

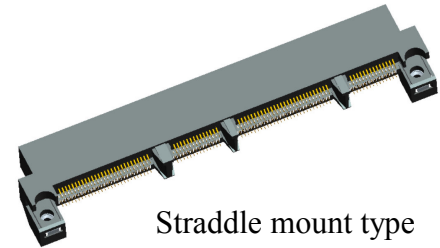
# CARD EDGE PRODUCT FAMILY

## Gen Z

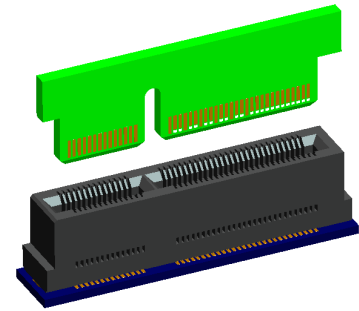


DEREN

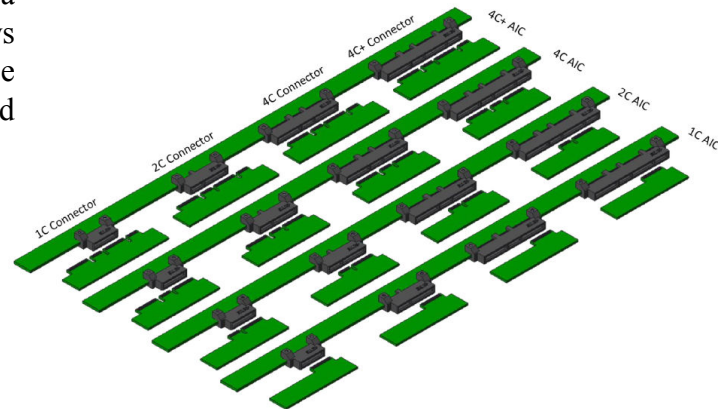
Gen Z is a 0.6mm pitch unshielded high speed card edge connector, which meets SFF-TA-1002 specification. The connector supports signaling rates from 2.5 GT/s NRZ to 112 GT/s PAM-4, which includes but is not limited to 16, 28, 32, and 56 GT/s NRZ, and 56 and 112 GT/s PAM-4. The connector has 56 (1C), 84 (2C), 140 (4C), 168 (4C+) contacts based on bandwidth needs and is configurable for straight, right angle and straddle mount applications. Connector naming (1C, 2C, 4C, 4C+) convention indicates the number of chiclets. Chiclet is a building block for use in naming convention defined as 8 differential pairs of data signals. This connector is discrete pin to enable repurposing for applications that require additional high speed differential pairs or more power pins or side band signals. 1C connector could be up to 18 differential pairs of data signals in a GSSGSSG configuration. 2C connector could be up to 26 differential pairs of data signals in a GSSGSSG configuration. 4C connector could be up to 44 differential pairs of data signals in a GSSGSSG configuration. 4C+ connector could be up to 52 differential pairs of data signals in a GSSGSSG configuration. This connector provides diverse keys and slot length to provide fine alignment, prevent 180 degree insertion, allow complete upward and downward interoperability.



Straddle mount type



Vertical mount type



STRADDLE MOUNT CONNECTOR AND CARD INTEROPERABILITY

- Data rate up to 56 GT/s NRZ, and up to 112GT/s PAM4.
- Add in card common applications for server, storage, etc.
- Straddle mount type available

## TARGET MARKET

- Server
- Storage
- Network interface card

## FETURE

- 0.6mm pitch with current rating 1.1A.
- Multi-keys design and diverse slot length
- Pins options: 56, 84, 140, 168.
- Discrete pin design.
- Supports 1.6mm thickness add in card

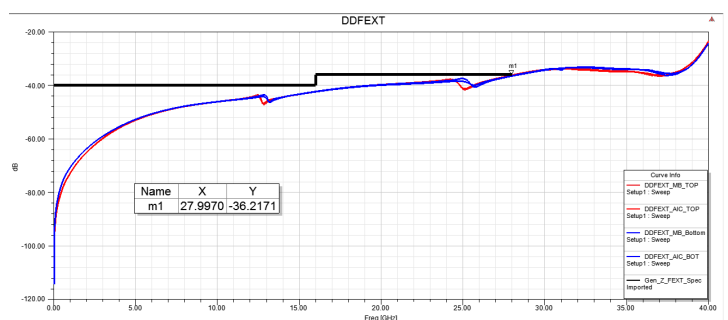
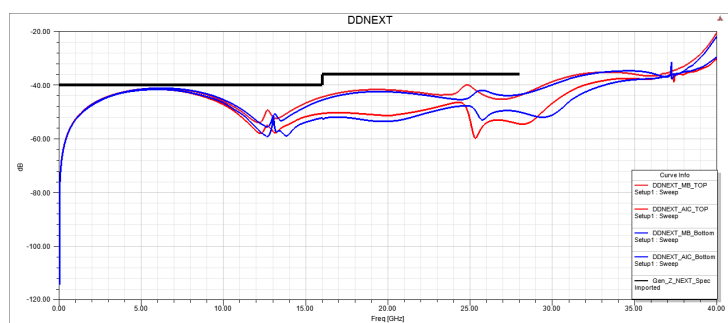
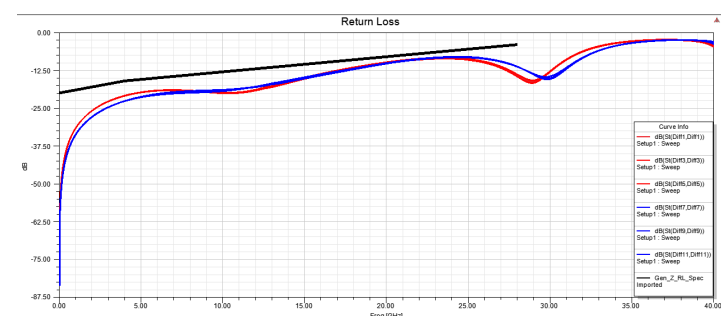
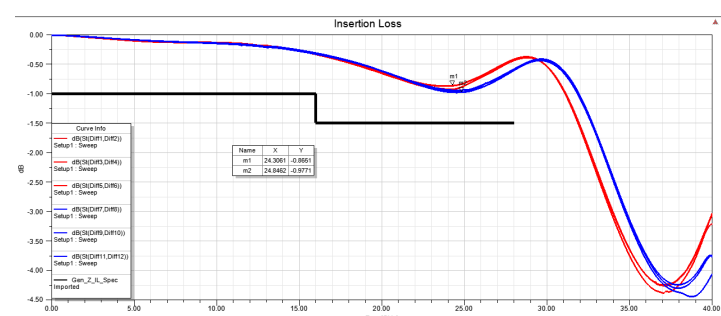
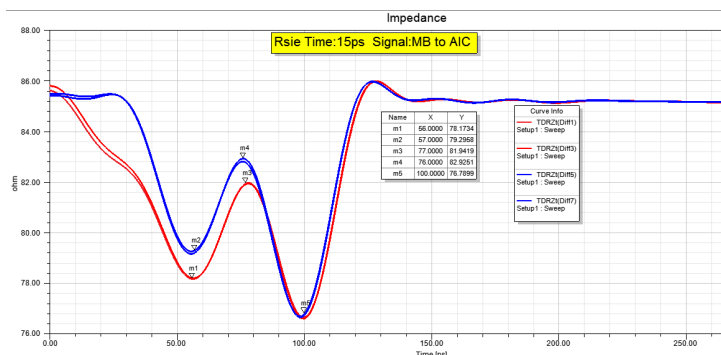
## BENEFIT

- Support small power add in card application.
- Good alignment and prevent reverse insertion  
Allow complete upward and downward interoperability
- Support different bandwidth needs.
- Signal enable repurposing for applications
- Standard thickness for most BTB application



## TECHNICAL INFORMATION

### SIGNAL INTEGRITY PERFORMANCE



### MECHANICAL PERFORMANCE

- Insertion force (AIC to connector): 1.1N/pair max
- Unmating force: 0.1N/pair min.
- Durability: 25cycles.

### ELECTRICAL PERFORMANCE

- Low level contact resistance: 30mΩ initial,  $\Delta$ 15mΩ
- Insulation resistance: 100MΩ min.
- Dielectric withstanding voltage: 300VAC.
- Current rating: 1.1A/pin De-rate

### ENVIRONMENTAL

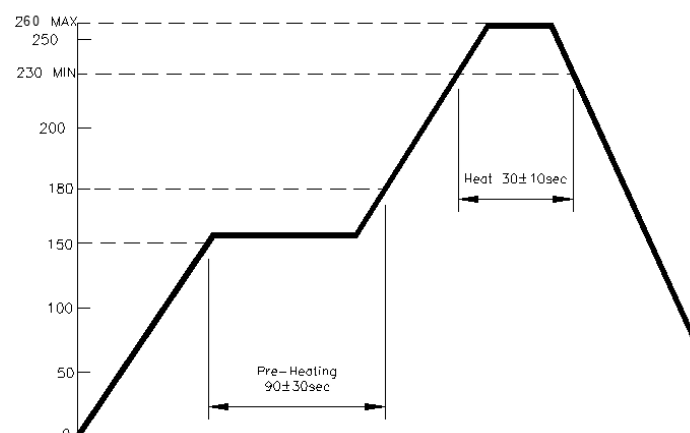
- Flammability: UL 94 V-0
- Low halogen: 1000ppm max. Cl, 1000ppm max Br.
- Compliant with RoHS directive 2011/65/EU
- Operating Temperature: -55° C to +85° C
- Thermal shock: 5 cycles between -55° C to +85° C
- Temperature life: 105° C for 168 hours.

### SPECIFICATION

- SPEC:  
SFF-TA-1002

### APPLICATION SPEC

- Reflow temperature profile:

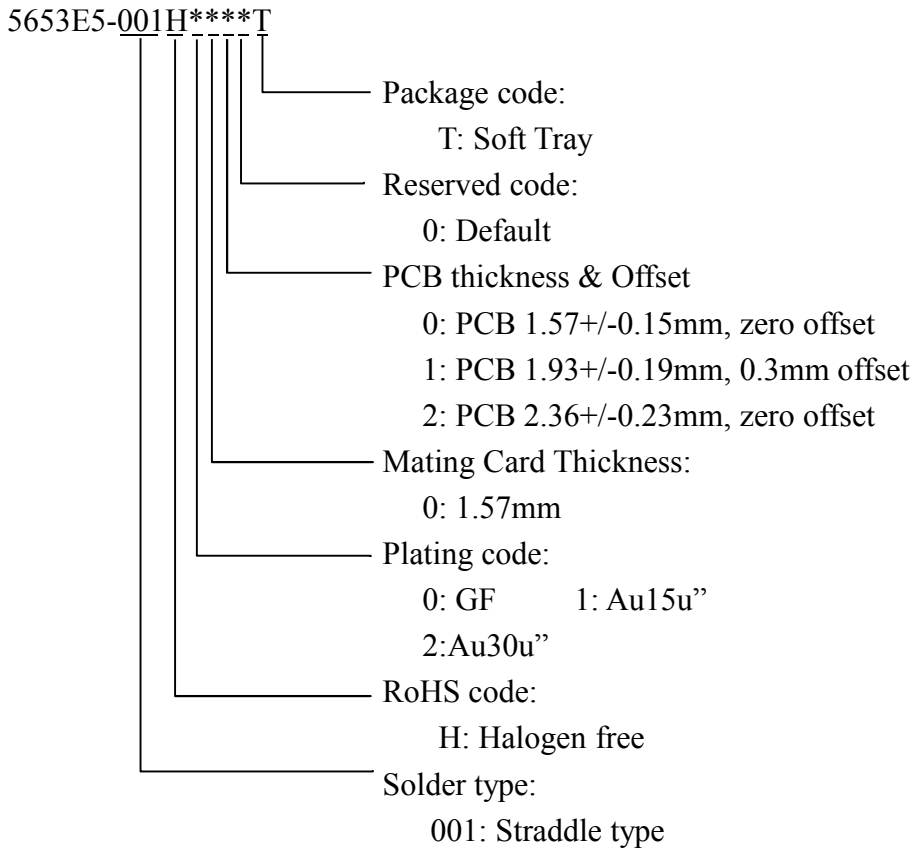


- Recommended stencil thickness: 0.12mm

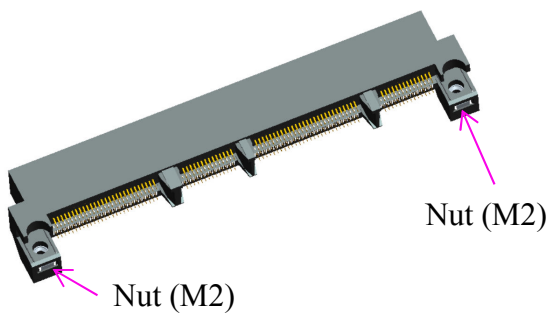
## PART NUMBERS & STRUCTURE

### Gen Z

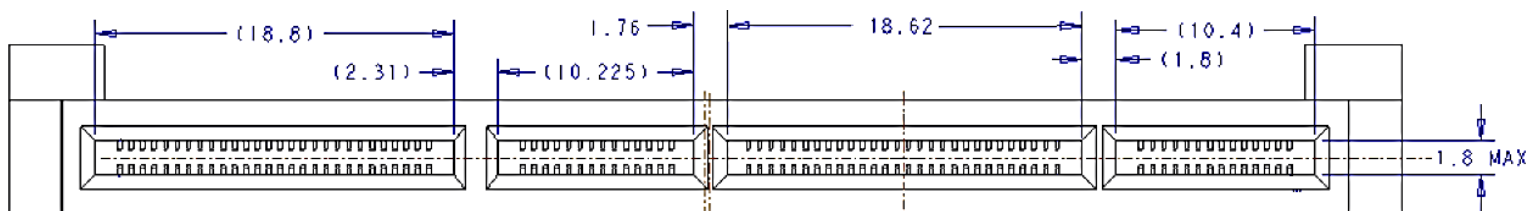
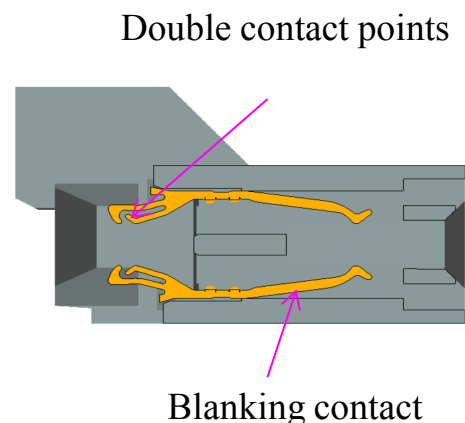
#### Part Number Description:



#### Product Structure



Straddle mount type



Different slot lengths and keys for AIC mating fool-proof