

# MECHANICAL GUIDANCE MODULES

## OVERVIEW

Guidance modules assure proper connector alignment prior to connector engagement and are suitable for backplane, coplanar or orthogonal midplane applications in Hard Metric environments. Modules fitting 20mm slot pitch complement AirMax 4-pair or 5-pair modules or ZipLine 6-pair signal modules. Modules fitting 17mm slot pitch complement AirMax 3-pair signal modules or can be used with taller signal modules to provide more clearance for airflow.



## FEATURES

- Rugged metal components fastened to boards with screws
- 7.5mm Guide Blades carry maximum weight in small space
- Free standing guidance components
- 10.2mm modules have guidance, coding, and ESD clips
- Hardware applications

## BENEFITS

- Mechanically robust guidance
- Optimizes board edge real estate
- Maximizes design flexibility
- Enables board polarization and grounding
- Flexible design supports right angle and coplanar applications





## TECHNICAL INFORMATION

### MATERIALS

- Base metal: Zinc alloy
- Finish:
  - Body: Zinc yellow chromate
  - ESD contact: Nickel

### MECHANICAL PERFORMANCE

- Misalignment correction:
  - Pin-style modules: +/- 3.5mm max. in direction perpendicular or parallel to daughter card
  - Blade-style modules: +/- 2.9mm max. in direction perpendicular or parallel to card
- Clearance after full guidance:
  - Pin-style modules: 0.35mm nominal (0.175mm surrounding the pin) between pin and receptacle
  - Blade-style modules: 0.25mm nominal (0.125mm per side in the direction perpendicular to the daughter card and 0.30mm nominal (0.15mm per side) in the direction parallel to the daughter card

### SPECIFICATIONS

- Application specification: GS-20-045

### APPROVALS AND CERTIFICATIONS

- Lead-free and RoHS compliant

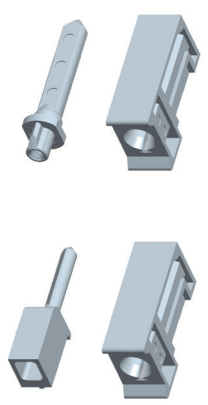
### PACKAGING

- Trays (guide pins)
- Tubes (guide modules)

#### Disclaimer

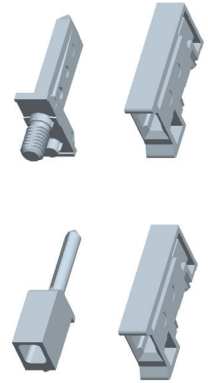
**BLADE-STYLE BACKPLANE/MIDPLANE GUIDE MODULES – WITH NO KEYING OR ESD OPTIONS**

Application	Minimum Card Spacing (mm)	Guide Module Width (mm)	Guide Pin Length (mm)	Guide Pin Thread Style	Product Variation	
					Backplane/ Midplane	Daughter Card
					Guide Pin	Right Angle Guide Module
Backplane Guide Blade	20	7.2	18.3	External threads	10037915-101LF	10037909-101LF
	20	7.2	25.3	External threads	10037908-101LF	10037909-101LF
	20	7.2	25.3	Internal threads	10066832-101LF	10037909-101LF
	17	7.2	25.3	External threads	10045368-101LF	10045367-101LF
Coplanar Blade Receptacle	Minimum Card Slot Spacing (mm)	Guide Module Width (mm)	Guide Pin Length (mm)	Guide Pin Thread Style	Right Angle Pin	Right Angle Receptacle
	20	7.2	25.3		10044314-101LF	10037909-101LF
	17	7.2	25.3		10145588-101LF	10045367-101LF

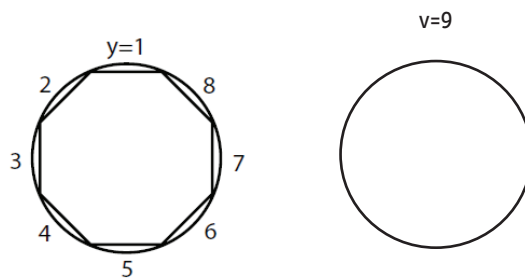


**PIN-STYLE BACKPLANE/MIDPLANE GUIDE MODULES – WITH KEYING AND ESD OPTIONS**

Application	Minimum Card Spacing (mm)	Guide Module Width (mm)	Guide Pin Length (mm)	Guide Pin Thread Style	Product Variation	
					Backplane/ Midplane	Daughter Card
					Guide Pin	Right Angle Guide Module
Backplane Guide Pin	20	10.8	32.0	External threads	10037910-1xxLF	10037912-1xyLF
	20	10.8	32.0	Internal threads	10037911-1xxLF	10037912-1xyLF
	17	10.8	32.0	External threads	10037910-1xxLF	10045597-1xyLF
	17	10.8	32.0	Internal threads	10037911-1xxLF	10045597-1xyLF
Coplanar	Minimum Card Slot Spacing (mm)	Guide Module Width (mm)	Guide Pin Length (mm)	Guide Pin Thread Style	Right Angle Pin	Right Angle Receptacle
	20	10.8	29.9		10044366-10yLF	10037912-1xyLF
	17	10.8	29.9		10044366-10yLF	10045597-1xyLF



y	Key Angle
1	0°
2	45°
3	90°
4	135°
5	180°
6	215°
7	270°
8	315°
9	no key



\* For backplane guide pin modules, “xx” is dictated by the backplane thickness. Replace with code from product drawing. Reference the product drawing for additional information.

\* For right-angle guide modules, “x” = 1 with ESD clip; “x” = 0 without ESD clip. “y” designates the keying angle option. Reference the product drawing for additional information.