



Daniel Research Group
Understanding the Future

United States Personal Device Market Size and Forecast, 1975-2027 August 2023 Update

Return to Pre-Pandemic Trends

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Our Approach

The **Daniel Research Group's EquilibriumSolver (EQS)** is a forecasting tool that utilizes a combination of long-term market trends, current unit shipments and revenue data, and analyst assessments of influencing economic, demographic, and market factors. The purpose of the **EQS** is to generate forecasts that are highly predictive by incorporating both mathematical calculations and insights from external sources.

The **EQS** algorithm considers variables such as Total Available Market (TAM), Penetration, Density, and Replacement Rate trends. It takes into account actual reported year-to-date data on unit shipments and revenue. Additionally, it incorporates the insights and expertise of our analysts regarding the magnitude and direction of major causal factors influencing the market.

By leveraging this comprehensive set of inputs, the **EQS** algorithm calculates forecasts for key variables and metrics. The algorithm aims to converge on the most likely forecast for each variable based on the provided input data and parameters. The resulting forecasts are expected to be both mathematically consistent and aligned with the narrative developed from external data, information, and analysts' knowledge and insights.

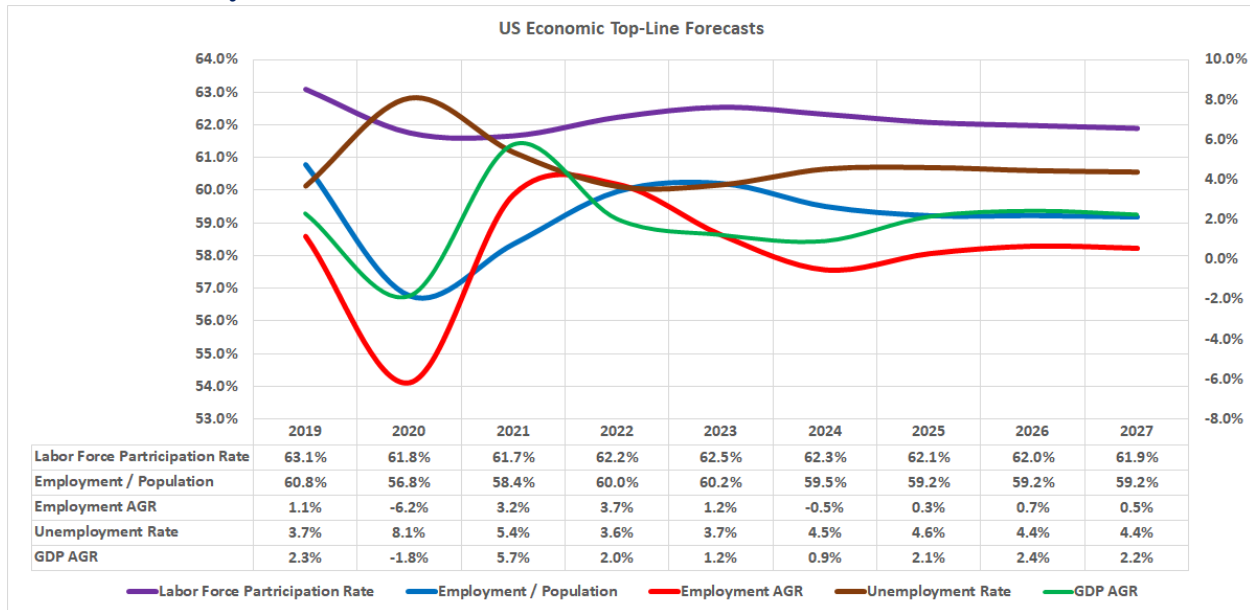
In summary, the core algorithm of the **Daniel Research Group's EquilibriumSolver** is designed to generate highly predictive forecasts by considering a wide range of factors and data, resulting in forecasts that are mathematically sound and consistent with the overall market narrative.

The Forecasting Challenge

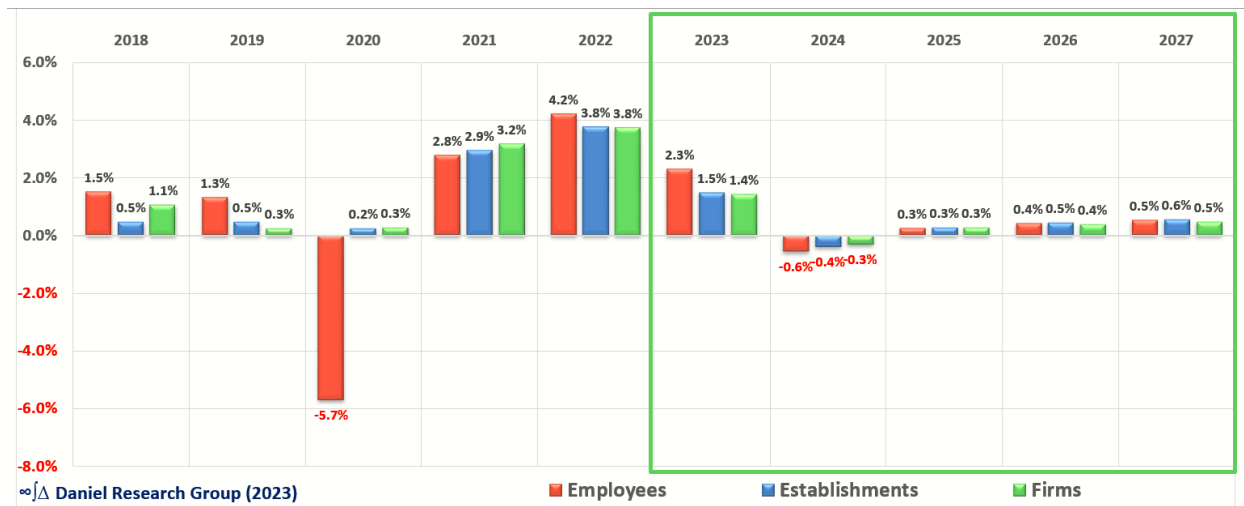
The major forecasting challenge over the past three years has been understanding the disruptive changes to household and business computing and communication personal device demand caused by the pandemic and the subsequent policies and procedures designed to mitigate its damaging effects. That period is now over and the new challenge is to **understand the rate at which demand behavior will return to pre-pandemic levels and trends.**

Major Influencing Factors and Assumptions

The US Economy

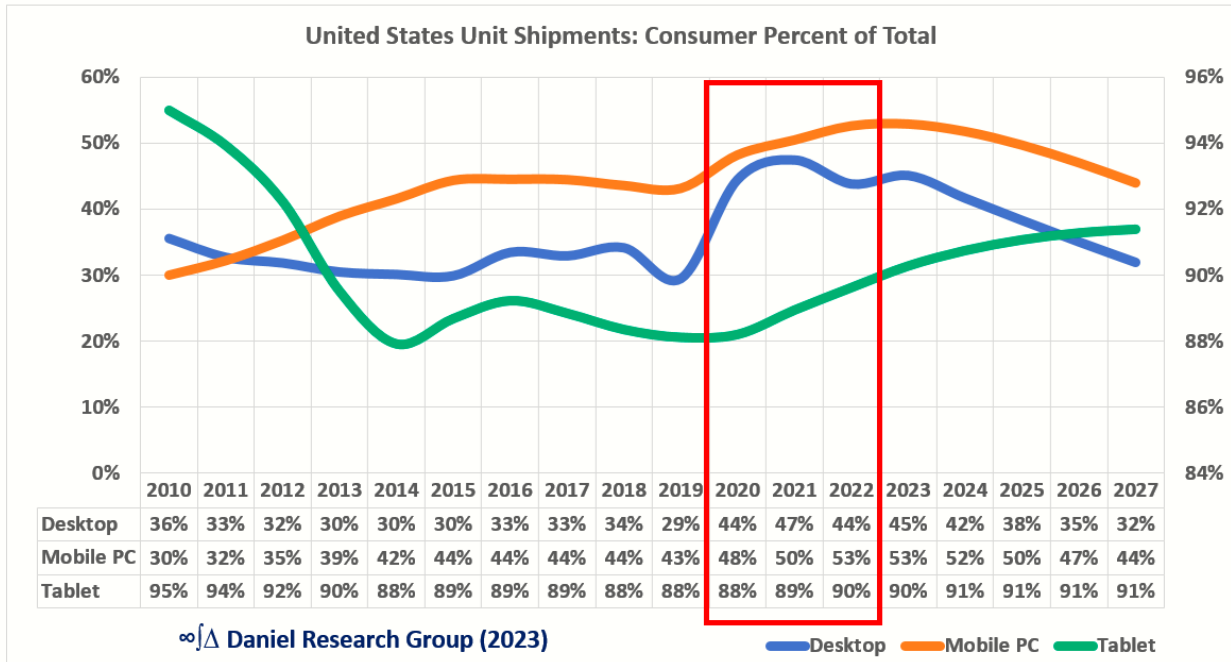


DRG's current United States economic analysis and model predicts a “soft landing” with no recession. However, we are predicting that the unemployment rate will increase over the forecast period over its current level. Our models also predict that total average employment in 2024 will slightly decline over 2023 levels before resuming slow growth in the subsequent years. This will also have an impact on the continuing decline in the number of businesses.

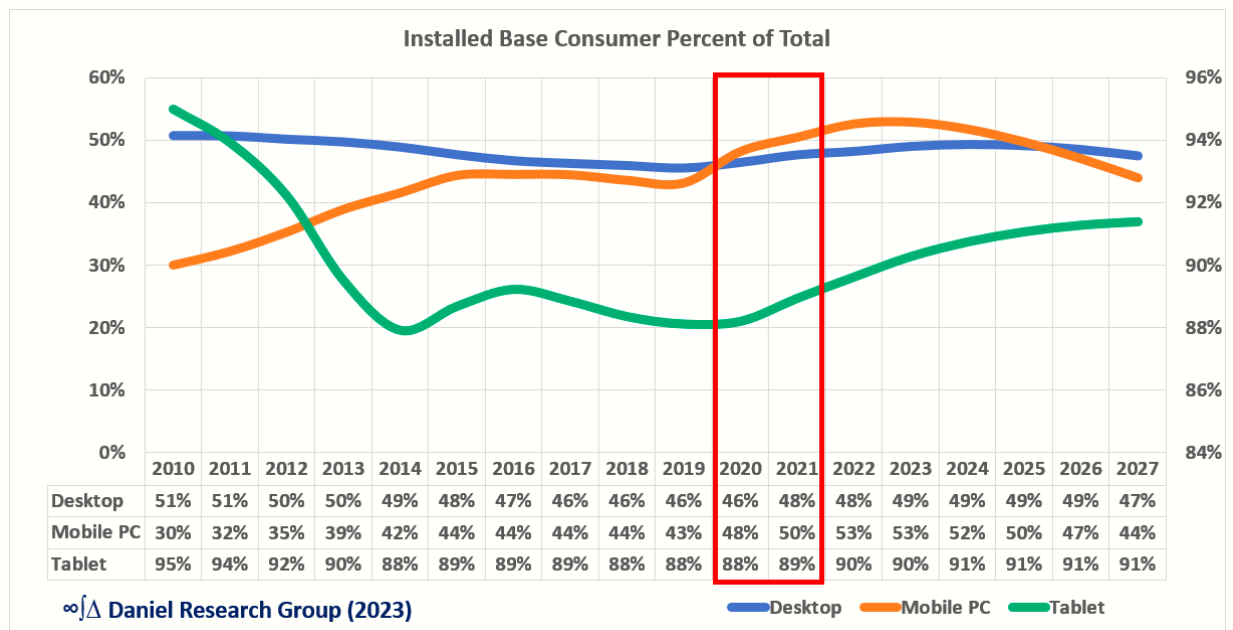


Segment Shifts

One of the most significant changes to the United States Personal Device market caused by the pandemic was the Segment shift from Enterprise to Consumer.



All three product categories saw the Consumer share of the market gain at the expense of the Enterprise share. The primary driver being the increase in demand to support Work From Home, Learn from Home, and Home Entertainment use cases during the pandemic. While we expect the Segment splits for Desktops vs Mobile PCs to begin to return to historic levels. Tablets will continue to slightly gain consumer share.



Starting in 2023 the Segment Splits will reverse and return to pre pandemic levels resulting in the Enterprise share of Units Shipments increasing for almost all devices.

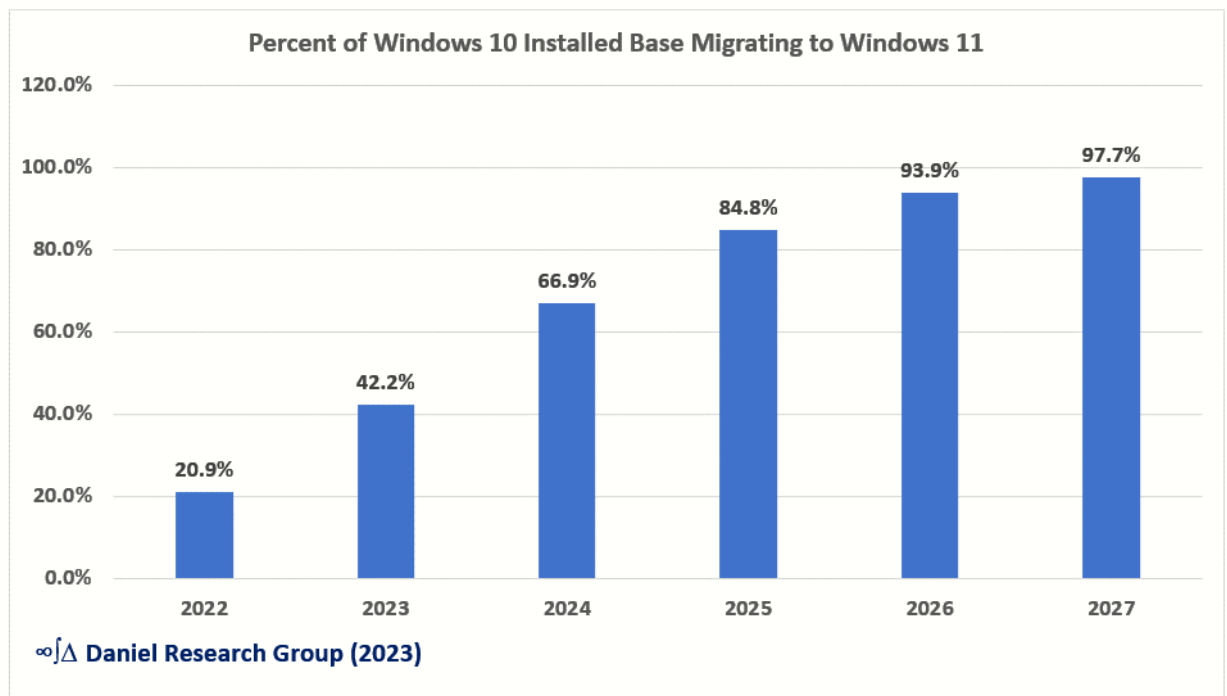
US Personal Devices Unit Shipments: Enterprise % of Total				
	2022	2023	2027	Change ('22-'27)
Total Desktop PC	56.2%	54.9%	68.1%	11.9%
Traditional Mobile PCs	56.1%	59.8%	69.0%	13.0%
Convertible Mobile PCs	70.1%	71.5%	74.4%	4.3%
Total Mobile PCs	58.2%	61.6%	69.8%	11.6%
Total PCs	57.8%	60.2%	69.5%	11.7%
Detachable Tablets	19.3%	15.3%	15.2%	-4.1%
Slate Tablets	7.6%	10.3%	9.9%	2.3%
Total Tablets	13.3%	13.2%	13.6%	0.3%
Total Computers	39.4%	42.6%	51.3%	12.0%
Standard Phone	0.6%	0.4%	0.2%	-0.4%
SmartPhones	8.7%	8.9%	12.0%	3.2%
Total Mobile Phones	8.5%	8.6%	11.8%	3.3%
Total Devices	22.9%	23.8%	31.7%	8.8%
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Replacement Rates

With both Penetration and Density following long-term stable trends, the primary demand driver will be Replacement Rates. A primary assumption of our forecast model is that Replacement Rates will slowly return to pre-pandemic trends and levels. In most cases, Replacement Rates will slow. While this will have a negative influence on Unit Shipments, it will increase Installed Bases.

Causal factors influencing **an increase in replacement rates**:

- The end of support for Windows 10 driving an increase in demand for new Desktops and Mobile PCs running Windows 11. However, only 40% of PCs running Windows 10 are estimated to not being able to support Windows 11 and therefore must be replaced. The following chart forecasts the Windows 10 to Windows 11 migration based on the migration rate to date.



- Return to Work requiring businesses to reprovision many of the returning employees.
- Replacement for Chromebooks that have a shorter mean time to failures than other Personal Computers. These were a significant proportion of the pandemic surge buying to support Learn from Home in the Consumer Segment.
- New product introductions that support new use cases or provide compelling new capabilities.

Causal factors influencing a **decrease in replacement rates**:

- Economic uncertainty about
 - Inflation, Prices
 - Credit, Interest Rates
 - Employment
- The additional devices purchased during the pandemic that still support use cases are not ready for replacement yet. In addition, not all of these devices will be replaced as their pandemic based use case no longer exists.
- The continuing decrease in the number of businesses.
- Election Year: Negative economic forecasts as part of one of the political party's messaging will influence buyers to postpone spending.
- Return to pre-pandemic purchasing behaviors.

Our conclusion is that the influencing factors driving a slowing of replacement rates outweighs the influencing factors driving an increase in replacement rates. We expect Replacement Rates for most product/segment cases to slow over the forecast period resulting in the Replacement Cycle Lengths (RCLs) increasing.

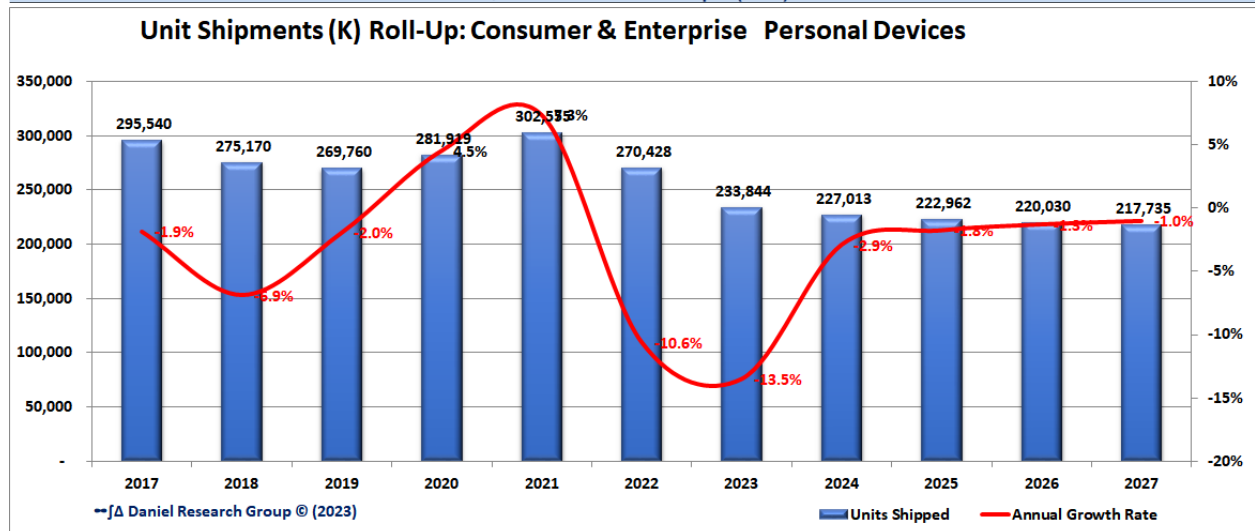
United States Personal Device Market

Market Segment Forecast Overview

Total Market

United States Total Personal Devices Unit Shipments (K)								
Desktop PCs		2022	2023	2024	2025	2026	2027	CAGR ('22-'27)
Desktop PC	Desktop PC	16,055	13,460	13,386	13,485	13,669	13,909	-2.8%
AGR	AGR	0.6%	-16.2%	-0.6%	0.7%	1.4%	1.8%	
Mobile PCs								
Traditional Mobile PCs		49,024	44,020.1	45,328.8	47,176.3	49,284.8	51,577.1	1.0%
AGR		-24.9%	-10.2%	3.0%	4.1%	4.5%	4.7%	
Convertible Mobile PCs		8,858	8,017	8,097	8,248	8,416	8,585	-0.6%
AGR		-24.2%	-9.5%	1.0%	1.9%	2.0%	2.0%	
Total Mobile PCs		57,882	52,037	53,426	55,424	57,701	60,162	0.8%
AGR		-24.8%	-10.1%	2.7%	3.7%	4.1%	4.3%	
Total PCs								
Total PCs		73,937	65,497	66,811	68,910	71,369	74,071	0.0%
AGR		-20.4%	-11.4%	2.0%	3.1%	3.6%	3.8%	
Tablets								
Detachable		25,223	22,992	23,235	23,674	24,157	24,637	-0.5%
AGR		5.7%	-8.8%	1.1%	1.9%	2.0%	2.0%	
Slate		26,978	16,358	14,705	13,329	12,099	10,978	-16.5%
AGR		-1.4%	-39.4%	-10.1%	-9.4%	-9.2%	-9.3%	
Total Tablets		52,201	39,350	37,940	37,003	36,257	35,615	-7.4%
AGR		1.9%	-24.6%	-3.6%	-2.5%	-2.0%	-1.8%	
Total Computers								
Total Computers		126,138	104,847	104,751	105,913	107,626	109,686	-2.8%
AGR		-20.4%	-11.4%	2.0%	3.1%	3.6%	3.8%	
Mobile Phones								
Standard Phone		4,071	4,934	3,858	3,041	2,401	1,895	-14.2%
AGR		-22.2%	21.2%	-21.8%	-21.2%	-21.0%	-21.1%	
SmartPhones		140,219	124,063	118,404	114,008	110,003	106,154	-5.4%
AGR		-8.5%	-11.5%	-4.6%	-3.7%	-3.5%	-3.5%	
Total Mobile Phones		144,289	128,997	122,262	117,049	112,404	108,049	-5.6%
AGR		-8.9%	-10.6%	-5.2%	-4.3%	-4.0%	-3.9%	
Total Devices								
Total Devices		270,428	233,844	227,013	222,962	220,030	217,735	-4.2%
AGR		-10.6%	-13.5%	-2.9%	-1.8%	-1.3%	-1.0%	

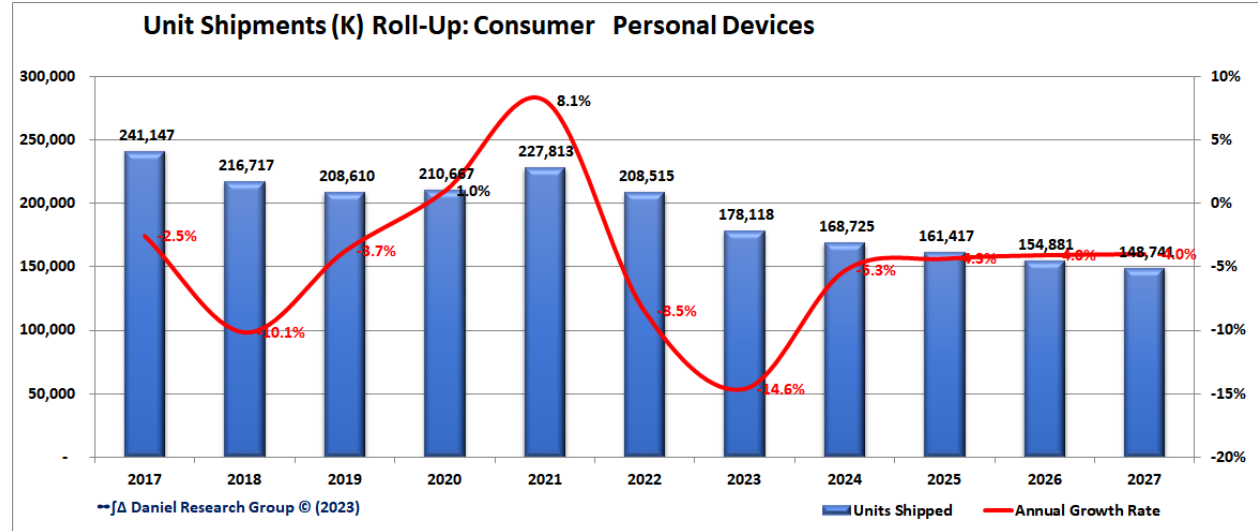
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Consumer Segment

United States Consumer Personal Devices Unit Shipments (K)								
Desktop PCs		2022	2023	2024	2025	2026	2027	CAGR ('22-'27)
Desktop PC	Desktop PC	7,029	6,065	5,572	5,161	4,788	4,439	-8.8%
AGR	AGR	-7.1%	-13.7%	-8.1%	-7.4%	-7.2%	-7.3%	
Mobile PCs								
Traditional Mobile PCs		21,540	17,691.2	17,129.7	16,723.6	16,350.9	15,978.1	-5.8%
AGR		-19.0%	-17.9%	-3.2%	-2.4%	-2.2%	-2.3%	
Convertible Mobile PCs		2,649	2,282	2,246	2,229	2,216	2,201	-3.6%
AGR		-39.9%	-13.8%	-1.6%	-0.8%	-0.6%	-0.7%	
Total Mobile PCs		24,189	19,974	19,376	18,953	18,566	18,179	-5.6%
AGR		-22.0%	-17.4%	-3.0%	-2.2%	-2.0%	-2.1%	
Total PCs								
Total PCs		31,217	26,039	24,948	24,114	23,354	22,618	-6.2%
AGR		-19.1%	-16.6%	-4.2%	-3.3%	-3.2%	-3.2%	
Tablets								
Detachable		20,344	19,483	19,692	20,068	20,481	20,891	0.5%
AGR		12.0%	-4.2%	1.1%	1.9%	2.1%	2.0%	
Slate		24,928	14,673	13,204	11,981	10,887	9,887	-16.9%
AGR		-4.1%	-41.1%	-10.0%	-9.3%	-9.1%	-9.2%	
Total Tablets		45,272	34,156	32,895	32,048	31,367	30,778	-7.4%
AGR		2.6%	-24.6%	-3.7%	-2.6%	-2.1%	-1.9%	
Total Computers								
Total Computers		76,489	60,194	57,844	56,163	54,721	53,396	-6.9%
AGR		-19.1%	-16.6%	-4.2%	-3.3%	-3.2%	-3.2%	
Mobile Phones								
Standard Phone		4,045	4,917	3,846	3,033	2,396	1,891	-14.1%
AGR		-22.1%	21.6%	-21.8%	-21.1%	-21.0%	-21.1%	
SmartPhones		127,980	113,007	107,036	102,221	97,764	93,453	-6.1%
AGR		-8.5%	-11.7%	-5.3%	-4.5%	-4.4%	-4.4%	
Total Mobile Phones		132,025	117,924	110,882	105,254	100,160	95,344	-6.3%
AGR		-9.0%	-10.7%	-6.0%	-5.1%	-4.8%	-4.8%	
Total Devices								
Total Devices		208,515	178,118	168,725	161,417	154,881	148,741	-6.5%
AGR		-8.5%	-14.6%	-5.3%	-4.3%	-4.0%	-4.0%	

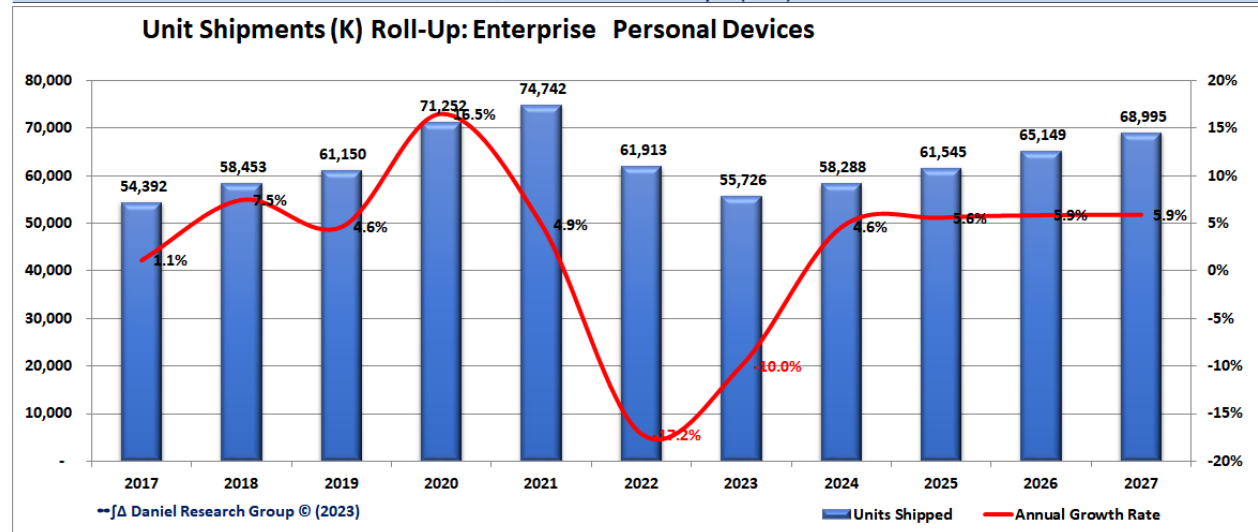
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Enterprise Segment

United States Enterprise Personal Devices Unit Shipments (K)									
Desktop PCs		2022	2023	2024	2025	2026	2027	CAGR ('22-'27)	Trend
Desktop PC	Desktop PC	9,027	7,395	7,814	8,324	8,881	9,470	1.0%	
AGR	AGR	7.6%	-18.1%	5.7%	6.5%	6.7%	6.6%		
Mobile PCs									
Traditional Mobile PCs		27,484	26,329.0	28,199.1	30,452.6	32,933.9	35,599.0	5.3%	
AGR		-29.0%	-4.2%	7.1%	8.0%	8.1%	8.1%		
Convertible Mobile PCs		6,209	5,734	5,850	6,018	6,200	6,384	0.6%	
AGR		-14.7%	-7.6%	2.0%	2.9%	3.0%	3.0%		
Total Mobile PCs		33,693	32,063	34,050	36,471	39,134	41,983	4.5%	
AGR		-26.7%	-4.8%	6.2%	7.1%	7.3%	7.3%		
Total PCs									
Total PCs		42,720	39,458	41,863	44,795	48,015	51,454	3.8%	
AGR		-21.4%	-7.6%	6.1%	7.0%	7.2%	7.2%		
Tablets									
Detachable		4,880	3,510	3,543	3,607	3,677	3,746	-5.1%	
AGR		-14.3%	-28.1%	1.0%	1.8%	1.9%	1.9%		
Slate		2,049	1,685	1,501	1,348	1,213	1,090	-11.9%	
AGR		47.8%	-17.8%	-10.9%	-10.2%	-10.0%	-10.1%		
Total Tablets		6,929	5,195	5,044	4,955	4,890	4,837	-6.9%	
AGR		-2.2%	-25.0%	-2.9%	-1.8%	-1.3%	-1.1%		
Total Computers									
Total Computers		49,649	44,653	46,907	49,750	52,905	56,290	2.5%	
AGR		-21.4%	-7.6%	6.1%	7.0%	7.2%	7.2%		
Mobile Phones									
Standard Phone		26	17	12	8	6	4	-31.4%	
AGR		-31.4%	-32.8%	-31.6%	-31.0%	-30.9%	-30.9%		
SmartPhones		12,238	11,056	11,368	11,787	12,238	12,701	0.7%	
AGR		-7.7%	-9.7%	2.8%	3.7%	3.8%	3.8%		
Total Mobile Phones		12,264	11,073	11,380	11,795	12,244	12,705	0.7%	
AGR		-7.7%	-9.7%	2.8%	3.6%	3.8%	3.8%		
Total Devices									
Total Devices		61,913	55,726	58,288	61,545	65,149	68,995	2.2%	
AGR		-17.2%	-10.0%	4.6%	5.6%	5.9%	5.9%		

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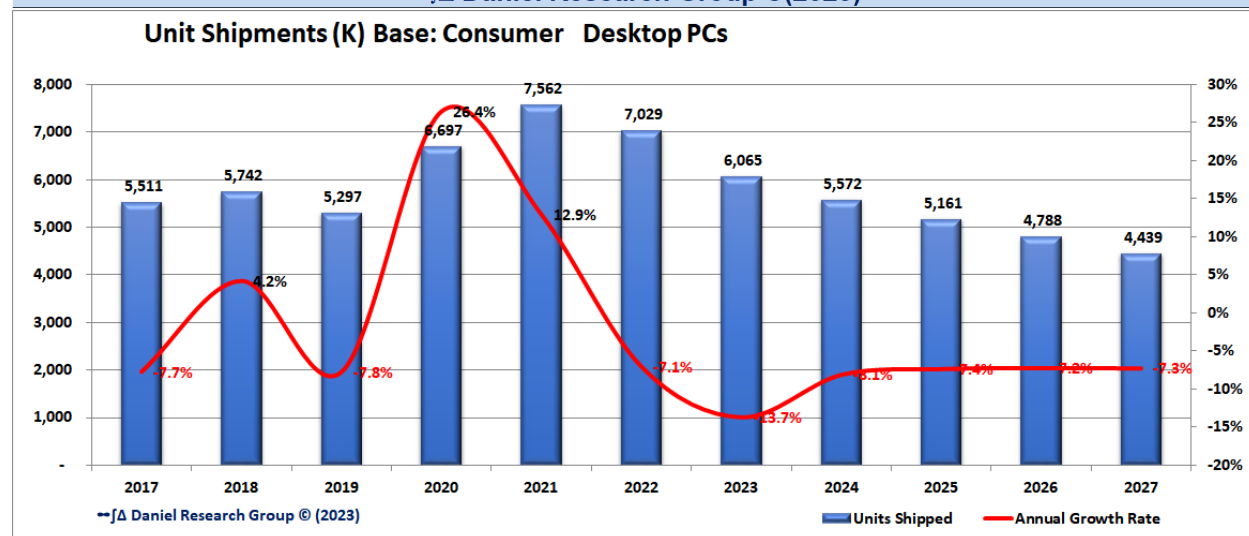
Product Forecast Tables and Charts

Desktop PCs

Consumer

United States Consumer Desktop PCs							
	2022	2023	2024	2025	2026	2027	CAGR '23-'27
Unit Shipments (K)	7,029	6,065	5,572	5,161	4,788	4,439	-7.5%
AGR	-7.1%	-13.7%	-8.1%	-7.4%	-7.2%	-7.3%	
Revenue (\$M)	8,657	8,367	8,609	8,931	9,279	9,635	3.6%
AGR	3.1%	-3.4%	2.9%	3.7%	3.9%	3.8%	
Average Price (\$)	1,232	1,380	1,545	1,730	1,938	2,171	12.0%
AGR	10.9%	12.0%	12.0%	12.0%	12.0%	12.0%	
Installed Base (K)	49,160	45,866	43,376	41,441	39,915	38,697	-4.2%
AGR	-7.0%	-6.7%	-5.4%	-4.5%	-3.7%	-3.1%	
Removal Age (Y)	9.30	9.18	9.10	9.00	8.94	8.95	-0.6%
AGR	-1.3%	-1.4%	-0.9%	-1.1%	-0.6%	0.1%	
Average Installed Base Age (Y)	6.40	6.19	6.04	5.95	5.93	5.95	-1.0%
AGR	-4.6%	-3.3%	-2.4%	-1.4%	-0.5%	0.4%	
Replacement Cycle Length (Y)	5.59	5.90	6.38	6.84	7.32	7.84	7.4%
AGR	6.0%	5.6%	8.1%	7.2%	7.0%	7.1%	
Units per Households (#)	1.15	1.17	1.22	1.29	1.37	1.48	5.9%
AGR	0.5%	1.7%	4.2%	5.5%	6.4%	7.5%	
	2022	2023	2024	2025	2026	2027	Change '20-'25
Market Penetration (%)	32.5%	29.5%	26.6%	24.0%	21.5%	19.2%	-13.3%

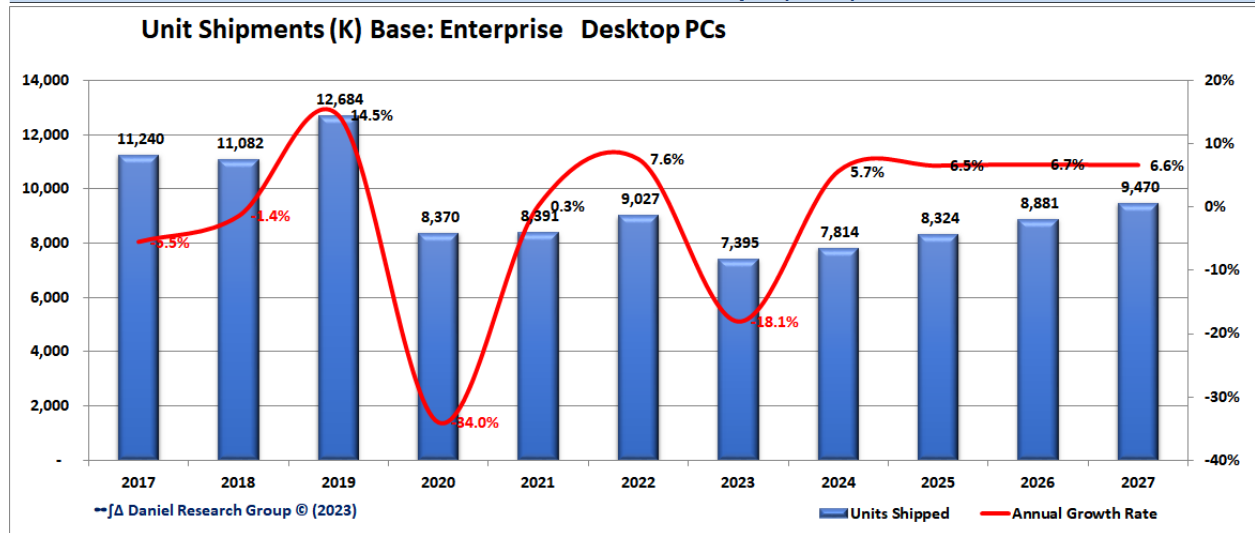
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Enterprise

United States Enterprise Desktop PCs								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	9,027	7,395	7,814	8,324	8,881	9,470	6.4%	
AGR	7.6%	-18.1%	5.7%	6.5%	6.7%	6.6%		
Revenue (\$M)	7,446	6,467	7,243	8,181	9,253	10,460	12.8%	
AGR	26.3%	-13.1%	12.0%	12.9%	13.1%	13.0%		
Average Price (\$)	825	874	927	983	1,042	1,105	6.0%	
AGR	17.4%	6.0%	6.0%	6.0%	6.0%	6.0%		
Installed Base (K)	52,825	47,746	44,609	42,920	42,382	42,795	-2.7%	
AGR	-9.0%	-9.6%	-6.6%	-3.8%	-1.3%	1.0%		
Removal Age (Y)	6.75	6.75	6.71	6.61	6.47	6.28	-1.8%	
AGR	0.1%	0.0%	-0.5%	-1.4%	-2.2%	-2.9%		
Average Installed Base Age (Y)	4.41	4.38	4.29	4.15	3.98	3.83	-3.3%	
AGR	-2.3%	-0.7%	-2.1%	-3.3%	-3.9%	-3.9%		
Replacement Cycle Length (Y)	4.71	4.83	5.07	5.29	5.50	5.72	4.4%	
AGR	5.6%	2.6%	5.1%	4.2%	4.0%	4.1%		
Units per Businesses (#)	24.34	24.05	25.16	27.01	29.82	33.76	8.8%	
AGR	-3.2%	-1.2%	4.6%	7.3%	10.4%	13.2%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	32.5%	29.5%	26.6%	24.0%	21.5%	19.2%	-13.3%	

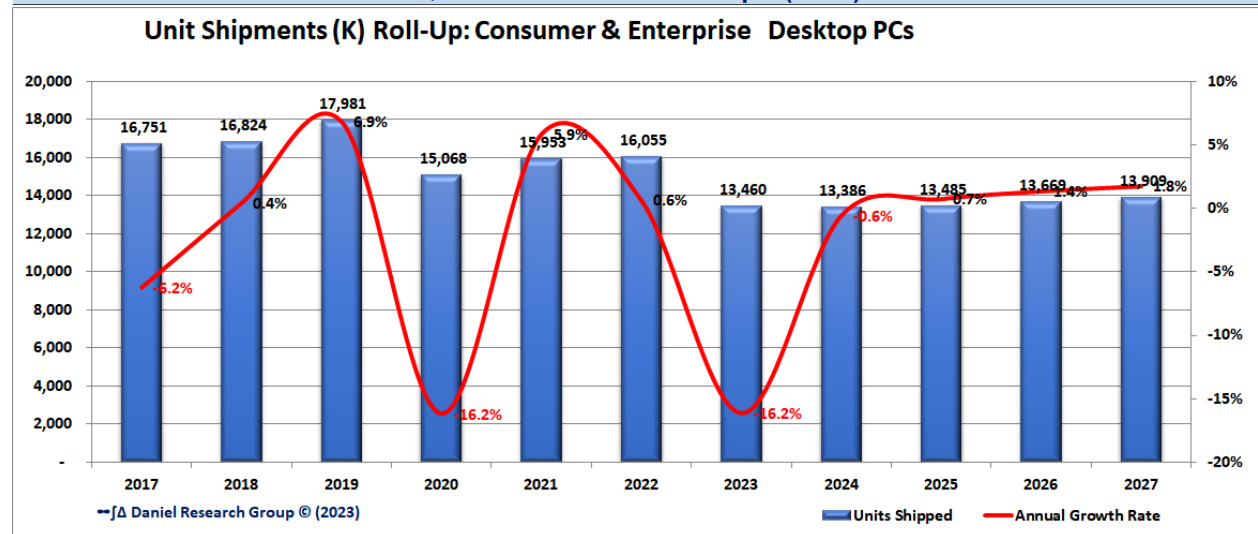
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Total Desktop PCs

United States Consumer & Enterprise Desktop PCs								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	16,055	13,460	13,386	13,485	13,669	13,909	0.8%	
AGR	0.6%	-16.2%	-0.6%	0.7%	1.4%	1.8%		
Revenue (\$M)	16,103	14,834	15,852	17,112	18,532	20,095	7.9%	
AGR	12.7%	-7.9%	6.9%	7.9%	8.3%	8.4%		
Average Price (\$)	1,003	1,102	1,184	1,269	1,356	1,445	7.0%	
AGR	12.0%	9.9%	7.5%	7.1%	6.8%	6.6%		
Installed Base (K)	101,984	93,612	87,985	84,361	82,296	81,491	-3.4%	
AGR	-8.0%	-8.2%	-6.0%	-4.1%	-2.4%	-1.0%		
Removal Age (Y)	7.61	7.58	7.54	7.48	7.43	7.37	-0.7%	
AGR	-0.8%	-0.4%	-0.5%	-0.7%	-0.7%	-0.8%		
Average Installed Base Age (Y)	5.23	5.17	5.08	4.99	4.88	4.78	-1.9%	
AGR	-2.7%	-1.3%	-1.6%	-1.9%	-2.1%	-2.1%		
Replacement Cycle Length (Y)	5.08	5.29	5.63	5.93	6.23	6.54	5.5%	
AGR	5.9%	4.0%	6.4%	5.4%	5.1%	4.9%		
Units per Households & Businesses (#)	2.28	2.28	2.36	2.50	2.70	2.97	6.8%	
AGR	-0.7%	0.1%	3.7%	5.9%	7.9%	9.9%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	32.5%	29.5%	26.6%	24.0%	21.5%	19.2%	-13.3%	

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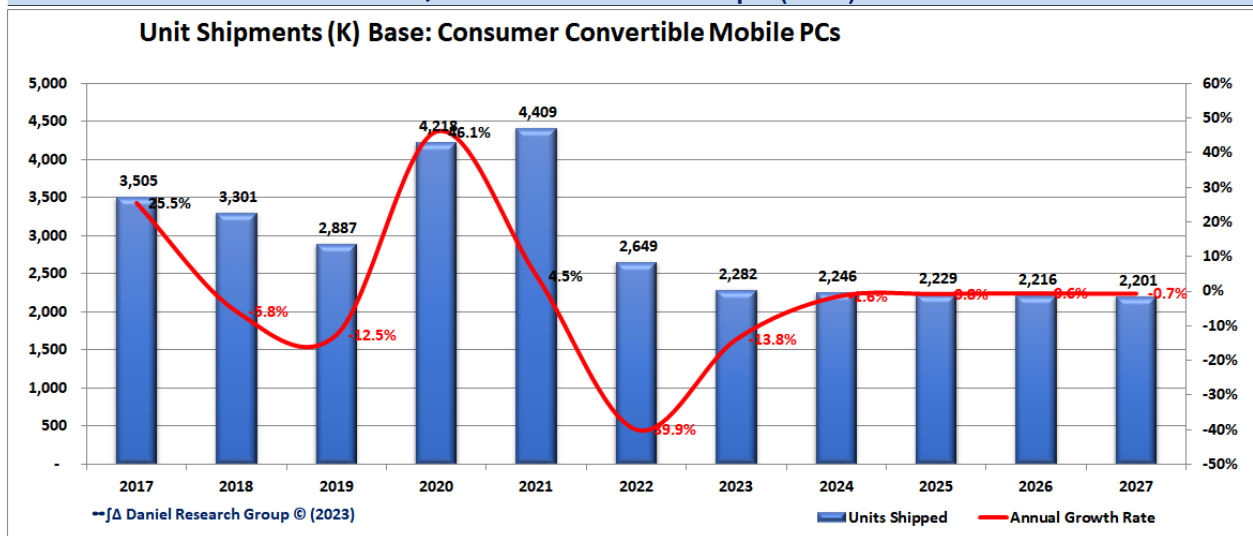


Mobile PC

Consumer Convertible

United States Consumer Convertible Mobile PCs							
	2022	2023	2024	2025	2026	2027	CAGR '23-'27
Unit Shipments (K)	2,649	2,282	2,246	2,229	2,216	2,201	-0.9%
AGR	-39.9%	-13.8%	-1.6%	-0.8%	-0.6%	-0.7%	
Revenue (\$M)	2,093	1,965	2,111	2,289	2,490	2,710	8.4%
AGR	-25.3%	-6.1%	7.4%	8.5%	8.8%	8.8%	
Average Price (\$)	790	861	939	1,027	1,124	1,231	9.4%
AGR	24.4%	8.9%	9.1%	9.3%	9.4%	9.6%	
Installed Base (K)	11,572	11,225	10,807	10,328	9,801	9,242	-4.7%
AGR	1.3%	-3.0%	-3.7%	-4.4%	-5.1%	-5.7%	
Removal Age (Y)	3.61	4.05	4.40	4.68	4.88	5.00	5.4%
AGR	25.5%	12.2%	8.6%	6.3%	4.4%	2.5%	
Average Installed Base Age (Y)	3.57	3.97	4.28	4.52	4.67	4.76	4.7%
AGR	12.4%	11.1%	7.9%	5.5%	3.5%	1.9%	
Replacement Cycle Length (Y)	5.62	5.27	5.06	4.81	4.57	4.35	-4.7%
AGR	13.4%	-6.3%	-4.0%	-4.8%	-5.0%	-4.9%	
Units per Households (#)	1.00	1.00	1.00	1.00	1.00	1.00	
AGR							
Market Penetration (%)	8.8%	8.5%	8.1%	7.7%	7.3%	6.8%	-2.0%

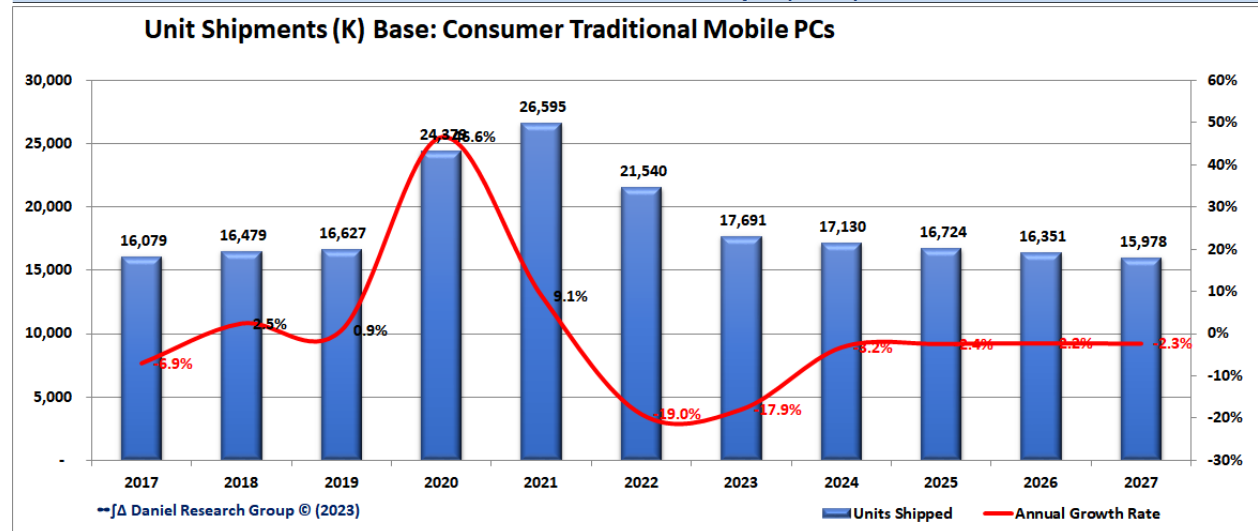
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Consumer Traditional

United States Consumer Traditional Mobile PCs								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	21,540	17,691	17,130	16,724	16,351	15,978	-2.5%	
AGR	-19.0%	-17.9%	-3.2%	-2.4%	-2.2%	-2.3%		
Revenue (\$M)	25,488	22,754	23,948	25,414	27,011	28,693	6.0%	
AGR	-9.6%	-10.7%	5.2%	6.1%	6.3%	6.2%		
Average Price (\$)	1,183	1,286	1,398	1,520	1,652	1,796	8.7%	
AGR	11.7%	8.7%	8.7%	8.7%	8.7%	8.7%		
Installed Base (K)	89,572	89,632	89,396	88,890	88,160	87,252	-0.7%	
AGR	4.9%	0.1%	-0.3%	-0.6%	-0.8%	-1.0%		
Removal Age (Y)	4.71	4.98	5.23	5.47	5.70	5.92	4.4%	
AGR	7.5%	5.8%	5.1%	4.6%	4.3%	3.9%		
Average Installed Base Age (Y)	3.61	3.83	4.01	4.17	4.30	4.39	3.5%	
AGR	3.4%	6.0%	4.9%	3.9%	3.0%	2.1%		
Replacement Cycle Length (Y)	6.17	6.08	6.15	6.16	6.16	6.17	0.3%	
AGR	8.2%	-1.3%	1.1%	0.2%	0.0%	0.1%		
Units per Households (#)	1.00	1.00	1.00	1.00	1.00	1.00		
AGR								
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	68.3%	67.6%	67.1%	66.4%	65.2%	64.0%	-4.3%	

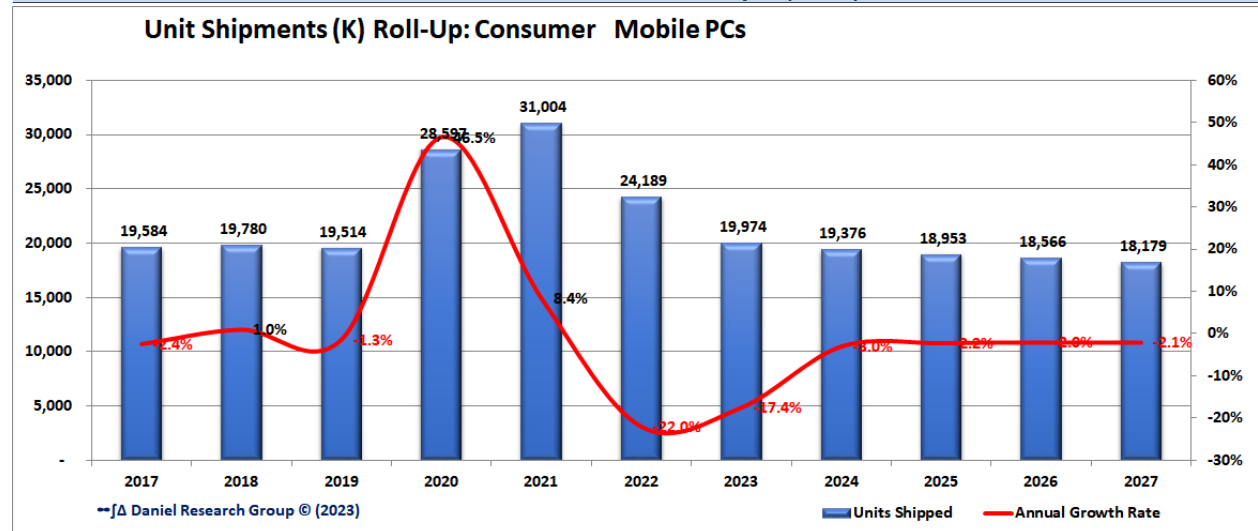
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Consumer Total

United States Consumer Mobile PCs								Trend
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	
Unit Shipments (K)	24,189	19,974	19,376	18,953	18,566	18,179	-2.3%	
AGR	-22.0%	-17.4%	-3.0%	-2.2%	-2.0%	-2.1%		
Revenue (\$M)	27,582	24,718	26,058	27,704	29,501	31,404	6.2%	
AGR	-11.0%	-10.4%	5.4%	6.3%	6.5%	6.4%		
Average Price (\$)	1,140	1,238	1,345	1,462	1,589	1,727	8.7%	
AGR	14.1%	8.5%	8.7%	8.7%	8.7%	8.7%		
Installed Base (K)	101,144	100,857	100,203	99,218	97,961	96,493	-1.1%	
AGR	4.5%	-0.3%	-0.6%	-1.0%	-1.3%	-1.5%		
Removal Age (Y)	4.55	4.85	5.12	5.38	5.61	5.82	4.7%	
AGR	9.5%	6.7%	5.6%	4.9%	4.4%	3.8%		
Average Installed Base Age (Y)	3.61	3.84	4.04	4.21	4.33	4.41	3.5%	
AGR	4.5%	6.6%	5.2%	4.0%	2.9%	2.0%		
Replacement Cycle Length (Y)	6.10	5.98	6.00	5.98	5.94	5.91	-0.3%	
AGR	9.0%	-2.0%	0.4%	-0.4%	-0.6%	-0.5%		
Units per Households (#)	1.06	1.06	1.06	1.05	1.05	1.05	-0.2%	
AGR	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%		
								Trend
	2022	2023	2024	2025	2026	2027	Change '20-'25	
Market Penetration (%)	72.7%	71.8%	71.2%	70.2%	68.9%	67.4%	-5.3%	

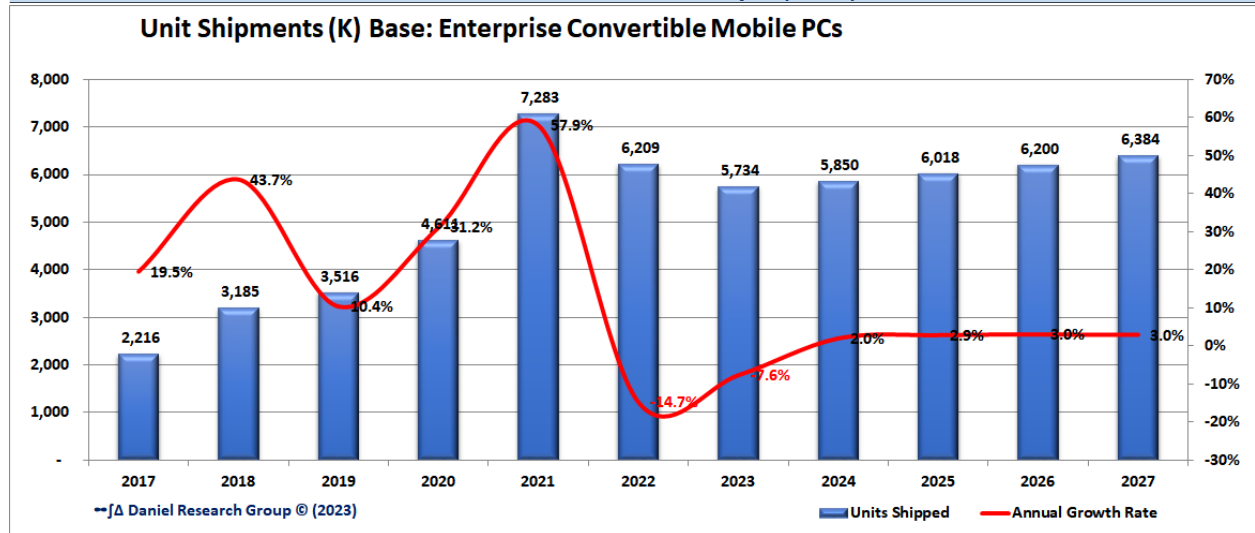
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Enterprise Convertible

United States Enterprise Convertible Mobile PCs								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	6,209	5,734	5,850	6,018	6,200	6,384	2.7%	
AGR	-14.7%	-7.6%	2.0%	2.9%	3.0%	3.0%		
Revenue (\$M)	4,243	4,058	4,298	4,599	4,935	5,300	6.9%	
AGR	-5.4%	-4.4%	5.9%	7.0%	7.3%	7.4%		
Average Price (\$)	683	708	735	764	796	830	4.1%	
AGR	11.0%	3.6%	3.8%	4.0%	4.2%	4.3%		
Installed Base (K)	12,925	13,887	14,615	15,151	15,536	15,802	3.3%	
AGR	18.2%	7.4%	5.2%	3.7%	2.5%	1.7%		
Removal Age (Y)	2.42	2.68	2.90	3.07	3.21	3.30	5.3%	
AGR	15.5%	10.7%	8.1%	6.2%	4.3%	2.8%		
Average Installed Base Age (Y)	2.56	2.80	3.00	3.14	3.24	3.29	4.1%	
AGR	7.1%	9.6%	7.0%	4.8%	3.1%	1.7%		
Replacement Cycle Length (Y)	4.07	3.91	3.85	3.76	3.67	3.58	-2.2%	
AGR	16.6%	-3.8%	-1.5%	-2.3%	-2.5%	-2.4%		
Units per Businesses (#)	4.25	3.64	3.27	3.00	2.82	2.70	-7.2%	
AGR	-12.3%	-14.3%	-10.1%	-8.2%	-6.0%	-4.2%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	45.5%	56.7%	67.1%	76.2%	83.3%	88.6%	43.1%	

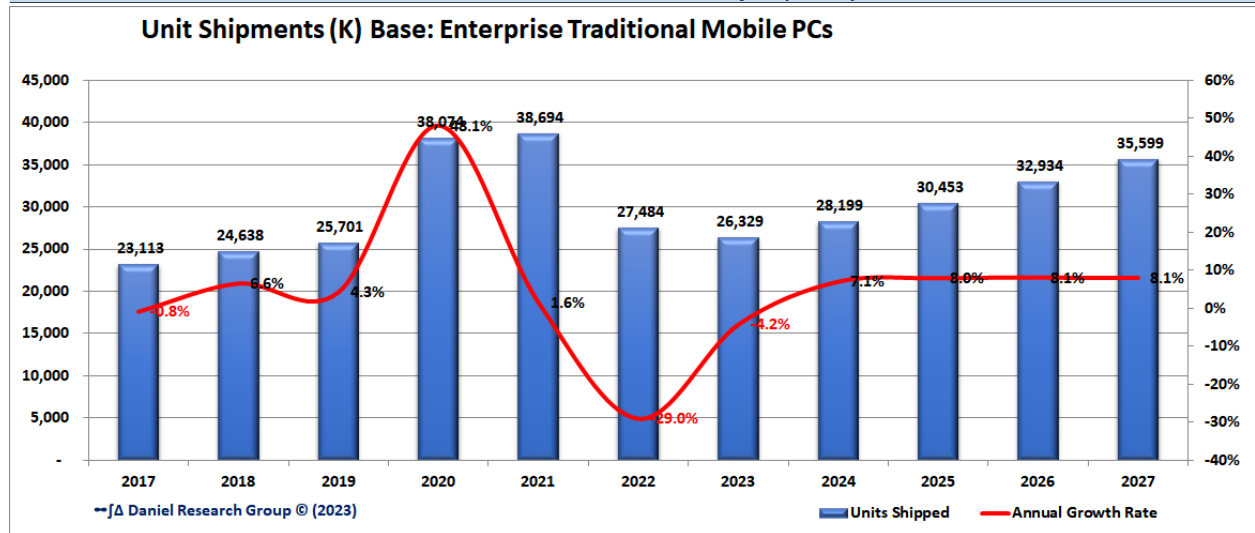
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Enterprise Traditional

United States Enterprise Traditional Mobile PCs								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	27,484	26,329	28,199	30,453	32,934	35,599	7.8%	
AGR	-29.0%	-4.2%	7.1%	8.0%	8.1%	8.1%		
Revenue (\$M)	20,295	20,604	23,436	26,925	31,024	35,777	14.8%	
AGR	-15.2%	1.5%	13.7%	14.9%	15.2%	15.3%		
Average Price (\$)	738	783	831	884	942	1,005	6.5%	
AGR	19.4%	6.0%	6.2%	6.4%	6.5%	6.7%		
Installed Base (K)	78,175	75,940	78,763	85,285	94,890	107,311	9.0%	
AGR	-7.0%	-2.9%	3.7%	8.3%	11.3%	13.1%		
Removal Age (Y)	3.74	3.86	3.93	3.96	4.00	4.06	1.2%	
AGR	8.2%	3.3%	1.6%	0.9%	0.9%	1.6%		
Average Installed Base Age (Y)	3.56	3.58	3.51	3.41	3.33	3.28	-2.2%	
AGR	2.6%	0.8%	-2.0%	-2.8%	-2.4%	-1.4%		
Replacement Cycle Length (Y)	3.34	3.66	4.10	4.56	5.07	5.63	11.4%	
AGR	7.6%	9.5%	12.2%	11.2%	11.0%	11.1%		
Units per Businesses (#)	15.13	14.37	14.88	15.98	17.61	19.74	8.2%	
AGR	-11.2%	-5.0%	3.5%	7.4%	10.3%	12.0%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	77.4%	78.5%	79.5%	80.5%	81.5%	82.5%	5.1%	

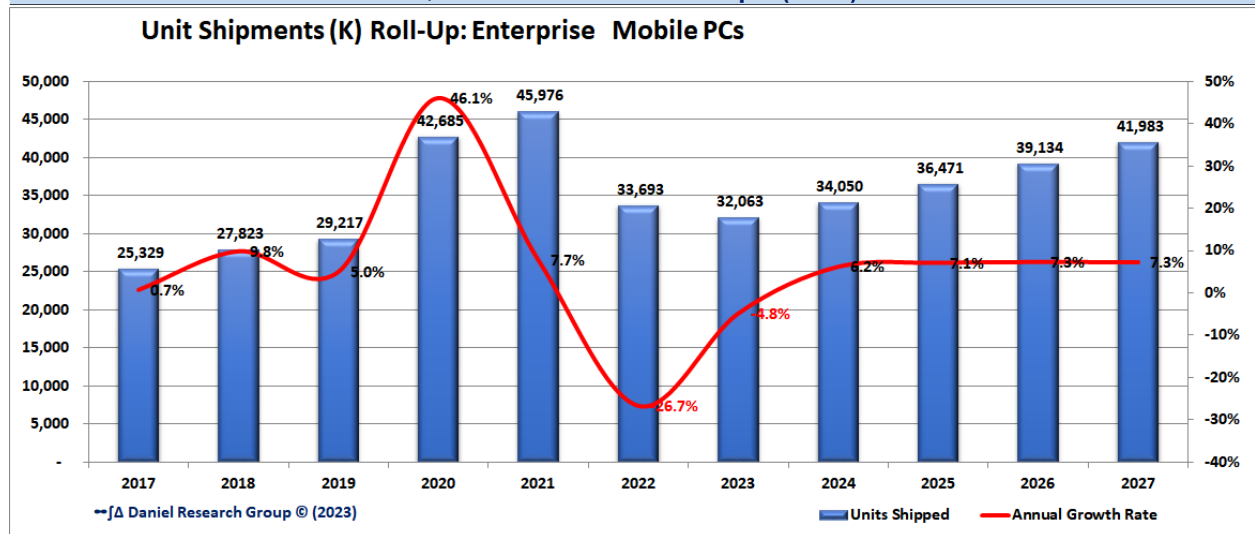
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Enterprise Total

United States Enterprise Mobile PCs								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	33,693	32,063	34,050	36,471	39,134	41,983	7.0%	
AGR	-26.7%	-4.8%	6.2%	7.1%	7.3%	7.3%		
Revenue (\$M)	24,538	24,662	27,734	31,523	35,960	41,077	13.6%	
AGR	-13.6%	0.5%	12.5%	13.7%	14.1%	14.2%		
Average Price (\$)	728	769	815	864	919	978	6.2%	
AGR	17.9%	5.6%	5.9%	6.1%	6.3%	6.5%		
Installed Base (K)	91,100	89,828	93,378	100,436	110,425	123,113	8.2%	
AGR	-4.1%	-1.4%	4.0%	7.6%	9.9%	11.5%		
Removal Age (Y)	3.58	3.70	3.77	3.81	3.85	3.91	1.4%	
AGR	8.2%	3.5%	1.8%	1.1%	1.1%	1.5%		
Average Installed Base Age (Y)	3.42	3.47	3.43	3.37	3.31	3.28	-1.4%	
AGR	2.4%	1.3%	-1.1%	-1.9%	-1.7%	-1.0%		
Replacement Cycle Length (Y)	3.42	3.69	4.06	4.41	4.79	5.20	8.9%	
AGR	8.9%	8.0%	9.9%	8.7%	8.5%	8.6%		
Units per Businesses (#)	14.37	13.91	14.50	15.56	17.07	18.99	8.1%	
AGR	-8.3%	-3.2%	4.3%	7.3%	9.7%	11.3%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	94.9%	95.9%	96.7%	97.4%	97.9%	98.4%	3.5%	

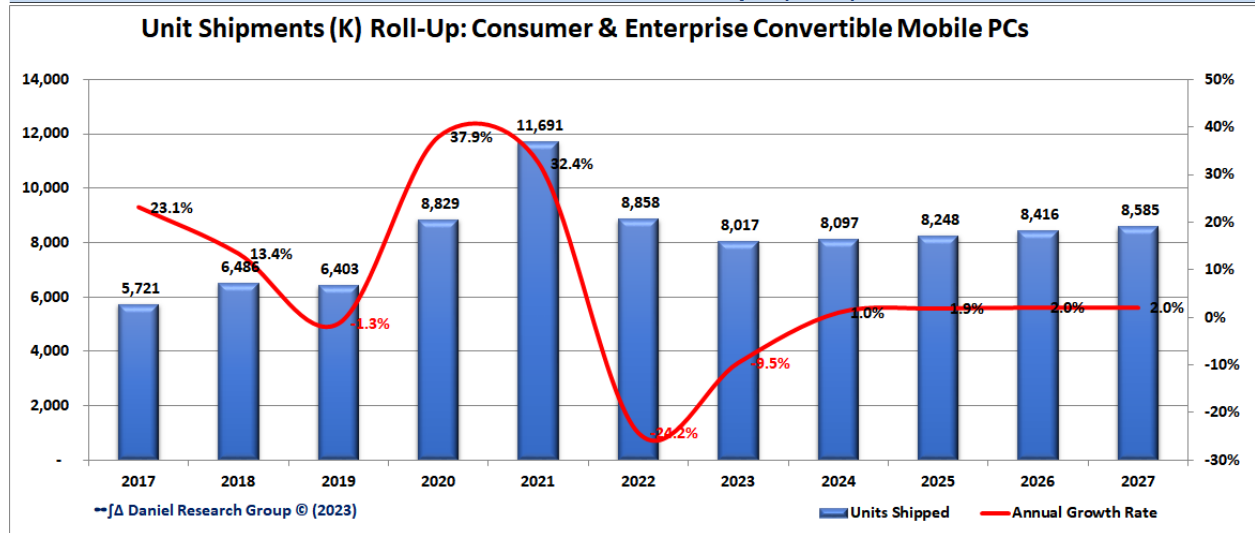
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Total Convertible

United States Consumer & Enterprise Convertible Mobile PCs								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	8,858	8,017	8,097	8,248	8,416	8,585	1.7%	
AGR	-24.2%	-9.5%	1.0%	1.9%	2.0%	2.0%		
Revenue (\$M)	6,336	6,023	6,409	6,888	7,425	8,010	7.4%	
AGR	-13.0%	-4.9%	6.4%	7.5%	7.8%	7.9%		
Average Price (\$)	715	751	791	835	882	933	5.6%	
AGR	14.8%	5.0%	5.4%	5.5%	5.6%	5.8%		
Installed Base (K)	24,497	25,112	25,422	25,479	25,336	25,043	-0.1%	
AGR	9.6%	2.5%	1.2%	0.2%	-0.6%	-1.2%		
Removal Age (Y)	2.91	3.22	3.45	3.64	3.76	3.83	4.4%	
AGR	19.2%	10.4%	7.3%	5.3%	3.4%	1.8%		
Average Installed Base Age (Y)	3.00	3.28	3.48	3.63	3.72	3.76	3.5%	
AGR	8.4%	9.1%	6.4%	4.1%	2.4%	1.1%		
Replacement Cycle Length (Y)	4.64	4.39	4.26	4.11	3.96	3.82	-3.4%	
AGR	14.1%	-5.4%	-2.9%	-3.6%	-3.7%	-3.5%		
Units per Households & Businesses (#)	1.68	1.67	1.66	1.66	1.66	1.66	-0.1%	
AGR	2.6%	-0.4%	-0.3%	-0.4%	-0.1%	0.3%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	10.6%	10.8%	10.9%	10.9%	10.8%	10.6%	0.0%	

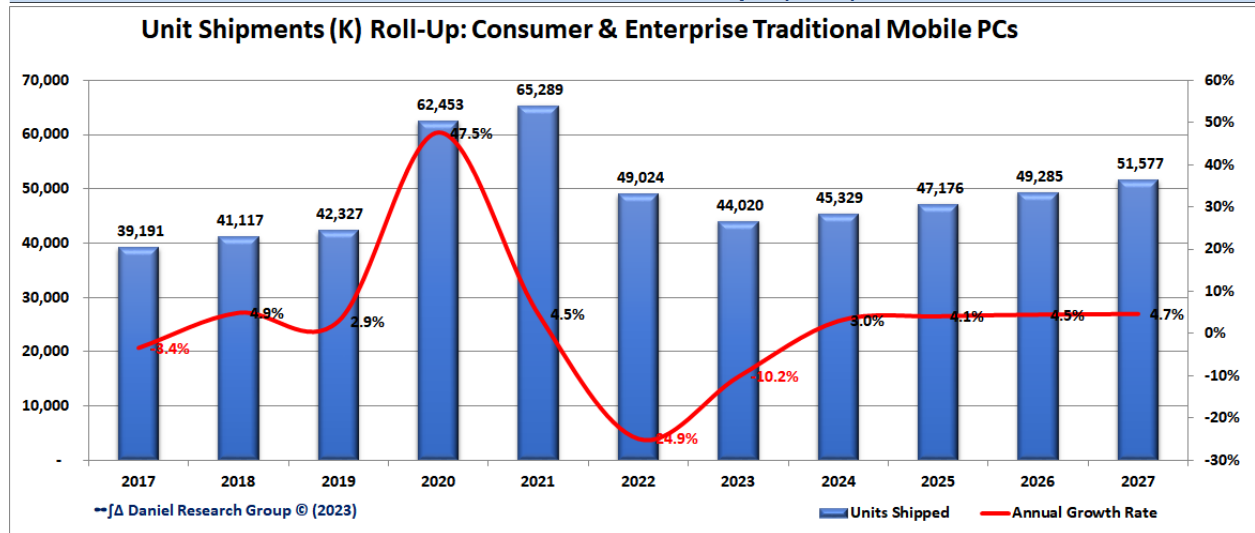
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Total Traditional

United States Consumer & Enterprise Traditional Mobile PCs								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	49,024	44,020	45,329	47,176	49,285	51,577	4.0%	
AGR	-24.9%	-10.2%	3.0%	4.1%	4.5%	4.7%		
Revenue (\$M)	45,783	43,358	47,383	52,339	58,035	64,471	10.4%	
AGR	-12.1%	-5.3%	9.3%	10.5%	10.9%	11.1%		
Average Price (\$)	934	985	1,045	1,109	1,178	1,250	6.1%	
AGR	17.0%	5.5%	6.1%	6.1%	6.1%	6.2%		
Installed Base (K)	167,746	165,572	168,159	174,175	183,050	194,563	4.1%	
AGR	-1.0%	-1.3%	1.6%	3.6%	5.1%	6.3%		
Removal Age (Y)	4.10	4.32	4.48	4.61	4.72	4.83	2.9%	
AGR	8.3%	5.4%	3.8%	2.9%	2.4%	2.3%		
Average Installed Base Age (Y)	3.54	3.66	3.72	3.74	3.73	3.72	0.4%	
AGR	2.8%	3.4%	1.6%	0.5%	-0.1%	-0.3%		
Replacement Cycle Length (Y)	4.31	4.58	4.93	5.23	5.53	5.86	6.3%	
AGR	10.0%	6.4%	7.6%	6.0%	5.7%	5.9%		
Units per Households & Businesses (#)	1.77	1.74	1.78	1.85	1.96	2.10	4.7%	
AGR	-5.6%	-1.5%	1.8%	4.1%	5.9%	7.3%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	68.7%	68.1%	67.7%	67.0%	66.0%	64.9%	-3.9%	

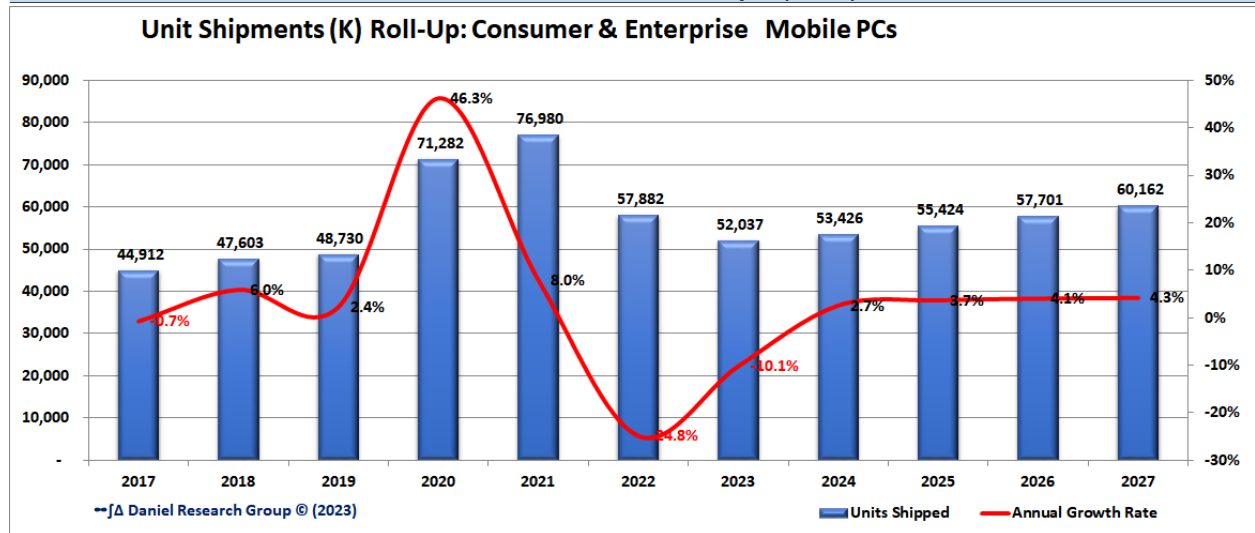
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Total Mobile PC

United States Consumer & Enterprise Mobile PCs								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	57,882	52,037	53,426	55,424	57,701	60,162	3.7%	
AGR	-24.8%	-10.1%	2.7%	3.7%	4.1%	4.3%		
Revenue (\$M)	52,119	49,381	53,792	59,227	65,461	72,481	10.1%	
AGR	-12.3%	-5.3%	8.9%	10.1%	10.5%	10.7%		
Average Price (\$)	900	949	1,007	1,069	1,134	1,205	6.1%	
AGR	16.7%	5.4%	6.1%	6.1%	6.2%	6.2%		
Installed Base (K)	192,244	190,684	193,581	199,653	208,386	219,606	3.6%	
AGR	0.2%	-0.8%	1.5%	3.1%	4.4%	5.4%		
Removal Age (Y)	3.95	4.17	4.34	4.47	4.58	4.67	2.9%	
AGR	9.2%	5.6%	4.0%	3.0%	2.4%	2.1%		
Average Installed Base Age (Y)	3.48	3.62	3.69	3.72	3.73	3.72	0.7%	
AGR	3.3%	3.9%	2.1%	0.8%	0.1%	-0.2%		
Replacement Cycle Length (Y)	4.35	4.56	4.83	5.05	5.26	5.49	4.7%	
AGR	10.5%	4.9%	6.0%	4.4%	4.2%	4.4%		
Units per Households & Businesses (#)	2.88	2.95	2.98	3.02	2.99	2.92	-0.3%	
AGR	9.8%	2.7%	1.0%	1.1%	-0.8%	-2.5%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	48.5%	46.3%	46.4%	47.1%	49.2%	52.7%	4.2%	

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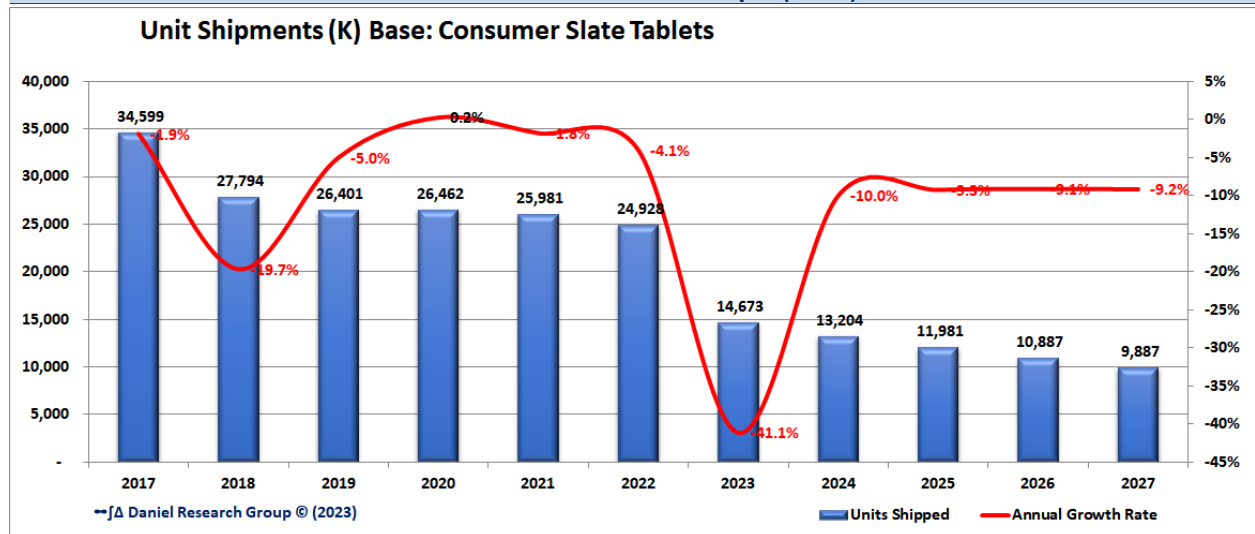


Tablets

Consumer Slate

United States Consumer Slate Tablets							
	2022	2023	2024	2025	2026	2027	CAGR '23-'27
Unit Shipments (K)	24,928	14,673	13,204	11,981	10,887	9,887	-9.4%
AGR	-4.1%	-41.1%	-10.0%	-9.3%	-9.1%	-9.2%	
Revenue (\$M)	4,453	2,460	2,078	1,770	1,510	1,287	-15.0%
AGR	1.9%	-44.7%	-15.5%	-14.8%	-14.7%	-14.7%	
Average Price (\$)	179	168	157	148	139	130	-6.1%
AGR	6.2%	-6.1%	-6.1%	-6.1%	-6.1%	-6.1%	
Installed Base (K)	120,850	107,067	96,915	89,169	83,122	78,311	-7.5%
AGR	-7.3%	-11.4%	-9.5%	-8.0%	-6.8%	-5.8%	
Removal Age (Y)	5.50	6.04	6.44	6.83	7.19	7.52	5.6%
AGR	3.1%	9.8%	6.5%	6.1%	5.3%	4.5%	
Average Installed Base Age (Y)	4.47	4.70	4.89	5.02	5.12	5.22	2.6%
AGR	1.4%	5.3%	3.9%	2.8%	2.1%	1.8%	
Replacement Cycle Length (Y)	4.51	4.76	5.15	5.52	5.91	6.33	7.4%
AGR	-4.7%	5.6%	8.1%	7.2%	7.0%	7.1%	
Units per Households (#)	1.54	1.35	1.22	1.12	1.03	1.00	-7.3%
AGR	-8.6%	-12.3%	-9.8%	-8.5%	-7.5%	-3.1%	
	2022	2023	2024	2025	2026	2027	Change '20-'25
Market Penetration (%)	59.8%	59.7%	59.7%	59.6%	59.6%	57.4%	-2.3%

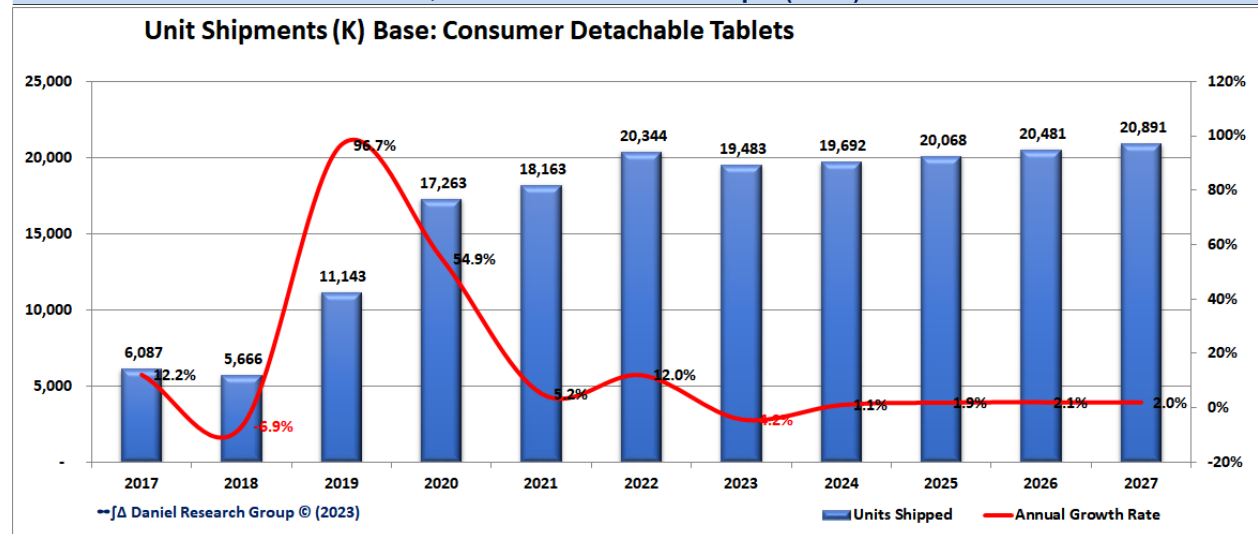
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Consumer Detachable

United States Consumer Detachable Tablets								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	20,344	19,483	19,692	20,068	20,481	20,891	1.8%	
AGR	12.0%	-4.2%	1.1%	1.9%	2.1%	2.0%		
Revenue (\$M)	14,106	13,720	14,093	14,604	15,162	15,741	3.5%	
AGR	2.9%	-2.7%	2.7%	3.6%	3.8%	3.8%		
Average Price (\$)	693	704	716	728	740	753	1.7%	
AGR	-8.1%	1.6%	1.6%	1.7%	1.7%	1.8%		
Installed Base (K)	55,465	64,337	71,637	77,495	82,002	85,250	7.3%	
AGR	27.2%	16.0%	11.3%	8.2%	5.8%	4.0%		
Removal Age (Y)	3.20	3.46	3.74	4.01	4.28	4.49	6.8%	
AGR	11.6%	7.9%	8.1%	7.4%	6.6%	5.0%		
Average Installed Base Age (Y)	2.73	2.95	3.17	3.38	3.56	3.70	5.8%	
AGR	3.8%	8.0%	7.7%	6.5%	5.2%	4.0%		
Replacement Cycle Length (Y)	7.54	7.06	6.78	6.45	6.13	5.83	-4.7%	
AGR	29.6%	-6.3%	-4.0%	-4.8%	-5.0%	-4.9%		
Units per Households (#)	2.47	2.60	2.64	2.60	2.51	2.39	-2.1%	
AGR	14.4%	5.0%	1.6%	-1.3%	-3.5%	-5.0%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	17.1%	18.7%	20.4%	22.2%	24.2%	26.2%	9.1%	

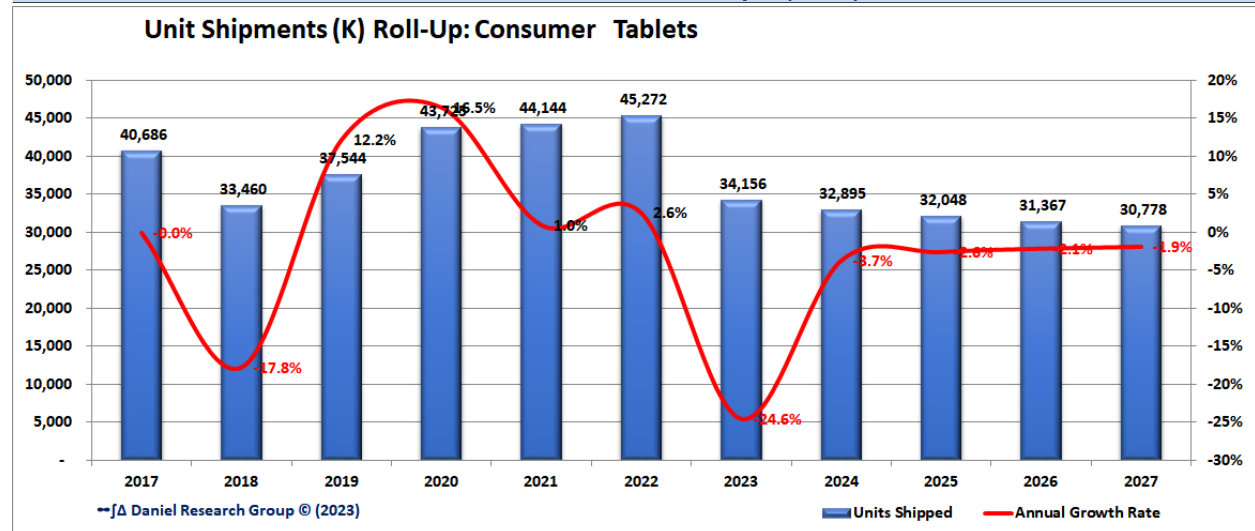
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Consumer Total

United States Consumer Tablets								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	45,272	34,156	32,895	32,048	31,367	30,778	-2.6%	
AGR	2.6%	-24.6%	-3.7%	-2.6%	-2.1%	-1.9%		
Revenue (\$M)	18,559	16,180	16,171	16,374	16,672	17,028	1.3%	
AGR	2.7%	-12.8%	-0.1%	1.3%	1.8%	2.1%		
Average Price (\$)	410	474	492	511	532	553	4.0%	
AGR	0.1%	15.6%	3.8%	3.9%	4.0%	4.1%		
Installed Base (K)	176,315	171,404	168,552	166,664	165,124	163,561	-1.2%	
AGR	1.4%	-2.8%	-1.7%	-1.1%	-0.9%	-0.9%		
Removal Age (Y)	4.95	5.30	5.55	5.76	5.92	6.03	3.3%	
AGR	2.9%	7.1%	4.6%	3.8%	2.8%	1.8%		
Average Installed Base Age (Y)	3.95	4.08	4.18	4.26	4.32	4.37	1.7%	
AGR	-0.4%	3.3%	2.6%	1.9%	1.4%	1.1%		
Replacement Cycle Length (Y)	5.11	5.39	5.71	5.91	6.02	6.06	3.0%	
AGR	3.1%	5.4%	6.1%	3.4%	1.8%	0.7%		
Units per Households (#)	1.97	1.87	1.81	1.76	1.70	1.65	-3.1%	
AGR	-1.2%	-4.8%	-3.2%	-2.9%	-3.1%	-3.1%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	68.3%	69.1%	69.9%	70.8%	71.7%	72.7%	4.3%	

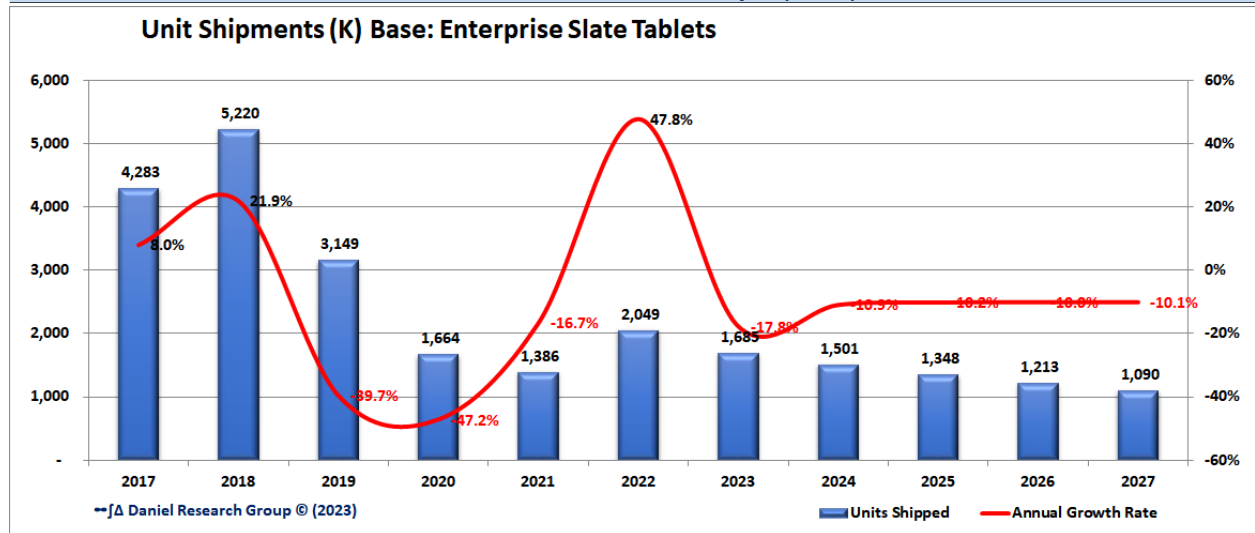
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Enterprise Slate

United States Enterprise Slate Tablets								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	2,049	1,685	1,501	1,348	1,213	1,090	-10.3%	
AGR	47.8%	-17.8%	-10.9%	-10.2%	-10.0%	-10.1%		
Revenue (\$M)	829	612	489	394	318	257	-19.5%	
AGR	125.2%	-26.2%	-20.1%	-19.4%	-19.3%	-19.3%		
Average Price (\$)	405	363	326	292	262	235	-10.3%	
AGR	52.3%	-10.3%	-10.3%	-10.3%	-10.3%	-10.3%		
Installed Base (K)	12,903	11,652	10,682	9,902	9,260	8,723	-7.0%	
AGR	-9.7%	-9.7%	-8.3%	-7.3%	-6.5%	-5.8%		
Removal Age (Y)	6.17	6.64	7.07	7.45	7.80	8.13	5.2%	
AGR	5.0%	7.6%	6.5%	5.4%	4.7%	4.3%		
Average Installed Base Age (Y)	5.08	5.20	5.27	5.30	5.31	5.30	0.5%	
AGR	3.1%	2.4%	1.3%	0.6%	0.1%	-0.1%		
Replacement Cycle Length (Y)	4.75	4.97	5.32	5.65	5.99	6.36	6.4%	
AGR	-0.1%	4.6%	7.1%	6.2%	6.0%	6.1%		
Units per Businesses (#)	7.76	6.32	5.35	4.56	3.93	3.42	-14.2%	
AGR	-20.6%	-18.5%	-15.4%	-14.8%	-13.8%	-12.9%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	24.9%	27.4%	30.0%	32.8%	35.6%	38.6%	13.8%	

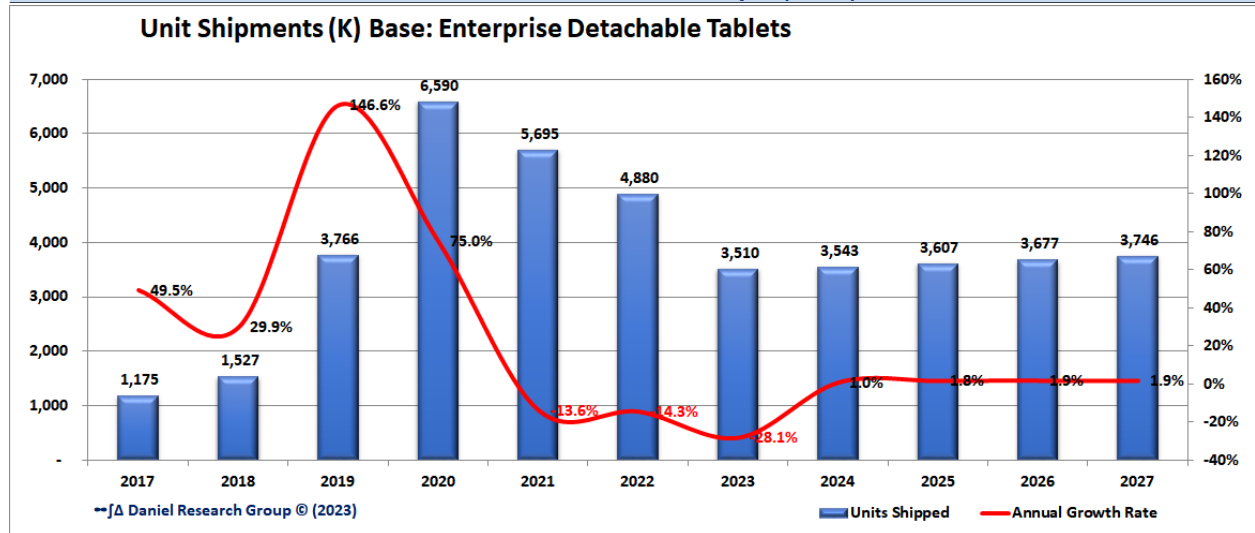
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Enterprise Detachable

United States Enterprise Detachable Tablets								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	4,880	3,510	3,543	3,607	3,677	3,746	1.6%	
AGR	-14.3%	-28.1%	1.0%	1.8%	1.9%	1.9%		
Revenue (\$M)	3,189	2,147	2,028	1,932	1,843	1,757	-4.9%	
AGR	-24.1%	-32.7%	-5.5%	-4.7%	-4.6%	-4.7%		
Average Price (\$)	654	612	572	536	501	469	-6.4%	
AGR	-11.4%	-6.4%	-6.4%	-6.4%	-6.4%	-6.4%		
Installed Base (K)	7,523	6,816	6,518	6,451	6,527	6,695	-0.4%	
AGR	2.4%	-9.4%	-4.4%	-1.0%	1.2%	2.6%		
Removal Age (Y)	1.99	2.39	2.59	2.72	2.78	2.81	4.1%	
AGR	16.7%	20.4%	8.4%	4.8%	2.4%	0.9%		
Average Installed Base Age (Y)	2.52	2.92	3.12	3.17	3.15	3.11	1.5%	
AGR	15.2%	15.9%	6.7%	1.7%	-0.7%	-1.4%		
Replacement Cycle Length (Y)	2.60	2.62	2.70	2.76	2.81	2.87	2.3%	
AGR	3.9%	0.6%	3.1%	2.2%	2.0%	2.1%		
Units per Businesses (#)	12.25	8.55	6.48	5.10	4.14	3.46	-20.2%	
AGR	-23.4%	-30.2%	-24.2%	-21.4%	-18.7%	-16.5%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	9.2%	11.8%	15.1%	19.1%	23.8%	29.3%	20.1%	

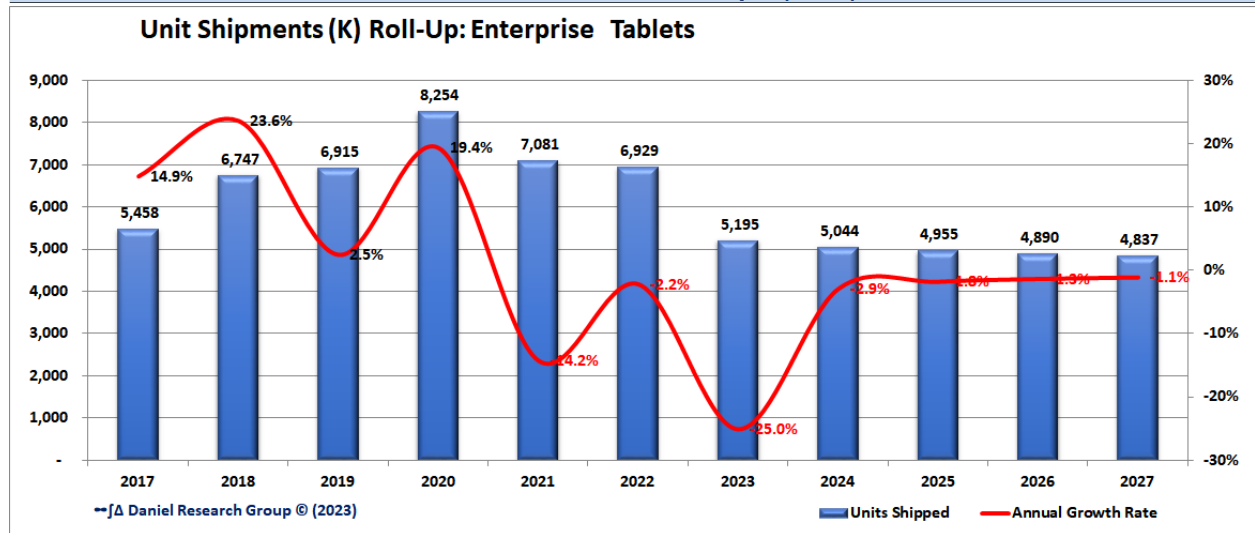
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Enterprise Total

United States Enterprise Tablets							
	2022	2023	2024	2025	2026	2027	CAGR '23-'27
Unit Shipments (K)	6,929	5,195	5,044	4,955	4,890	4,837	-1.8%
AGR	-2.2%	-25.0%	-2.9%	-1.8%	-1.3%	-1.1%	
Revenue (\$M)	4,019	2,759	2,517	2,326	2,161	2,014	-7.6%
AGR	-12.1%	-31.4%	-8.7%	-7.6%	-7.1%	-6.8%	
Average Price (\$)	580	531	499	469	442	416	-5.9%
AGR	-10.2%	-8.4%	-6.0%	-5.9%	-5.8%	-5.8%	
Installed Base (K)	20,426	18,468	17,200	16,353	15,787	15,417	-4.4%
AGR	-5.6%	-9.6%	-6.9%	-4.9%	-3.5%	-2.3%	
Removal Age (Y)	3.93	4.21	4.33	4.40	4.42	4.41	1.2%
AGR	2.1%	7.2%	3.0%	1.5%	0.5%	-0.2%	
Average Installed Base Age (Y)	3.69	3.84	3.90	3.90	3.86	3.80	-0.3%
AGR	1.4%	4.0%	1.6%	-0.1%	-1.1%	-1.5%	
Replacement Cycle Length (Y)	3.51	3.58	3.72	3.82	3.89	3.96	2.5%
AGR	0.6%	2.1%	4.0%	2.5%	2.0%	1.7%	
Units per Businesses (#)	10.69	8.68	7.43	6.48	5.76	5.19	-12.0%
AGR	-17.5%	-18.8%	-14.4%	-12.8%	-11.2%	-9.8%	
	2022	2023	2024	2025	2026	2027	Change '20-'25
Market Penetration (%)	28.6%	31.6%	34.8%	38.1%	41.5%	45.0%	16.4%

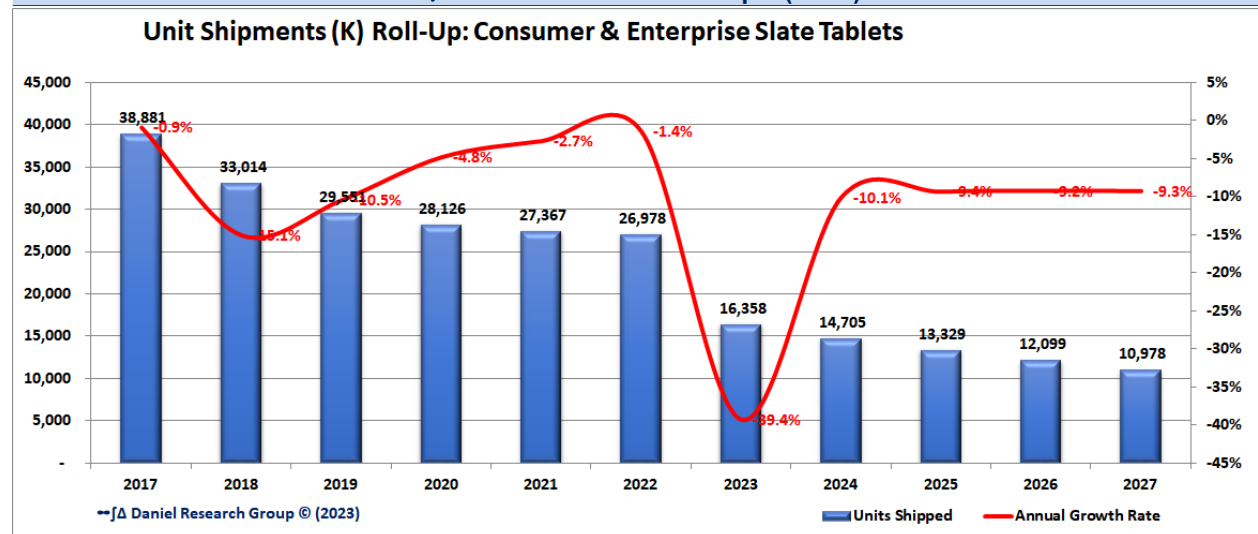
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Total Slate

United States Consumer & Enterprise Slate Tablets							
	2022	2023	2024	2025	2026	2027	CAGR '23-'27
Unit Shipments (K)	26,978	16,358	14,705	13,329	12,099	10,978	-9.5%
AGR	-1.4%	-39.4%	-10.1%	-9.4%	-9.2%	-9.3%	
Revenue (\$M)	5,282	3,072	2,567	2,164	1,828	1,544	-15.8%
AGR	11.5%	-41.8%	-16.4%	-15.7%	-15.5%	-15.5%	
Average Price (\$)	196	188	175	162	151	141	-7.0%
AGR	13.1%	-4.1%	-7.0%	-7.0%	-7.0%	-6.9%	
Installed Base (K)	133,753	118,719	107,597	99,071	92,382	87,034	-7.5%
AGR	-7.5%	-11.2%	-9.4%	-7.9%	-6.8%	-5.8%	
Removal Age (Y)	5.57	6.10	6.50	6.89	7.25	7.57	5.5%
AGR	3.3%	9.5%	6.5%	6.0%	5.2%	4.5%	
Average Installed Base Age (Y)	4.53	4.75	4.92	5.04	5.14	5.22	2.4%
AGR	1.5%	4.9%	3.6%	2.5%	1.9%	1.6%	
Replacement Cycle Length (Y)	4.53	4.78	5.17	5.53	5.92	6.33	7.3%
AGR	-4.3%	5.5%	8.0%	7.1%	6.9%	7.0%	
Units per Households & Businesses (#)	1.67	1.46	1.32	1.21	1.11	1.08	-7.4%
AGR	-9.0%	-12.3%	-9.8%	-8.6%	-7.7%	-3.4%	
	2022	2023	2024	2025	2026	2027	Change '20-'25
Market Penetration (%)	58.1%	58.2%	58.3%	58.4%	58.5%	56.6%	-1.5%

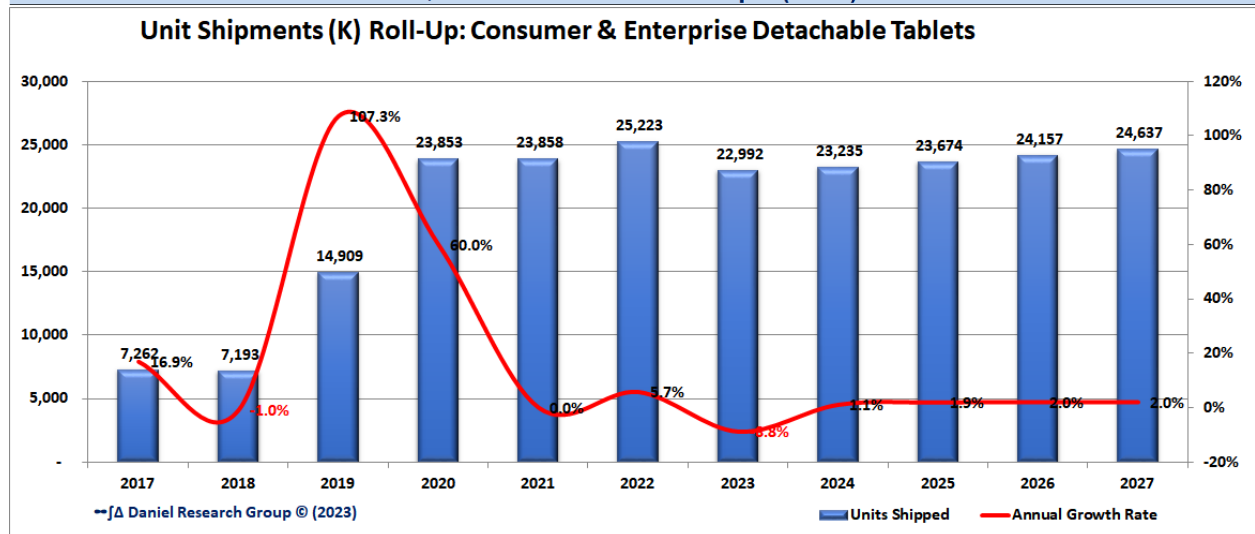
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Total Detachable

United States Consumer & Enterprise Detachable Tablets								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	25,223	22,992	23,235	23,674	24,157	24,637	1.7%	
AGR	5.7%	-8.8%	1.1%	1.9%	2.0%	2.0%		
Revenue (\$M)	17,295	15,867	16,121	16,536	17,005	17,498	2.5%	
AGR	-3.4%	-8.3%	1.6%	2.6%	2.8%	2.9%		
Average Price (\$)	686	690	694	698	704	710	0.7%	
AGR	-8.7%	0.6%	0.5%	0.7%	0.8%	0.9%		
Installed Base (K)	62,988	71,153	78,155	83,947	88,528	91,944	6.6%	
AGR	23.6%	13.0%	9.8%	7.4%	5.5%	3.9%		
Removal Age (Y)	2.83	3.16	3.47	3.76	4.02	4.23	7.6%	
AGR	12.3%	11.8%	9.9%	8.4%	7.0%	5.2%		
Average Installed Base Age (Y)	2.65	2.90	3.12	3.32	3.48	3.61	5.6%	
AGR	5.5%	9.3%	7.8%	6.3%	4.8%	3.6%		
Replacement Cycle Length (Y)	5.78	5.80	5.81	5.69	5.52	5.33	-2.1%	
AGR	24.1%	0.4%	0.3%	-2.1%	-3.0%	-3.4%		
Units per Households & Businesses (#)	2.73	2.78	2.77	2.70	2.59	2.44	-3.2%	
AGR	10.7%	1.8%	-0.2%	-2.5%	-4.4%	-5.6%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	16.7%	18.4%	20.2%	22.1%	24.1%	26.3%	9.6%	

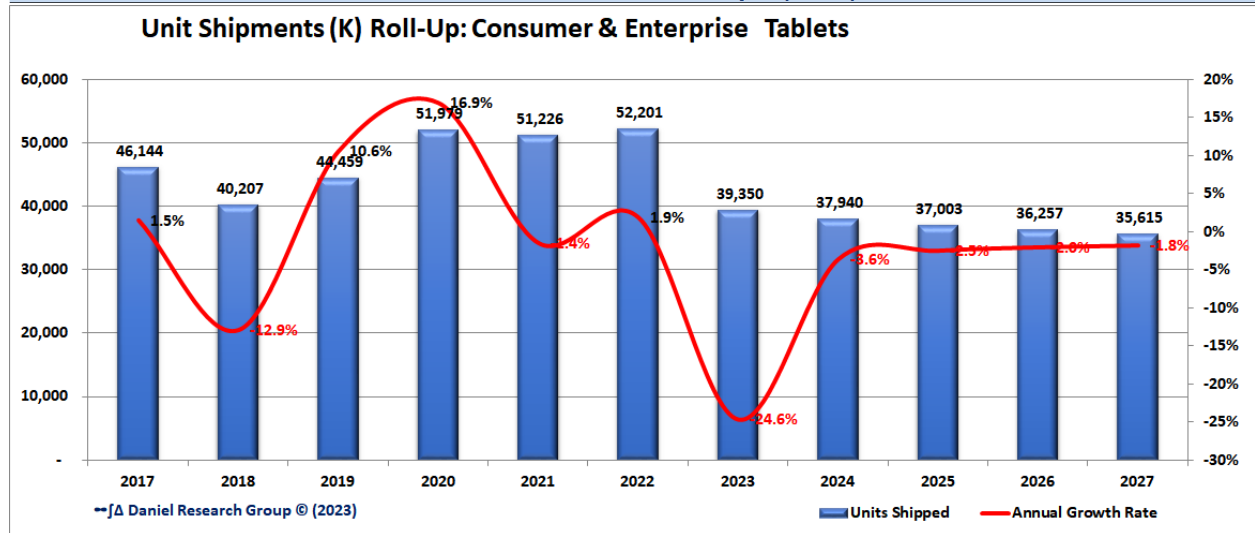
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Total Tablets

United States Consumer & Enterprise Tablets							
	2022	2023	2024	2025	2026	2027	CAGR '23-'27
Unit Shipments (K)	52,201	39,350	37,940	37,003	36,257	35,615	-2.5%
AGR	1.9%	-24.6%	-3.6%	-2.5%	-2.0%	-1.8%	
Revenue (\$M)	22,577	18,939	18,688	18,700	18,833	19,042	0.1%
AGR	-0.3%	-16.1%	-1.3%	0.1%	0.7%	1.1%	
Average Price (\$)	433	481	493	505	519	535	2.7%
AGR	-2.2%	11.3%	2.3%	2.6%	2.8%	2.9%	
Installed Base (K)	196,741	189,872	185,752	183,017	180,910	178,978	-1.5%
AGR	0.6%	-3.5%	-2.2%	-1.5%	-1.2%	-1.1%	
Removal Age (Y)	4.80	5.14	5.37	5.57	5.72	5.82	3.1%
AGR	2.7%	7.2%	4.5%	3.6%	2.7%	1.8%	
Average Installed Base Age (Y)	3.90	4.04	4.14	4.21	4.25	4.29	1.5%
AGR	-0.2%	3.4%	2.5%	1.7%	1.2%	0.8%	
Replacement Cycle Length (Y)	4.85	5.11	5.42	5.61	5.72	5.77	3.1%
AGR	3.0%	5.2%	6.0%	3.5%	2.0%	0.9%	
Units per Households & Businesses (#)	2.15	2.03	1.95	1.88	1.82	1.75	-3.5%
AGR	-2.1%	-5.7%	-3.9%	-3.4%	-3.4%	-3.4%	
	2022	2023	2024	2025	2026	2027	Change '20-'25
Market Penetration (%)	66.4%	67.3%	68.2%	69.2%	70.3%	71.4%	5.0%

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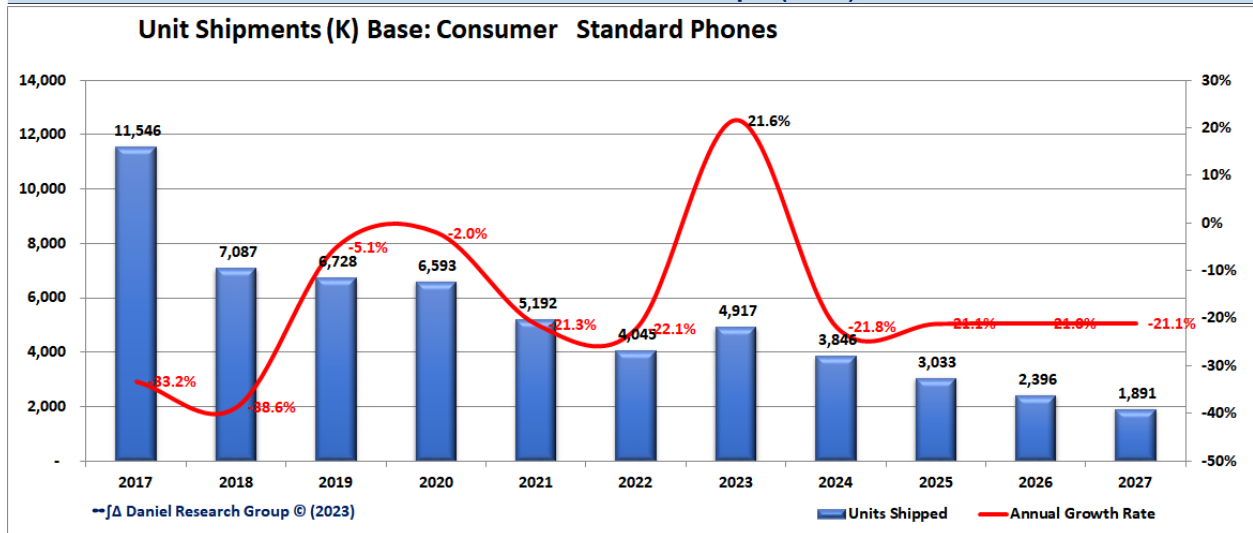


Mobile Phones

Consumer Standard

United States Consumer Standard Phones							
	2022	2023	2024	2025	2026	2027	CAGR '23-'27
Unit Shipments (K)	4,045	4,917	3,846	3,033	2,396	1,891	-21.2%
AGR	-22.1%	21.6%	-21.8%	-21.1%	-21.0%	-21.1%	
Revenue (\$M)	325	420	350	294	248	208	-16.1%
AGR	-17.7%	29.4%	-16.7%	-16.0%	-15.8%	-15.9%	
Average Price (\$)	80	85	91	97	103	110	6.5%
AGR	5.6%	6.4%	6.5%	6.5%	6.5%	6.6%	
Installed Base (K)	27,348	22,640	18,745	15,488	12,771	10,516	-17.4%
AGR	-21.6%	-17.2%	-17.2%	-17.4%	-17.5%	-17.7%	
Removal Age (Y)	6.48	6.06	6.01	5.72	5.49	5.42	-2.7%
AGR	-3.1%	-6.6%	-0.8%	-4.8%	-4.0%	-1.3%	
Average Installed Base Age (Y)	4.38	4.14	3.93	3.84	3.86	3.94	-1.2%
AGR	-2.0%	-5.5%	-5.1%	-2.3%	0.5%	2.2%	
Replacement Cycle Length (Y)	3.36	3.35	3.42	3.46	3.50	3.54	1.3%
AGR	-0.9%	-0.4%	2.1%	1.2%	1.0%	1.1%	
Units per Households (#)	1.39	1.37	1.37	1.37	1.37	1.37	-0.1%
AGR	-7.4%	-1.2%	-0.1%	-0.1%	-0.2%	0.0%	
	2022	2023	2024	2025	2026	2027	Change '20-'25
Market Penetration (%)	15.0%	12.5%	10.3%	8.4%	6.9%	5.6%	-9.4%

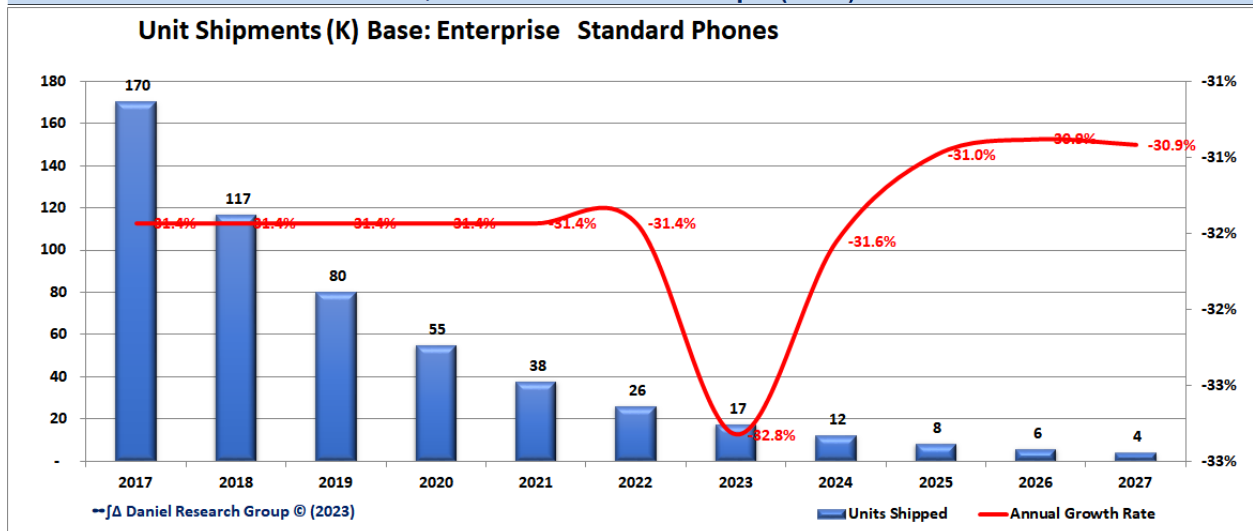
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Enterprise Standard

United States Enterprise Standard Phones								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	26	17	12	8	6	4	-31.1%	
AGR	-31.4%	-32.8%	-31.6%	-31.0%	-30.9%	-30.9%		
Revenue (\$M)	4	3	2	1	1	0	-33.9%	
AGR	-34.2%	-35.5%	-34.3%	-33.8%	-33.7%	-33.7%		
Average Price (\$)	156	150	144	138	133	127	-4.0%	
AGR	-4.0%	-4.0%	-4.0%	-4.0%	-4.0%	-4.0%		
Installed Base (K)	370	182	98	57	35	23	-40.5%	
AGR	-53.9%	-50.7%	-46.1%	-42.0%	-38.3%	-34.8%		
Removal Age (Y)	8.67	7.95	7.31	6.29	6.29	6.27	-5.8%	
AGR	5.1%	-8.2%	-8.1%	-13.9%	0.0%	-0.4%		
Average Installed Base Age (Y)	6.03	5.43	4.92	4.90	4.80	4.66	-3.7%	
AGR	-9.9%	-10.0%	-9.3%	-0.5%	-1.9%	-3.0%		
Replacement Cycle Length (Y)	1.81	1.89	2.03	2.15	2.28	2.42	6.4%	
AGR	-16.3%	4.6%	7.1%	6.2%	6.0%	6.1%		
Units per Businesses (#)	1.52	1.05	1.00	1.00	1.00	1.00	-1.2%	
AGR	-37.1%	-30.8%	-4.6%					
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	3.7%	2.6%	1.5%	0.9%	0.5%	0.3%	-3.3%	

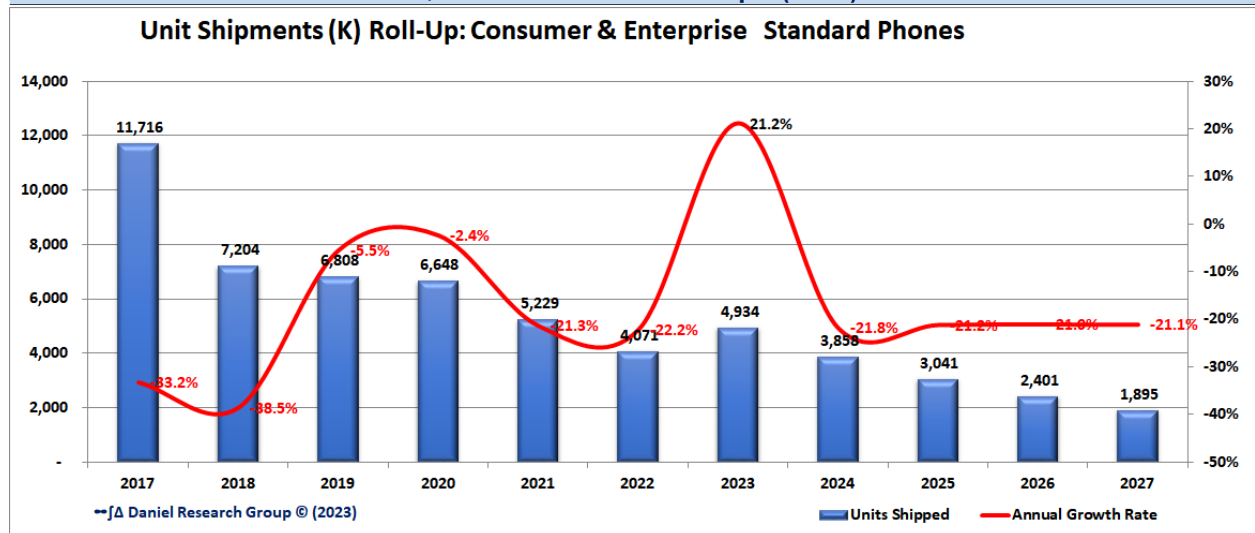
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Total Standard

United States Consumer & Enterprise Standard Phones								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	4,071	4,934	3,858	3,041	2,401	1,895	-21.3%	
AGR	-22.2%	21.2%	-21.8%	-21.2%	-21.0%	-21.1%		
Revenue (\$M)	329	423	352	295	248	209	-16.2%	
AGR	-18.0%	28.6%	-16.8%	-16.1%	-15.9%	-15.9%		
Average Price (\$)	81	86	91	97	103	110	6.5%	
AGR	5.3%	6.1%	6.4%	6.5%	6.5%	6.5%		
Installed Base (K)	27,718	22,823	18,843	15,545	12,806	10,539	-17.6%	
AGR	-22.3%	-17.7%	-17.4%	-17.5%	-17.6%	-17.7%		
Removal Age (Y)	6.60	6.10	6.02	5.72	5.50	5.43	-2.9%	
AGR	-2.5%	-7.6%	-1.3%	-5.0%	-3.9%	-1.3%		
Average Installed Base Age (Y)	4.40	4.15	3.93	3.84	3.86	3.94	-1.3%	
AGR	-2.9%	-5.8%	-5.1%	-2.3%	0.4%	2.1%		
Replacement Cycle Length (Y)	3.31	3.32	3.40	3.45	3.49	3.53	1.5%	
AGR	-1.0%	0.5%	2.5%	1.4%	1.1%	1.2%		
Units per Households & Businesses (#)	1.39	1.37	1.37	1.37	1.36	1.37	0.0%	
AGR	-8.1%	-1.6%	0.0%	0.0%	-0.1%	0.0%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	14.5%	12.0%	9.9%	8.1%	6.6%	5.4%	-9.1%	

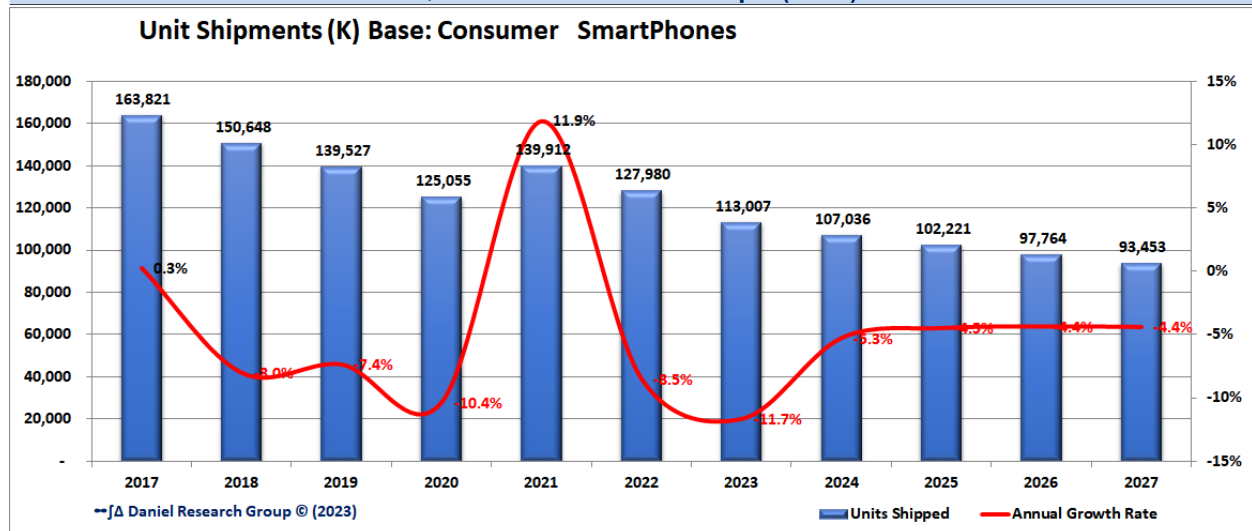
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Consumer Smartphone

United States Consumer SmartPhones							
	2022	2023	2024	2025	2026	2027	CAGR '23-'27
Unit Shipments (K)	127,980	113,007	107,036	102,221	97,764	93,453	-4.6%
AGR	-8.5%	-11.7%	-5.3%	-4.5%	-4.4%	-4.4%	
Revenue (\$M)	92,657	92,959	100,578	110,164	121,217	133,646	9.5%
AGR	2.4%	0.3%	8.2%	9.5%	10.0%	10.3%	
Average Price (\$)	724	823	940	1,078	1,240	1,430	14.8%
AGR	11.9%	13.6%	14.2%	14.7%	15.0%	15.3%	
Installed Base (K)	234,524	217,176	206,228	198,608	192,937	188,487	-3.5%
AGR	-5.7%	-7.4%	-5.0%	-3.7%	-2.9%	-2.3%	
Removal Age (Y)	2.90	2.98	3.01	3.03	3.04	3.06	0.7%
AGR	1.7%	2.7%	1.2%	0.7%	0.3%	0.5%	
Average Installed Base Age (Y)	2.75	2.79	2.78	2.77	2.75	2.75	-0.3%
AGR	0.6%	1.2%	-0.1%	-0.6%	-0.5%	-0.1%	
Replacement Cycle Length (Y)	2.65	2.67	2.75	2.81	2.87	2.93	2.3%
AGR	-0.7%	0.6%	3.1%	2.2%	2.0%	2.1%	
Units per Households (#)	1.93	1.74	1.62	1.54	1.47	1.41	-5.1%
AGR	-9.1%	-9.9%	-6.7%	-5.3%	-4.5%	-3.8%	
	2022	2023	2024	2025	2026	2027	Change '20-'25
Market Penetration (%)	92.6%	94.2%	95.5%	96.5%	97.3%	97.9%	5.3%

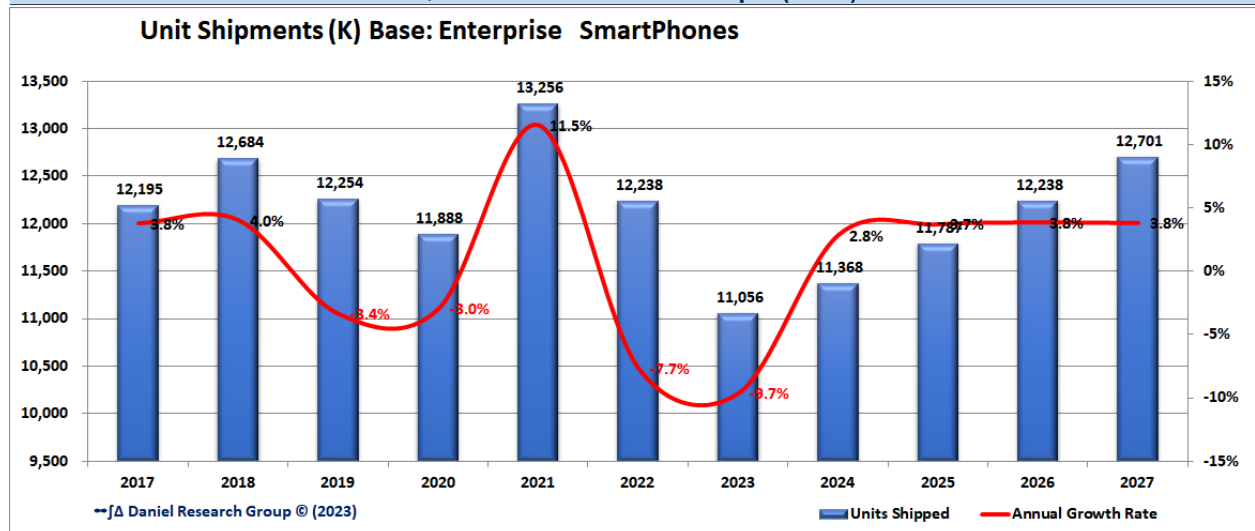
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Enterprise Smartphone

United States Enterprise SmartPhones							
	2022	2023	2024	2025	2026	2027	CAGR '23-'27
Unit Shipments (K)	12,238	11,056	11,368	11,787	12,238	12,701	3.5%
AGR	-7.7%	-9.7%	2.8%	3.7%	3.8%	3.8%	
Revenue (\$M)	10,154	9,084	9,250	9,498	9,766	10,037	2.5%
AGR	6.2%	-10.5%	1.8%	2.7%	2.8%	2.8%	
Average Price (\$)	830	822	814	806	798	790	-1.0%
AGR	15.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	
Installed Base (K)	19,225	18,369	18,275	18,611	19,219	20,016	2.2%
AGR	-0.8%	-4.5%	-0.5%	1.8%	3.3%	4.1%	
Removal Age (Y)	2.56	2.63	2.64	2.62	2.58	2.56	-0.7%
AGR	2.6%	2.9%	0.3%	-0.8%	-1.3%	-0.9%	
Average Installed Base Age (Y)	2.55	2.61	2.60	2.56	2.52	2.49	-1.2%
AGR	0.7%	2.4%	-0.5%	-1.6%	-1.5%	-1.1%	
Replacement Cycle Length (Y)	2.55	2.54	2.59	2.63	2.65	2.68	1.3%
AGR	4.4%	-0.4%	2.1%	1.2%	1.0%	1.1%	
Units per Businesses (#)	16.60	18.71	22.51	27.64	34.51	43.55	23.5%
AGR	13.7%	12.7%	20.3%	22.8%	24.8%	26.2%	
Market Penetration (%)	2022	2023	2024	2025	2026	2027	Change '20-'25
	17.3%	14.6%	12.2%	10.2%	8.4%	7.0%	-10.4%

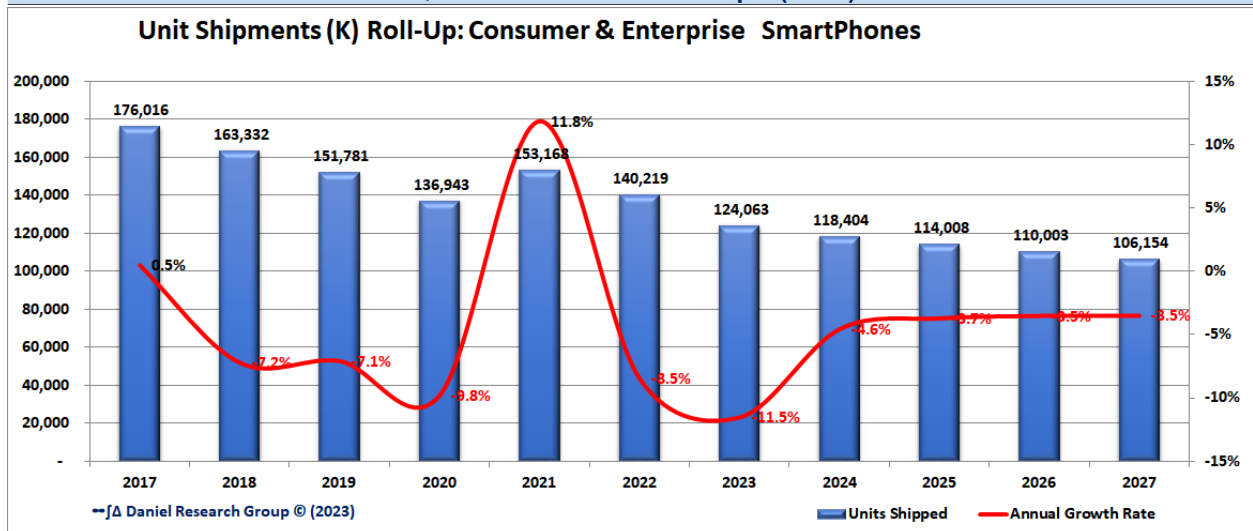
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Total Smartphone

United States Consumer & Enterprise SmartPhones							
	2022	2023	2024	2025	2026	2027	CAGR '23-'27
Unit Shipments (K)	140,219	124,063	118,404	114,008	110,003	106,154	-3.8%
AGR	-8.5%	-11.5%	-4.6%	-3.7%	-3.5%	-3.5%	
Revenue (\$M)	102,811	102,042	109,828	119,662	130,983	143,683	8.9%
AGR	2.8%	-0.7%	7.6%	9.0%	9.5%	9.7%	
Average Price (\$)	733	823	928	1,050	1,191	1,354	13.3%
AGR	12.3%	12.2%	12.8%	13.2%	13.4%	13.7%	
Installed Base (K)	253,749	235,545	224,504	217,219	212,156	208,502	-3.0%
AGR	-5.4%	-7.2%	-4.7%	-3.2%	-2.3%	-1.7%	
Removal Age (Y)	2.87	2.95	2.98	2.99	3.00	3.00	0.5%
AGR	1.8%	2.7%	1.1%	0.5%	0.1%	0.3%	
Average Installed Base Age (Y)	2.74	2.77	2.77	2.75	2.73	2.72	-0.4%
AGR	0.6%	1.3%	-0.2%	-0.7%	-0.6%	-0.3%	
Replacement Cycle Length (Y)	2.64	2.66	2.73	2.79	2.84	2.90	2.2%
AGR	-0.3%	0.5%	3.0%	2.1%	1.9%	1.9%	
Units per Households & Businesses (#)	2.07	1.87	1.75	1.67	1.61	1.56	-4.5%
AGR	-8.6%	-9.6%	-6.2%	-4.7%	-3.9%	-3.1%	
Market Penetration (%)	89.0%	90.4%	91.5%	92.4%	93.1%	93.7%	4.7%

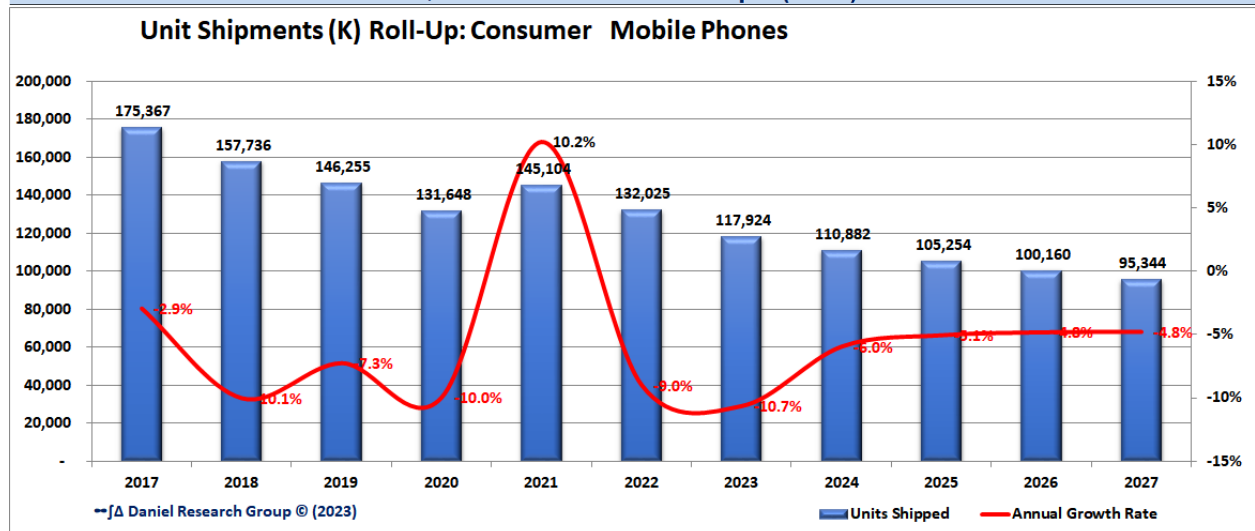
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Consumer Total

United States Consumer Mobile Phones								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	132,025	117,924	110,882	105,254	100,160	95,344	-5.2%	
AGR	-9.0%	-10.7%	-6.0%	-5.1%	-4.8%	-4.8%		
Revenue (\$M)	92,982	93,379	100,928	110,459	121,465	133,854	9.4%	
AGR	2.3%	0.4%	8.1%	9.4%	10.0%	10.2%		
Average Price (\$)	704	792	910	1,049	1,213	1,404	15.4%	
AGR	12.4%	12.4%	14.9%	15.3%	15.6%	15.8%		
Installed Base (K)	261,872	239,817	224,973	214,095	205,708	199,002	-4.6%	
AGR	-7.7%	-8.4%	-6.2%	-4.8%	-3.9%	-3.3%		
Removal Age (Y)	3.14	3.16	3.16	3.15	3.15	3.15	-0.1%	
AGR	-0.5%	0.7%	0.1%	-0.2%	-0.3%	0.1%		
Average Installed Base Age (Y)	2.86	2.86	2.85	2.82	2.80	2.80	-0.6%	
AGR	-0.6%	0.1%	-0.6%	-0.8%	-0.6%	-0.3%		
Replacement Cycle Length (Y)	2.70	2.71	2.79	2.84	2.90	2.95	2.1%	
AGR	-1.1%	0.4%	2.8%	1.9%	1.8%	1.9%		
Units per Households (#)	1.90	1.72	1.61	1.52	1.45	1.39	-5.2%	
AGR	-9.3%	-9.5%	-6.6%	-5.4%	-4.7%	-4.1%		
Market Penetration (%)	99.8%	99.9%	99.9%	100.0%	100.0%	100.0%	0.2%	
Change '20-'25								

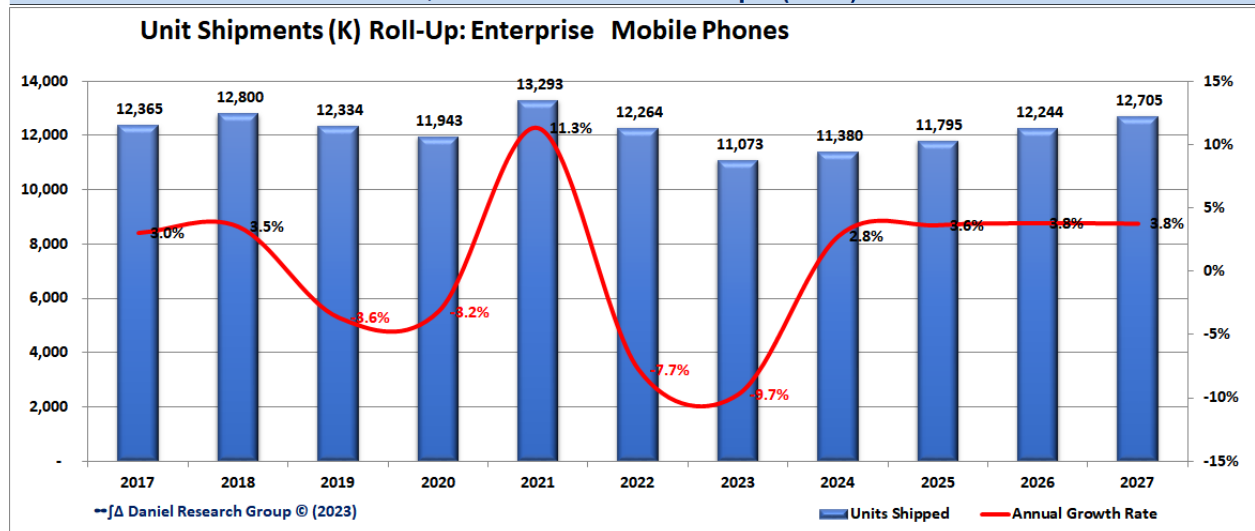
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Enterprise Total

United States Enterprise Mobile Phones								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	12,264	11,073	11,380	11,795	12,244	12,705	3.5%	
AGR	-7.7%	-9.7%	2.8%	3.6%	3.8%	3.8%		
Revenue (\$M)	10,158	9,086	9,252	9,499	9,767	10,037	2.5%	
AGR	6.2%	-10.5%	1.8%	2.7%	2.8%	2.8%		
Average Price (\$)	828	821	813	805	798	790	-0.9%	
AGR	15.1%	-0.9%	-0.9%	-0.9%	-1.0%	-1.0%		
Installed Base (K)	19,595	18,551	18,374	18,668	19,254	20,039	1.9%	
AGR	-2.9%	-5.3%	-1.0%	1.6%	3.1%	4.1%		
Removal Age (Y)	2.69	2.70	2.68	2.64	2.59	2.56	-1.3%	
AGR	-0.6%	0.4%	-0.9%	-1.5%	-1.7%	-1.1%		
Average Installed Base Age (Y)	2.61	2.64	2.61	2.56	2.52	2.49	-1.5%	
AGR	-1.1%	1.3%	-1.1%	-1.9%	-1.6%	-1.1%		
Replacement Cycle Length (Y)	2.52	2.53	2.59	2.62	2.65	2.68	1.4%	
AGR	3.9%	0.2%	2.3%	1.3%	1.1%	1.1%		
Units per Businesses (#)	15.31	18.87	25.17	34.54	48.44	68.92	38.2%	
AGR	21.6%	23.3%	33.4%	37.2%	40.2%	42.3%		
Market Penetration (%)	19.2%	14.6%	11.0%	8.2%	6.0%	4.4%	-14.8%	

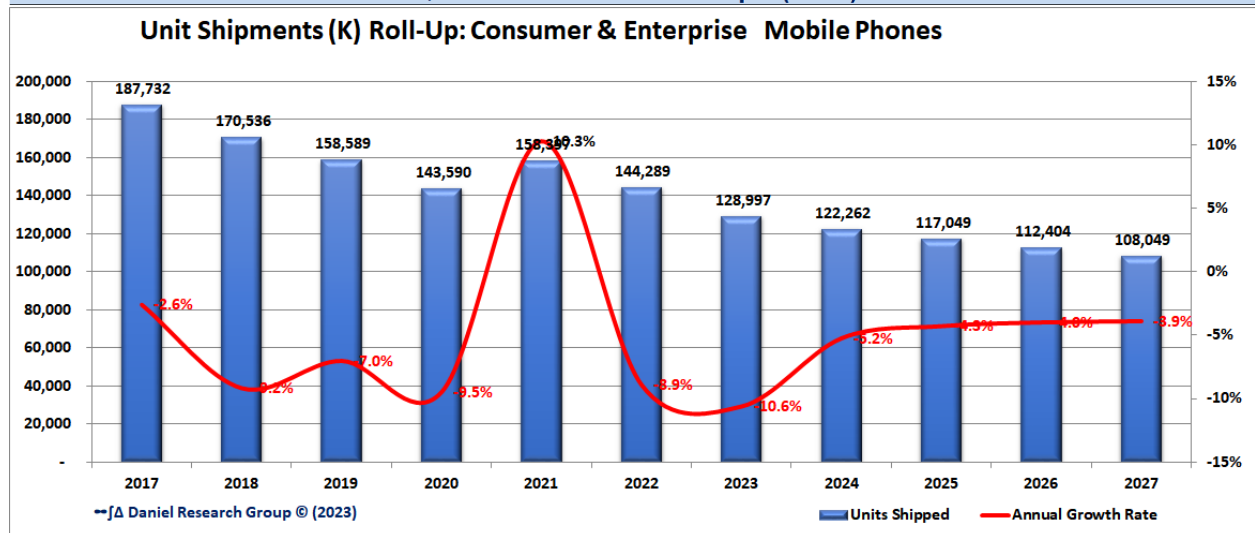
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Total Mobile Phones

United States Consumer & Enterprise Mobile Phones							
	2022	2023	2024	2025	2026	2027	CAGR '23-'27
Unit Shipments (K)	144,289	128,997	122,262	117,049	112,404	108,049	-4.3%
AGR	-8.9%	-10.6%	-5.2%	-4.3%	-4.0%	-3.9%	
Revenue (\$M)	103,140	102,465	110,180	119,957	131,231	143,891	8.9%
AGR	2.7%	-0.7%	7.5%	8.9%	9.4%	9.6%	
Average Price (\$)	715	794	901	1,025	1,167	1,332	13.8%
AGR	12.7%	11.1%	13.5%	13.7%	13.9%	14.1%	
Installed Base (K)	281,467	258,368	243,347	232,764	224,962	219,041	-4.0%
AGR	-7.3%	-8.2%	-5.8%	-4.3%	-3.4%	-2.6%	
Removal Age (Y)	3.10	3.12	3.12	3.11	3.09	3.09	-0.2%
AGR	-0.5%	0.6%	0.0%	-0.3%	-0.5%	-0.1%	
Average Installed Base Age (Y)	2.84	2.85	2.83	2.80	2.78	2.77	-0.7%
AGR	-0.6%	0.2%	-0.7%	-1.0%	-0.8%	-0.4%	
Replacement Cycle Length (Y)	2.69	2.70	2.77	2.82	2.87	2.92	2.0%
AGR	-0.7%	0.3%	2.7%	1.8%	1.7%	1.8%	
Units per Households & Businesses (#)	2.04	1.85	1.74	1.66	1.59	1.53	-4.7%
AGR	-8.8%	-9.2%	-6.1%	-4.9%	-4.1%	-3.4%	
Market Penetration (%)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%
Change '20-'25							
Trend							

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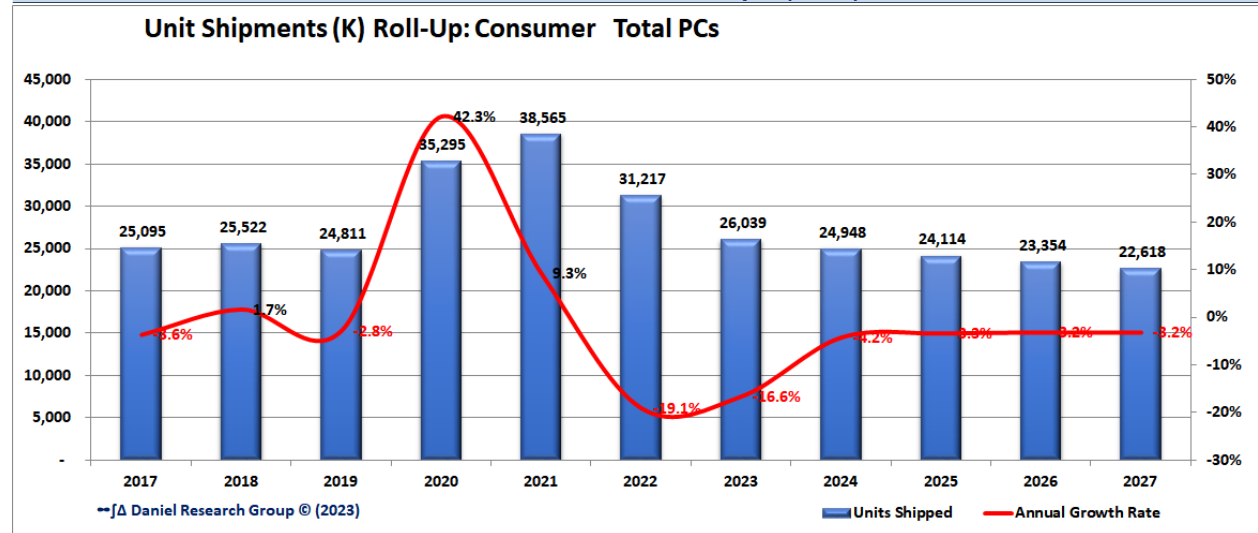
Market Aggregations

Total PCs

Consumer PCs

United States Consumer Total PCs								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	31,217	26,039	24,948	24,114	23,354	22,618	-3.5%	
AGR	-19.1%	-16.6%	-4.2%	-3.3%	-3.2%	-3.2%		
Revenue (\$M)	36,239	33,085	34,667	36,635	38,780	41,039	5.5%	
AGR	-8.0%	-8.7%	4.8%	5.7%	5.9%	5.8%		
Average Price (\$)	1,161	1,271	1,390	1,519	1,661	1,814	9.3%	
AGR	13.7%	9.5%	9.4%	9.3%	9.3%	9.3%		
Installed Base (K)	150,304	146,723	143,579	140,659	137,875	135,190	-2.0%	
AGR	0.4%	-2.4%	-2.1%	-2.0%	-2.0%	-1.9%		
Removal Age (Y)	5.78	5.90	6.02	6.24	6.31	6.46	2.3%	
AGR	3.2%	2.1%	2.1%	3.6%	1.1%	2.5%		
Average Installed Base Age (Y)	4.29	4.40	4.52	4.60	4.69	4.76	2.0%	
AGR	0.2%	2.7%	2.6%	1.9%	1.9%	1.5%		
Replacement Cycle Length (Y)	5.92	5.95	6.11	6.20	6.27	6.34	1.6%	
AGR	8.1%	0.6%	2.6%	1.5%	1.2%	1.1%		
Units per Households (#)	1.29	1.24	1.20	1.16	1.12	1.08	-3.3%	
AGR	-1.7%	-4.0%	-3.1%	-3.2%	-3.4%	-3.3%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	88.9%	89.5%	90.1%	90.6%	91.1%	91.6%	2.6%	

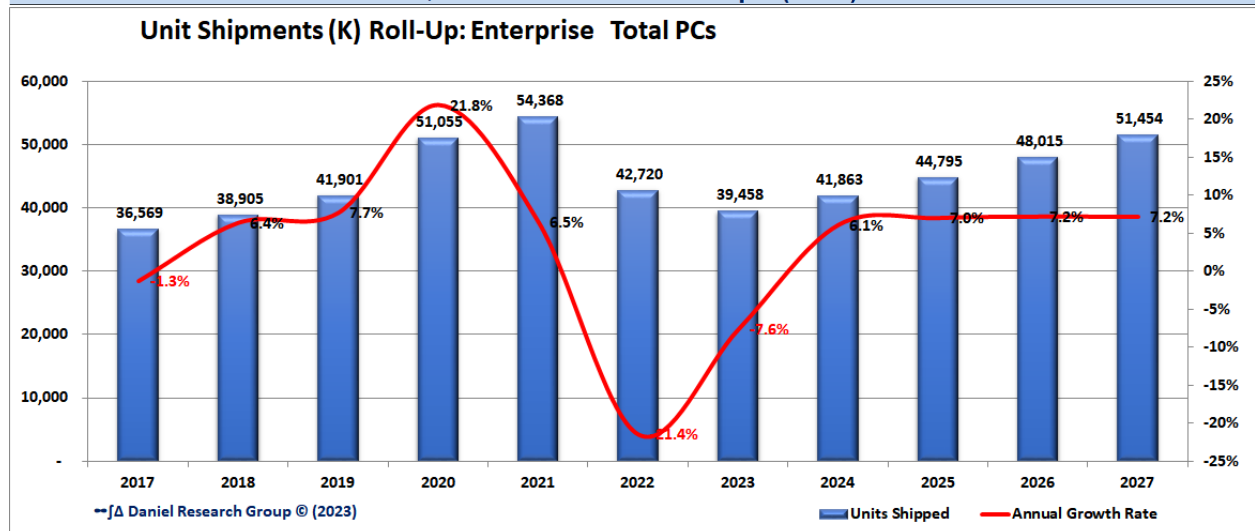
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Enterprise PCs

United States Enterprise Total PCs								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	42,720	39,458	41,863	44,795	48,015	51,454	6.9%	
AGR	-21.4%	-7.6%	6.1%	7.0%	7.2%	7.2%		
Revenue (\$M)	31,983	31,129	34,977	39,704	45,213	51,538	13.4%	
AGR	-6.8%	-2.7%	12.4%	13.5%	13.9%	14.0%		
Average Price (\$)	749	789	836	886	942	1,002	6.2%	
AGR	18.6%	5.4%	5.9%	6.1%	6.2%	6.4%		
Installed Base (K)	143,924	137,574	137,987	143,355	152,807	165,908	4.8%	
AGR	-6.0%	-4.4%	0.3%	3.9%	6.6%	8.6%		
Removal Age (Y)	4.39	4.44	4.44	4.42	4.39	4.38	-0.3%	
AGR	3.0%	1.2%	0.0%	-0.6%	-0.6%	-0.2%		
Average Installed Base Age (Y)	3.62	3.64	3.59	3.52	3.45	3.39	-1.7%	
AGR	0.2%	0.6%	-1.2%	-2.1%	-2.1%	-1.6%		
Replacement Cycle Length (Y)	3.77	4.00	4.33	4.64	4.96	5.33	7.4%	
AGR	7.7%	6.0%	8.1%	7.1%	7.0%	7.3%		
Units per Businesses (#)	21.81	20.67	20.97	21.87	23.38	25.43	5.3%	
AGR	-8.9%	-5.2%	1.4%	4.3%	6.9%	8.8%		
Market Penetration (%)	98.8%	98.8%	98.9%	98.9%	98.9%	99.0%	0.2%	

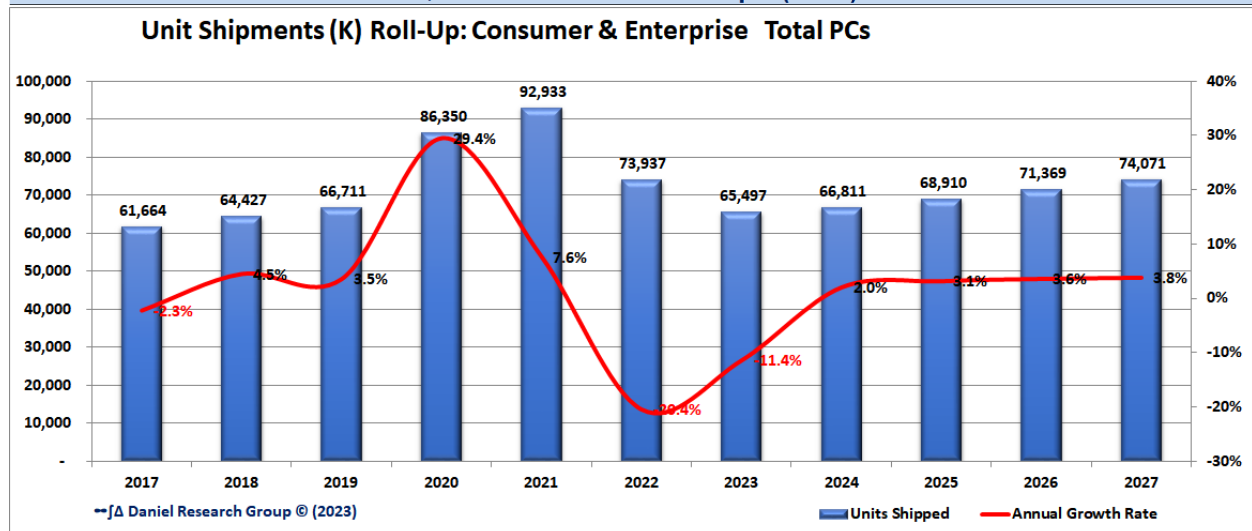
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Total PCs

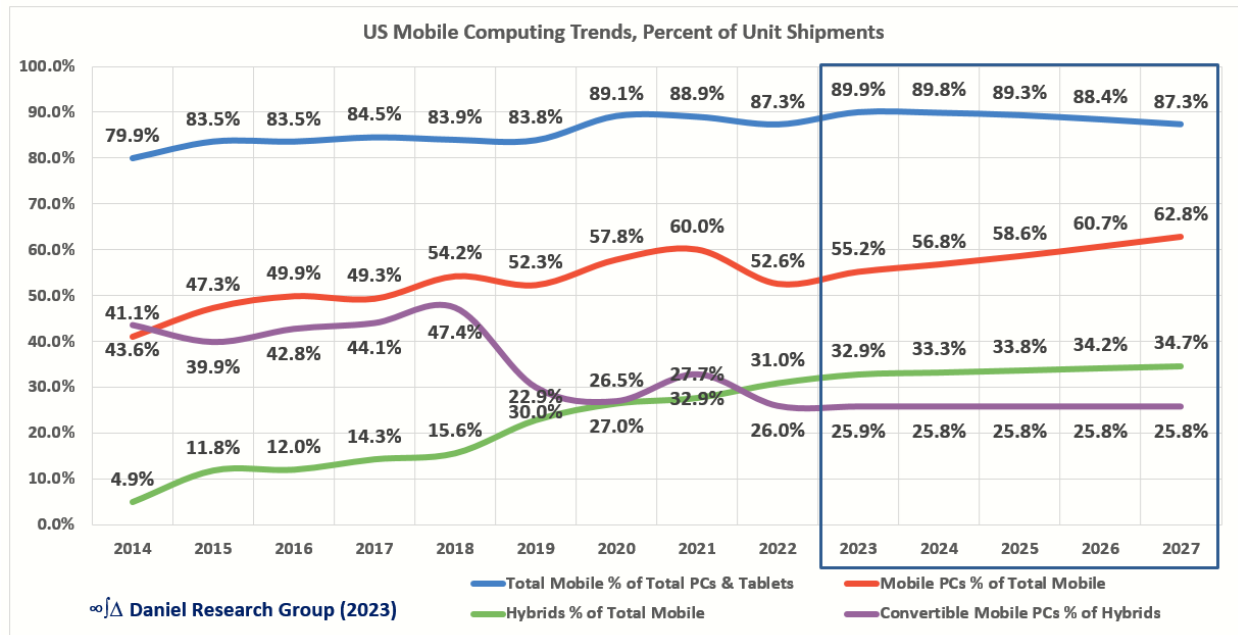
United States Consumer & Enterprise Total PCs								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	73,937	65,497	66,811	68,910	71,369	74,071	3.1%	
AGR	-20.4%	-11.4%	2.0%	3.1%	3.6%	3.8%		
Revenue (\$M)	68,222	64,214	69,644	76,339	83,992	92,576	9.6%	
AGR	-7.4%	-5.9%	8.5%	9.6%	10.0%	10.2%		
Average Price (\$)	923	980	1,042	1,108	1,177	1,250	6.3%	
AGR	16.4%	6.3%	6.3%	6.3%	6.2%	6.2%		
Installed Base (K)	294,228	284,297	281,566	284,014	290,683	301,098	1.4%	
AGR	-2.8%	-3.4%	-1.0%	0.9%	2.3%	3.6%		
Removal Age (Y)	4.93	5.03	5.10	5.20	5.20	5.25	1.0%	
AGR	3.5%	2.2%	1.4%	2.0%	0.0%	0.8%		
Average Installed Base Age (Y)	3.93	3.99	4.02	4.00	3.97	3.94	-0.3%	
AGR	0.3%	1.7%	0.6%	-0.5%	-0.7%	-0.9%		
Replacement Cycle Length (Y)	4.57	4.77	5.05	5.27	5.49	5.73	4.7%	
AGR	8.8%	4.4%	5.9%	4.4%	4.2%	4.3%		
Units per Households & Businesses (#)	2.39	2.27	2.23	2.22	2.24	2.29	0.3%	
AGR	-5.0%	-5.0%	-1.9%	-0.2%	1.0%	2.2%		
Market Penetration (%)	89.4%	90.0%	90.5%	91.0%	91.4%	91.9%	Change '20-'25	Trend
							2.5%	

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Mobile PCs and Tablets

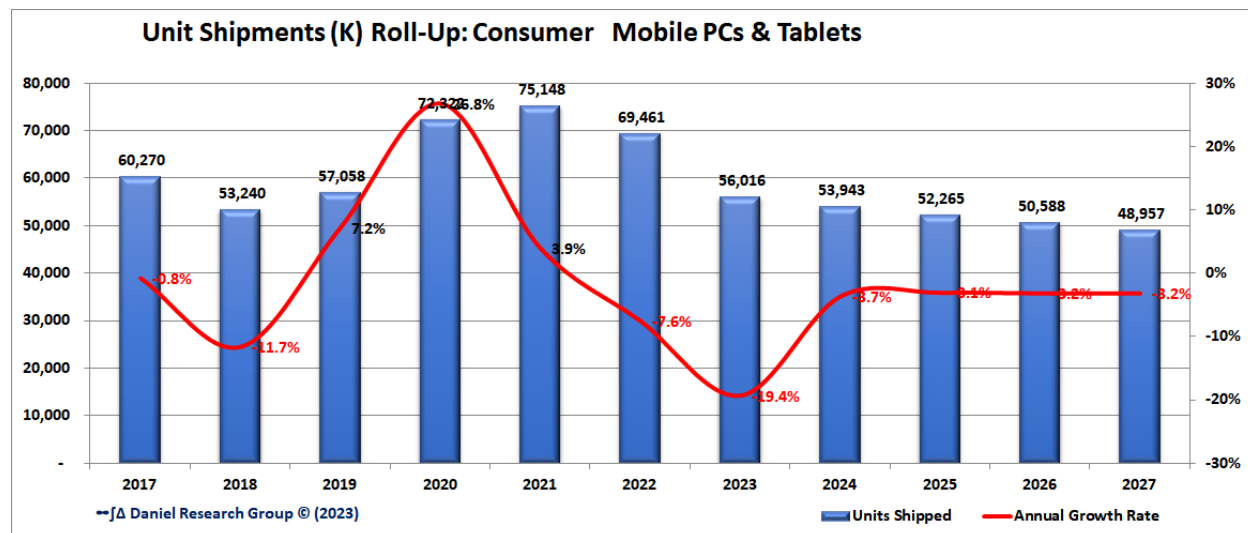
Mobile Trends



Consumer

United States Consumer Mobile PCs & Tablets								Trend
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	
Unit Shipments (K)	69,461	56,016	53,943	52,265	50,588	48,957	-3.3%	
AGR	-7.6%	-19.4%	-3.7%	-3.1%	-3.2%	-3.2%		
Revenue (\$M)	46,140	40,750	41,231	42,122	43,131	44,295	2.1%	
AGR	-6.0%	-11.7%	1.2%	2.2%	2.4%	2.7%		
Average Price (\$)	664	727	764	806	853	905	5.6%	
AGR	1.7%	9.5%	5.1%	5.4%	5.8%	6.1%		
Installed Base (K)	277,459	271,004	263,643	255,387	246,430	236,941	-3.3%	
AGR	2.5%	-2.3%	-2.7%	-3.1%	-3.5%	-3.9%		
Removal Age (Y)	4.81	5.06	5.23	5.38	5.49	5.57	2.4%	
AGR	5.0%	5.2%	3.3%	2.8%	2.2%	1.4%		
Average Installed Base Age (Y)	3.83	3.98	4.11	4.21	4.27	4.32	2.0%	
AGR	1.2%	4.0%	3.2%	2.3%	1.6%	1.0%		
Replacement Cycle Length (Y)	5.42	5.34	5.30	5.22	5.14	5.05	-1.4%	
AGR	5.0%	-1.6%	-0.7%	-1.5%	-1.6%	-1.6%		
Units per Households (#)	2.36	2.27	2.19	2.08	1.97	1.85	-5.0%	
AGR	4.4%	-3.7%	-3.7%	-4.8%	-5.3%	-6.4%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	89.5%	88.6%	88.9%	89.5%	90.8%	93.0%	3.5%	

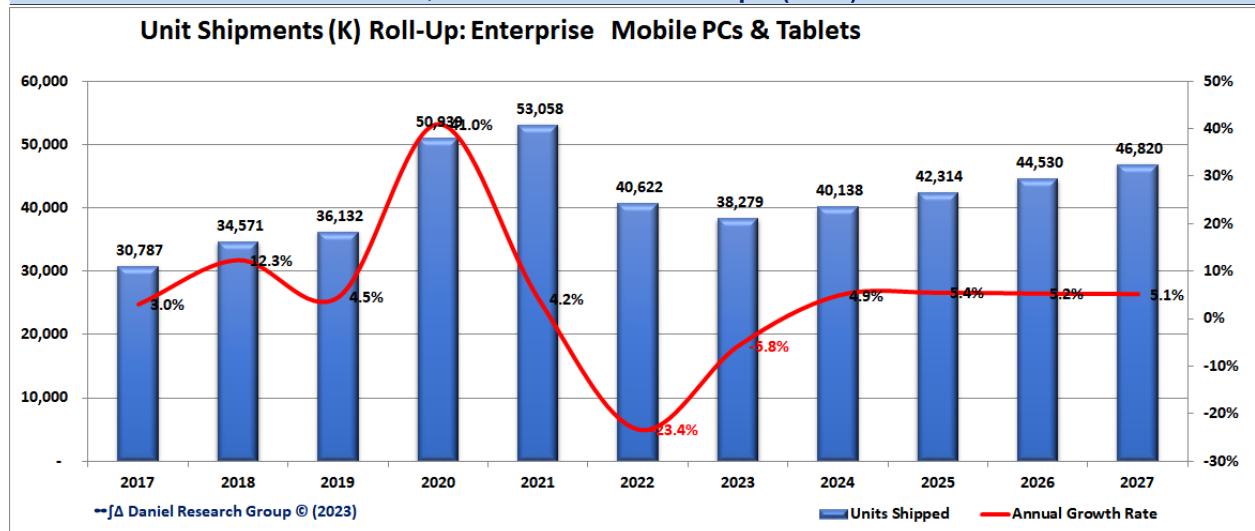
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Enterprise

United States Enterprise Mobile PCs & Tablets								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	40,622	38,279	40,138	42,314	44,530	46,820	5.2%	
AGR	-23.4%	-5.8%	4.9%	5.4%	5.2%	5.1%		
Revenue (\$M)	28,556	28,525	31,352	34,792	38,679	43,092	10.9%	
AGR	-13.4%	-0.1%	9.9%	11.0%	11.2%	11.4%		
Average Price (\$)	703	745	781	822	869	920	5.4%	
AGR	13.1%	6.0%	4.8%	5.3%	5.6%	6.0%		
Installed Base (K)	111,525	104,545	99,864	96,813	95,029	94,209	-2.6%	
AGR	-4.4%	-6.3%	-4.5%	-3.1%	-1.8%	-0.9%		
Removal Age (Y)	3.64	3.66	3.60	3.49	3.36	3.22	-3.2%	
AGR	7.2%	0.7%	-1.7%	-3.0%	-3.8%	-4.2%		
Average Installed Base Age (Y)	3.47	3.55	3.55	3.50	3.41	3.32	-1.7%	
AGR	2.2%	2.3%	0.0%	-1.6%	-2.4%	-2.7%		
Replacement Cycle Length (Y)	3.44	3.31	3.23	3.13	3.05	2.98	-2.6%	
AGR	7.4%	-3.7%	-2.5%	-2.9%	-2.6%	-2.4%		
Units per Businesses (#)	17.97	16.64	16.08	15.71	15.58	15.62	-1.6%	
AGR	-7.6%	-7.4%	-3.4%	-2.3%	-0.9%	0.3%		
Market Penetration (%)	99.4%	99.6%	99.7%	99.8%	99.9%	99.9%	0.5%	

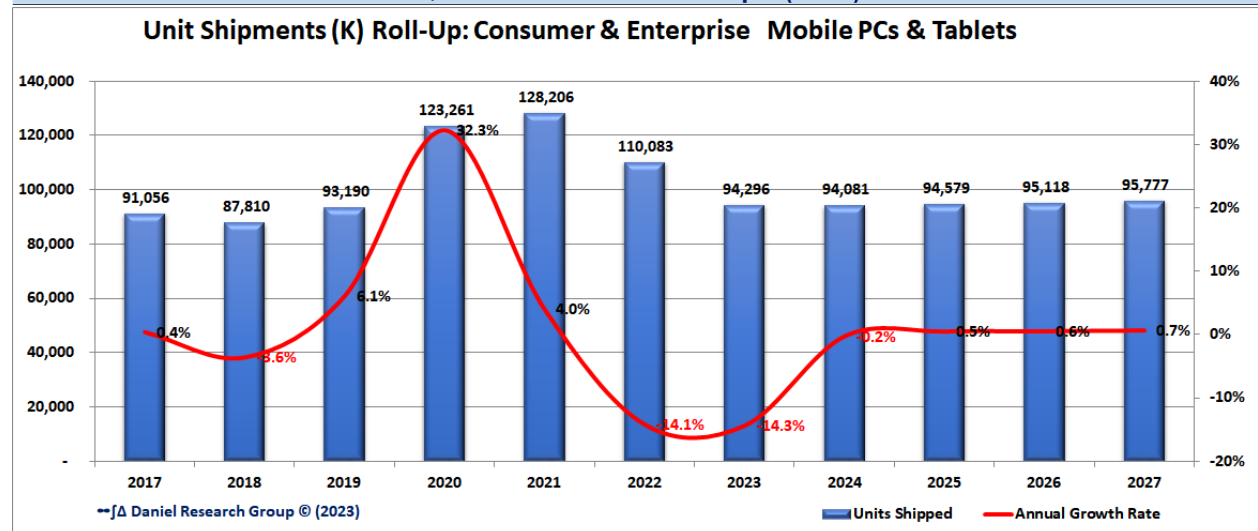
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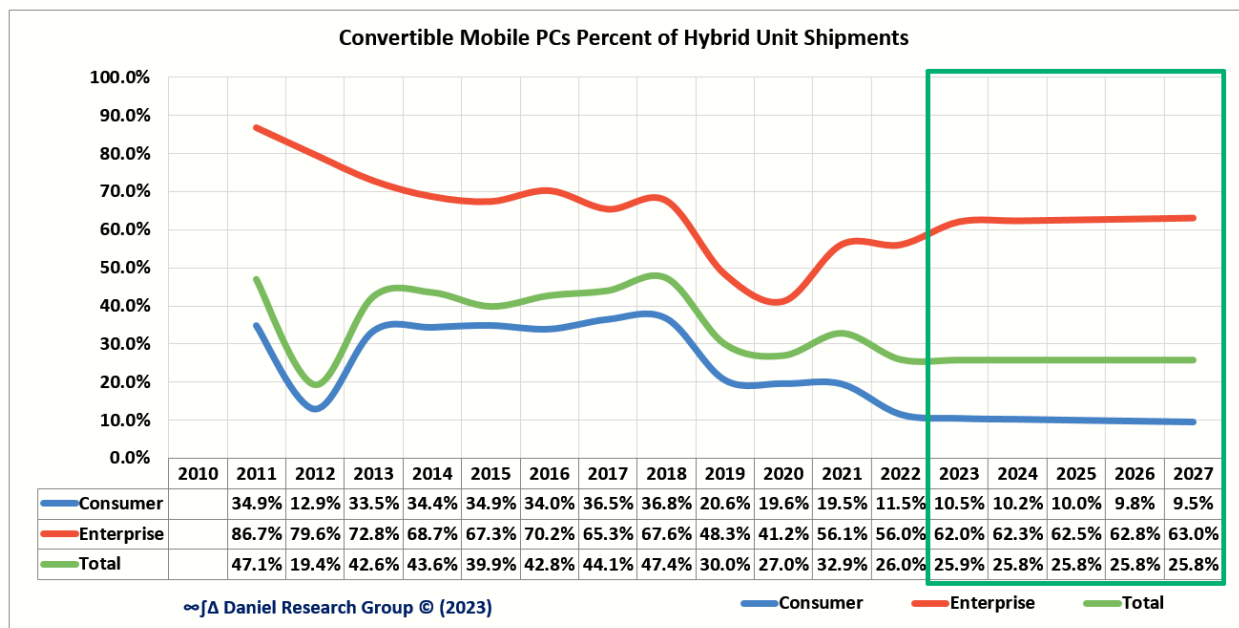
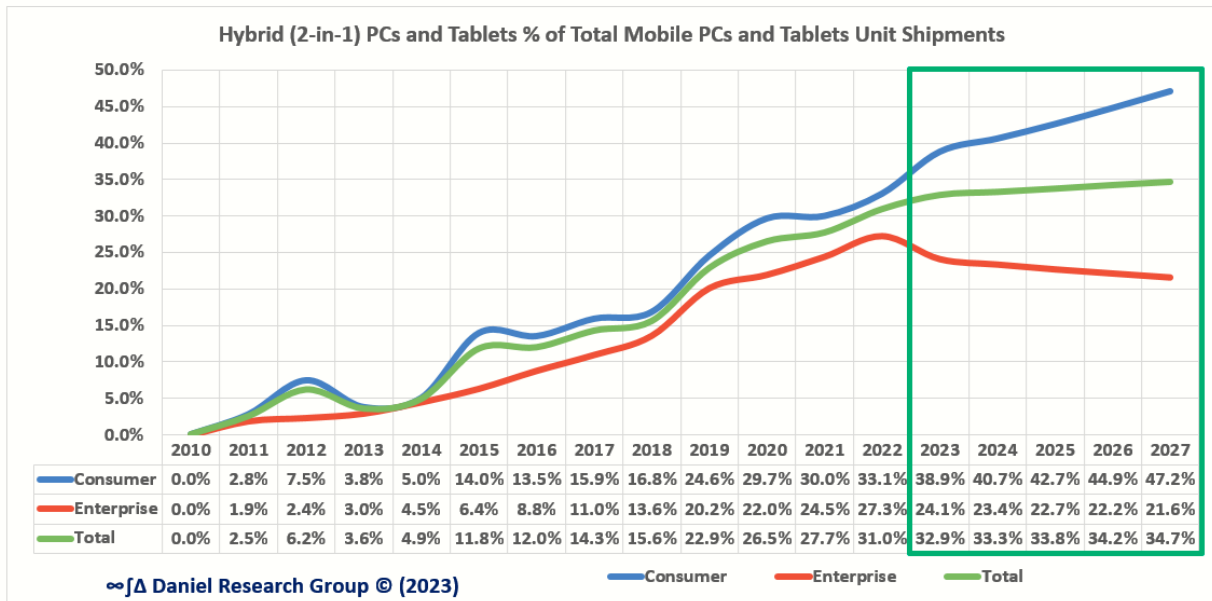
Total Mobile PCs and Tablets

United States Consumer & Enterprise Mobile PCs & Tablets								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	110,083	94,296	94,081	94,579	95,118	95,777	0.4%	
AGR	-14.1%	-14.3%	-0.2%	0.5%	0.6%	0.7%		
Revenue (\$M)	74,697	69,274	72,583	76,914	81,809	87,387	6.0%	
AGR	-9.0%	-7.3%	4.8%	6.0%	6.4%	6.8%		
Average Price (\$)	679	735	771	813	860	912	5.6%	
AGR	6.0%	8.3%	5.0%	5.4%	5.8%	6.1%		
Installed Base (K)	388,985	375,549	363,507	352,200	341,459	331,150	-3.1%	
AGR	0.4%	-3.5%	-3.2%	-3.1%	-3.0%	-3.0%		
Removal Age (Y)	4.34	4.50	4.58	4.62	4.61	4.57	0.4%	
AGR	5.8%	3.8%	1.7%	0.8%	-0.1%	-0.9%		
Average Installed Base Age (Y)	3.67	3.80	3.88	3.92	3.92	3.90	0.7%	
AGR	1.5%	3.4%	2.1%	1.0%	0.1%	-0.5%		
Replacement Cycle Length (Y)	4.59	4.49	4.43	4.33	4.23	4.12	-2.1%	
AGR	7.1%	-2.2%	-1.4%	-2.2%	-2.3%	-2.5%		
Units per Households & Businesses (#)	3.14	2.99	2.87	2.73	2.60	2.46	-4.7%	
AGR	2.1%	-4.8%	-4.1%	-4.7%	-4.7%	-5.4%		
Market Penetration (%)	90.0%	89.1%	89.3%	89.9%	91.2%	93.3%	3.3%	

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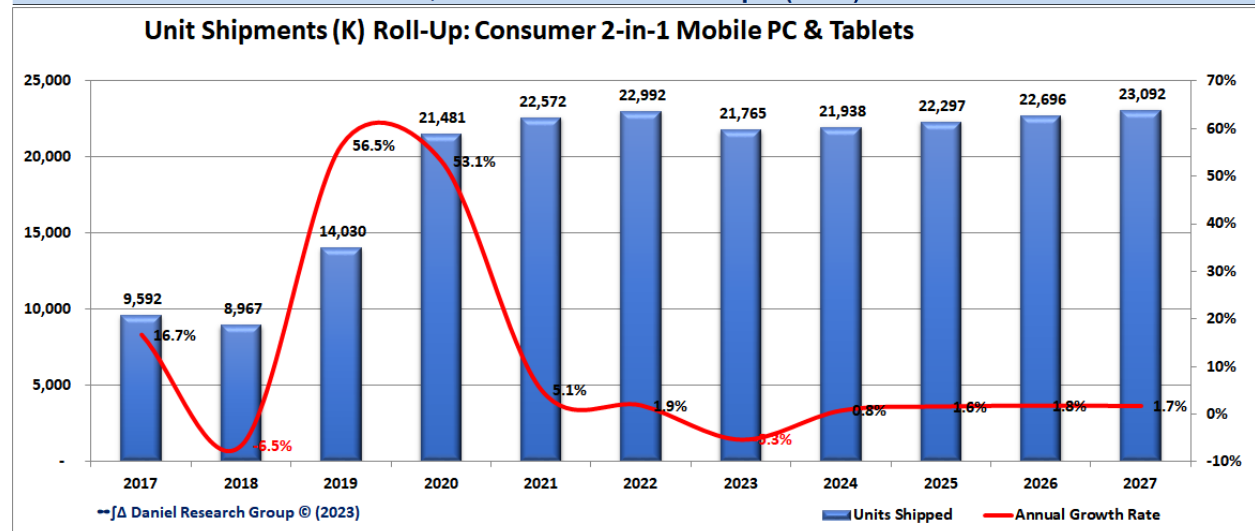
Hybrids, 2-in-1, Convertible Model PCs and Detachable Tablets



Consumer

United States Consumer 2-in-1 Mobile PCs & Tablets								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	22,992	21,765	21,938	22,297	22,696	23,092	1.5%	
AGR	1.9%	-5.3%	0.8%	1.6%	1.8%	1.7%		
Revenue (\$M)	16,199	15,685	16,203	16,893	17,652	18,451	4.1%	
AGR	-1.9%	-3.2%	3.3%	4.3%	4.5%	4.5%		
Average Price (\$)	705	721	739	758	778	799	2.6%	
AGR	-3.7%	2.3%	2.5%	2.6%	2.7%	2.7%		
Installed Base (K)	67,037	75,562	82,444	87,823	91,802	94,491	5.7%	
AGR	21.8%	12.7%	9.1%	6.5%	4.5%	2.9%		
Removal Age (Y)	3.28	3.57	3.86	4.13	4.38	4.57	6.4%	
AGR	14.2%	8.8%	8.1%	7.0%	6.0%	4.3%		
Average Installed Base Age (Y)	2.88	3.10	3.32	3.51	3.67	3.80	5.2%	
AGR	4.9%	7.8%	7.0%	5.8%	4.5%	3.4%		
Replacement Cycle Length (Y)	7.10	6.71	6.48	6.19	5.90	5.63	-4.3%	
AGR	26.6%	-5.5%	-3.4%	-4.4%	-4.6%	-4.6%		
Units per Households (#)	2.37	2.49	2.53	2.51	2.45	2.34	-1.5%	
AGR	11.8%	4.7%	1.9%	-0.7%	-2.7%	-4.2%		
Market Penetration (%)	21.5%	22.9%	24.5%	26.1%	27.8%	29.6%	8.1%	
Change '20-'25								

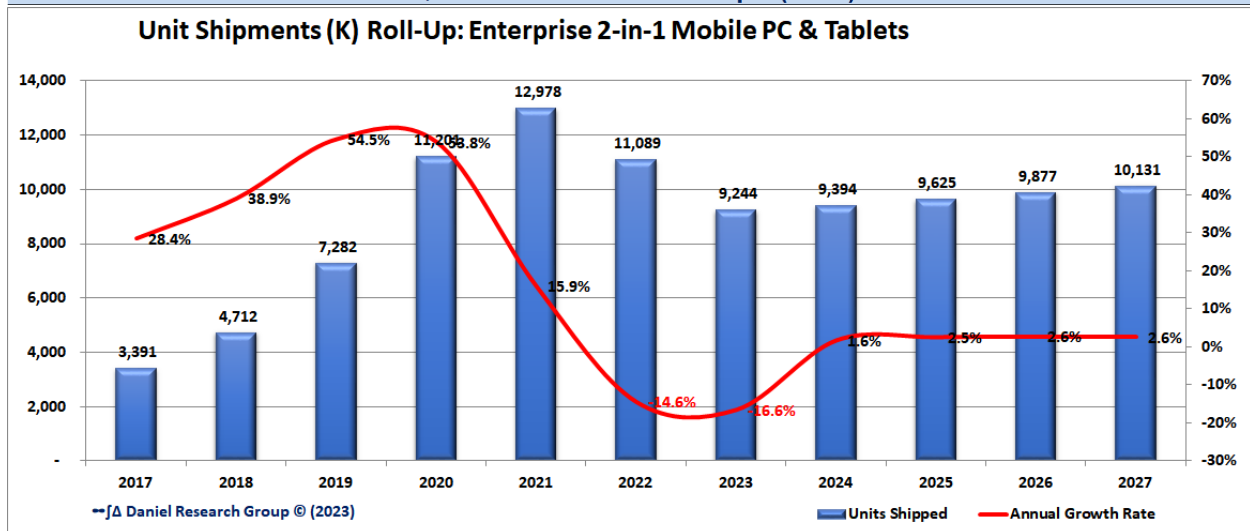
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Enterprise

United States Enterprise 2-in-1 Mobile PCs & Tablets								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	11,089	9,244	9,394	9,625	9,877	10,131	2.3%	
AGR	-14.6%	-16.6%	1.6%	2.5%	2.6%	2.6%		
Revenue (\$M)	7,432	6,205	6,326	6,531	6,778	7,058	3.3%	
AGR	-14.5%	-16.5%	2.0%	3.2%	3.8%	4.1%		
Average Price (\$)	670	671	673	679	686	697	0.9%	
AGR	0.1%	0.1%	0.3%	0.8%	1.1%	1.5%		
Installed Base (K)	20,448	20,704	21,133	21,603	22,062	22,496	2.1%	
AGR	11.9%	1.3%	2.1%	2.2%	2.1%	2.0%		
Removal Age (Y)	2.20	2.53	2.76	2.93	3.05	3.12	5.3%	
AGR	15.9%	15.3%	9.0%	6.2%	4.0%	2.3%		
Average Installed Base Age (Y)	2.53	2.83	3.03	3.14	3.20	3.23	3.3%	
AGR	10.2%	12.0%	6.9%	3.8%	1.9%	0.8%		
Replacement Cycle Length (Y)	3.29	3.30	3.36	3.36	3.34	3.32	0.1%	
AGR	10.9%	0.3%	1.6%	0.1%	-0.5%	-0.7%		
Units per Businesses (#)	6.10	5.02	4.45	4.09	3.88	3.76	-6.9%	
AGR	-15.6%	-17.8%	-11.3%	-8.1%	-5.2%	-3.0%		
Market Penetration (%)	50.1%	61.3%	71.4%	79.7%	86.1%	90.7%	40.5%	

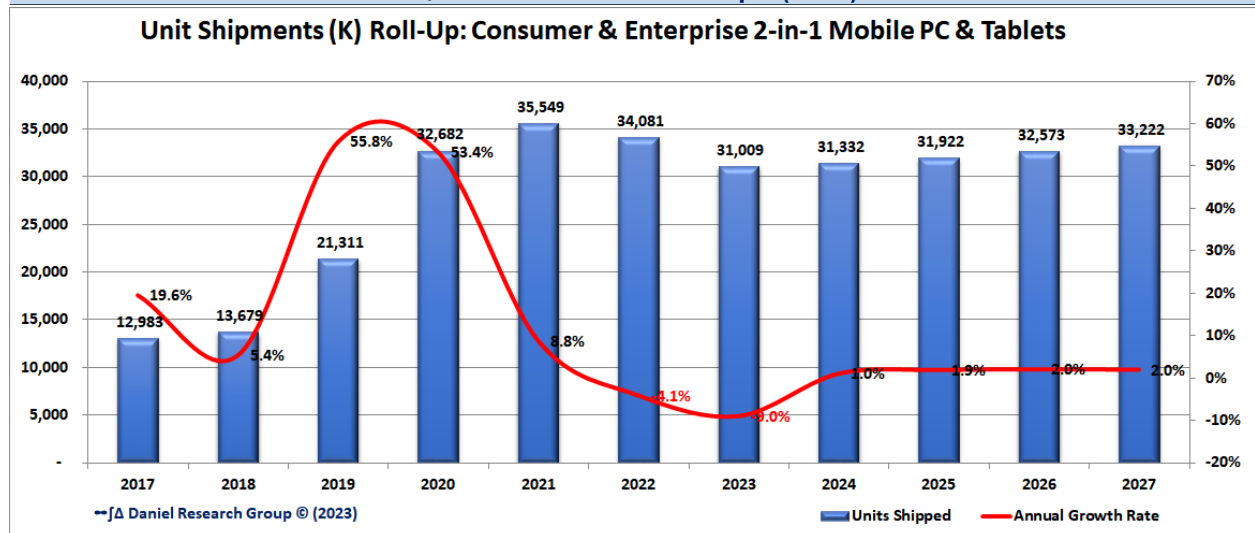
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Total Hybrids

United States Consumer & Enterprise 2-in-1 Mobile PCs & Tablets								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	34,081	31,009	31,332	31,922	32,573	33,222	1.7%	
AGR	-4.1%	-9.0%	1.0%	1.9%	2.0%	2.0%		
Revenue (\$M)	23,631	21,890	22,529	23,424	24,431	25,508	3.9%	
AGR	-6.2%	-7.4%	2.9%	4.0%	4.3%	4.4%		
Average Price (\$)	693	706	719	734	750	768	2.1%	
AGR	-2.2%	1.8%	1.9%	2.0%	2.2%	2.4%		
Installed Base (K)	87,485	96,265	103,577	109,425	113,864	116,988	5.0%	
AGR	19.3%	10.0%	7.6%	5.6%	4.1%	2.7%		
Removal Age (Y)	2.85	3.18	3.47	3.73	3.96	4.13	6.8%	
AGR	14.3%	11.4%	9.2%	7.5%	6.0%	4.3%		
Average Installed Base Age (Y)	2.75	3.00	3.21	3.39	3.53	3.63	4.9%	
AGR	6.1%	8.9%	7.2%	5.5%	4.0%	2.9%		
Replacement Cycle Length (Y)	5.39	5.33	5.31	5.20	5.05	4.89	-2.2%	
AGR	21.1%	-1.2%	-0.3%	-2.2%	-2.9%	-3.2%		
Units per Households & Businesses (#)	2.77	2.79	2.78	2.72	2.63	2.53	-2.4%	
AGR	7.4%	0.6%	-0.4%	-2.0%	-3.2%	-4.1%		
Market Penetration (%)	22.9%	24.8%	26.7%	28.6%	30.5%	32.4%	9.5%	

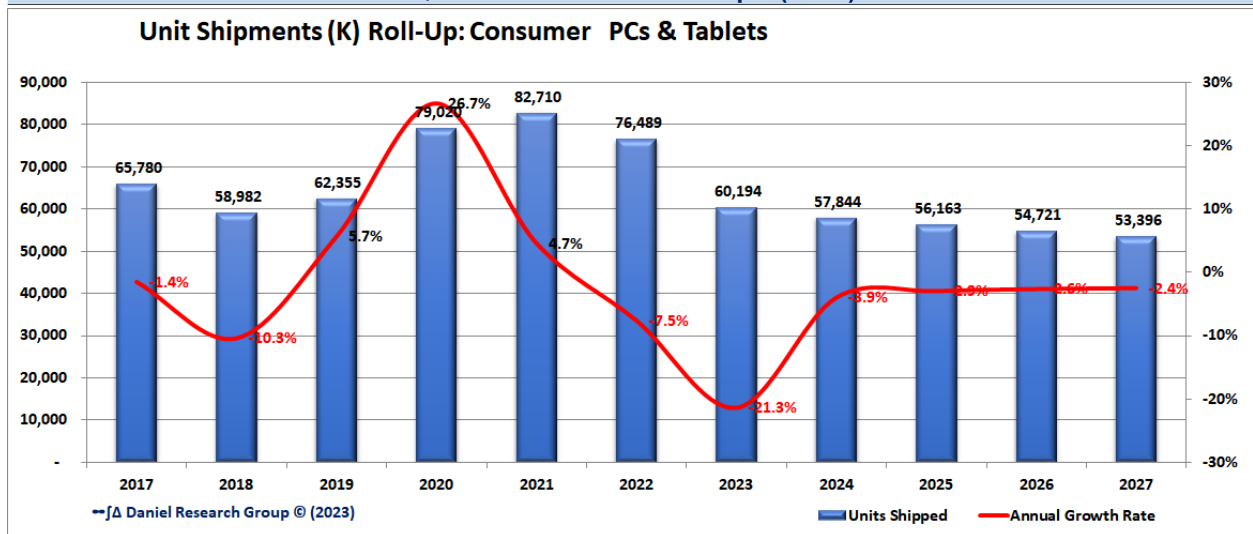
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Total PCs and Tablets Consumer

United States Consumer PCs & Tablets								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	76,489	60,194	57,844	56,163	54,721	53,396	-3.0%	
AGR	-7.5%	-21.3%	-3.9%	-2.9%	-2.6%	-2.4%		
Revenue (\$M)	54,797	49,266	50,838	53,008	55,452	58,066	4.2%	
AGR	-4.6%	-10.1%	3.2%	4.3%	4.6%	4.7%		
Average Price (\$)	716	818	879	944	1,013	1,087	7.4%	
AGR	3.1%	14.2%	7.4%	7.4%	7.4%	7.3%		
Installed Base (K)	326,619	318,127	312,131	307,323	302,999	298,751	-1.6%	
AGR	0.9%	-2.6%	-1.9%	-1.5%	-1.4%	-1.4%		
Removal Age (Y)	5.26	5.54	5.75	6.00	6.12	6.24	3.0%	
AGR	3.5%	5.3%	3.8%	4.4%	1.9%	1.9%		
Average Installed Base Age (Y)	4.10	4.23	4.34	4.41	4.48	4.53	1.7%	
AGR	0.1%	3.1%	2.6%	1.7%	1.5%	1.2%		
Replacement Cycle Length (Y)	5.45	5.63	5.89	6.04	6.13	6.18	2.4%	
AGR	5.1%	3.4%	4.6%	2.6%	1.5%	0.8%		
Units per Households (#)	2.53	2.44	2.38	2.32	2.27	2.22	-2.4%	
AGR	-0.1%	-3.3%	-2.7%	-2.4%	-2.2%	-2.2%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	98.7%	98.9%	99.1%	99.2%	99.4%	99.5%	0.8%	

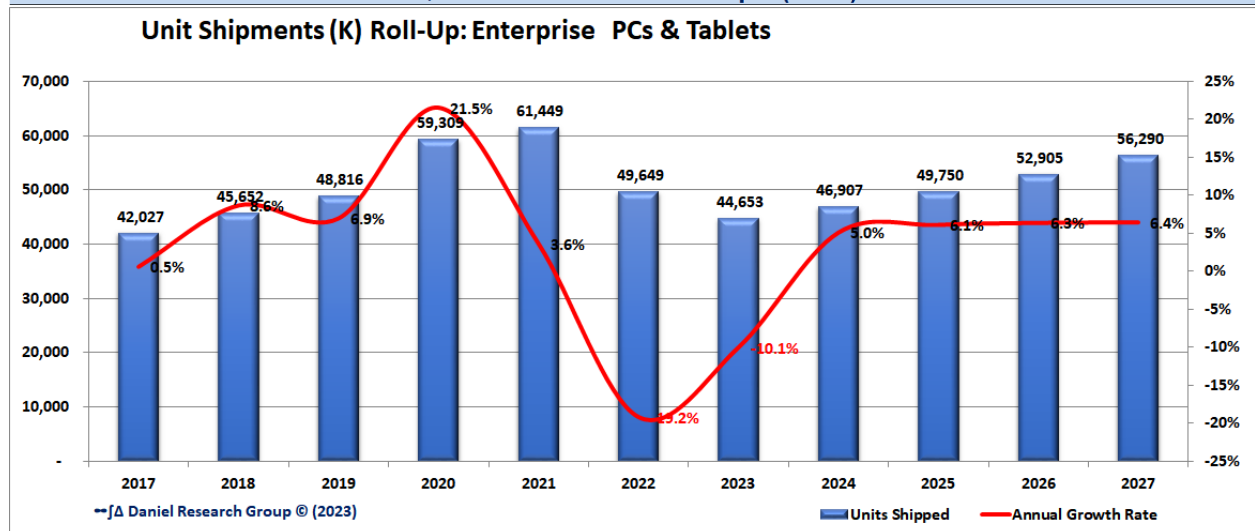
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Enterprise

United States Enterprise PCs & Tablets								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	49,649	44,653	46,907	49,750	52,905	56,290	6.0%	
AGR	-19.2%	-10.1%	5.0%	6.1%	6.3%	6.4%		
Revenue (\$M)	36,002	33,888	37,494	42,030	47,374	53,552	12.1%	
AGR	-7.4%	-5.9%	10.6%	12.1%	12.7%	13.0%		
Average Price (\$)	725	759	799	845	895	951	5.8%	
AGR	14.6%	4.7%	5.3%	5.7%	6.0%	6.2%		
Installed Base (K)	164,350	156,042	155,187	159,708	168,594	181,325	3.8%	
AGR	-5.9%	-5.1%	-0.5%	2.9%	5.6%	7.6%		
Removal Age (Y)	4.33	4.41	4.43	4.42	4.40	4.39	-0.1%	
AGR	2.9%	1.9%	0.4%	-0.3%	-0.5%	-0.2%		
Average Installed Base Age (Y)	3.63	3.66	3.63	3.56	3.48	3.43	-1.7%	
AGR	0.3%	1.0%	-1.0%	-1.9%	-2.1%	-1.7%		
Replacement Cycle Length (Y)	3.74	3.95	4.25	4.53	4.83	5.16	6.9%	
AGR	6.8%	5.5%	7.7%	6.6%	6.6%	6.9%		
Units per Businesses (#)	24.66	23.22	23.36	24.13	25.55	27.53	4.4%	
AGR	-8.8%	-5.8%	0.6%	3.3%	5.9%	7.8%		
Market Penetration (%)	99.8%	99.8%	99.8%	99.9%	99.9%	99.9%	0.1%	

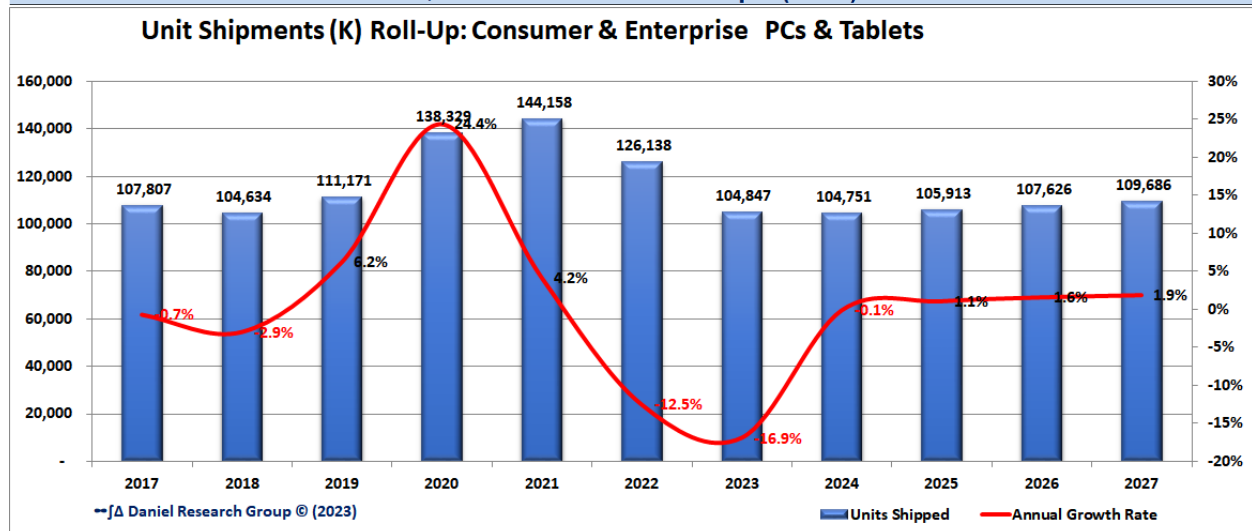
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Total PCs and Tablets

United States Consumer & Enterprise PCs & Tablets								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	126,138	104,847	104,751	105,913	107,626	109,686	1.1%	
AGR	-12.5%	-16.9%	-0.1%	1.1%	1.6%	1.9%		
Revenue (\$M)	90,799	83,153	88,332	95,039	102,826	111,618	7.6%	
AGR	-5.7%	-8.4%	6.2%	7.6%	8.2%	8.6%		
Average Price (\$)	720	793	843	897	955	1,018	6.4%	
AGR	7.7%	10.2%	6.3%	6.4%	6.5%	6.5%		
Installed Base (K)	490,969	474,169	467,317	467,031	471,593	480,076	0.3%	
AGR	-1.5%	-3.4%	-1.4%	-0.1%	1.0%	1.8%		
Removal Age (Y)	4.87	5.08	5.21	5.35	5.40	5.46	1.8%	
AGR	3.3%	4.2%	2.6%	2.7%	0.9%	1.1%		
Average Installed Base Age (Y)	3.92	4.01	4.06	4.08	4.08	4.06	0.3%	
AGR	0.1%	2.4%	1.3%	0.3%	0.0%	-0.3%		
Replacement Cycle Length (Y)	4.68	4.90	5.19	5.40	5.58	5.74	4.1%	
AGR	6.7%	4.7%	5.9%	4.1%	3.3%	3.0%		
Units per Households & Businesses (#)	3.61	3.46	3.39	3.36	3.37	3.40	-0.5%	
AGR	-2.6%	-4.1%	-2.2%	-0.9%	0.2%	1.0%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	98.6%	98.3%	98.7%	98.9%	98.9%	98.8%	0.2%	

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Purpose and Location

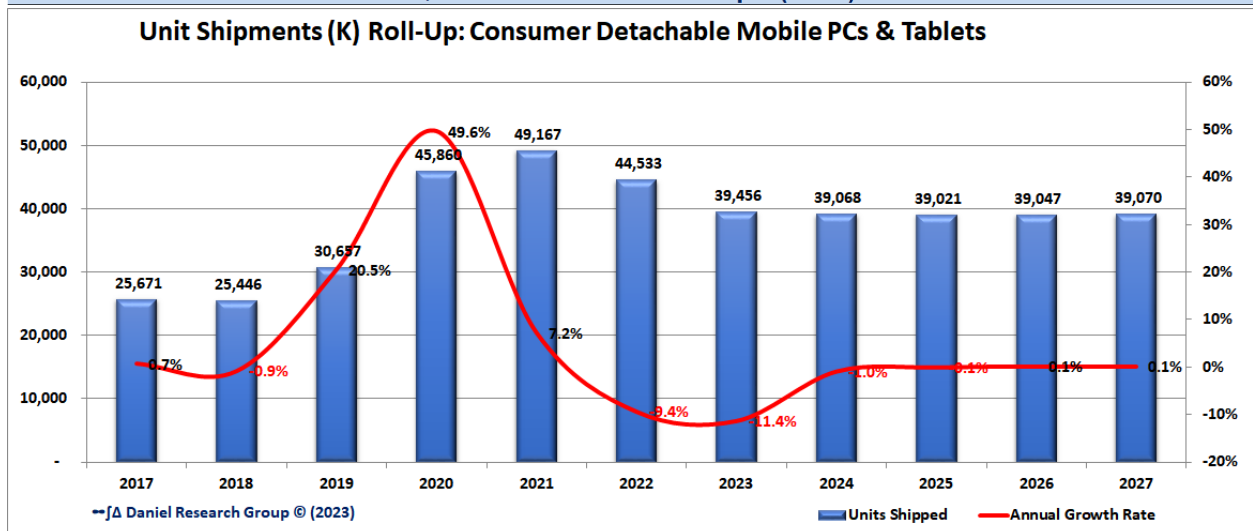
Alternative Taxonomy – **DRG** has found it useful to aggregate the base models into a taxonomy based on **Location** (Fixed or Mobile), and **Primary Purpose** (Content Creation and/or Capture, Delivery, or Communication).

- Fixed Creation – Desktop PCs
- Mobile Delivery – Slate Tablets and e-Readers
- Mobile Creation & Capture – Mobile PCs and Detachable Tablets
- Communication – Mobile Phones

Mobile Content Capture and Creation Consumer

United States Consumer Detachable Mobile PCs & Tablets								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	44,533	39,456	39,068	39,021	39,047	39,070	-0.2%	
AGR	-9.4%	-11.4%	-1.0%	-0.1%	0.1%	0.1%		
Revenue (\$M)	41,688	38,438	40,151	42,307	44,663	47,144	5.2%	
AGR	-6.7%	-7.8%	4.5%	5.4%	5.6%	5.6%		
Average Price (\$)	936	974	1,028	1,084	1,144	1,207	5.5%	
AGR	3.0%	4.1%	5.5%	5.5%	5.5%	5.5%		
Installed Base (K)	156,609	165,194	171,839	176,713	179,962	181,743	2.4%	
AGR	11.5%	5.5%	4.0%	2.8%	1.8%	1.0%		
Removal Age (Y)	4.12	4.36	4.60	4.82	5.04	5.21	4.5%	
AGR	9.1%	5.9%	5.4%	4.8%	4.4%	3.5%		
Average Installed Base Age (Y)	3.30	3.50	3.68	3.84	3.97	4.07	3.8%	
AGR	3.3%	6.1%	5.3%	4.3%	3.3%	2.4%		
Replacement Cycle Length (Y)	6.53	6.35	6.30	6.18	6.03	5.87	-1.9%	
AGR	15.3%	-2.7%	-0.8%	-2.0%	-2.4%	-2.5%		
Units per Households (#)	1.47	1.53	1.59	1.62	1.65	1.66	1.9%	
AGR	5.9%	4.4%	3.3%	2.3%	1.4%	0.7%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	81.2%	81.2%	81.4%	81.3%	80.9%	80.5%	-0.7%	

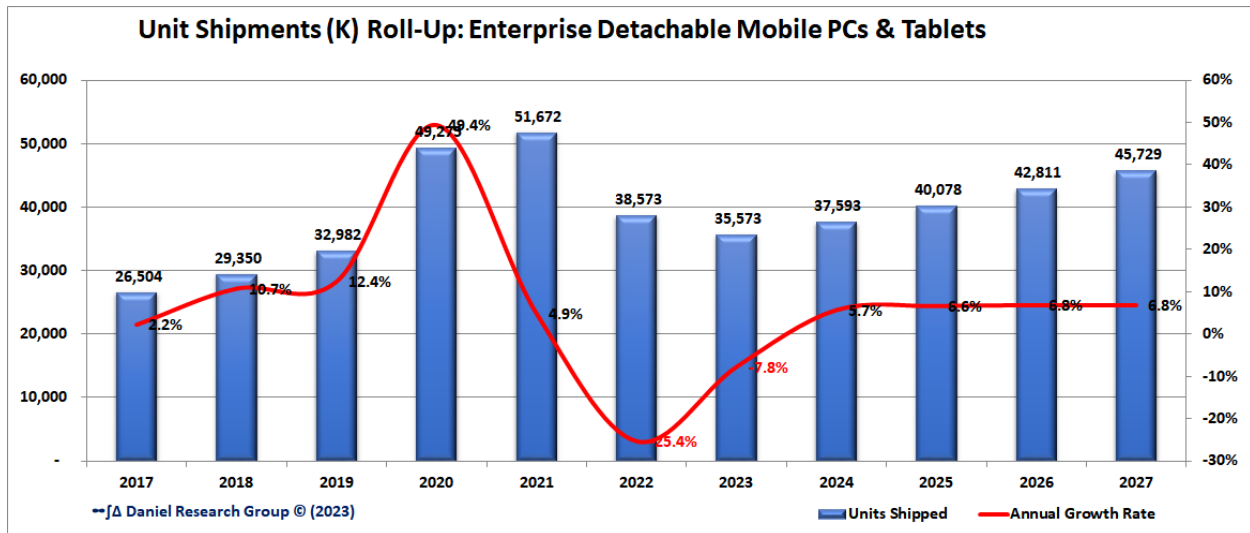
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Enterprise

United States Enterprise Detachable Mobile PCs & Tablets								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	38,573	35,573	37,593	40,078	42,811	45,729	6.5%	
AGR	-25.4%	-7.8%	5.7%	6.6%	6.8%	6.8%		
Revenue (\$M)	27,727	26,809	29,762	33,455	37,803	42,835	12.4%	
AGR	-15.0%	-3.3%	11.0%	12.4%	13.0%	13.3%		
Average Price (\$)	719	754	792	835	883	937	5.6%	
AGR	13.9%	4.8%	5.0%	5.4%	5.8%	6.1%		
Installed Base (K)	98,622	96,644	99,896	106,887	116,952	129,808	7.7%	
AGR	-3.7%	-2.0%	3.4%	7.0%	9.4%	11.0%		
Removal Age (Y)	3.41	3.56	3.64	3.69	3.73	3.80	1.6%	
AGR	8.1%	4.4%	2.2%	1.4%	1.3%	1.6%		
Average Installed Base Age (Y)	3.34	3.41	3.40	3.34	3.29	3.26	-1.2%	
AGR	2.8%	2.2%	-0.5%	-1.6%	-1.6%	-1.0%		
Replacement Cycle Length (Y)	3.33	3.57	3.91	4.23	4.57	4.95	8.5%	
AGR	8.1%	7.3%	9.4%	8.2%	8.1%	8.3%		
Units per Businesses (#)	15.24	14.71	15.30	16.37	17.91	19.87	7.8%	
AGR	-7.4%	-3.5%	4.0%	7.0%	9.4%	10.9%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	96.9%	97.6%	98.1%	98.5%	98.9%	99.1%	2.3%	

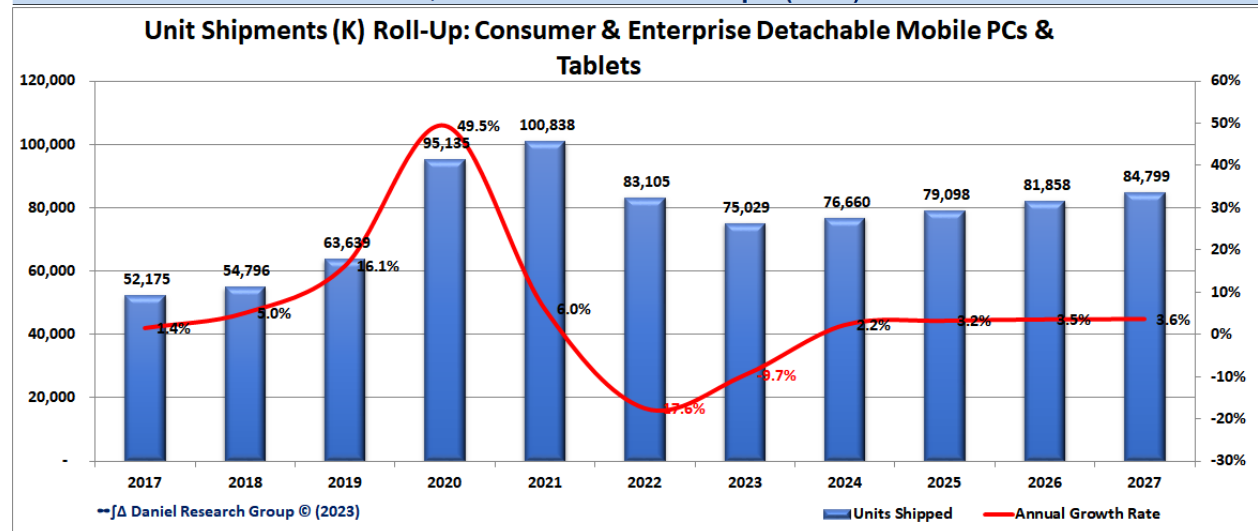
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Total Content Capture and Creation

United States Consumer & Enterprise Detachable Mobile PCs & Tablets							
	2022	2023	2024	2025	2026	2027	CAGR '23-'27
Unit Shipments (K)	83,105	75,029	76,660	79,098	81,858	84,799	3.1%
AGR	-17.6%	-9.7%	2.2%	3.2%	3.5%	3.6%	
Revenue (\$M)	69,415	65,247	69,913	75,763	82,466	89,979	8.4%
AGR	-10.2%	-6.0%	7.2%	8.4%	8.8%	9.1%	
Average Price (\$)	835	870	912	958	1,007	1,061	5.1%
AGR	9.0%	4.1%	4.9%	5.0%	5.2%	5.3%	
Installed Base (K)	255,231	261,838	271,736	283,600	296,914	311,551	4.4%
AGR	5.1%	2.6%	3.8%	4.4%	4.7%	4.9%	
Removal Age (Y)	3.72	3.95	4.14	4.29	4.43	4.55	3.6%
AGR	8.8%	6.2%	4.7%	3.8%	3.2%	2.6%	
Average Installed Base Age (Y)	3.29	3.43	3.54	3.61	3.65	3.68	1.8%
AGR	2.8%	4.4%	3.0%	2.0%	1.3%	0.8%	
Replacement Cycle Length (Y)	4.61	4.83	5.07	5.22	5.33	5.44	3.0%
AGR	13.6%	4.6%	5.0%	2.9%	2.2%	2.0%	
Units per Households & Businesses (#)	2.26	2.29	2.36	2.46	2.56	2.68	4.0%
AGR	-0.1%	1.5%	3.1%	3.9%	4.3%	4.6%	
Market Penetration (%)	82.0%	82.0%	82.2%	82.1%	81.8%	81.4%	-0.6%

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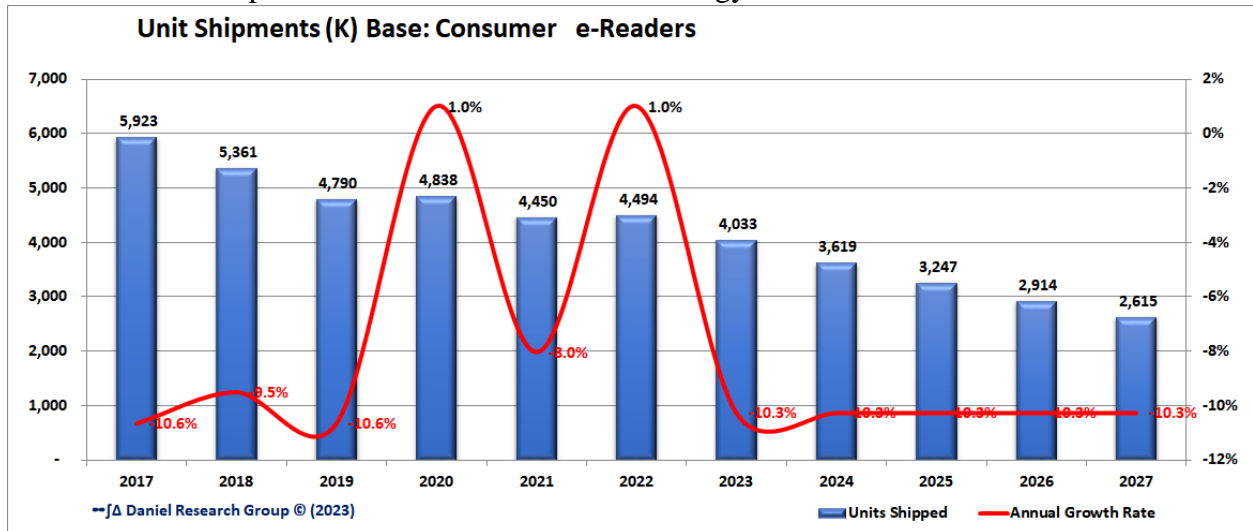


Mobile Content Delivery e-Reader










United States Consumer e-Readers								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	4,494	4,033	3,619	3,247	2,914	2,615	-10.3%	
AGR	1.0%	-10.3%	-10.3%	-10.3%	-10.3%	-10.3%		
Revenue (\$M)	303	288	283	283	250	222	-6.4%	
AGR	3.0%	-4.9%	-2.0%	0.0%	-11.4%	-11.4%		
Average Price (\$)	68	72	78	87	86	85	4.4%	
AGR	2.0%	5.9%	9.2%	11.4%	-1.3%	-1.3%		
Installed Base (K)	31,563	29,686	27,853	26,055	24,324	22,677	-6.5%	
AGR	-5.4%	-5.9%	-6.2%	-6.5%	-6.6%	-6.8%		
Removal Age (Y)	7.42	7.70	7.94	8.12	8.29	8.53	2.6%	
AGR	4.8%	3.8%	3.1%	2.3%	2.1%	2.9%		
Average Installed Base Age (Y)	5.88	5.92	5.95	5.98	6.02	6.04	0.5%	
AGR	0.9%	0.7%	0.5%	0.5%	0.6%	0.4%		
Replacement Cycle Length (Y)	6.01	6.02	6.11	6.16	6.24	6.32	1.2%	
AGR	3.2%	0.2%	1.4%	0.9%	1.2%	1.3%		
Units per Households (#)	1.00	1.00	1.00	1.00	1.00	1.00		
AGR	-2.7%	-0.2%						
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	24.0%	22.4%	20.9%	19.4%	18.0%	16.6%	-7.4%	

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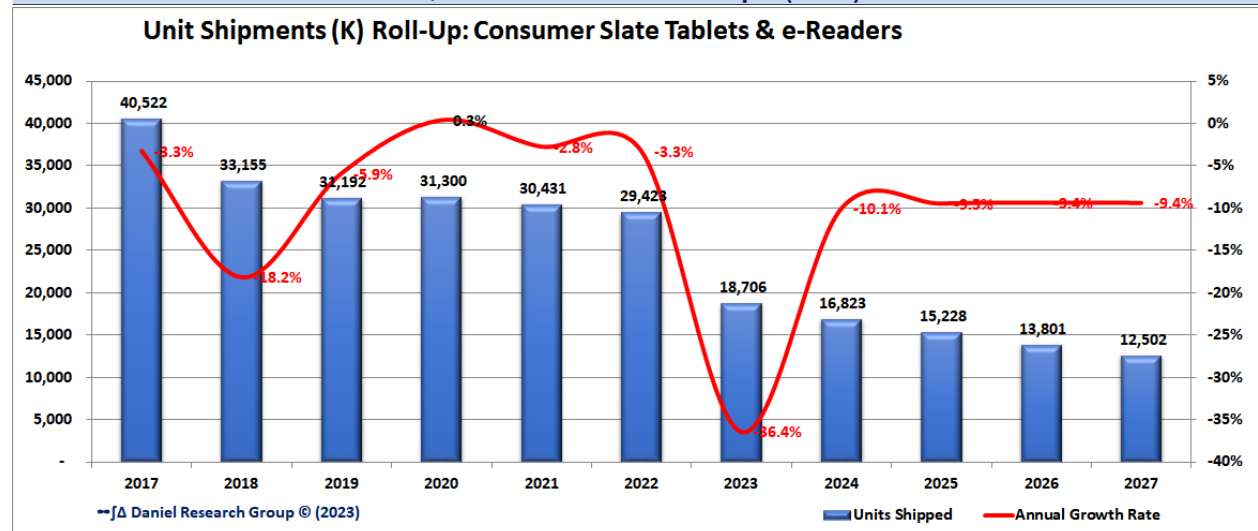
Historical Unit Shipments Source: Consumer Technology Association.



Consumer

United States Consumer Slate Tablets & e-Readers								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	29,423	18,706	16,823	15,228	13,801	12,502	-9.6%	
AGR	-3.3%	-36.4%	-10.1%	-9.5%	-9.4%	-9.4%		
Revenue (\$M)	4,756	2,749	2,361	2,053	1,760	1,509	-13.9%	
AGR	2.0%	-42.2%	-14.1%	-13.1%	-14.2%	-14.3%		
Average Price (\$)	162	147	140	135	128	121	-4.8%	
AGR	5.5%	-9.1%	-4.5%	-3.9%	-5.4%	-5.4%		
Installed Base (K)	152,413	136,753	124,768	115,224	107,446	100,989	-7.3%	
AGR	-6.9%	-10.3%	-8.8%	-7.6%	-6.7%	-6.0%		
Removal Age (Y)	5.81	6.30	6.67	7.01	7.38	7.66	5.0%	
AGR	3.1%	8.5%	5.8%	5.1%	5.2%	3.9%		
Average Installed Base Age (Y)	4.71	4.92	5.08	5.21	5.30	5.39	2.3%	
AGR	1.3%	4.4%	3.3%	2.5%	1.8%	1.7%		
Replacement Cycle Length (Y)	4.74	4.98	5.33	5.65	5.98	6.33	6.2%	
AGR	-3.5%	5.0%	7.1%	6.0%	5.8%	5.8%		
Units per Households (#)	1.62	1.46	1.34	1.25	1.17	1.14	-6.0%	
AGR	-7.2%	-9.8%	-8.0%	-6.9%	-6.4%	-2.6%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	71.8%	70.7%	69.8%	68.8%	67.9%	65.0%	-6.8%	
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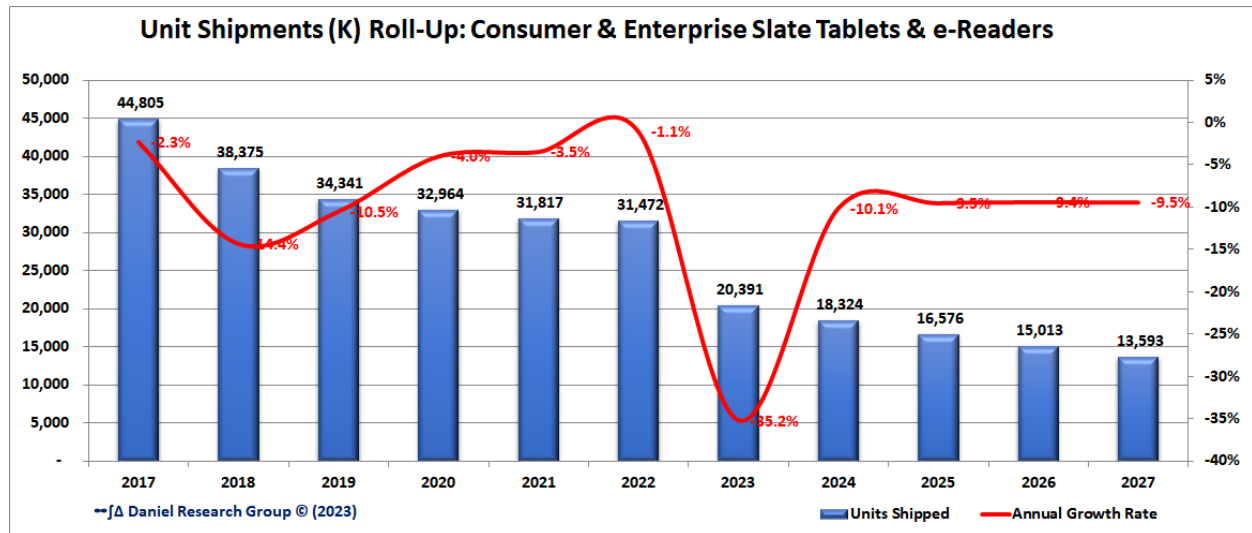
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Total

United States Consumer & Enterprise Slate Tablets & e-Readers								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	31,472	20,391	18,324	16,576	15,013	13,593	-9.6%	
AGR	-1.1%	-35.2%	-10.1%	-9.5%	-9.4%	-9.5%		
Revenue (\$M)	5,585	3,360	2,850	2,447	2,079	1,766	-14.9%	
AGR	11.0%	-39.8%	-15.2%	-14.1%	-15.1%	-15.0%		
Average Price (\$)	177	165	156	148	138	130	-5.8%	
AGR	12.2%	-7.1%	-5.6%	-5.1%	-6.2%	-6.2%		
Installed Base (K)	165,316	148,405	135,449	125,126	116,706	109,711	-7.3%	
AGR	-7.1%	-10.2%	-8.7%	-7.6%	-6.7%	-6.0%		
Removal Age (Y)	5.84	6.33	6.70	7.04	7.40	7.69	5.0%	
AGR	3.2%	8.4%	5.8%	5.1%	5.1%	3.9%		
Average Installed Base Age (Y)	4.74	4.94	5.09	5.22	5.31	5.39	2.2%	
AGR	1.4%	4.2%	3.2%	2.4%	1.7%	1.6%		
Replacement Cycle Length (Y)	4.74	4.98	5.33	5.65	5.98	6.33	6.2%	
AGR	-3.2%	4.9%	7.1%	6.0%	5.8%	5.8%		
Units per Households & Businesses (#)	1.71	1.54	1.42	1.32	1.23	1.20	-6.1%	
AGR	-7.6%	-9.9%	-8.0%	-7.0%	-6.5%	-2.8%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	70.1%	69.1%	68.4%	67.5%	66.8%	64.1%	-6.0%	

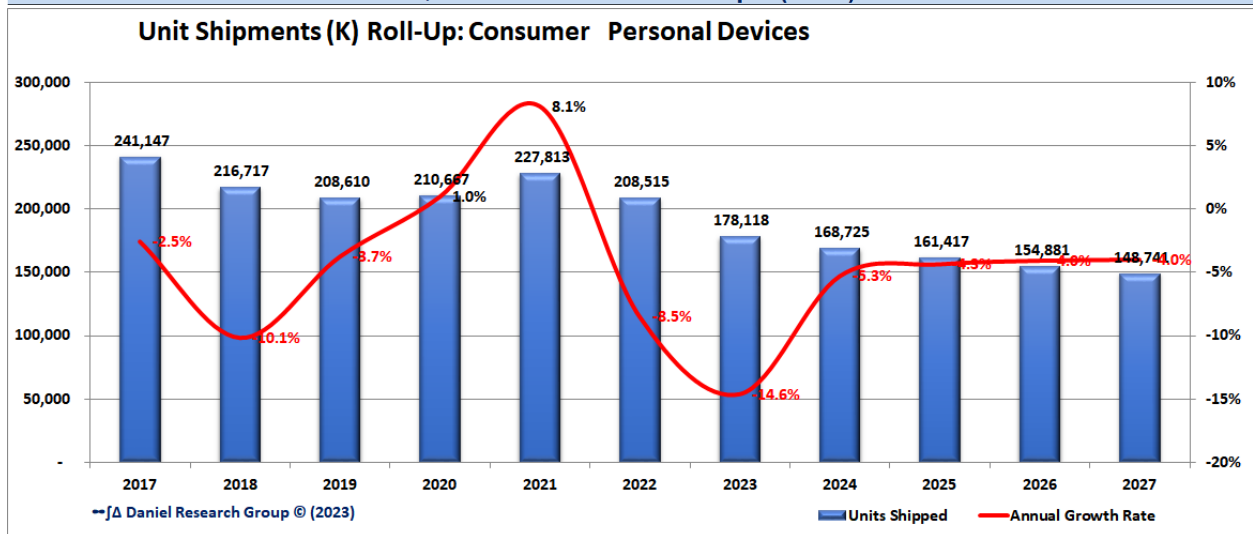
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Total Personal Devices Consumer

United States Consumer Personal Devices								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	208,515	178,118	168,725	161,417	154,881	148,741	-4.4%	
AGR	-8.5%	-14.6%	-5.3%	-4.3%	-4.0%	-4.0%		
Revenue (\$M)	147,779	142,645	151,766	163,467	176,916	191,920	7.7%	
AGR	-0.4%	-3.5%	6.4%	7.7%	8.2%	8.5%		
Average Price (\$)	709	801	899	1,013	1,142	1,290	12.7%	
AGR	8.8%	13.0%	12.3%	12.6%	12.8%	13.0%		
Installed Base (K)	588,491	557,944	537,104	521,419	508,707	497,753	-2.8%	
AGR	-3.1%	-5.2%	-3.7%	-2.9%	-2.4%	-2.2%		
Removal Age (Y)	3.84	3.98	4.09	4.17	4.25	4.32	2.0%	
AGR	1.9%	3.8%	2.8%	2.0%	1.9%	1.6%		
Average Installed Base Age (Y)	3.41	3.48	3.52	3.55	3.57	3.58	0.7%	
AGR	0.4%	2.1%	1.3%	0.8%	0.5%	0.4%		
Replacement Cycle Length (Y)	3.59	3.67	3.83	3.94	4.04	4.12	2.9%	
AGR	2.0%	2.3%	4.3%	2.9%	2.3%	2.0%		
Units per Households (#)	4.61	4.31	4.12	3.96	3.82	3.70	-3.7%	
AGR	-4.9%	-6.5%	-4.4%	-3.8%	-3.5%	-3.2%		
	2022	2023	2024	2025	2026	2027	Change '20-'25	Trend
Market Penetration (%)	97.4%	97.7%	98.0%	98.3%	98.5%	98.7%	1.3%	

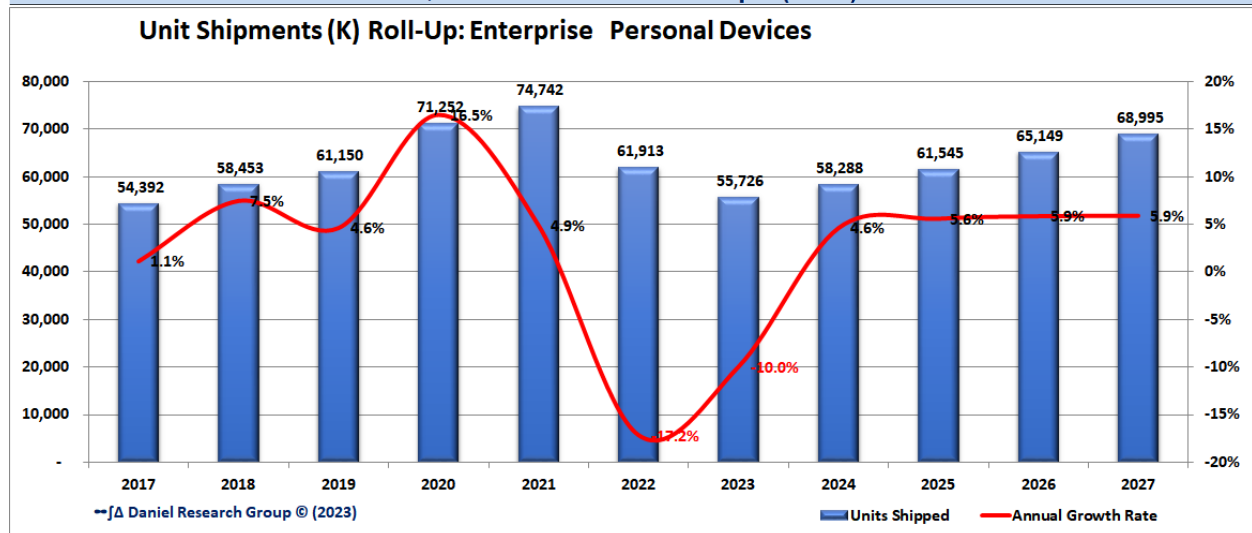
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Enterprise

United States Enterprise Personal Devices								
	2022	2023	2024	2025	2026	2027	CAGR '23-'27	Trend
Unit Shipments (K)	61,913	55,726	58,288	61,545	65,149	68,995	5.5%	
AGR	-17.2%	-10.0%	4.6%	5.6%	5.9%	5.9%		
Revenue (\$M)	46,160	42,974	46,746	51,529	57,141	63,589	10.3%	
AGR	-4.7%	-6.9%	8.8%	10.2%	10.9%	11.3%		
Average Price (\$)	746	771	802	837	877	922	4.6%	
AGR	15.0%	3.4%	4.0%	4.4%	4.8%	5.1%		
Installed Base (K)	183,945	174,593	173,560	178,377	187,848	201,364	3.6%	
AGR	-5.6%	-5.1%	-0.6%	2.8%	5.3%	7.2%		
Removal Age (Y)	4.03	4.10	4.10	4.07	4.03	3.99	-0.6%	
AGR	2.5%	1.6%	-0.1%	-0.7%	-0.8%	-1.0%		
Average Installed Base Age (Y)	3.47	3.50	3.47	3.40	3.33	3.28	-1.6%	
AGR	0.2%	0.9%	-1.1%	-2.0%	-2.1%	-1.5%		
Replacement Cycle Length (Y)	3.52	3.68	3.93	4.14	4.37	4.63	5.9%	
AGR	6.1%	4.5%	6.6%	5.6%	5.5%	5.8%		
Units per Businesses (#)	28.28	26.54	26.61	27.39	28.87	30.95	3.9%	
AGR	-8.8%	-6.2%	0.3%	2.9%	5.4%	7.2%		
Market Penetration (%)	97.4%	97.7%	98.0%	98.3%	98.5%	98.7%	1.3%	

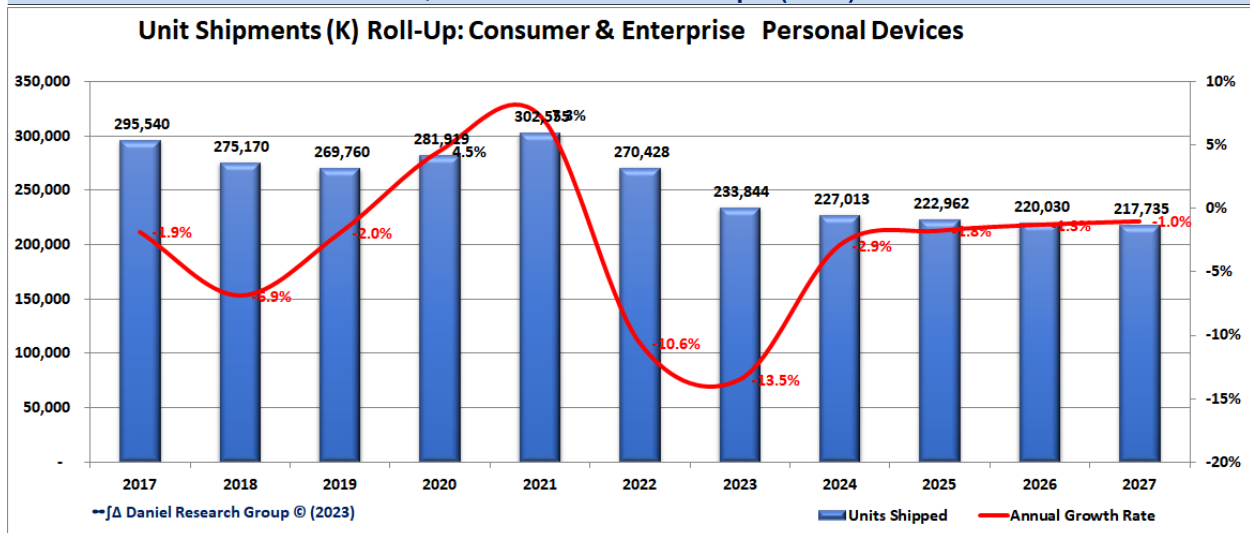
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Total Personal Devices

United States Consumer & Enterprise Personal Devices							
	2022	2023	2024	2025	2026	2027	CAGR '23-'27
Unit Shipments (K)	270,428	233,844	227,013	222,962	220,030	217,735	-1.8%
AGR	-10.6%	-13.5%	-2.9%	-1.8%	-1.3%	-1.0%	
Revenue (\$M)	193,939	185,618	198,512	214,996	234,057	255,509	8.3%
AGR	-1.4%	-4.3%	6.9%	8.3%	8.9%	9.2%	
Average Price (\$)	717	794	874	964	1,064	1,173	10.3%
AGR	10.3%	10.7%	10.2%	10.3%	10.3%	10.3%	
Installed Base (K)	772,436	732,537	710,664	699,795	696,555	699,117	-1.2%
AGR	-3.7%	-5.2%	-3.0%	-1.5%	-0.5%	0.4%	
Removal Age (Y)	3.88	4.01	4.09	4.15	4.20	4.20	1.2%
AGR	2.2%	3.3%	2.2%	1.3%	1.2%	0.0%	
Average Installed Base Age (Y)	3.42	3.48	3.51	3.51	3.50	3.51	0.2%
AGR	0.4%	1.8%	0.7%	0.1%	-0.2%	0.1%	
Replacement Cycle Length (Y)	3.57	3.68	3.86	3.99	4.12	4.25	3.7%
AGR	3.0%	2.8%	4.9%	3.6%	3.2%	3.1%	
Units per Households & Businesses (#)	5.75	5.38	5.19	5.07	4.99	4.96	-2.0%
AGR	-5.6%	-6.5%	-3.6%	-2.3%	-1.5%	-0.6%	
Market Penetration (%)	97.4%	97.7%	98.0%	98.3%	98.5%	98.7%	1.3%

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Market Model Variables

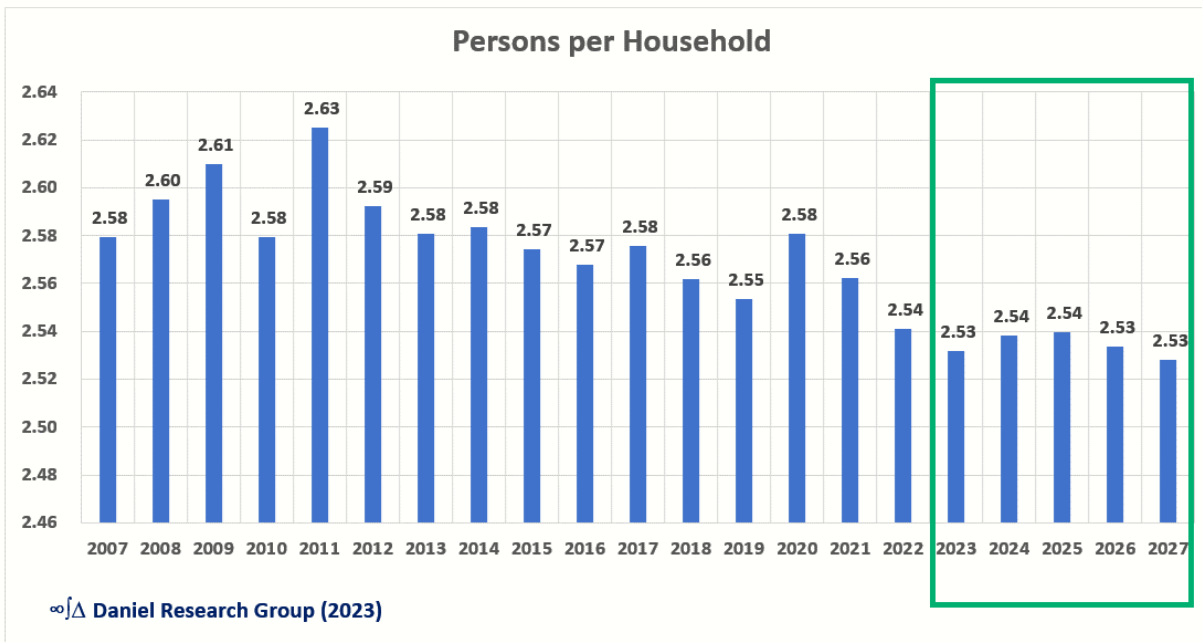
The market for almost any product or service can be defined in terms of six variables;

1. Total Available Market
2. Penetration
3. Density
4. Replacement Cycle Length
5. Unit Shipments
6. Installed Base

The **DRG** EquilibriumSolver (**EQS**) algorithm expresses these variables such that each of the six variables can be computed from the other five. The resulting model is **direction agnostic** facilitating the development of forecast scenarios that are consistent with historical trends while reflecting current and future exogenous market and economic events.

Total Available Market (TAM)

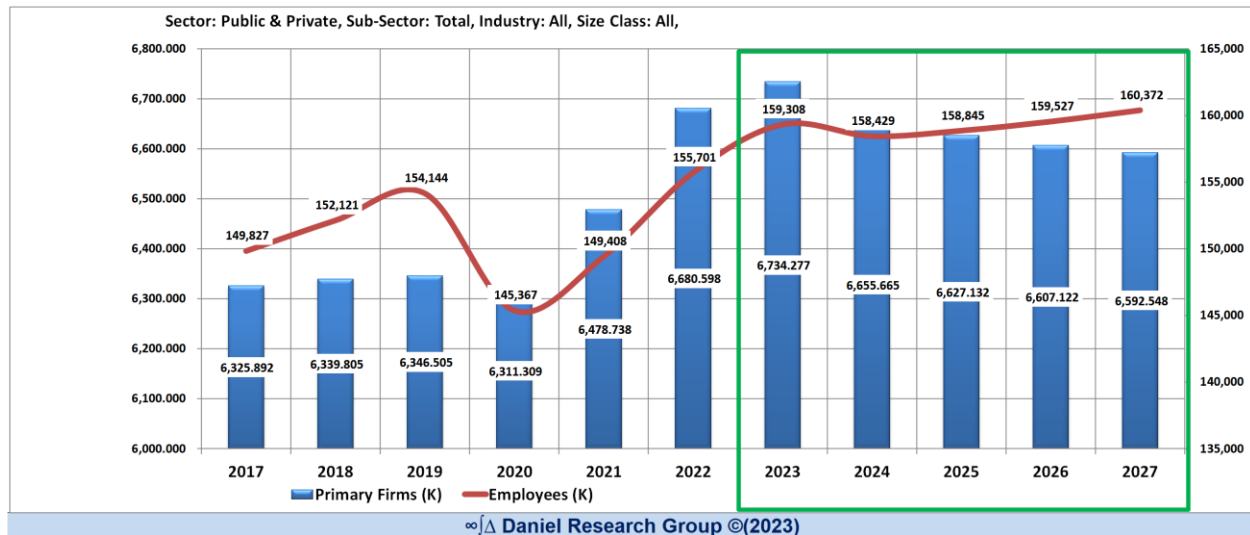
Consumer Households: The historic and forecast data was obtained from the United States Census Bureau and the Congressional Budget Office and projected to 2027.



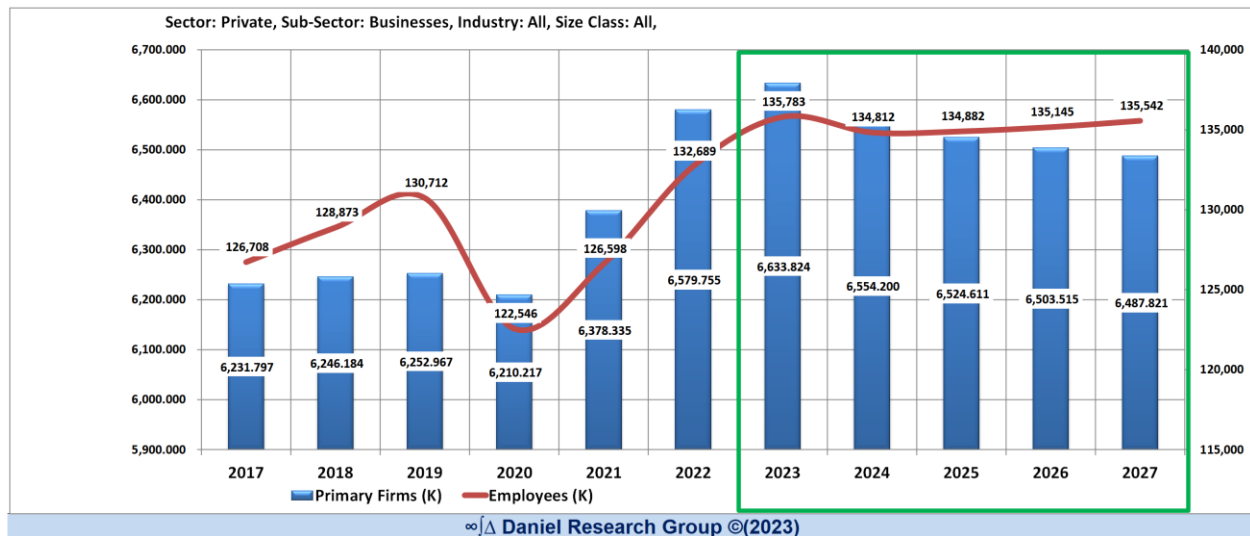
The long-term trend of slowly decreasing household size temporarily reverses during economic disruption as in 2011 and 2020. The small increases in 2024 and 2025 reflects the forecasted economic slowdown, the “soft landing”

Enterprise Businesses: DRG's Business Economic Demographic Database (BEDD) model forecasts that both employment and the number of active businesses will decrease in 2024. While employment will return to growth in the subsequent year, the number of active businesses will continue to decrease. The TAM used in the Enterprise Models is **Primary Firms** as computed in the **DRG BEDD** model that incorporates data from the US Census Bureau, Bureau of Labor Statistics, Bureau of Economic Analysis, The Congressional Budget Office, the Department of Defense, and other public and private sources.

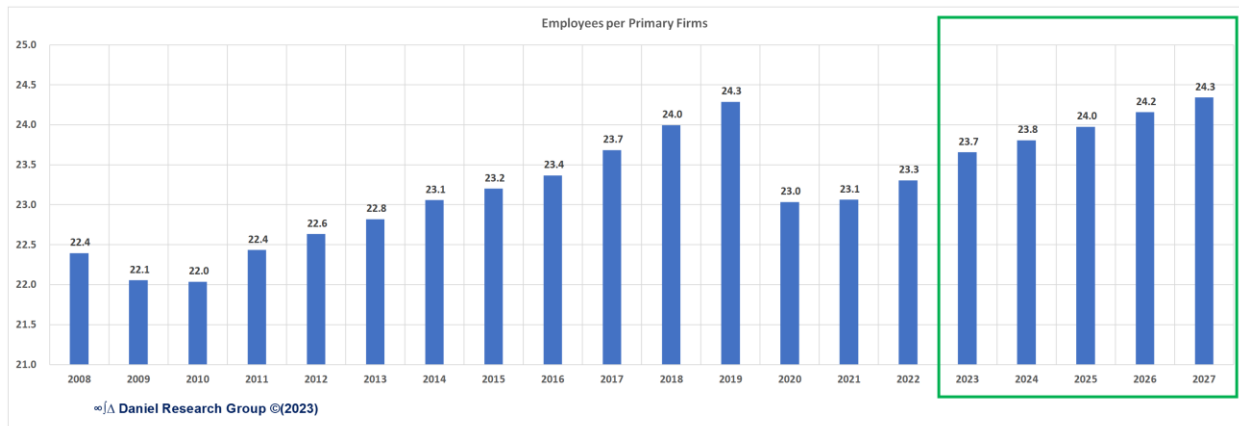
Total Public and Private Sectors



Private Sector Only



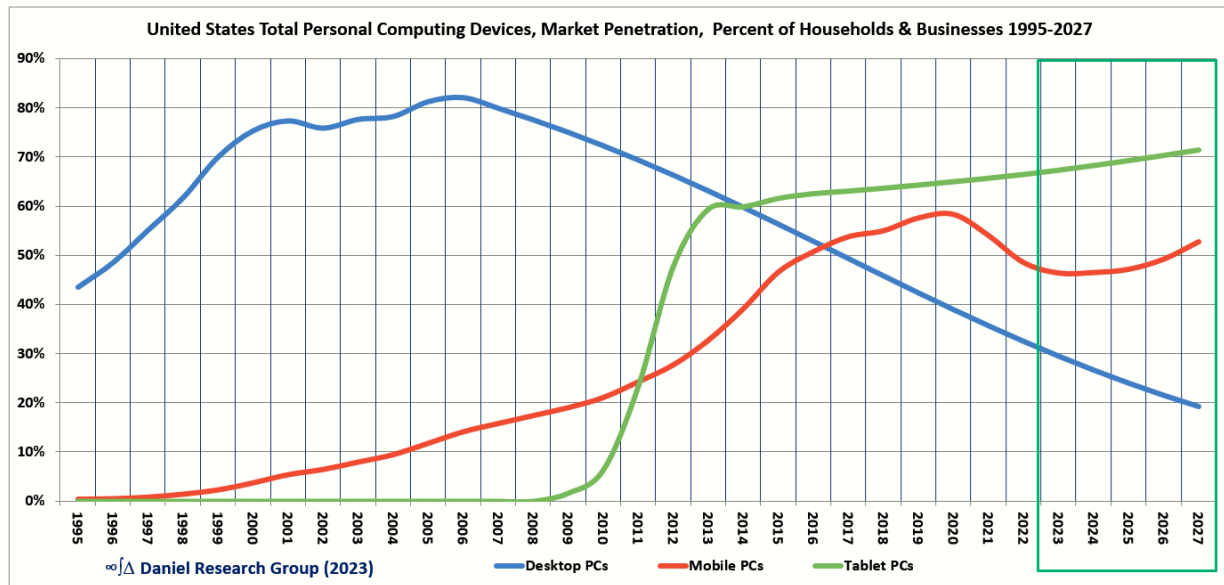
While the number of businesses is declining, the average number of employees per business will continue to increase after being disrupted during the pandemics.



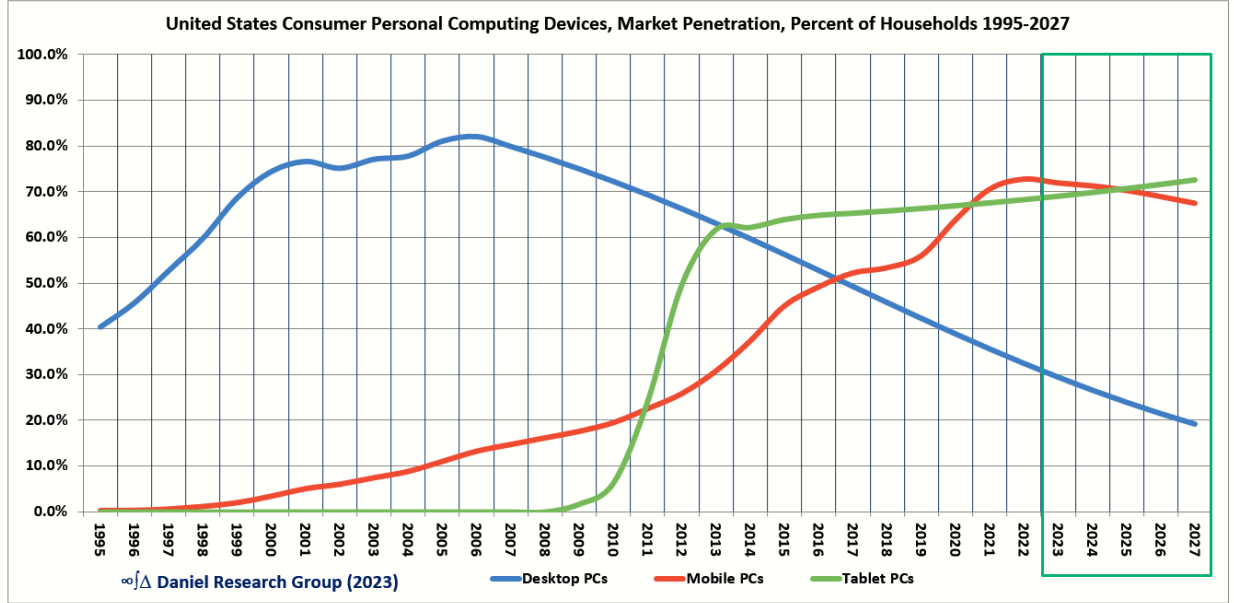
Penetration

Theoretically, penetration rates should follow the Diffusion of Innovation S-Shaped curve. However, in most cases there are deviations where the actual curve accelerates, flattens, or even declines from its expected path, sometimes even returning to the expected path later. There are several reasons for this such as an economic shock, or an incorrect assumption as to the size of the TAM. More often, the S-shaped penetration parameters change because of changes in user/buyer preferences due to new product introduction, upgrades, or emerging use-cases.

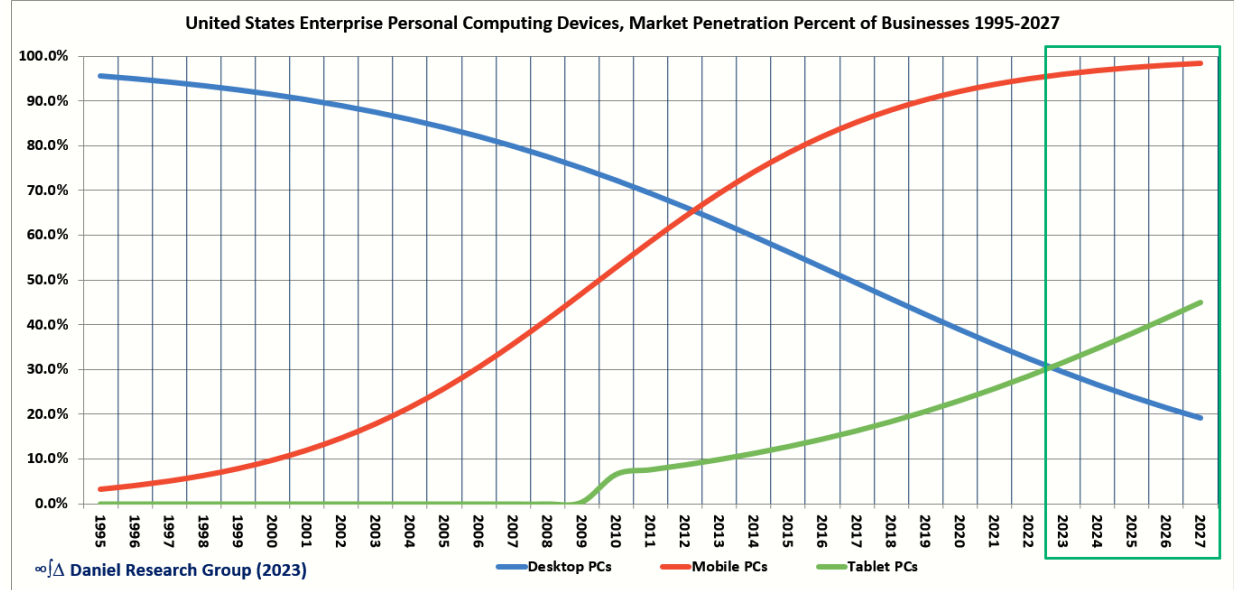
Total PCs and Tablets



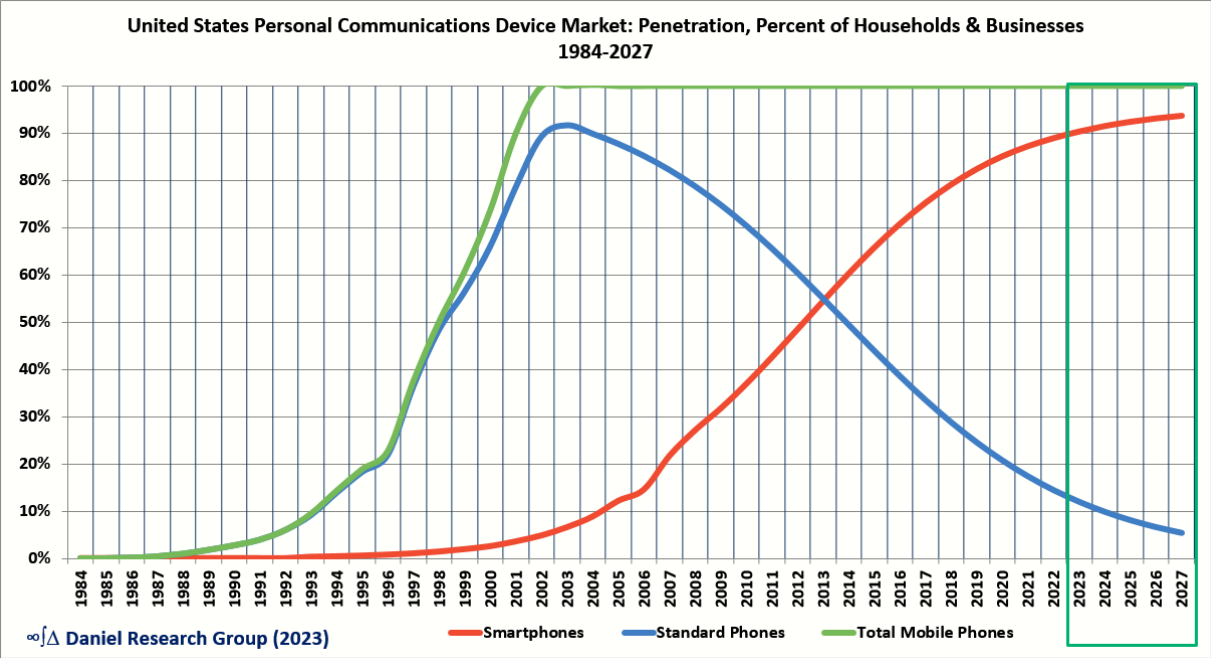
Consumer PCs and Tablets



Enterprise PCs and Tablets



Mobile Phones

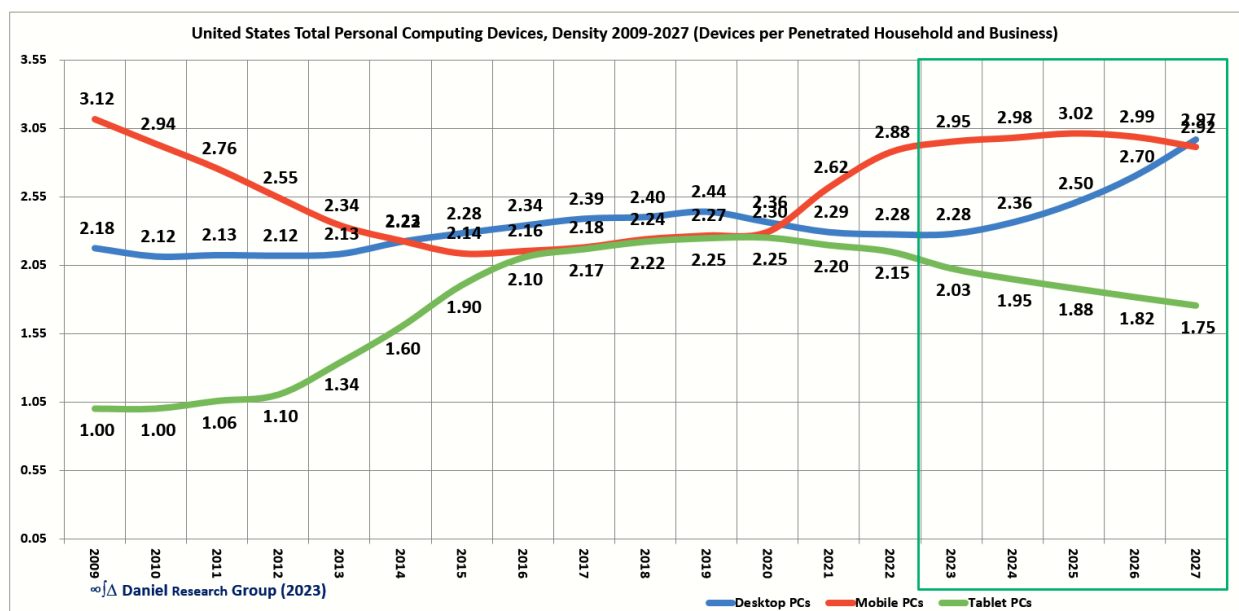


Density

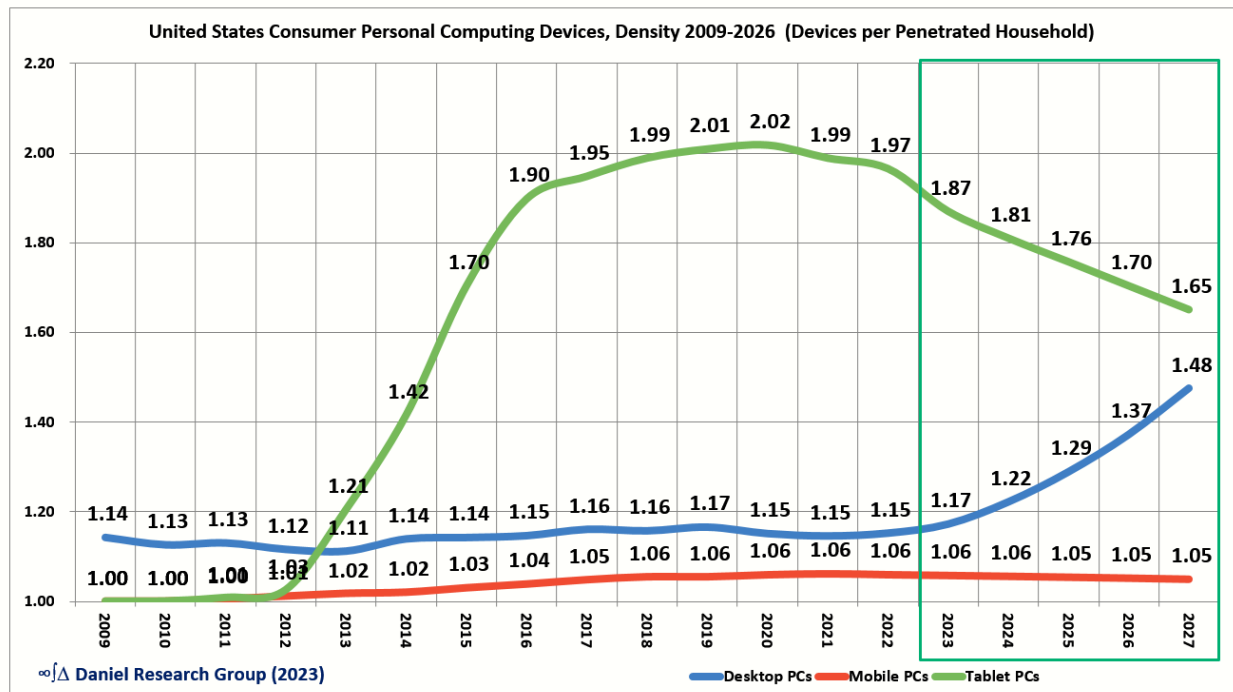
Density is the average number of Installed Base units in penetrated households and/or businesses. Densities are independent of penetration and reflect the distribution of single or multiple product users over the life of the product and the timing of the purchase of additional units. For most products, early adopters are more likely to be multiple unit buyers than later adopters. As the product enters the middle phase of its market life, the density will begin to decrease. For some products the density will start to increase again at the very end of the product life as the few remaining users are more likely to be multiple unit users than those who have stopped using the product.

The significant increase densities for Mobile PCs reflects the excess buying in the Consumer Segments to support pandemic caused increase in Work From Home, Learn From Home and home entertainment use cases. The significant increase in desktop density in the Enterprise Segment in the forecast period is reflective of the need to provision employees shifting back to on-site workplace work or hybrid working arrangements, as well as an increase in use cases that require the power off desktops.

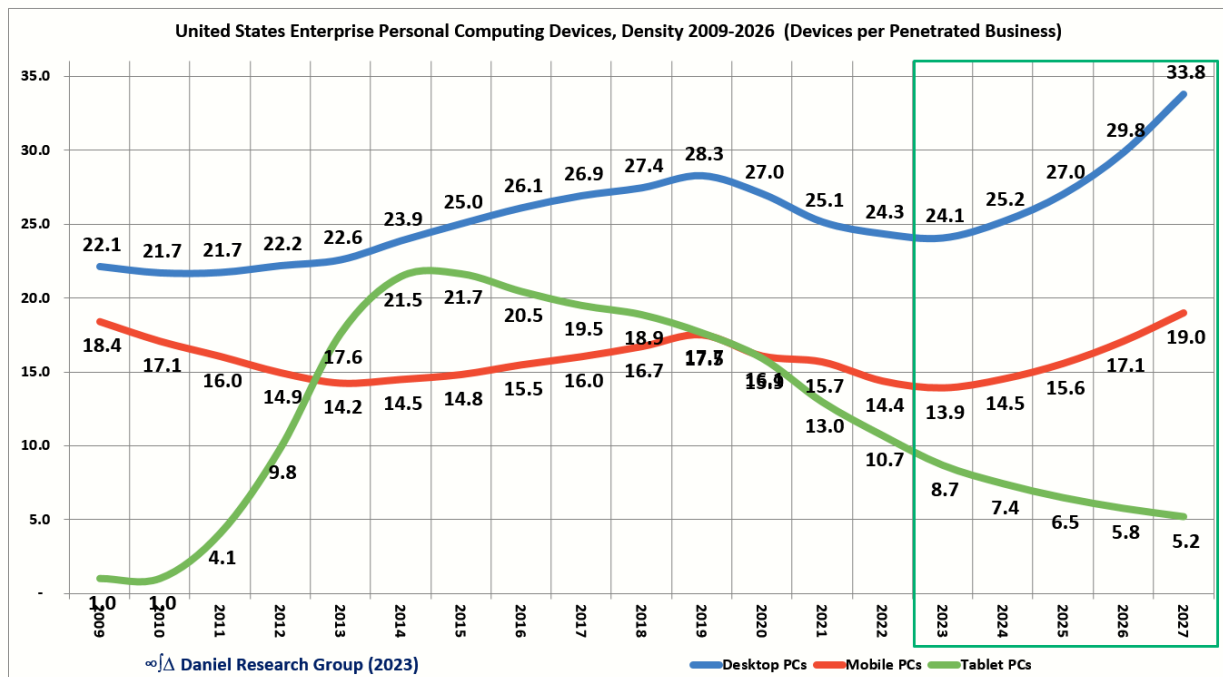
Total



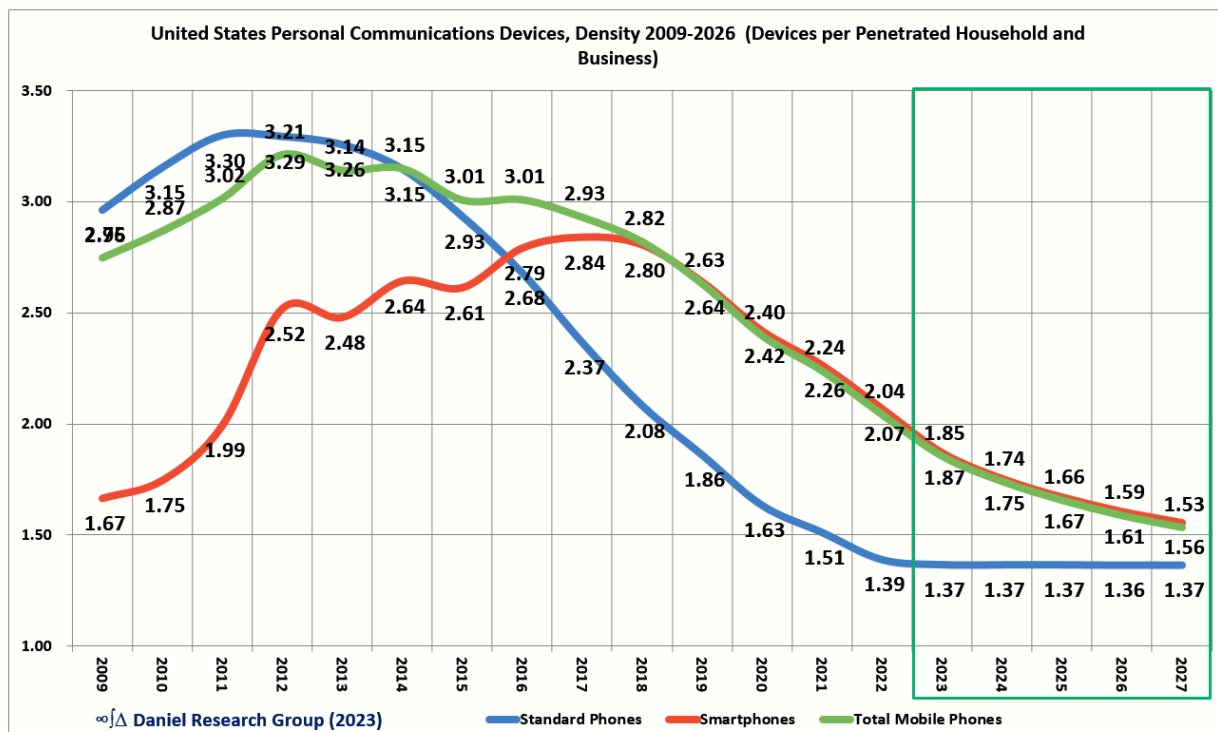
Consumer



Enterprise



Mobile Phones

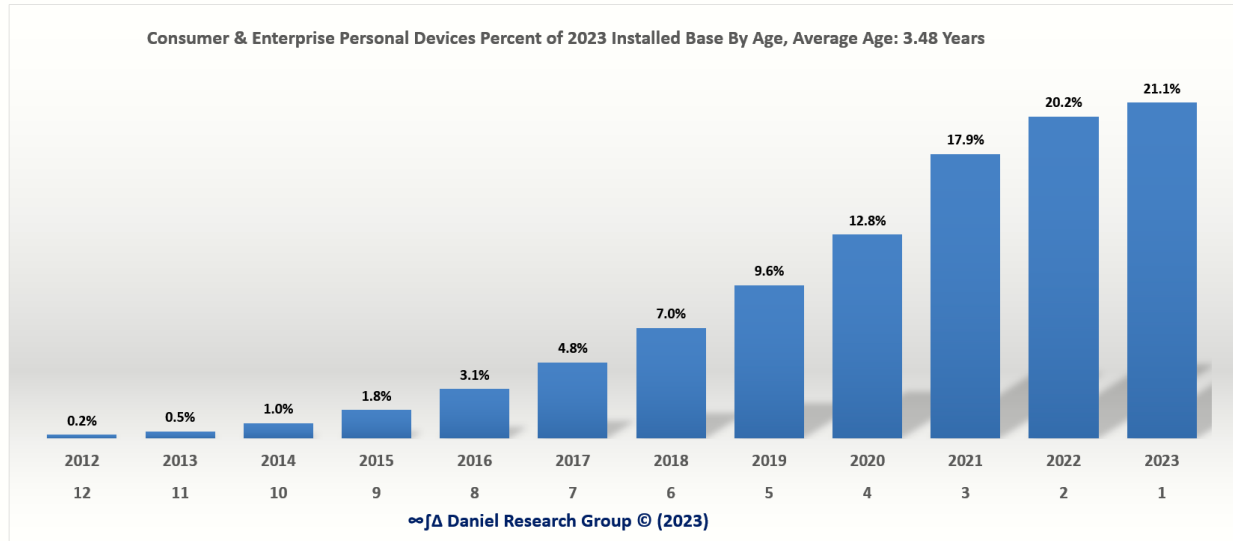


Replacement Rates

How long are current users expected to continue to use their current device until they replace them? That is one of the most important questions that device vendors and sellers need to ask, and is very difficult to answer. Asking current users when they expect to replace requires them to have knowledge of future product, economic and market conditions that they may not know. The **EQS** methodology and models utilize four different metrics to measure historical and forecasted length of time a device is in use before being removed from the Installed Base.

Retention Rate Distribution Mean (RRD- μ), Standard Deviation and Maximum Life. Given the number of Units Shipped in any year, the RRD- μ is the number of years from the current year when 50% of those Units will still be in the Installed Base. The distribution is assumed to be a left (1) and right (Maximum Life) truncated normal distribution with a specified standard deviation. The RRD parameters are usually inputs to the model and are based on our analysis of economic, market, and user behavior factors. However, the RRD- μ may be either an input or an output of the forecast model depending on the directional configuration. When constructing a model for the first time, the RRD parameters are solved for by **EQS** based on known historical Unit Shipments and Installed Base data. This provides the historical context for constructing and then validating RRD forecasts, as well as providing an historical baseline to validate the forecasts.

Average Installed Base Age (AIBA). The **EQS** models compute the age distribution of the Installed Base in every year. However, AIBA is often highly dependent on the relative magnitude of current Unit Shipments in relationship to the Installed Base, and is therefore may not be an accurate estimate of how long users will continue to use the device when either Unit Shipments or Removals exhibit high year to year variance.



The **EQS** Models compute and output the age distribution of the Installed Base for every historical and forecasted year. The demand for After Market/Reverse Logistics products and services are more a function of the Installed Base than the initial Unit Shipments.

Replacement Cycle Length (RCL)

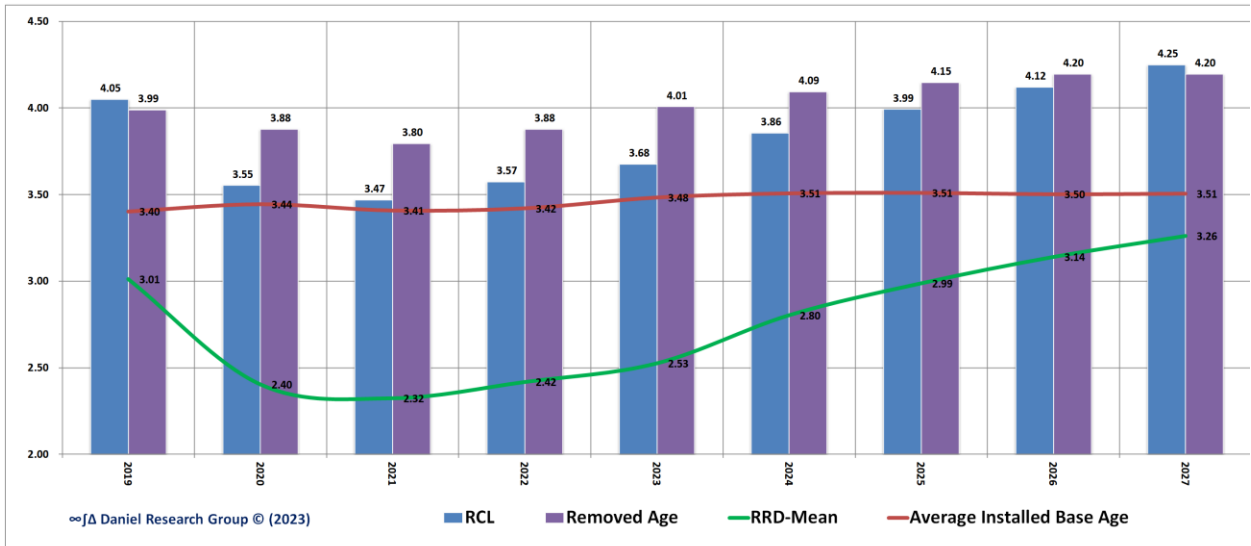
$$RCL = \frac{\text{Starting Installed Base} + \text{Unit Shipments}}{\text{Units Exiting the Installed Base}}$$

RCL is the length of time it will take for all the existing units in the Installed Base to be replaced given the current Installed Base size, Unit Shipments, and number of Units Removed from the Installed Base in that year. The **EQS** algorithm allows the RRD-μ to be adjusted to produce a target RCL value. Therefore, the models may be configured to use RCL as either an input or an output variable.

Under normal conditions, RCL is the favored metric for predicting the length of use/ownership trends of Personal Devices. However, like the AIBA metric, its predictive properties diminish when the variance of the Unit Shipments or Removed Units exiting the Installed Base increases. In 2020 and 2021, RCL will show considerable variance in the Enterprise Segment due to the significant number of Units exiting the Installed Base as a result of business closures in 2020 and recovery buying in 2021. Moving forward from 2023, RCL will regain its strong predictive and explanatory properties.

Average Removal Age (ARA) – This is the average age of the units exiting the Installed Base for any reason. It is an estimate of the average age that would be computed if you could ask every user who stopped using the device how long they had used it before replacing or other reasons for use termination.

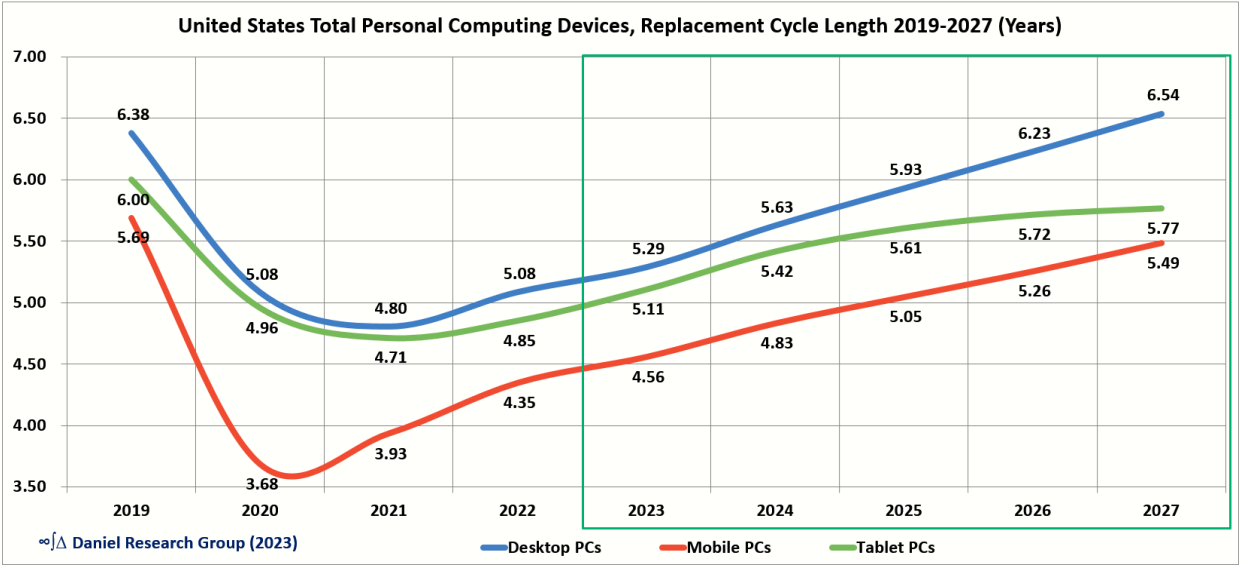
The value of each of these metrics is more in the trend than in the point values. A comparison of the four Installed Base age metrics for Total Computing Devices is presented in this chart. The RCL and RRD-Mean will exhibit the most variance due to anomalous events such as the operating system migration and economic shocks. Therefore, currently the Average Installed Base Age and the Average Removal Age are better estimates of future replacement rates.



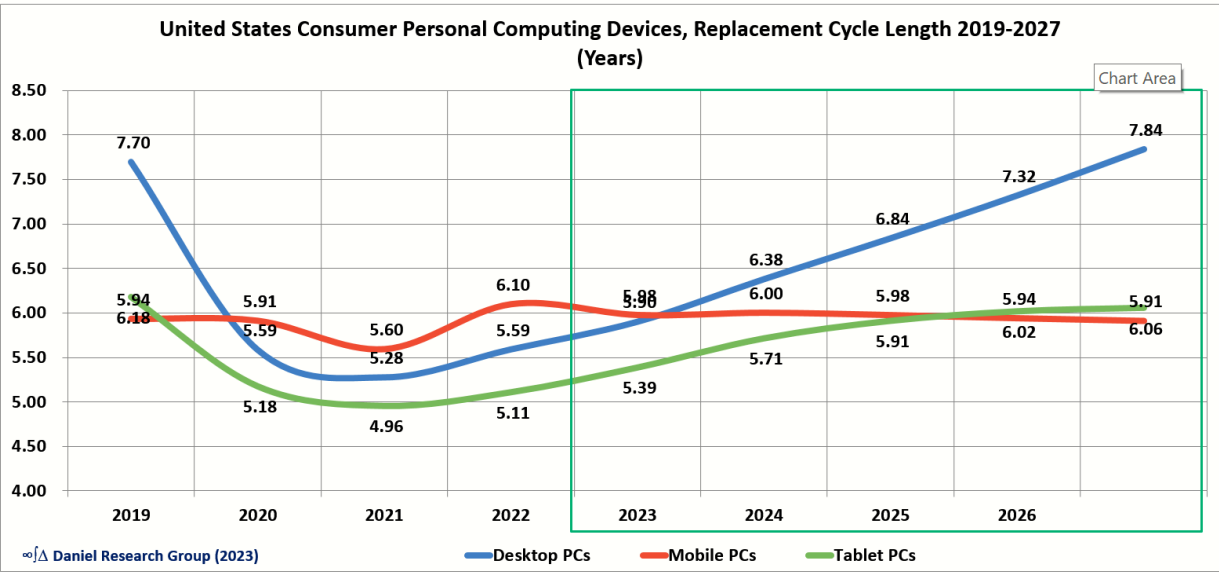
Each of the Age metrics answers a different question.

Metric	Question
AIBA	How old are the units in the Installed Base?
ARA	How old are the units people are just now no longer using.
RRD-μ	How much time from now will 50% of this year’s Unit Shipments still be in use?
RCL	How long will it take to replace all the units in the Installed Base?

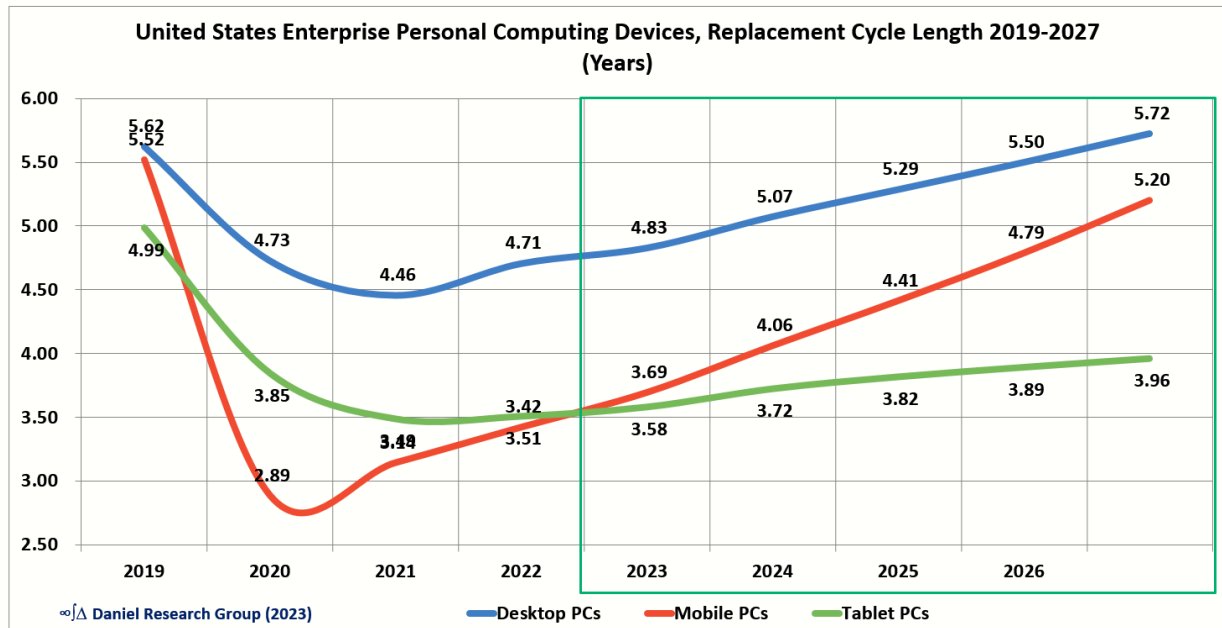
Replacement Cycle Length Total



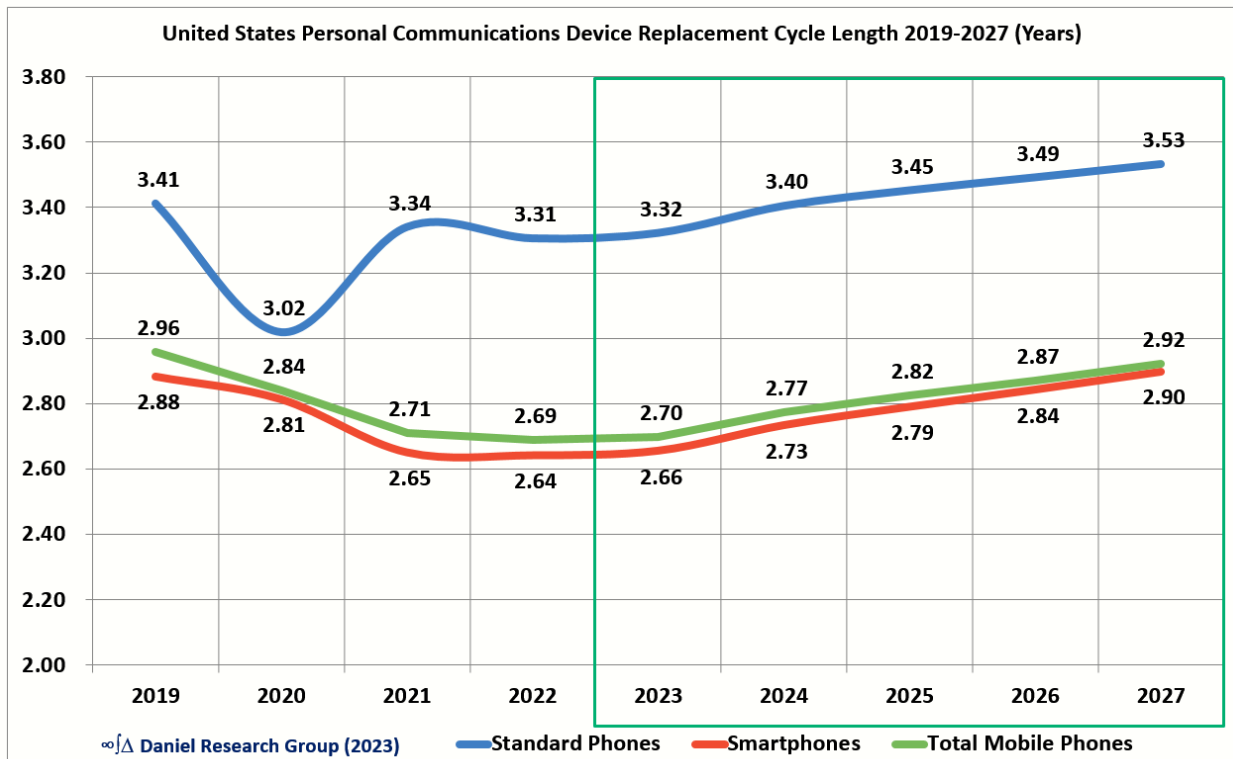
Consumer



Enterprise



Mobile Phones

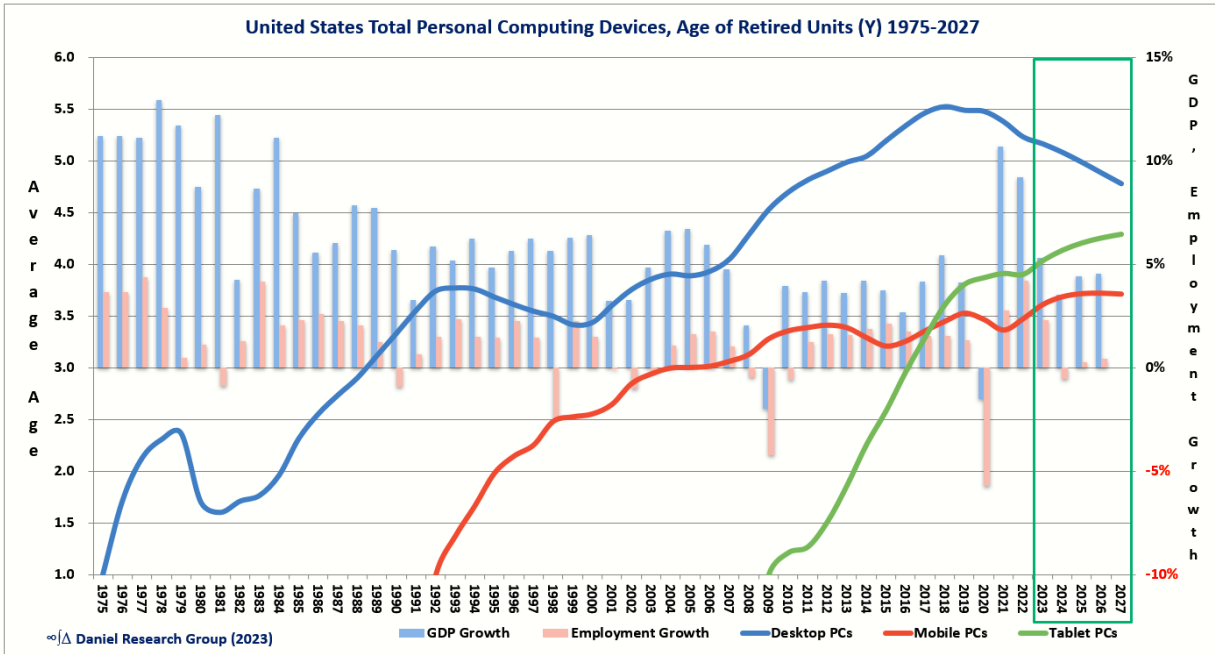


Long-Term Charts

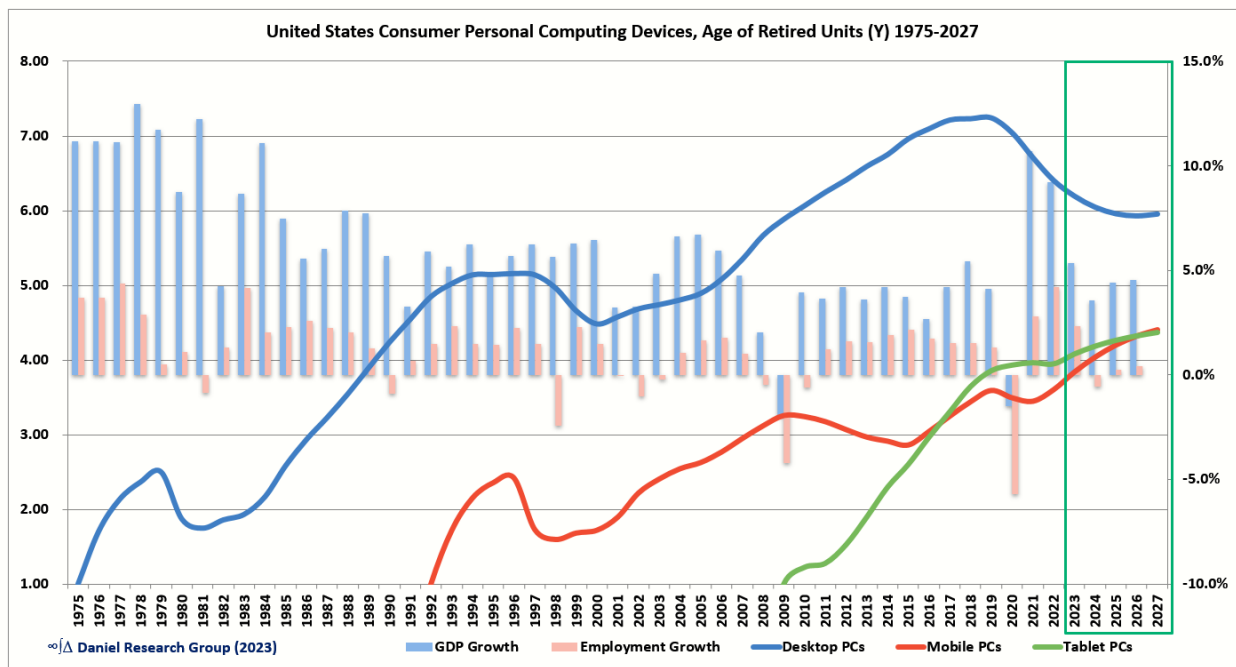
These charts provide additional historical context to better understand both the current state and the forecast in comparison to long-term trends.

Average Removal Age

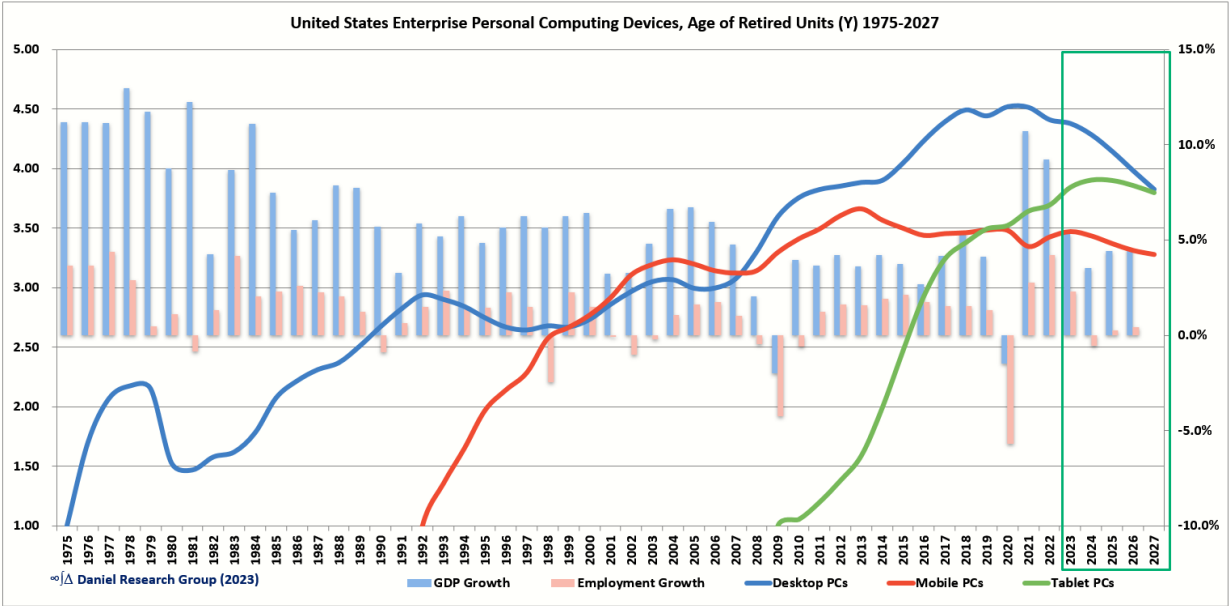
Total



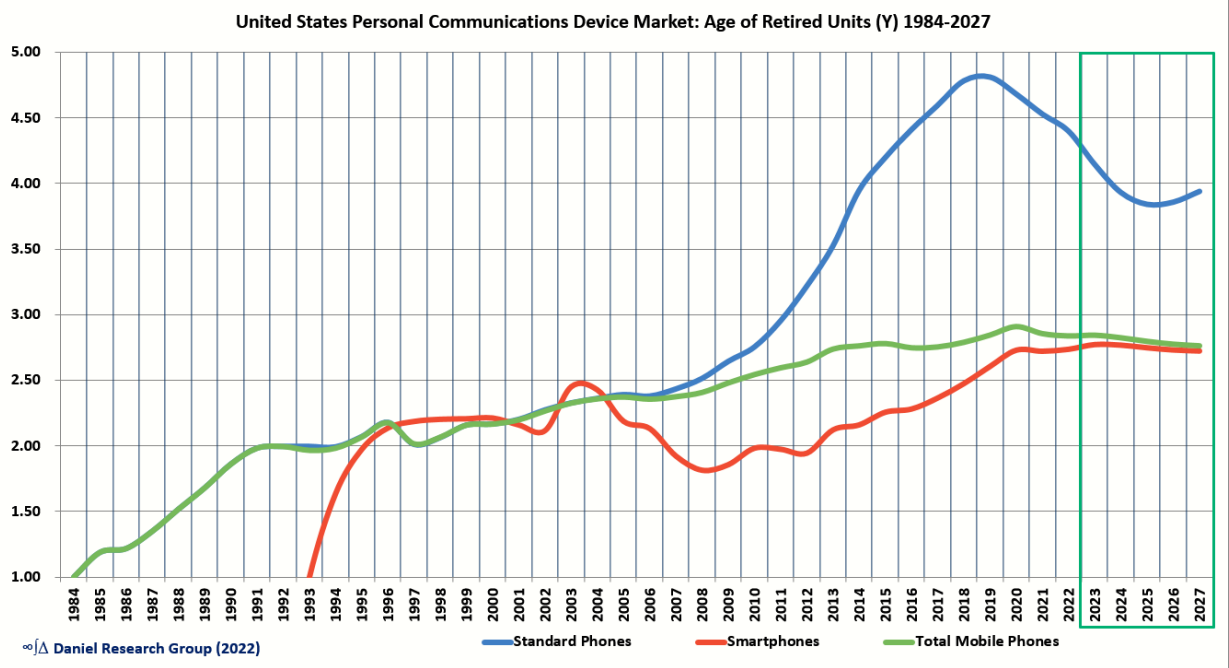
Consumer



Enterprise

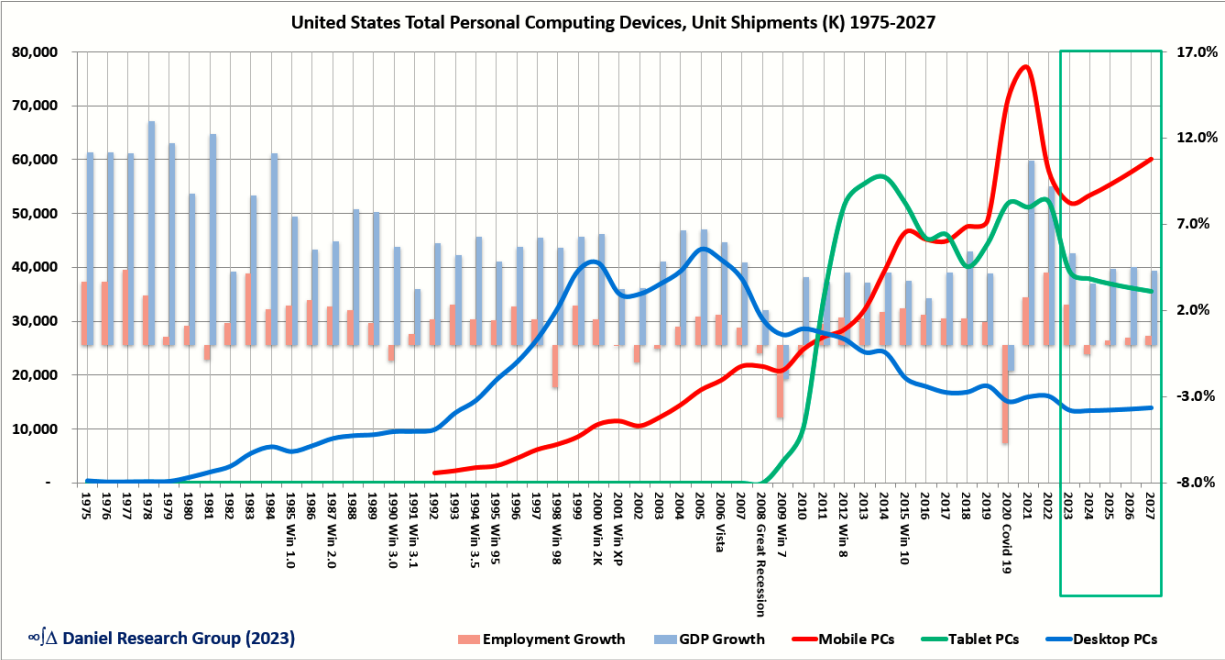


Mobile Phones

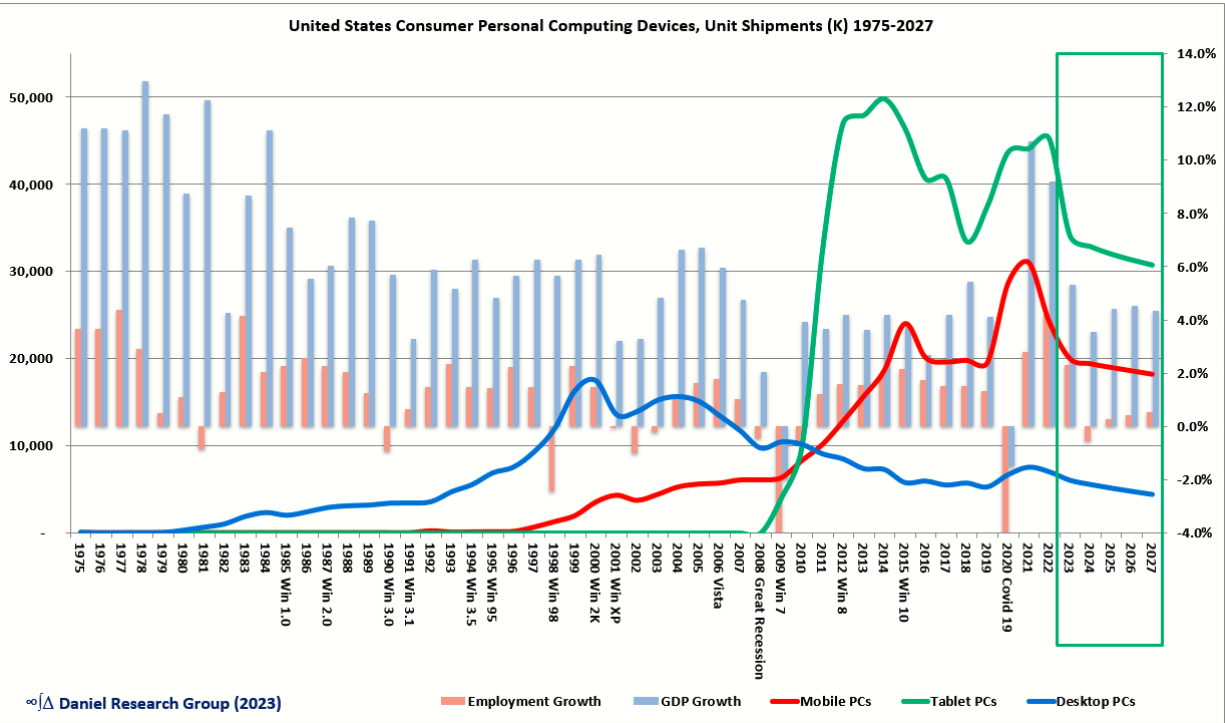


Unit Shipments

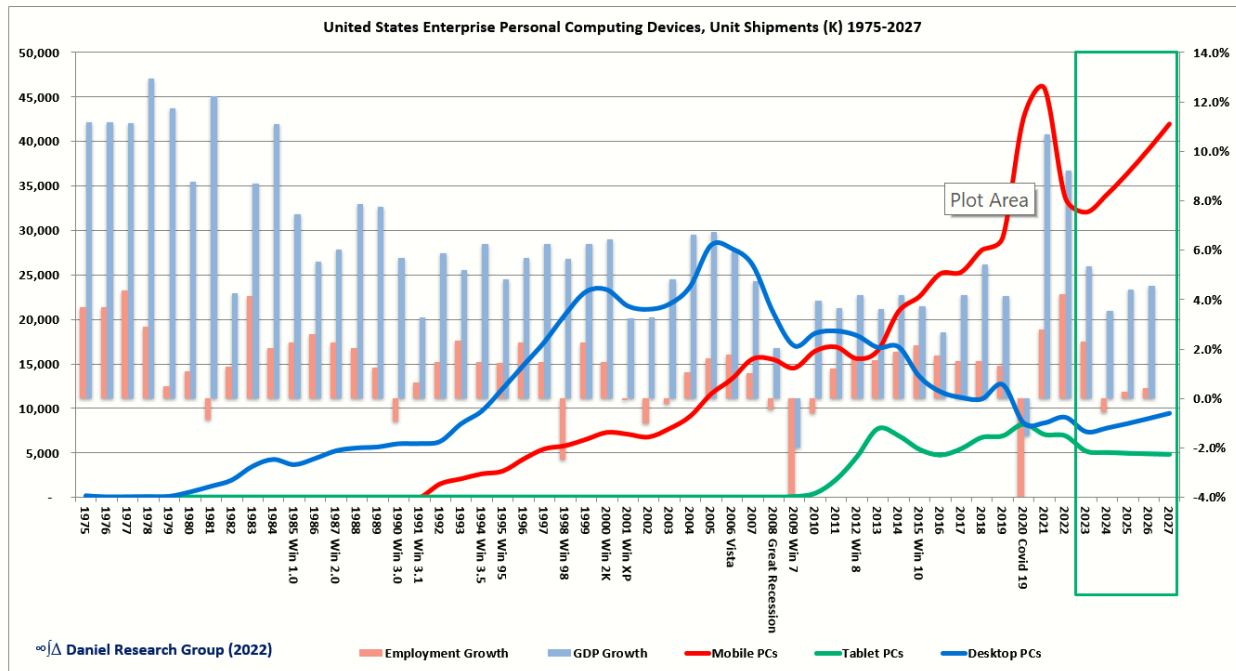
Total



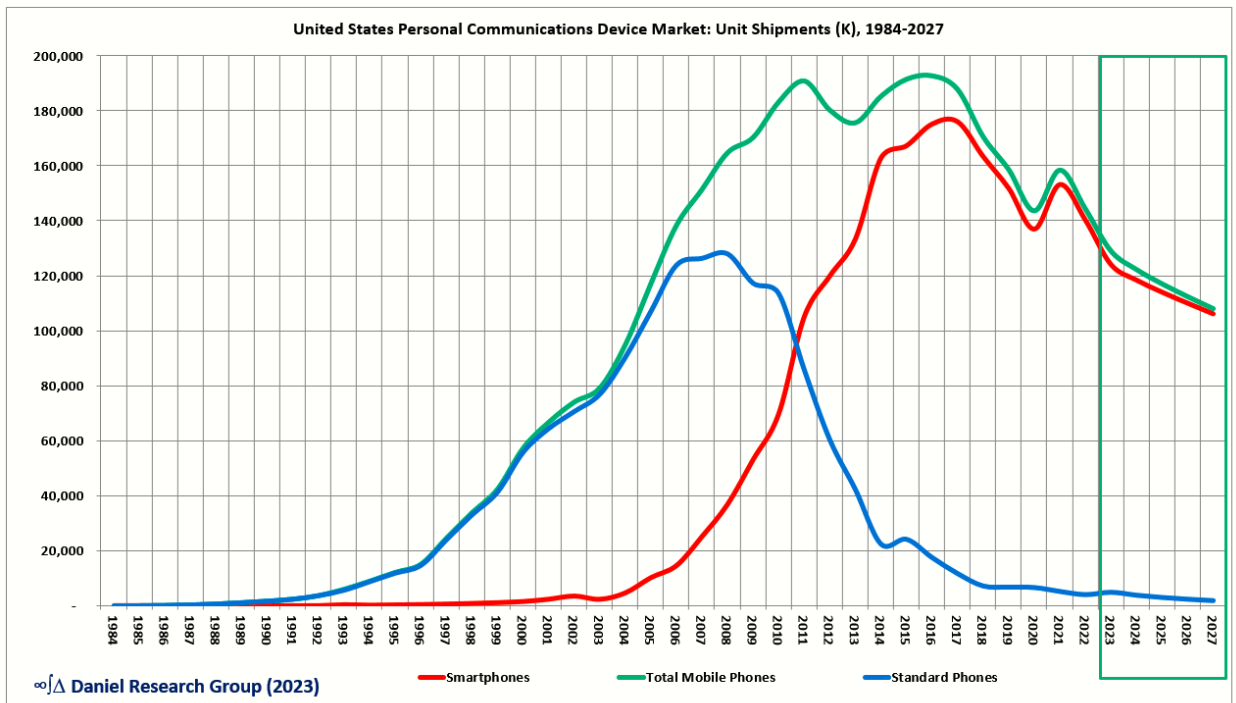
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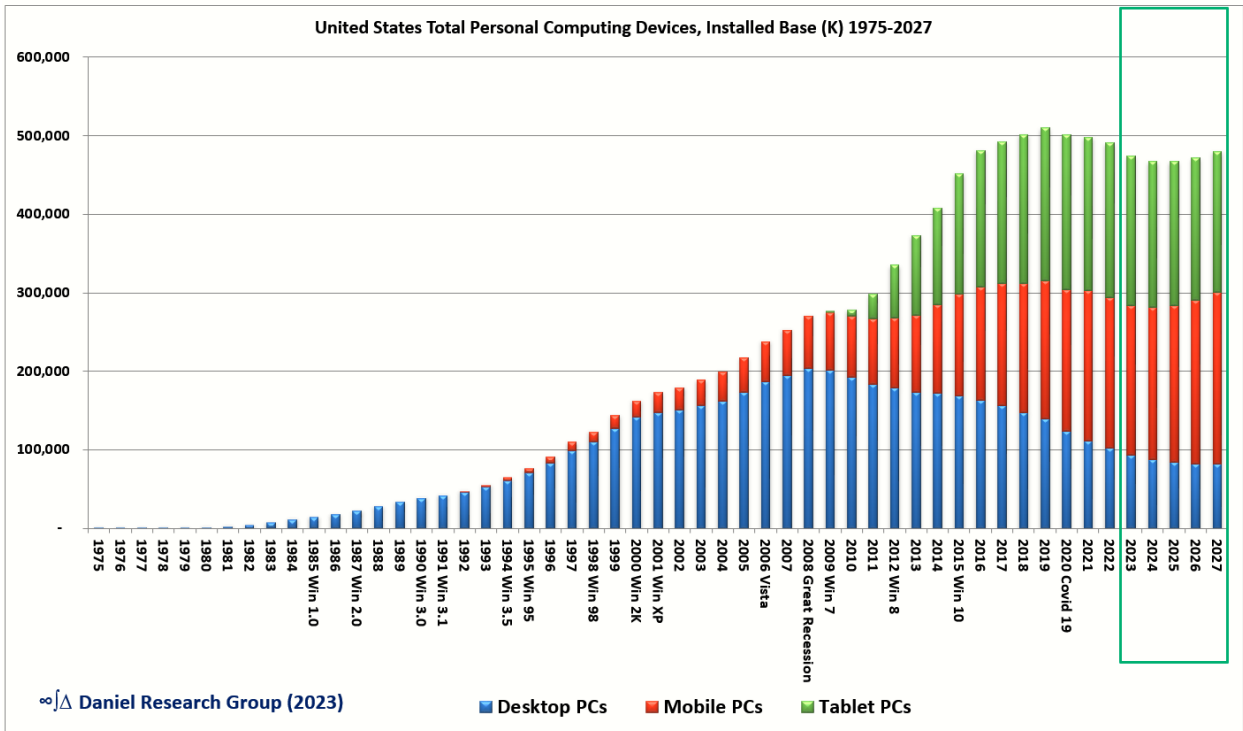
Enterprise



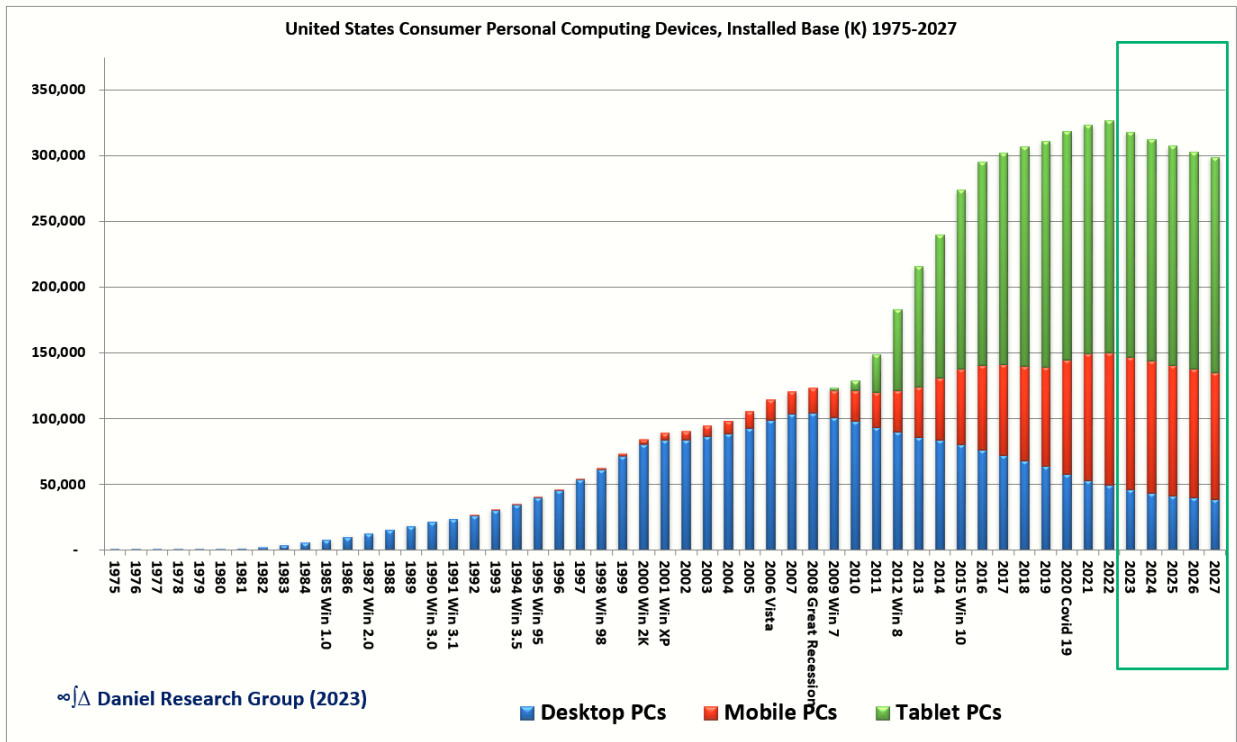
Mobile Phones



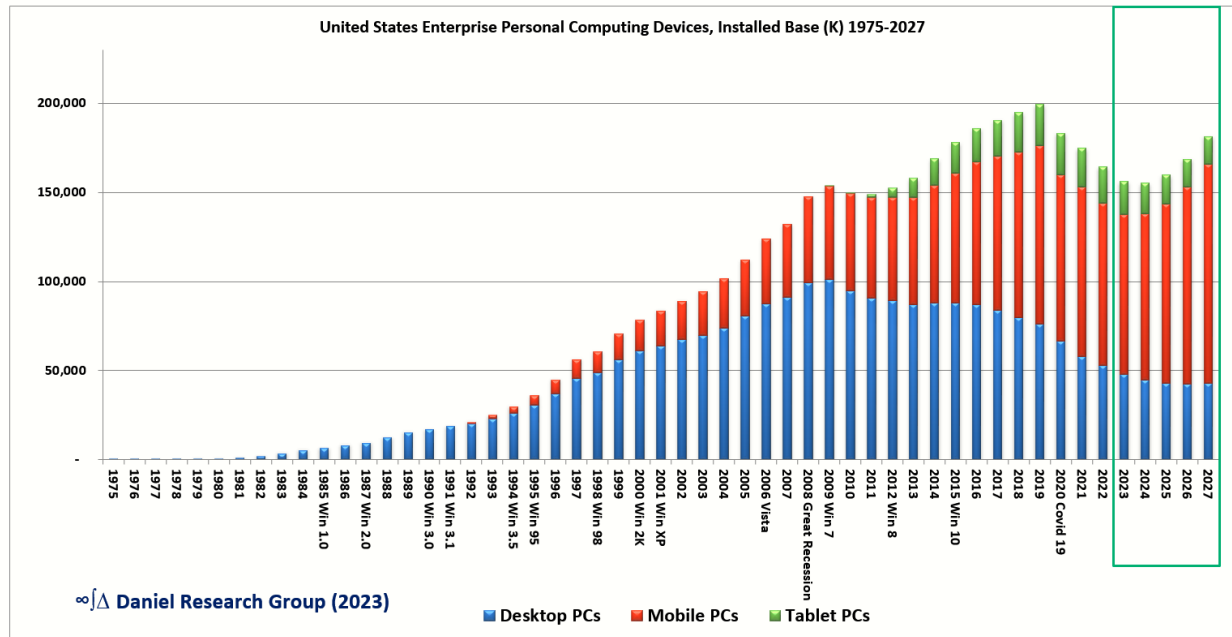
Installed Base Total



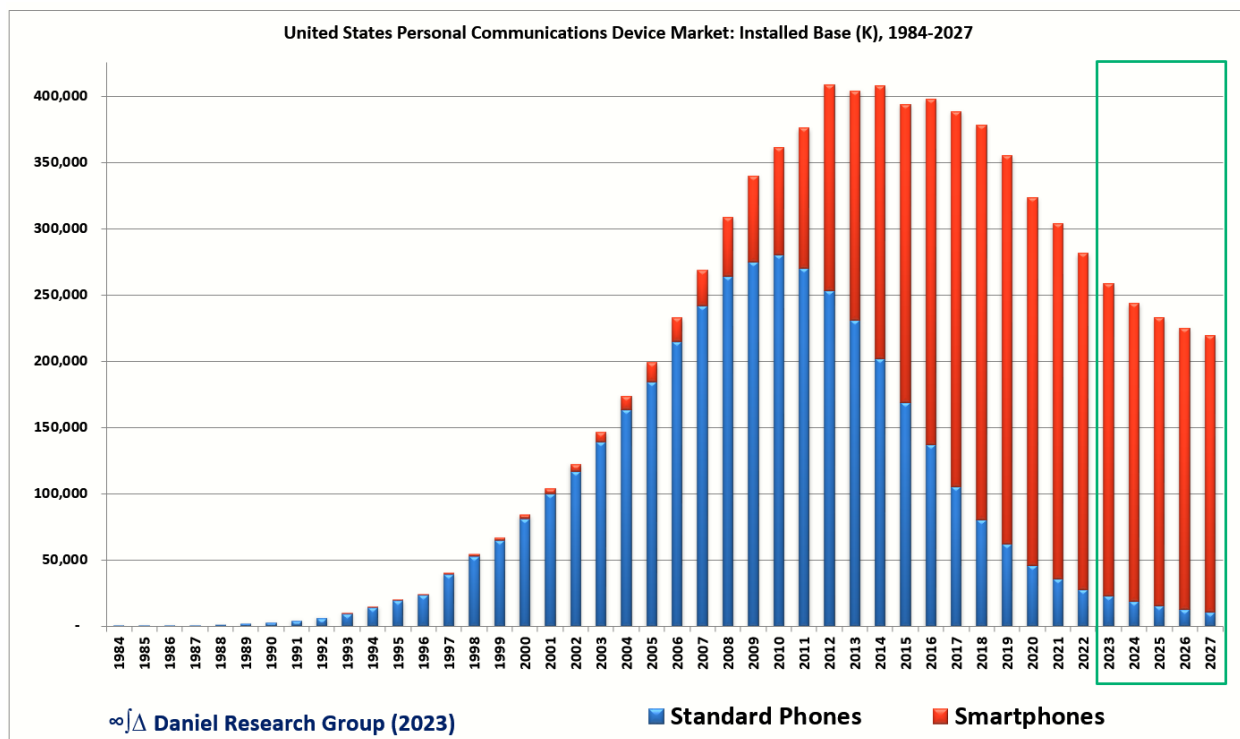
Consumer



Enterprise



Mobile Phones



Methodology

Forecasting Approach and Process

In order to understand our forecast conclusions, a review of our forecast approach is necessary. Although forecasts of Unit Shipments and Revenues are of most interest to our clients, we consider these to be output results with very little predictive properties in and of themselves. Rather we base our forecasts on understanding the trends and the influences on those trends of the following primary causal variables.

- **Total Available Market (TAM)** – The number of potential buyers in the Consumer and/or Enterprise Segments.
- **Penetration** – The percent of buyers, households and/or businesses, that have, or will, purchase the product or service.
- **Density** – the number of product or service units in use per penetrated household and/or business.
- **Replacement Rate** – rate at which users are replacing older units with new ones. This is primarily measured in terms of the Replacement Cycle Length. The length of time it would take to replace all the current units in the Installed Base given the initial size of the Installed Base, the current year Unit Shipments, and the current year number of units removed from the Installed Base.

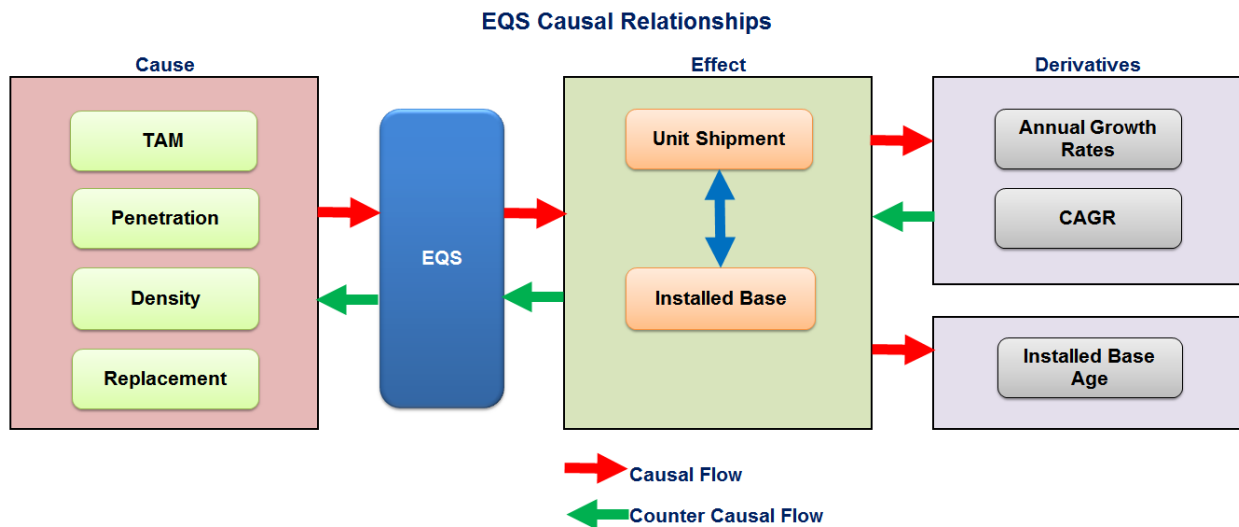
Our forecast approach proceeds in four modeling levels.

1. **Penetration** – Top-Down Long-Term models that forecast future market penetration of the primary major products categories based on long-terms historical trends.
2. **Top-Down** – The primary major products are split by segment (consumer and enterprise) and form factor, as needed.
3. **Base** – Each individual product/segment/form factor forecasts are adjusted to reflect our analysis of the economic, demographic, technological, market and user behavior influencing factors.

4. **Aggregation** – The base forecasts are rolled-up to higher levels. While some of the output metrics such as Unit Shipments, Revenues and Installed Bases are additive, other such as Density, Penetration, Replacement Cycle Length, and Installed Base Age can only be computed using **DRG's** proprietary **EQS** methodology. In most models, the Base models are adjusted through a calibration step such that the roll-up matches the Top-Down for a specified metric.

Models are neat, but markets are messy. Any market model is at best an idealized simplistic version of a complex real world process. How useful any model can be is a function of how well it encapsulates the basic influencing relationships that drive cause and effect. When **EQS** models a **Causal Flow**, the four inputs compute the primary outputs: Unit Shipments and Installed Base, as well as the derivative metrics Annual Growth Rates, CAGRs, and the Installed Base Average Age. For example, an increase in the penetration rate will result in an increase in Unit Shipments and/or an increase in the Installed Base, as well as changing the derivative metrics.

When **EQS** models a **Counter Causal Flow**, the logic flows in the other direction. An increase in the Unit Shipments will require an increase in one or more of the Causal variables, as well as changing the derivative metrics.



The strength of **EQS** as a market modeling and forecasting tool derives from two attributes;

1. The ability to run both Causal and Counter Causal logic.
2. A closed system of relationships that can only produce outputs that meet real world constraints and criteria set by the user.

Supporting Models

The **DRG Business Demographic Baseline and Forecast (BEDD)** is a database of United States Firms, Primary Firms, Establishments, and Payrolls by Private and Public Sectors, by 2-Digit NAICS industries, from 1998 to 2027. It is derived from data obtained from the US Census Bureau, the Bureau of Economic Analysis, the Bureau of Labor Statistics, the Department of Defense, and the Congressional Budget Office.

Forecast Updates

DRG will update its forecasts periodically as actual year-to-date results become available. Utilizing the **DRG ProjectionSolver and GrowthSolver** algorithms, new current year projections based on historic trended quarterly or monthly patterns are computed. Based on these projections, adjustments may be made to the primary **EQS** models.

Sources of Historical Data

Historical data was obtained from the following available sources including press releases, published reports and presentations, and publicly available databases.

Device or Metric	Unit Shipments	Installed Base/Penetration
Desktop PCs	Environmental Protection Agency IDC	Computer Almanac eTForecaster International Telecommunications Union Worldbank
Mobile PCs	Environmental Protection Agency IDC	Computer Almanac eTForecaster International Telecommunications Union Worldbank
Tablets	IDC	Pew Research Center
Mobile Phones	Consumer Technology Association Telecommunications Industry Association IDC	Cellular Telephone Industries Association Centers for Disease Control and Prevention GSMA International Telecommunications Union Organization for Economic Co-operation and Development Telecommunications Industry Association Worldbank
Households	US Census Bureau Congressional Budget Office	
Businesses	Bureau of Economic Analysis Bureau of Labor Statistics Congressional Budget Office Department of Defense US Census Bureau US Office of Personal Management	

Data obtained from a variety of sources, often using different definitions and methodologies are frequently inconsistent with each other. **DRG** employs **EQS** to identify and correct these differences and produce historic time-series of Unit Shipments, Installed Bases, Replacement Rates, Average Ages, Densities and Penetration Rates that are internally consistent with each other, and correlate highly with external quantitative data and qualitative data criteria. **DRG** believes the resulting historical baseline is the most accurate complete accounting of the US Personal Device Market from its inception in 1975.

About Daniel Research Group

Daniel Research Group is a market research and consulting firm servicing primarily technology clients. Our primary focus is developing custom market models and forecasts. We support clients three ways.

1. We work independently or collaboratively with the client's own analysts to **produce custom** technology product/service **market models and forecasts**.
2. We work collaboratively with the client's own analysts to **design and develop the modeling applications** that they will use to develop their own market models and forecasts.
3. We **train client's analysts** in the theory and practice of technology market modeling and forecasting.

Most of our work utilizes the inventory of proprietary methodologies and algorithms that we have developed over more than 35 years. We have built technology forecasting market models for many major technology vendors, market research firms, and industry organizations. While our core competency is forecasting, our subject experience covers the entire technology and technology-enabled product/service landscape. We also support our engagements with traditional qualitative and quantitative research, as well as tactical and strategic consulting services.

Stephen J. Daniel - President

With over four decades in the Information Technology Industry, Mr. Daniel has developed a unique blend of Market and Technology experience coupled with a deep understanding of Market Research Methodology. His primary strength is in understanding the decision-making context within which the results of his research will be applied. This is manifested by his ability to design and execute studies that precisely meet client objectives in a timely fashion and at reasonable costs.



Mr. Daniel received his BS in Finance from Northeastern University and earned an MBA in Quantitative Analysis from New York University. He is a member of the American Statistical Association, American Economic Association, The Market Research Association of America, the American Marketing Association, National Association for Business Economics, and the Qualitative Research Association of America.

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