

# Commercial News

A general overview of the market situation as well as lead times and prices

## Analog

**High-End:** Lead times are expected to increase short-term. Standard level is 8 – 20 weeks.

**Commodities:** Lead times are increasing across the board; prices remain stable.



|                       | Lead Time (wk) | Price |
|-----------------------|----------------|-------|
| Switched Voltage Regs | ↔ 8-16         | ↔     |



|                       | Lead Time (wk) | Price |
|-----------------------|----------------|-------|
| Data Converters       | ↔ 7-8          | ↔     |
| Interface             | ↔ 7-8          | ↔     |
| Interface (High End)  | ↔ 7-8          | ↔     |
| Op Amps High End      | ↔ 7-8          | ↔     |
| Op Amps Commodities   | ↔ 7-8          | ↔     |
| Switched Voltage Regs | ↔ 7-8          | ↔     |
| Voltage Regulators    | ↔ 7-8          | ↔     |
| Peripherals           | ↔ 7-8          | ↔     |



|                       | Lead Time (wk) | Price |
|-----------------------|----------------|-------|
| Data Converters       | ↔ 8-12         | ↔     |
| Interface             | ↔ 8-12         | ↔     |
| Op Amps High End      | ↑ 8-16         | ↔     |
| Switched Voltage Regs | ↔ 8-12         | ↔     |



|                  | Lead Time (wk) | Price |
|------------------|----------------|-------|
| Interface        | ↔ 8-10         | ↔     |
| Op Amps High End | ↔ 10-20        | ↔     |



|                       | Lead Time (wk) | Price |
|-----------------------|----------------|-------|
| Interface             | ↑ 8-12         | ↔     |
| Op Amps High End      | ↔ 10-20        | ↔     |
| Op Amps Commodities   | ↑ 6-26         | ↔     |
| Switched Voltage Regs | ↑ 8-16         | ↔     |
| Voltage Regulators    | ↑ 6-26         | ↔     |



|                       | Lead Time (wk) | Price |
|-----------------------|----------------|-------|
| Data Converters       | ↔ 8-16         | ↔     |
| Interface             | ↑ 12-16        | ↔     |
| Op Amps High End      | ↑ 8-22         | ↔     |
| Op Amps Commodities   | ↑ 12-16        | ↔     |
| Switched Voltage Regs | ↑ 8-16         | ↔     |
| Voltage Regulators    | ↑ 12-16        | ↔     |

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## Discretes

Lead times are rising due to overall increasing requirement. NXP pressure and motion sensors are facing capacity constraints due to a strong increase in demand. It is recommended to place long term backlog as further increase of lead times is expected.



|         | Lead Time (wk) | Price |
|---------|----------------|-------|
| Sensors | ↔ 12-40        | ↔     |



|            | Lead Time (wk) | Price |
|------------|----------------|-------|
| RF Devices | ↑ 8-24         | ↔     |



|                | Lead Time (wk) | Price |
|----------------|----------------|-------|
| Bi-polar Power | ↔ 7-10         | ↔     |
| Thyristors     | ↑ 10-32        | ↔     |
| Power MOSFETs  | ↑ 14-36        | ↔     |
| Rectifiers     | ↑ 14-36        | ↔     |
| Small Signal   | ↑ 8-20         | ↔     |
| IGBT           | ↔ 12-32        | ↔     |
| RF Devices     | ↔ 10-26        | ↔     |
| Sensors        | ↔ 16-30        | ↔     |



|         | Lead Time (wk) | Price |
|---------|----------------|-------|
| Sensors | ↔ 6-8          | ↔     |



|                             | Lead Time (wk) | Price |
|-----------------------------|----------------|-------|
| Bi-polar Power              | ↑ 8-18         | ↔     |
| Small Signal                | ↑ 6-18         | ↔     |
| TVS/Protection              | ↑ 8-26         | ↔     |
| Power MOSFETs <sup>x1</sup> | ↑ 14-28        | ↔     |
| Zener Diodes                | ↑ 6-18         | ↔     |

<sup>x1</sup> critical supply for SOT1205 and SOT1210



|                       | Lead Time (wk) | Price |
|-----------------------|----------------|-------|
| RF Devices            | ↔ 12-24        | ↔     |
| Sensors <sup>x1</sup> | ↑ 8-40         | ↔     |

<sup>x1</sup> Pressure Sensors and Motion Sensors on shortage



|                | Lead Time (wk) | Price |
|----------------|----------------|-------|
| Bi-polar Power | ↑ 10-26        | ↔     |
| IGBT           | ↔ 15-48        | ↔     |
| Power MOSFETs  | ↑ 10-38        | ↔     |
| Rectifiers     | ↑ 10-31        | ↔     |
| Small Signal   | ↑ 10-39        | ↔     |
| TVS/Protection | ↑ 8-36         | ↔     |
| Zener Diodes   | ↑ 8-27         | ↔     |



|                              | Lead Time (wk) | Price |
|------------------------------|----------------|-------|
| Bi-polar Power               | ↑ 12-18        | ↔     |
| IGBT                         | ↔ 30-42        | ↔     |
| Power MOSFETs                | ↑ 15-39        | ↔     |
| Rectifiers <sup>x1</sup>     | ↑ 11-31        | ↔     |
| Small Signal                 | ↑ 14-27        | ↔     |
| Thyristors                   | ↑ 11-27        | ↔     |
| TVS/Protection <sup>x1</sup> | ↑ 13-27        | ↔     |

<sup>x1</sup> extended lead times for AECQ versions

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## Discretes

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|               | Lead Time (wk) | Price |
|---------------|----------------|-------|
| Power MOSFETs | ↑ 14-28        | ↔     |



|                          | Lead Time (wk) | Price |
|--------------------------|----------------|-------|
| Power MOSFETs            | ↑ 11-30        | ↔     |
| Rectifiers <sup>x1</sup> | ↑ 12-37        | ↔     |
| Small Signal             | ↑ 10-20        | ↔     |
| Thyristors               | ↑ 20-35        | ↔     |
| TVS/Protection           | ↑ 12-28        | ↔     |
| Zener Diodes             | ↑ 10-23        | ↔     |

<sup>x1</sup> extended lead times for selected high power products

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## Memory

**ALL PRICE TENDENCIES ARE INDICATED IN USD**

**DRAM:** Increasing lead times; price trends up, esp. on DDR4/LPDDR4 and DDR3

**NAND Flash:** Stable availability and lead times; pricing flat

**SRAM & NOR Flash:** Stable pricing and availability on SRAM, NOR Flash with increasing lead times



|                  | Lead Time (wk) | Price |
|------------------|----------------|-------|
| Serial NOR Flash | ↑ 12-20        | ↔     |



|      | Lead Time (wk) | Price |
|------|----------------|-------|
| FRAM | ↔ 16-20        | ↔     |



|                    | Lead Time (wk) | Price |
|--------------------|----------------|-------|
| FRAM               | ↔ 8-28         | ↔     |
| nvSRAM             | ↔ 8-28         | ↔     |
| Parallel NOR Flash | ↔ 12-14        | ↔     |
| Serial NOR Flash   | ↑ 16-20        | ↔     |
| SRAM Asynch.       | ↔ 12-16        | ↔     |
| SRAM Synch.        | ↔ 12-16        | ↔     |



|                          | Lead Time (wk) | Price |
|--------------------------|----------------|-------|
| DDR/mobile DDR           | ↔ 8-12         | ↔     |
| DDR2/LPDDR2              | ↔ 8-12         | ↔     |
| DDR3/DDR3L               | ↔ 8-12         | ↔     |
| DDR4/LPDDR4              | ↔ 8-12         | ↔     |
| Managed NAND (eMMC, UFS) | ↔ 8-12         | ↔     |
| NAND (SLC,MLC,TLC,3D)    | ↔ 8-12         | ↔     |
| Parallel NOR Flash       | ↔ 8-12         | ↔     |
| SDRAM/mobile SDRAM       | ↔ 8-12         | ↔     |
| Serial NOR Flash         | ↔ 8-12         | ↔     |
| SRAM Asynch.             | ↔ 8-12         | ↔     |
| SRAM Synch.              | ↔ 8-12         | ↔     |



|                          | Lead Time (wk) | Price |
|--------------------------|----------------|-------|
| NAND (SLC,MLC,TLC,3D)    | ↔ 10-12        | ↔     |
| Managed NAND (eMMC, UFS) | ↔ 10-12        | ↔     |
| SSD                      | ↔ 10-12        | ↓     |



|                  | Lead Time (wk) | Price |
|------------------|----------------|-------|
| EEprom           | ↔ 5-17         | ↔     |
| Eprom            | ↔ 15-16        | ↔     |
| Serial NOR Flash | ↔ 6-15         | ↔     |

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## Memory

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**DRAM:** Increasing lead times; price trends up, esp. on DDR4/LPDDR4 and DDR3

**NAND Flash:** Stable availability and lead times; pricing flat

**SRAM & NOR Flash:** Stable pricing and availability on SRAM, NOR Flash with increasing lead times



|                          | Lead Time (wk) | Price |
|--------------------------|----------------|-------|
| DDR/mobile DDR           | ↔ 8-12         | ↔     |
| DDR2/LPDDR2              | ↔ 8-12         | ↔     |
| DDR3/DDR3L               | ↑ 8-12         | ↑     |
| DDR4/LPDDR4              | ↑ 10-14        | ↑     |
| Managed NAND (eMMC, UFS) | ↑ 12-16        | ↔     |
| microSD                  | ↔ 10-14        | ↔     |
| NAND (SLC,MLC,TLC,3D)    | ↔ 10-14        | ↔     |
| Parallel NOR Flash       | ↑ 12-16        | ↔     |
| SDRAM/mobile SDRAM       | ↔ 8-12         | ↔     |
| Serial NOR Flash         | ↑ 6-15         | ↔     |
| SSD                      | ↔ 10-14        | ↓     |

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|                  | Lead Time (wk) | Price |
|------------------|----------------|-------|
| EEProm           | ↔ 7-21         | ↔     |
| Serial NOR Flash | ↔ 7-11         | ↔     |



|                | Lead Time (wk) | Price |
|----------------|----------------|-------|
| EEProm         | ↔ 8-12         | ↔     |
| FIFO           | ↑ 14-18        | ↑↑    |
| SRAM Asynch.   | ↑ 14-18        | ↑↑    |
| SRAM Multiport | ↑ 14-18        | ↑↑    |
| SRAM Synch.    | ↑ 14-18        | ↑↑    |



|                          | Lead Time (wk) | Price |
|--------------------------|----------------|-------|
| DDR2                     | ↔ 10-12        | ↔     |
| DDR3/DDR3L               | ↑ 10-12        | ↔     |
| DDR4/LPDDR4              | ↑ 10-12        | ↔     |
| Managed NAND (eMMC, UFS) | ↔ 10-12        | ↔     |
| SSD                      | ↔ 10-12        | ↔     |



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|        | Lead Time (wk) | Price |
|--------|----------------|-------|
| EEProm | ↔ 3-26         | ↑     |
| NVRAM  | ↔ 14-22        | ↔     |

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## Opto

The lead times are increasing; some product lines are already going on allocation. Prices are partly increasing. Long term demand scheduling is recommended.



|                                     | Lead Time (wk) | Price |
|-------------------------------------|----------------|-------|
| LEDs Low/Mid Power General Lighting | ↑ 4-6          | ↔     |
| LEDs High Power General Lighting    | ↔ 4-6          | ↔     |



|                    | Lead Time (wk) | Price |
|--------------------|----------------|-------|
| Coupler            | ↑ 14-26        | ↑     |
| LEDs High Power    | ↔ 10-14        | ↔     |
| LEDs Low/Mid Power | ↑ 10-14        | ↔     |



|                    | Lead Time (wk) | Price |
|--------------------|----------------|-------|
| Coupler            | ↑↑ 8-24        | ↔     |
| LED's High Power   | ↔ 8-10         | ↔     |
| LEDs Infrared      | ↑ 6-18         | ↑     |
| LEDs low/mid Power | ↑↑ 22-24       | ↔     |
| LEDs Ultraviolet   | ↑ 6-20         | ↔     |



|           | Lead Time (wk) | Price |
|-----------|----------------|-------|
| LED Optic | ↔ 4-6          | ↑     |



|                                     | Lead Time (wk) | Price |
|-------------------------------------|----------------|-------|
| LED's High Power                    | ↔ 6-10         | ↔     |
| LEDs High Power General Lighting    | ↔ 6-8          | ↔     |
| LEDs Infrared                       | ↑ 6-16         | ↑     |
| LEDs Low/Mid Power General Lighting | ↔ 6-8          | ↔     |
| LEDs Ultraviolet                    | ↔ 6-8          | ↔     |



|         | Lead Time (wk) | Price |
|---------|----------------|-------|
| Coupler | ↔ 6-12         | ↔     |

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## Opto

The lead times are increasing; some product lines are already going on allocation. Prices are partly increasing. Long term demand scheduling is recommended.

### OSRAM

|                                     | Lead Time (wk) | Price |
|-------------------------------------|----------------|-------|
| LEDs low/mid Power <sup>x1</sup>    | ↑ 10-16        | ↑     |
| LED's High Power                    | ↑ 10-16        | ↔     |
| LEDs High Power General Lighting    | ↔ 6-12         | ↔     |
| LEDs Infrared                       | ↔ 8-16         | ↔     |
| LEDs Low/Mid Power General Lighting | ↑ 6-12         | ↔     |

<sup>x1</sup> \* TOPLED LS T67F, LA E67F, LA A67F are on allocation  
 \* Topled and Topled Black Surface LW TVSG, Lx T68x, Lx TWGT 20-24 weeks  
 \* Power TOPLED with lens Lx E63x; Lx E65x 18-20 weeks  
 \* 6-lead MULTILED LxTB G6xG, Lxxx G6Sx, LRTB GVSG on request  
 \* KRTBLSLP 8-10 weeks  
 \* LG L29K 14-16 weeks  
 \* SIDELED Lx A6xx 10-12 weeks  
 \* Svnios P2720 Kx DMLx3x 16-20 weeks

### TOSHIBA

|         | Lead Time (wk) | Price |
|---------|----------------|-------|
| Coupler | ↑↑ 12-36       | ↔     |



|                             | Lead Time (wk) | Price |
|-----------------------------|----------------|-------|
| Coupler                     | ↑ 8-36         | ↔     |
| LED's High Power            | ↔ 7-14         | ↔     |
| LEDs Infrared <sup>x1</sup> | ↑ 6-26         | ↑     |
| LEDs low/mid Power          | ↑ 6-12         | ↔     |
| LEDs Ultraviolet            | ↔ 6-20         | ↔     |

<sup>x1</sup> 0805 SMD up to 35 weeks  
 IR receiver up to 18 weeks\*

### RENESAS

|         | Lead Time (wk) | Price |
|---------|----------------|-------|
| Coupler | ↑ 12-18        | ↑↑    |

### SAMSUNG

|   | Lead Time (wk) | Price |
|---|----------------|-------|
| LEDs low/mid Power                                | ↑ 6-8          | ↔     |
| LED's High Power                                  | ↔ 5-6          | ↔     |
| LEDs High Power General Lighting                  | ↔ 6-8          | ↔     |
| LEDs Low/Mid Power General Lighting <sup>x1</sup> | ↑ 6-8          | ↔     |

<sup>x1</sup> LM301B 10-12 weeks

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## MCU & DSP

Microcontroller lead times are increasing for most of our suppliers. NXP and STM see a very strong demand increase and capacities fully booked until mid of 2021.

**NXP** constraints/longer lead times on: Automotive Processors due to TSMC capacity constraints into Q4 affecting several technologies. Extended lead times on Digital Networking (P20xx and P50xx,LS1xx and LS2xx) at 26 weeks. Lead times on the entire NXP portfolio see a sharp increase.

**STM** STM32 F1,F3 series are on constraint supply. Rest of STM MCUs are in a range of 12-25 weeks. MCU capacity Q4 is entirely booked; Q1 CY21 almost fully booked.

This is again a call to action to bring in maximum demand visibility at least until June 2021.

**REN** standard lead time for MCUs is trending down to a range of 10-12 weeks, but automotive MCUs are getting tight in supply at a range of 26-30 weeks.

**IDT will increase prices from January 2021 on.**



|        | Lead Time (wk) | Price |
|--------|----------------|-------|
| 8 Bit  | ↔ 16-36        | ↔     |
| 16 Bit | ↔ 12-36        | ↔     |
| 32 Bit | ↔ 14-26        | ↔     |



|      | Lead Time (wk) | Price |
|------|----------------|-------|
| MCUs | ↔ 10-30        | ↔     |



|        | Lead Time (wk) | Price |
|--------|----------------|-------|
| 8 Bit  | ↑ 14-18        | ↔     |
| 16 Bit | ↑ 12-25        | ↔     |
| 32 Bit | ↑↑ 12-40       | ↔     |



|           | Lead Time (wk) | Price |
|-----------|----------------|-------|
| 8 Bit AVR | ↑ 6-24         | ↔     |
| 8 Bit PIC | ↑ 14-22        | ↔     |
| 16 Bit    | ↑ 15-34        | ↔     |
| 32 Bit    | ↑ 13-35        | ↔     |



|        | Lead Time (wk) | Price |
|--------|----------------|-------|
| 8 Bit  | ↑ 12-24        | ↔     |
| 16 Bit | ↑↑ 12-26       | ↔     |
| 32 Bit | ↑↑ 12-26       | ↔     |
| i.MX   | ↑ 12-26        | ↔     |
| DSP    | ↑ 8-18         | ↔     |



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## Program. Logic

Xilinx still has extended lead times on following families: 2VP40\* 29 weeks, 3S1600E\* 25 weeks, XAZU4EV, XAZU5EV, ZU4CG/EG/EV,ZU5CG/EG/EV all 24 weeks, ZU27DR/ZU25DR to 23 weeks, XA3S1500\*/XC3S1500\* 19 weeks Many other families are now up to a range of 14-18 weeks. We strongly recommend to talk to customers to receive long-term production forecasts to be able to secure capacity.



|                | Lead Time (wk) | Price |
|----------------|----------------|-------|
| Program. Logic | ↑ 12-20        | ↔     |



|                | Lead Time (wk) | Price |
|----------------|----------------|-------|
| Program. Logic | ↑ 10-29        | ↑     |

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## Logic

Lead times are still increasing.

**nexperia**

|                | Lead Time (wk) | Price |
|----------------|----------------|-------|
| Standard Logic | ↑ 12-22        | ↔     |

**TOSHIBA**

|                | Lead Time (wk) | Price |
|----------------|----------------|-------|
| Standard Logic | ↑ 12-26        | ↔     |

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|                | Lead Time (wk) | Price |
|----------------|----------------|-------|
| Standard Logic | ↑ 12-36        | ↔     |