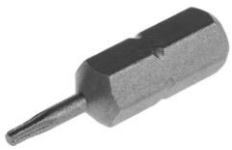
This document describes the installation process for the E-Light module Sx425EwXM on an electronic board.

Recommended tools

TORX tip T6 for screw M2



Torque screw driver 0.05-0.2 N/m



Screw driver TORX T6



Spanner or nut driver 4 mm for M2 nut



Electrical mating/un-mating recommendations

To correctly mount the electrical connector please follow the molex recommendations available at the following address:

https://www.molex.com/pdm_docs/as/547220000-A00.pdf

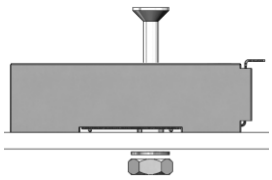
Installation recommendations

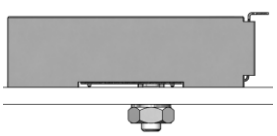
For description of the E-Light module and the board cut out, please refer to the Technical Data Sheet.

It is recommended to always operate the module screwed for a good use.

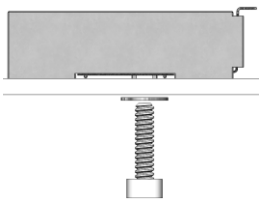
Assembly options

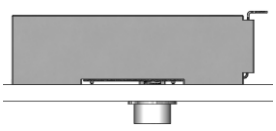
Option 1
Captive screw M2.0 (supplied with the module SM425E2XM) with washer and M2 nut





Option 2
M2 screw with washer

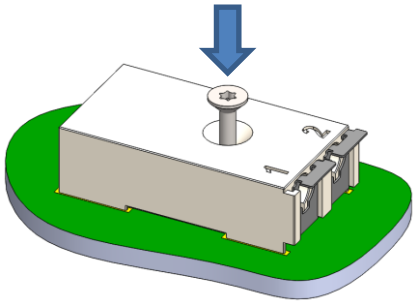




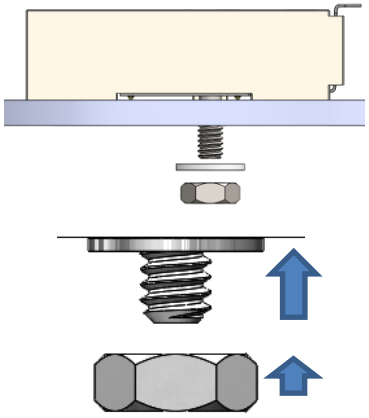
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Mounting procedure – Option 1

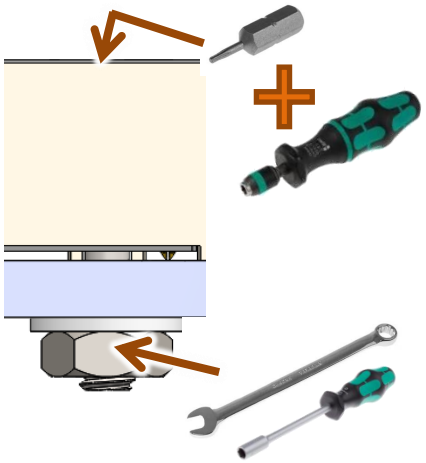
1 – Connect the module and pass the screw through the board



2 – Fit the washer and the nut



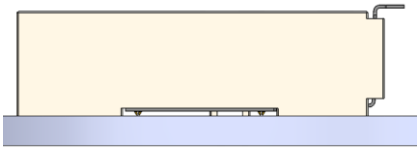
3 - Use the spanner or nut driver to block the nut and use the torque driver to tighten the screw (see table below for values)



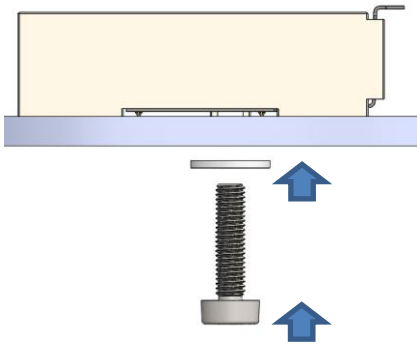
To unscrew, use a regular screw driver.

Mounting procedure – Option 2

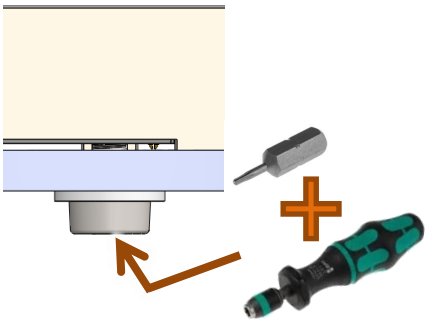
1 – Connect the module on the board



2 – Fit the washer and the screw



3 – Use the torque driver to tighten the screw (see table below for values)



Recommended parts and screw torques

The screw torque and the parts are recommended to support a level of vibration according to MIL-STD-883 method 2026 tests conditions I [C] and I [F].

Option	Screw size	Screw and nut grade	PCB height	Nut	Washer	Screw torque cN.m [Lbf.In]
1	Captive screw TORX T6 M2,0 x 0,4 – 11,5mm	Stainless steel	2.1 mm max	M2.0	M2.0	8 min – 13 max [0.708 – 1.151]
2	Screw TORX T6 M2.0 x 0.4 – 6mm + PCB thickness min	Stainless steel	Any (see screw size)	None	M2.0	8 min – 13 max [0.708 – 1.151]

Loctite 243 (thread lock) is recommended to avoid unlocking in situation with additional vibrations.

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Contact insertion and extraction

The contact used with the module is the Luxcis® MM ML for loose structure optical cable (ARINC 801 LM).

Before insert the contact in the module, clean and inspect the optical face according to the notices listed at the top of this document

Contact insertion

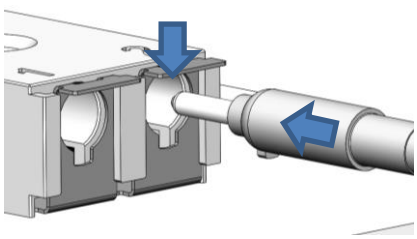


Figure 1

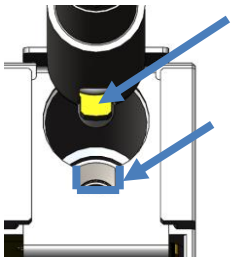


Figure 2

1 – Press on the clip and insert the contact Luxcis® in the cavity (figure 1) with the correct alignment of the key and the groove (figure 2).

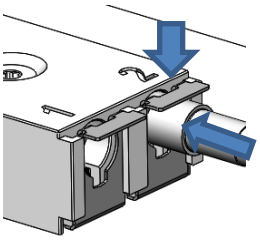


Figure 3

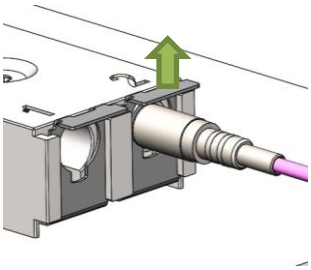


Figure 4

2 - When the contact Luxcis® is engaged into the module keep pressing on the clip and inserting the contact until the clip goes up and locks the contact into the module.

Contact extraction

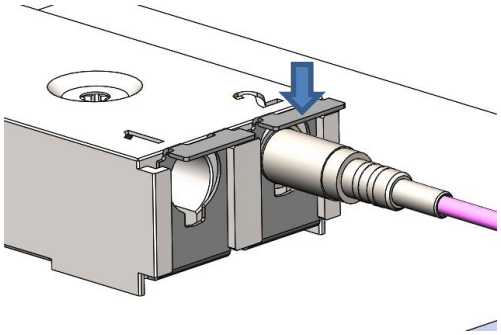


Figure 1

1 – Press on the clip (figure 1) and pull on the bottom of the contact Luxcis® to extract it from the module.

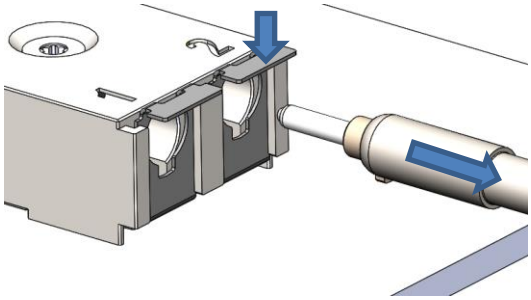


Figure 2

2 – Keep pressing on the clip and pull on the bottom of the contact Luxcis® to extract it from the module
Do not pull on the cable.

3 – Release the clip, put the cap on the contact Luxcis® and in the cavity of the module to avoid pollution.

Document history

Version	Date	Author	Signed-off	Notes
V1.0	2020-06-24	KS	-	Release of AN- XXX
V1.1	2021-01-12	SP	-	Update before release
V1.2	2021-03-23	SP	-	Inspection & Cleaning Kit references added
V1.3	2022-07-18	VF	-	Recommended to always operate the module screwed
V1.4	2025-03-11	VF	-	Update of the application note reference

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