

# COMMERCIAL NEWS

## Analog

**High-End:** We are still facing in general long lead times, peak is reached, here and there some relaxations.

**Commodities:** Lead times and prices remain stable, ST competitive on standard product prices



	Lead Time (wk)	Price
Switched Voltage Regs	↔ 12-24	↔



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



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



	Lead Time (wk)	Price
Interface	↔ 8-10	↔
Op Amps High End	↔ 8-16	↔



	Lead Time (wk)	Price
Interface	↔ 12-20	↔
Op Amps High End	↑ 12-20	↔
Op Amps Commodities	↔ 18-26	↔
Switched Voltage Regs	↔ 8-16	↔
Voltage Regulators	↔ 18-26	↔



	Lead Time (wk)	Price
Data Converters	↔ 8-16	↔
Interface	↔ 12-20	↔
Op Amps High End	↑ 8-16	↔
Op Amps Commodities	↔ 12-20	↔
Switched Voltage Regs	↔ 8-16	↔
Voltage Regulators	↔ 12-20	↔

# COMMERCIAL NEWS

## Discretes

There is no major change on the supply situation for Discretes. Most packages continue to be constraint. IGBT in general have very high lead times. Infineon IGBT has extremely tight supply, especially on 6 inch IGBT chips. NXP's pressure and motion sensors are on tight supply.



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



	Lead Time (wk)	Price
RF Devices	↔ 7-16	↔



	Lead Time (wk)	Price
Bi-polar Power	↔ 20-26	↔
IGBT	↔ 18-40	↔
Power MOSFETs	↔ 20-39	↔
Rectifiers	↔ 19-28	↔
RF Devices	↔ 10-26	↔
Sensors	↔ 16-26	↔
Small Signal	↔ 18-29	↔
Thyristors	↔ 18-29	↔



	Lead Time (wk)	Price
Sensors	↔ 6-8	↔



	Lead Time (wk)	Price
Bi-polar Power <sup>x1</sup>	↔ 18-28	↔
Power MOSFETs <sup>x2</sup>	↔ 19-26	↔
Small Signal <sup>x3</sup>	↔ 18-27	↔
TVS/Protection <sup>x4</sup>	↔ 19-28	↔
Zener Diodes <sup>x5</sup>	↔ 16-27	↔

<sup>x1</sup> LFPK Allocation for SOT89, tight supply for SOT1023, SOT1205, SOT1210.

<sup>x2</sup> LFPK tight supply for SOT1023, SOT1205, SOT1210.

<sup>x3</sup> Allocation for SOD323 and SOT363 constraint capacity for SOT23.

<sup>x4</sup> Allocation for SOD323, SOD123, SOT363.

<sup>x5</sup> Allocation for SOD123, SOD523, constraint capacity for SOT23.



	Lead Time (wk)	Price
RF Devices	↔ 10-16	↔
Sensors <sup>x1</sup>	↑ 8-28	↔

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



	Lead Time (wk)	Price
Bi-polar Power	↔ 18-29	↔
IGBT	↔ 18-42	↔
Power MOSFETs	↔ 20-32	↔
Rectifiers	↔ 16-24	↔
Small Signal	↔ 17-26	↔
TVS/Protection <sup>x1</sup>	↔ 18-29	↔
Zener Diodes	↔ 16-27	↔

<sup>x1</sup> Taiwan Semiconductor acquires former Fairchild TVS Portfolio from ON Semiconductor.



	Lead Time (wk)	Price
Bi-polar Power	↔ 20-34	↔
IGBT	↔ 25-42	↔
Power MOSFETs	↔ 19-34	↔
Rectifiers	↔ 16-31	↔
Small Signal	↔ 17-25	↔
Thyristors	↔ 18-26	↔
TVS/Protection	↔ 16-30	↔

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## Discretes

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### TOSHIBA

	Lead Time (wk)	Price
Power MOSFETs	↔ 20-27	↔



	Lead Time (wk)	Price
Power MOSFETs <sup>x1</sup>	↔ 18-36	↔
Rectifiers <sup>x2</sup>	↔ 18-34	↔
Small Signal	↔ 18-29	↔
Thyristors	↔ 18-26	↔
TVS/Protection	↔ 19-34	↔
Zener Diodes	↔ 19-36	↔

<sup>x1</sup> VSIG LVM 44 weeks.

<sup>x2</sup> SMPC 54 wks, MicroSMP 52 wks, SMP 48 wks.

# COMMERCIAL NEWS

## Memory

ALL PRICE TENDENCIES ARE INDICATED IN USD

**DRAM:** Market is easing up, better availability and prices slightly dropping

**NAND Flash:** Good availability for Non-Legacy products, SLC constrained **SRAM:** stable pricing, good availability

**Cypress Franchise terminated, remaining stock can be sold**



	Lead Time (wk)	Price
Flash Serial	↔ 6-18	↔



	Lead Time (wk)	Price
FRAM	↔ 16-20	↔



	Lead Time (wk)	Price
FIFO	↔ 5-12	↔
SRAM Asynch.	↔ 5-12	↔
SRAM Synch.	↔ 6-10	↔
SRAM Multiport	↔ 6-10	↔



	Lead Time (wk)	Price
DDR/mobile DDR	↔ 6-12	↔
DDR2/LPDDR2	↔ 6-12	↔
DDR3/DDR3L	↔ 6-12	↔
Managed NAND (eMMC, UFS)	↔ 8-12	↔
NAND (SLC,MLC,TLC,3D)	↔ 8-12	↔
Parallel NOR Flash	↔ 10-12	↔
SDRAM/mobile SDRAM	↔ 6-12	↔
Serial NOR Flash	↔ 8-12	↔
SRAM Asynch.	↔ 6-12	↔
SRAM Synch.	↔ 8-12	↔



	Lead Time (wk)	Price
EEprom	↔ 5-17	↔
Eprom	↔ 15-16	↔



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



	Lead Time (wk)	Price
EEprom	↔ 7-21	↔

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### SAMSUNG

	Lead Time (wk)	Price
DDR2/LPDDR2	↓ 6-12	↔
DDR3/DDR3L	↓ 6-12	↔
DDR4/LPDDR4	↓ 6-12	↔
Managed NAND (eMMC, UFS)	↔ 8-12	↔
NAND (SLC,MLC,TLC,3D)	↓ 12-16	↔
SSD	↔ 8-12	↔



	Lead Time (wk)	Price
EEProm	↔ 3-26	↔
SRAM NV	↔ 14-38	↔

### TOSHIBA

	Lead Time (wk)	Price
Managed NAND (eMMC, UFS)	↔ 14-16	↔
NAND (SLC,MLC,TLC,3D)	↔ 14-16	↔
SSD	↔ 10-12	↔

# COMMERCIAL NEWS

## Opto

Various LED products remain on allocation; see details below. Opto Couplers high level lead times (Toshiba allocation), currently no improvements. **Osram HP hort hyperred (660nm) LED stock at EBV.**



	Lead Time (wk)	Price
LED's High Power	↔ 4-6	↔



	Lead Time (wk)	Price
Coupler	↔ 8-22	↑
Fiber-Optic	↔ 6-18	↔
LED's High Power	↔ 10-14	↔
LEDs low/mid Power	↔ 10-14	↔



	Lead Time (wk)	Price
Coupler	↔ 8-12	↔
Infrared	↔ 6-8	↔
LED's High Power	↔ 8-10	↔
LEDs low/mid Power	↔ 11-13	↔



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



	Lead Time (wk)	Price
LED's High Power	↔ 6-8	↔



	Lead Time (wk)	Price
Coupler	↔ 6-16	↔
Infrared	↔ 6-10	↔



	Lead Time (wk)	Price
LEDs low/mid Power <sup>x1</sup>	↔ 8-16	↔
LED's High Power <sup>x2</sup>	↔ 12-20	↔
Infrared	↔ 8-16	↔

<sup>x1</sup> On allocation:

- Multiled LRTB GVTG - the end is planned for Q4/18
- Tight supply situation (lead time min. 16 weeks):
- Power Topled with lens LA E63F, LA E65F, LY E65F - the end is planned for Q4/18
- Sideled LA A67F, LR A67F, LS A67F - the end is planned for Q4/18
- Mini TOPLED LW MVSG - the end is planned for Q2/19

<sup>x2</sup> On allocation:

- Blue Laser Diode in Multi-Die-Package PLPM4 450, PLPM4L 450 (the end of allocation is set to Q4/18)
- SPL B/D
- Laser bar with special (passivated) mirror (the end of allocation is set to Q4 / 18)

Tight supply situation Update:

OSLON BF LUW HWQP: The end of tight supply situation for the LUW HWQP was newly set to Q4 2018



	Lead Time (wk)	Price
LED's High Power	↔ 6-8	↔
LEDs low/mid Power	↔ 6-8	↔



	Lead Time (wk)	Price
Coupler <sup>x1</sup>	↔ 12-44	↔
Fiber-Optic	↔ 14-18	↔

<sup>x1</sup> TLP124, TLP127, TLP290, TLP291 LT up to 24 weeks TLP185 Allocation.



	Lead Time (wk)	Price
Coupler <sup>x1</sup>	↔ 8-36	↔
Infrared <sup>x2</sup>	↔ 6-20	↔
LED's High Power	↔ 7-9	↔
LEDs low/mid Power	↔ 6-8	↔

<sup>x1</sup> SSOP-4 up to 70 weeks / SSRs up to 55 weeks.

<sup>x2</sup> 0805 SMD up to 35 weeks, VCNL series 6 to 24 weeks, Heimdall IR receiver up to 18 weeks.

# COMMERCIAL NEWS

## MCU & DSP

Microcontroller lead times are currently stable on medium levels across almost all our suppliers. We see tendencies of further relaxations in lead times at ST and NXP.

NXP announced another new price increase on older technologies in the segments AMP (Auto Microcontroller and Processors), Micros and SAS (Smart Antenna Solutions) effective January 2019.



	Lead Time (wk)	Price
8 Bit	↔ 16-20	↑
16 Bit	↔ 12-21	↑
32 Bit	↔ 24-29	↑



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



	Lead Time (wk)	Price
8 Bit AVR	↔ 8-20	↔
8 Bit PIC	↔ 10-20	↔
16 Bit	↔ 10-20	↔
32 Bit	↔ 12-20	↔



	Lead Time (wk)	Price
8 Bit	↓ 12-20	↔
16 Bit	↓ 8-15	↔
32 Bit	↓ 8-15	↔

# COMMERCIAL NEWS

## Program. Logic

Xilinx lead time now up to 10 weeks besides XCZU15/17/19EG, XCKU13/15P, XCVU11/13P and XC5VFX100T with new lead time of 20-24 weeks.



	Lead Time (wk)	Price
Program. Logic	↔ 6-24	↔



	Lead Time (wk)	Price
Program. Logic	↑ 10 - 24	↔



# COMMERCIAL NEWS

## Logic

There are standard lead times, except for ON Semiconductor.

### nexperia

	Lead Time (wk)	Price
Standard Logic	↓ 8-14	↔

ON Semiconductor®



	Lead Time (wk)	Price
Standard Logic	↔ 8-24	↔

### TOSHIBA

	Lead Time (wk)	Price
Standard Logic	↔ 8-24	↔