Blue are new market stabilizing or positive leaning information. **Orange** are new neutral to slightly negative information.

Device		Company	Production Profile	Comments
NAND		Overall NAND	172-196L products ramping in 2021	
		Samsung	Vol.: 128L	- Adding production line in Pyeongtaek, production to start 2H'21. - 2H'21 ramp of 176L product; will use double stack process
		Kioxia (Toshiba)	Ramp: 128L	- Fab 7, Phase 1 construction starting 2021, production 2023E
		SK Hynix	Ramp: 128L	- Starting 176L production; 128L+176L to be >80% of bit production exiting '21
		Micron	Vol.: 128L	- Volume 176L product with replacement gate achieved (June '21).
		Intel	Est: 9xL	- Selling Dalian fab to SK Hynix; expected 2021 close, full transition by 2025
		YMTC	Vol: 64L	- Parent company seeking bankruptcy protection in Chinese courts.
DRAM		Overall DRAM	EUV plans firmed: Samsung & SK Hynix for 1a, Micron for 1γ	
		Samsung	1z nm	- Accelerating migration to 1z and expanding application of EUV (1a).
		SK Hynix	1z nm	- M16, June'21 production, capacity to ramp aligned to demand through 2022 - Initial EUV for 1a in 2H'21, broader use for 1b node.
		Micron	1z nm	- 1Z + 1a to be majority of production by year end. - EUV planned for 1-gamma (2023).
		ChangXin Mem. Tech. (CXMT)	1x ramp	- Raised ~$2.4B equity. Capacity expansion expected to continue.
		Nanya	1x	- Announced new fab, production start 2024 and will be EUV capable.
		Tsinghua DRAM	TBD	- Parent company seeking bankruptcy protection in Chinese courts.
Foundry/Logic	≤16nm	Foundry/Logic	Running high capacity across all nodes. Leading & trailing nodes investment planned.	
	≤16nm	TSMC	5nm	- CapEx $30B for 7nm+ and 5nm; multi-year capital intensity of ~50% possible to support 10-15% CAGR targets. Will spend $100B through 2023. - Arizona site sized for multiple fabs; announced fab for 5nm, 20K wspm.
	≤16nm	Intel	10nm	- Rumor in acquisition discussions for GlobalFoundries with Abu Dhabi owner - CEO comments commit to Oregon expansion and EU foundry capacity. - 2021 CapEx of $20B. Additional multi-year $20B investment for 2 AZ fabs.
	≤16nm	Samsung	5nm	- Upped value of foundry investment to $150B (+$50B) through 2030. - CapEx targeted at 5nm and growing capacity, with 2H'21 Pyeongtaek ramp - Site for new US fab not confirmed, Texas remains most likely location.
	≤16nm	GlobalFoundries	14nm	- Rumor Intel is in acquisition discussions with Abu Dhabi owner. - Seeking certification as "Trusted Foundry" by US government
	≤16nm	SMIC	14nm	- Trade restrictions continue to impact ability to expand 14nm capacity
	≥20nm	TSMC	28nm	- Expanding 28nm capacity in China (+15K) - Evaluating adding capacity in Japan and Germany
	≥20nm	UMC	28nm	- Partnering with customers for Fab 12A Phase 6 expansion (27.5K wpm) - 28nm capacity to increase 20%; seeking 200mm→300mm migration opps.
	≥20nm	SMIC	28nm	- Announced new Shenzen 40K wspm fab, production to start 2022.
	≥20nm	GlobalFoundries	28nm, FDSOI	- New Singapore Fab ($4B), customers order pre-commits helping to fund. - Malta new fab announced, 2021 investments of $1B; Dresden $1B spend
	≥20nm	Powerchip	45nm	- Groundbreaking for new fab, Phase 1 25K wspm starting 2023.
	≥20nm	TI	>28nm	- Purchased Micron Lehi facility (closes Dec'21), conversion to analog in 2022 - New Texas Fab under construction, initial output expected 2H'22.
	≥20nm	ST	>28nm	- Partnering with Tower (foundry) for 300m Agrate fab.
Pkg		TSMC	-	- Japan packaging facility, joint with Japanese research center
		Intel		- Rio Rancho investment ($3.5B) for advanced 3D packaging