DD	FQSFP-DD	FQSFP-DD			
Flyover® QSFP Double Density 800	FQSFP-D8	FQSFP-D8	FQSFP-D8			
Flyover® SFP112	FSFP		FSFP			
NovaRay® I/O 38999	NVA3E	NVA3E				
NovaRay® I/O 38999	NVA3P	NVA3P				
NovaRay®	NVAC	NVAC	NVAC			
NovaRay® I/O	NVACE	NVACE	NVACE		NVACE	NVACE
NovaRay® I/O	NVACP	NVACP	NVACP		NVACP	NVACP
NovaRay® Backplane*	NVCM		NVCM		NVCM	
NovaRay® Backplane*	NVCF		NVCF		NVCF	

RELEASED | IN DEVELOPMENT

*30 AWG power cable in development

For an overview of Samtec high-speed cable assemblies with performance below 56 Gbps NRZ, visit **samtec.com/HDR**.

FLYOVER® TECHNOLOGY

Route signals through high-speed cable assemblies for performance and cost advantages, instead of through lossy printed circuit boards (PCBs).