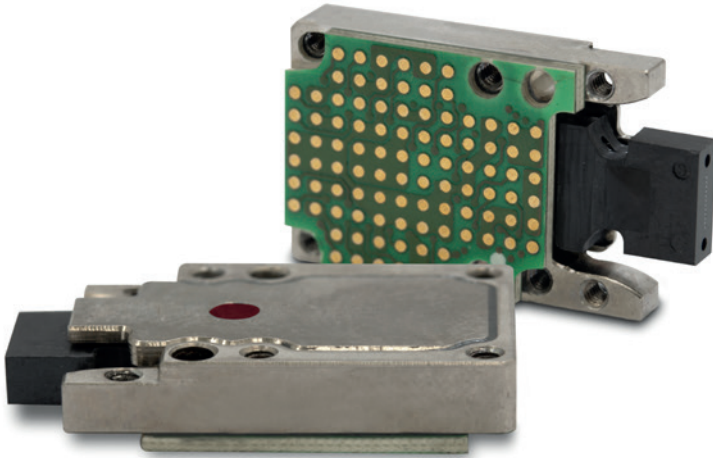


# SpaceABLE 10G LGA 4TRX

Rugged optical transceiver



## Product Summary

The *SpaceABLE SL 4TRX LGA module is a four-lane full duplex optical transceiver in a small ruggedized package.*

The electrical interfaces are based on CML logic levels and support data rates per channel of up to 10.3125 Gbps (a total bandwidth over 50 Gbps full duplex).

The module integrates an industry standard 1x12 MT optical interface using the QSFP+ compatible (4-TX/4-n.c./4-RX) channel configuration. The module uses an LGA type electrical interface connector with 96 pins to be integrated on to the host board.

An I2C serial interface is provided to interrogate the module.

Radiation-resistant,  
low-SWaP,  
multichannel optical  
transceivers for space  
applications.

## Qualification

### Radiation test

- Heavy ion
- Cobalt 60 gamma rays
- Proton bombardment

### MIL-STD-883

- Vibration tests, Method 2007.3
- Mechanical shock tests, Method 2002.5
- Thermal shock tests, Method 1011.9
- Thermal cycling tests, Method 1010.8

### JEDEC-STD-22

- Damp heat - Method A101

### MIL-STD-810

- Cold storage tests, Method 502.5

## Summary Specifications

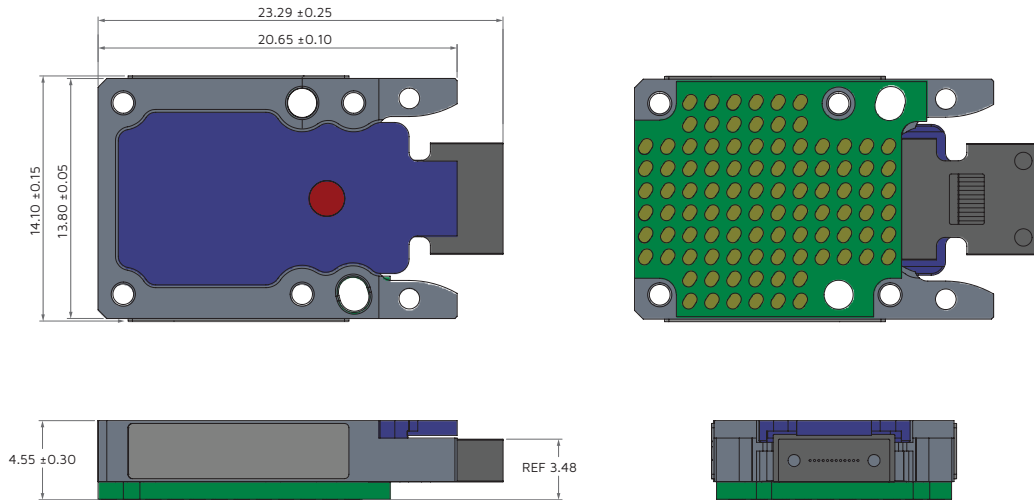
- Sensitivity of -9dBm
- Up to 10.3125 Gbps per channel
- Short-reach 850 nm VCSELs
- Standard 1x12 MT optical interface
- 4 Differential CML Inputs
- 4 Differential CML Outputs
- LGA electrical interface
- Link distance up to 100 m (OM3 fiber)
- I2C communication interface
- Asynchronous channel operation
- Data protocol agnostic, balanced code

## Application

The *SpaceABLE 28 4TRX* applications include:

- LEO and GEO satellites

## Mechanical layout



## Part Numbering and Ordering Information

Part number	Description
<b>Transceiver</b>	
SLX04P9185321AA	SpaceABLE 4TRX 10G LGA transceiver
SLX04P9185321F4	SpaceABLE 4TRX 10G LGA transceiver, Flight model
<b>Accessories</b>	
415-00018	1 mm, 96-position LGA interposer kit (interposer +4 x ¼ in. screws)
700-00120	1 mm, 96-positions LGA interposer (space grade interposer)
322-00030	MicroClip
706-00003	Dowel pins
500-00002	1.2 m MT-to-MT multimode fiber cable
500-00007	1.8 m MT-to-MPO multimode fiber cable / MPO optical fiber ribbon cable
600-00037	MT dust cap (included with the SpaceABLE).
<b>Evaluation boards and related parts</b>	
SLK040018300001	Evaluation board for SpaceABLE 10G LGA (12TX or 12RX)
865-00003	I2C host adapter (AARDVARK)
500-00017	12-fiber multimode breakout cable with MT-to-FC/PC connectors