

## PRODUCT/PROCESS CHANGE NOTIFICATION/INFORMATION

Product Change Information summary	
Sales type / product family	HCC logic
Customer (s)	All
Type of change	Termination of selected no sales products
Reason for change	No sales
Description of the change	See attached
Forecasted date of change	See attached
Availability date of samples for customer	See attached
Forecasted availability date of STMicroelectronics internal qualification report of the change	N/A
Marking to identify changed product (ex: date code change)	N/A
Description of the evaluation and qualification program	N/A
Product lines and/or Part Number(s)	See attached
Manufacturing locations	ST - Rennes plant
Estimated date of first shipment	N/A

Product Change Information summary approval		
Rennes Product Engineering Manager	André Uguen	<i>Done through notice tool</i>
Rennes Marketing Manager	Thibault Brunet	<i>Done through Notice tool</i>
Rennes Quality Manager	Sylvie Péron	<i>Done through Notice tool</i>

## PRODUCT/PROCESS CHANGE NOTIFICATION/INFORMATION

### Why is there a termination?

The terminated products had no or very low sales in the last 5 years, with no customer requirements for the future, whatever their package and quality level. ST is formalizing a de-facto termination.

### Which products are terminated?

The table below summarizes the terminated products. A more complete list is provided in appendix 1.

Root Part Number	Detail specification	Part numbers
HCC4008B	9202/039	All
HCC4044B	9202/043	All
HCC4076B	9306/022	All
HCC40107B	9401/013	All
HCC40161B	9204/054	All
HCC40193B	9204/041	All
HCC4515B	9205/011	All
HCC4532B	9202/065	All

Appendix 2 provides the list of HCC product ST continues to support.

### What is the termination schedule?

Considering the terminated products had no to very low sales in the last 5 years, ST does not expect any Last Time Buy request. Should there be any, they would be discussed on a case-by-case basis. In any cases, order entry will be definitely closed on September 30, 2022 and no delivery will be possible after March 31, 2023.

### Who is impacted by the termination?

The termination is applicable to all customers.

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### What are the alternatives?

Most of the terminated products have functional alternatives in the HCC series and / or in another series. Alternatives in other logic series will in most cases implies some design modification to deal with the change of voltage range between the HCC series, specified up to 20 volts, and all other series, specified up to 5.5 volts. It will also imply a change of the threshold to input and output logic level. The table below provides some indications.

Root Part Number	Alternative	Comments
HCC4008	RHFAC08	Same functionality, different Voltage
HCC4044	No equivalent	
HCC4076	No equivalent	
HCC40107B	No equivalent	
HCC40161	RHFAC161	Same functionality, different Voltage
HCC40193	M54HC193	
HCC4515	HCC4514	Functional equivalent; different voltage
HCC4532	HC148	Functional equivalent; different voltage

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### Appendix 1

Most common part numbers of the terminated products (1)

ST Part Number (1)	Agency Part Number	Package	Functionality Description
HCC4008BK1	-	Flat-16	Rad-Hard 4-bit Full adder
HCC4008BKG	920203901	Flat-16	
HCC4008BKT	920203902	Flat-16	
HCC4008BDG	920203908	DIL-16	
HCC4008BDT	920203909	DIL-16	
4008BEDIE2HR	-	Die	
4008BEDIE2S	-	Die	
HCC4044BK1	-	Flat-16	Rad-Hard quad 3-state NAND R/S latch
HCC4044BKG	920204301	Flat-16	
HCC4044BKT	920204302	Flat-16	
HCC4044BDG	920204308	DIL-16	
HCC4044BDT	920204309	DIL-16	
4044BEDIE2HR	-	Die	
4044BEDIE2S	-	Die	
HCC4076BK1	-	Flat-16	Rad-Hard 4-bit D-type register
HCC4076BKG	930602201	Flat-16	
HCC4076BKT	930602202	Flat-16	
HCC4076BDG	930602208	DIL-16	
HCC4076BDT	930602209	DIL-16	
4076BEDIE2HR	-	Die	
4076BEDIE2S	-	Die	
HCC40107BK1	-	Flat-14	Rad-Hard dual 2-input NAND buffer / driver
HCC40107BKG	940101301	Flat-14	
HCC40107BKT	940101302	Flat-14	
HCC40107BDG	940101303	DIL-14	
HCC40107BDT	940101304	DIL-14	
40107BEDIE2HR	-	Die	
40107BEDIE2S	-	Die	
HCC40161BK1	-	Flat-16	Rad-Hard binary counter with asynchronous clear
HCC40161BKG	920405401	Flat-16	
HCC40161BKT	920405402	Flat-16	
HCC40161BDG	920405408	DIL-16	
HCC40161BDT	920405409	DIL-16	
40161BEDIE2HR	-	Die	
40161BEDIE2S	-	Die	

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ST Part Number	Agency Part Number	Package	Functionality Description
HCC40193BK1	-	Flat-16	Rad-Hard presettable 4-bit binary up-down counter
HCC40193BKG	920404101	Flat-16	
HCC40193BKT	920404102	Flat-16	
HCC40193BDG	920404108	DIL-16	
40193BEDIE2HR	-	Die	
40193BEDIE2S	-	Die	
HCC4515BK1	-	Flat-24	Rad-Hard 4-bit latch / 4-to-16 line decoder output low
HCC4515BKG	920501101	Flat-24	
HCC4515BKT	920501102	Flat-24	
HCC4515BDG	920501103	DIL-24	
HCC4515BDT	920501104	DIL-24	
4515BEDIE2HR	-	Die	
4515BEDIE2S	-	Die	
HCC4532BK1	-	Flat-16	Rad-Hard 8-input priority encoder
HCC4532BKG	920206501	Flat-16	
HCC4532BKT	920206502	Flat-16	
HCC4532BDG	920206508	DIL-16	
HCC4532BDT	920206509	DIL-16	
4532BEDIE2HR	-	Die	
4532BEDIE2S	-	Die	

(1) Part numbers in shaded grey have never been sold and are therefore not eligible to Last Time Buy

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### Appendix 2

HC Logic types **not concerned by the termination, fully supported by ST:**

Root Part Number	Agency Detail specification	Comment	Root Part Number	Agency Detail specification	Comment
HCC4001B	9201041	Low runner	HCC4063B	9209001	Low runner
HCC4002B	9201042	Low runner	HCC4066B	9408005	
HCC4011B	9201043		HCC4067B	9408009	
HCC4013B	9203023		HCC4068B	9201061	
HCC4014B	9306014		HCC4069UB	9401010	Low runner
HCC4015B	9306015	Low runner	HCC4070B	9201048	Low runner
HCC4017B	9204020	Low runner	HCC4071B	9201063	
HCC4018B	9204021	Low runner	HCC4072B	9201082	
HCC4019B	9202051		HCC4073B	9201064	
HCC4020B	9204022		HCC4075B	9201065	Low runner
HCC4021B	9306016		HCC4077B	9201055	
HCC4022B	9204023		HCC4081B	9201052	
HCC4024B	9204024		HCC4093B	9409002	
HCC4027B	9203022		HCC4094B	9306026	Low runner
HCC4028B	9205010		HCC4098B	9206003	
HCC4029B	9204025	Low runner	HCC40103B	9204036	
HCC4030B	9201047	Low runner	HCC40106B	9409005	
HCC4040B	9204026		HCC40109B	9407003	Low runner
HCC4041UB	9202040		HCC40174B	9203038	
HCC4043B	9202042	Low runner	HCC4503B	9401030	
HCC4046B	9202044		HCC4512B	9408006	
HCC4047B	9207003		HCC4514B	9408012	Low runner
HCC4049UB	9202045		HCC4516B	9204045	
HCC4050B	9202046		HCC4520B	9204028	
HCC4051B	9202047		HCC4538B	9207007	
HCC4052B	9202048		HCC4555B	9408011	Low runner
HCC4053B	9202049		HCC4556B	9408025	
HCC4060B	9204052				