



BL2 – Lighting Segment: Newsletter Q4 2022

Dear all,

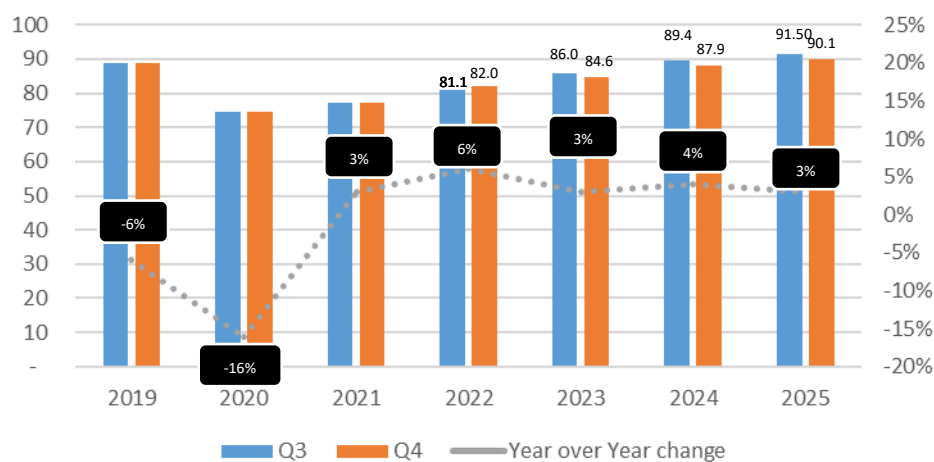
This already is again the final newsletter for 2022.

Please find below the latest information with respect to the market development as well as the product update from our segment.

Market information:

The expected production for 2022 raised again compared to Q3 2022: Both China and South Asia show increases, but Europe and America cut on renewed supply chain frictions, Japan and S-Korea demonstrate a short term upside with raised expectations.

Global Production



- + Mainland China continues recovery on easing of lockdown and stimulus, +5% (y/y) increase in October
Light- Vehicle production but down from 19% (y/y) in September
- + India shows further strong activity expected to underpin balance of this year and next. +29% (y/y) October
- + on-automotive chip demand easing but displacement effects limited
- + Natural gas supplies for Q4 '22/Q1 '23 look secure in Europe
- Europe faces permanently reduced supplies of natural gas from Russia; risk expected to emerge now from H2 2023. Other raw materials could be weaponized
- Zero-COVID policy in mainland China could quickly see lockdowns adopted: recently Guangzhou, Zhengzhou, Chongqing latest case numbers growing
- Investment in analogue chips limited and lead times are yet to fall; MCU supply and lead times healthier
- General economic squeeze becoming more influential and earlier in the cycle
- Rising number of incomplete vehicle stocks obscuring visibility of balanced chip supplies
- Logistics and labor issues building adding to constraints

Source: S&P Global (I.H.S. Markit). Data Only for company internal use



Product updates:

E521.38:

After a restart in Q3 this year, the planning for our 12-channel RGB driver looks as follows:

Final samples: Q4 2022 (internally), Q1 2023 (limited customer distribution)

AECQ-100 ready: Q3 2023, PPAP ready: Q3 2023

At PPAP also the collaterals are planned to be available on our confluence page.

E521.39:

Mass production deliveries including recalled samples have been restarted to customers. This product will be the fastest ramp-up for Elmos ever and challenges still exist as we move into 2023.

E522.60:

Latest planning details are:

Tested final samples available:

AECQ-100 planned completion: Q3 2023, PPAP finished: Q3 2023

Start Mass production: Q1 2024

E522.59:

The newest product family member the E522.59 supports a differential Bus communication system and UART protocol, which is capable of doubling the communication speed of the E522.49 to 1Mbps. Next to the increased data rate, there is an option to connect to an external PHY via Tx/Rx pins. Currently there are ESD failures observed in qualification which is going to likely impact the planned PPAP date for this product which was end Q1'23. Corrective actions are already ongoing and an updated schedule will be communicated in Jan 2023.

E522.94:

The collaterals are visible on the confluence page. SOP at ELCH customers has already started and QB3 is planned for end of Q1 2023.

Additional to the QFN package, Elmos also will come with a QFP-48 package variant. The planning for this variant looks as follows:

Samples: Q1 2023

AEC Q100: Q2/Q3 2023, PPAP: Q3 2023

Mass Production start: end 2023/early 2024

E522.95:

SOP at lead OEMs is planned for end of Q1/early Q2 2023.

Information flow update:

Confluence page:

Added this month:

- Virtual booth/lighting
- Video Auto Addressing

For presentations the .ppt link to the various presentations (.pdf also is available via the page)

- All one slider presentation (20221025).pptx
- Technical application training LED Front Light Products (20220603).pptx
- Technical application training Static Rear Light Products (20220603).pptx
- Product portfolio slides September 2nd 2022 (Dynamic rear Lighting).pptx
- Technical application training Interior Light Products (20220603).pptx



Elmos Lighting Global Events Q4 2022:

In October 2022, we had a 25m² Elmos booth in Wolfsburg at the IZB (VW Suppliers Event) to demonstrate show our technologies and products. Various customer interactions for both Interior Lighting (mainly about the E521.38) and the Rear Lighting demo's (E522.60 and 16 channel Driver family) were held. Follow-up actions are already ongoing.



Elmos crew at IZB in Wolfsburg



E521.38: Latest demo Lighting Segment

In November, the bi-yearly Electronica in Munich took place. Elmos had a 70m² booth and increased the number of demo's. Many positive reactions from customers on the booth and demo's of our lighting products.



Elmos crew at Electronica in Munich



Three of the seven available Lighting demo's at Electronica

During Electronica, Jörn Conze also introduced the ELA0891/E521.45 at the ISELED press release event.

Also In November the Segment Lighting was present during also the WRO (World Robotics Olympiade) in Dortmund.



Elmos crew at at the WRO in Dortmund

From the Segment Lighting Team we would like to thank you for contributions to make 2022 a successful year of us and we wish you a Merry Christmas and Happy 2023!

Kind Regards
Hans Zweers