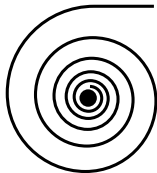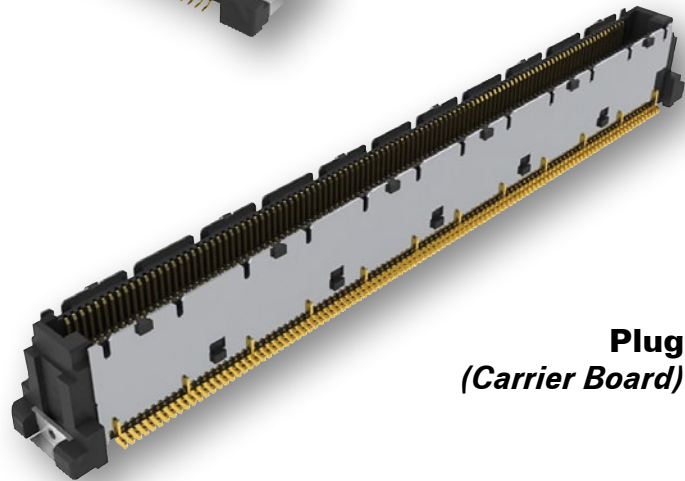**Receptacle**
(COM Module)

Tape and Reel
for fully automated processing

Plug
(Carrier Board)

Colibri® for COM Express®

ept's **Colibri®** connector is a shielded, 2-row, SMT interconnect system in 0.5 mm pitch.

It is designed to meet the requirements according to specifications not only of PICMG COM Express®, but also of SFF-SIG Core Express®. Furthermore **Colibri®** products are compatible with all common connectors available on the market and extensively tested.

The connector system is available with 8 mm and 5 mm stacking height plus 220 and 440 pins.

Additional versions with flexible pin count as well as multiple stacking heights are available on request.
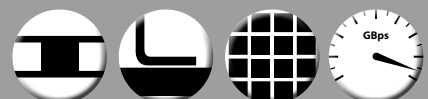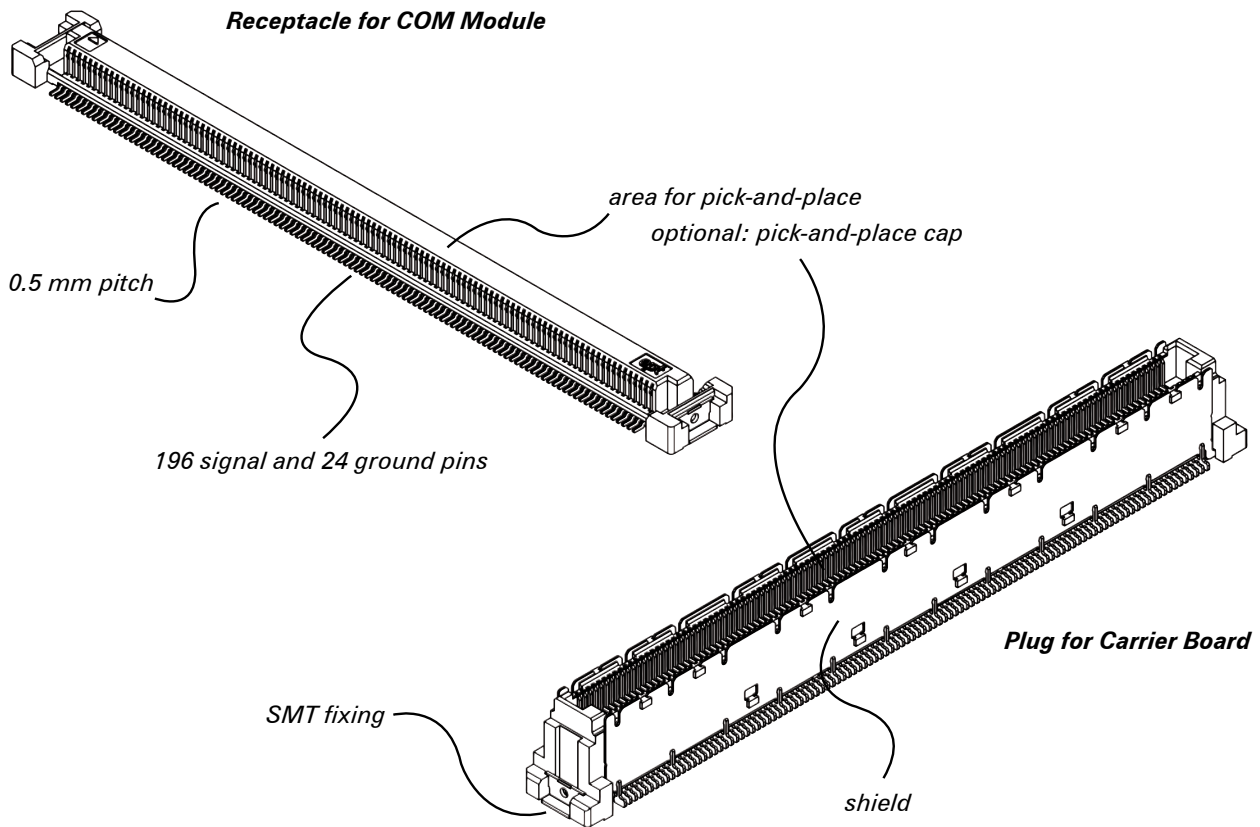
Key Features

- Meets the requirements of PICMG COM Express® and SFF-SIG CoreExpress®

- Intermatability with available connectors in the market

- Tested up to 5 Gbit/s; applications up to 8 Gbit/s possible

- Robust connector design

- Custom configurations in pin count

- Integrated Pick & Place area

- Packed in Tape & Reel

Applications

- COM Express®
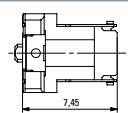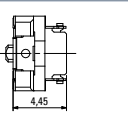
- CoreExpress®

- Mezzanine Add-on Cards

COM Express®

GBps

Receptacle for COM Module

area for pick-and-place
optional: pick-and-place cap

0.5 mm pitch

196 signal and 24 ground pins

SMT fixing

Plug for Carrier Board

shield

Colibri®

Technical Specifications		Colibri® for COM Express®
		0.5 mm SMT Board-to-Board Connector System
BASICS	Specification	PICMG® COM.0
	No. of contacts	220 / 440
	Termination technology	SMT
	Operating temperature range	− 40 °C to + 85 °C
MATERIAL	Insulator material	LCP, UL 94 V-0
	Contact material	Copper alloy
	Plating	Au over Ni
MECHANICAL	Grid	0.5 mm
	Mating force per pin	max. 0.9 N
	Separating force per pin	min. 0.1 N
	Durability	30 mating cycles
	Coplanarity	max. 0.1 mm
ELECTRICAL	Operational current	max. 0.5 A
	Operating voltage	50 VAC
	Contact resistance	max. 75 mΩ
	Insulation resistance	> 100 MΩ
	Test voltage	200 VAC
	Data transfer rate	5 Gbit/s (8 Gbit/s)
PROCESSING	Soldering temperature	260 °C per J-STD-020
	MSL	1
	Packaging	Tape and reel
	Assembly	Pick and place
APPROVAL	Flammability	UL pending
	Environment	RoHS compliant
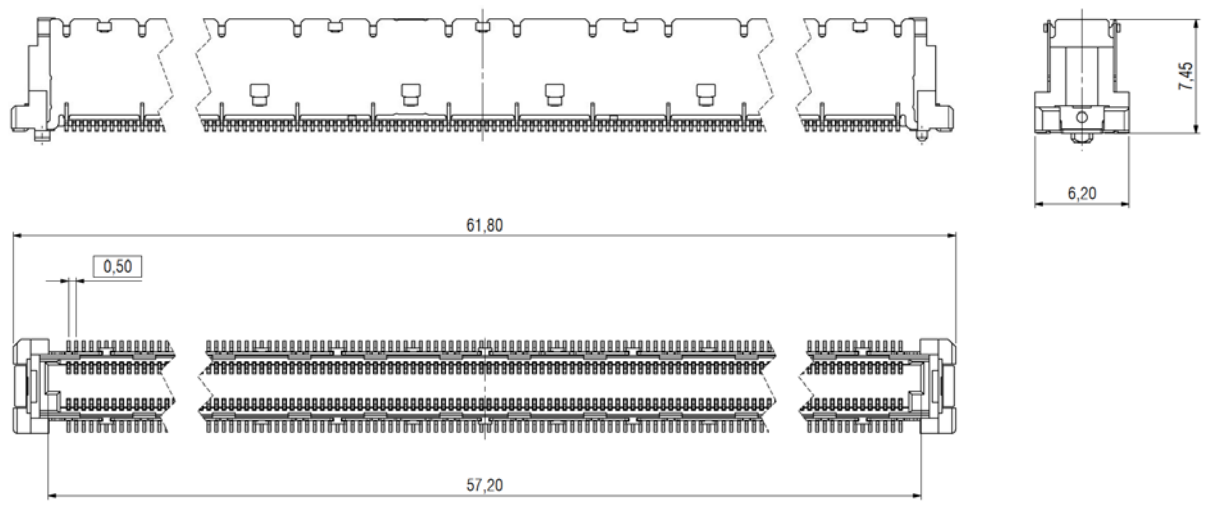
Drawing shows version with 8 mm stacking height, dimensions in mm

Plug (Base Board)

No. of contacts	Colibri® Plug	
	Part number 8 mm stacking height	Part number 5 mm stacking height
220	401-55101-51	401-51101-51
220 with pick & place cap	401-55151-51	401-51151-51
440 with pick & place cap	401-55501-51	401-51501-51

Options
– Tray packaging
 (please add **VP1** to the part number!)

On request
– Other contact numbers
– Other stack heights
– Different plating thickness

Note
– For detailed information
 see customer drawing
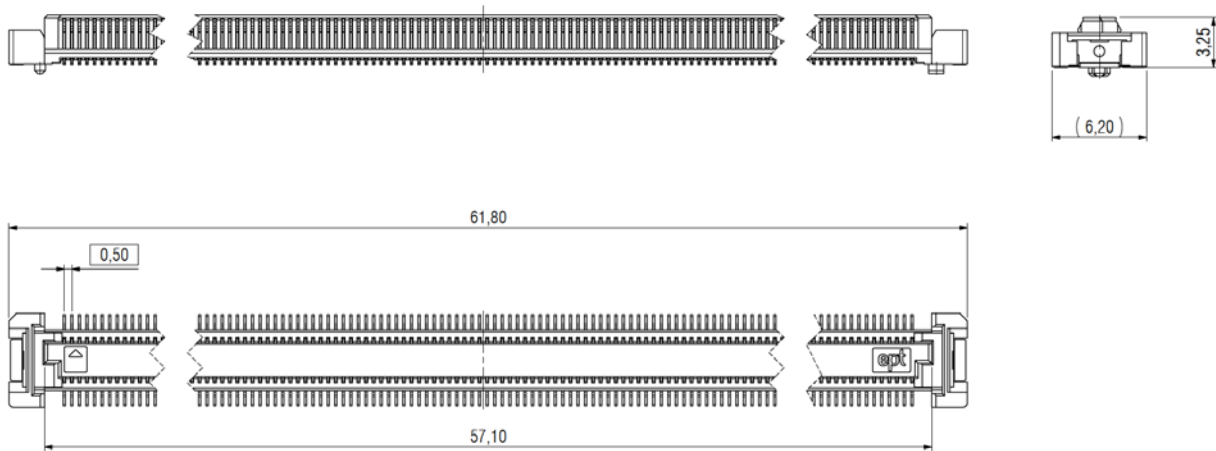
Dimensions in mm

Receptacle (COM Module)

No. of contacts	Colibri® Receptacle
	Part number
220	402-51101-51
440	402-51501-51

Options
– Tray packaging
  (please add **VP1** to the part number!)

On request
– Other contact numbers
– Different plating thickness

Note
– For detailed information
  see customer drawing

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