PRODUCT/PROCESS CHANGE NOTIFICATION/INFORMATION

PCI SUMMARY	
Sales type / product family	HC 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 date for internal STMicroelectronics change qualification report availability	N/A
Marking to identify changed product (ex: date code change)	N/A
Description of the evaluation and qualification program	N/A
Product Line(s) and/or Part Number(s)	See attached
Manufacturing location(s)	ST - Rennes plant
Estimated date of first shipment	N/A

PCI APPROVAL		
Rennes Product Engineering Mgr	André Uguen	*Done through Notice tool*
Rennes Product Marketing Mgr	Thibault Brunet	*Done through Notice tool*
Rennes Quality Mgr	Sylvie Péron	*Done through Notice tool*

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 list with commercial part number is provided in appendix 1.

The termination of most product was announced in a PCN issued in 2016 (PCN16005)

Root Part Number	Detail specification	Part numbers	Comment
M54HC137	9205/013	All	PTN announced in PCN16005
M54HC158	9408/059	All	PTN announced in PCN16005
M54HC194	9306/047	All	PTN announced in PCN16005
M54HC20	9201/118	All	PTN announced in PCN16005
M54HC21	9201/108	All	
M54HC30	9201/110	All	
M54HC283	9202/075	All	
M54HC367	9401/044	All	PTN announced in PCN16005
M54HC4078	9201/123	All	PTN announced in PCN16005
M54HC590	9204/071	All	PTN announced in PCN16005
M54HCT138	9205/022	All	PTN announced in PCN16005
M54HCT373	9203/064	All	PTN announced in PCN16005

Appendix 2 provides the list of HC 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 doesn’t expect any Last Time Buy request. Should there be any, they would be discussed on a case-by-case basis. They should be accepted for all previously ordered parts.

Last Time Buy orders must be entered no later than April 30th, 2023, for delivery no later than October 31st, 2023. Specific request will be answered on a case-by-case basis.

Who is impacted by the termination?

The termination is applicable to all Customers.

What are the Alternatives?

Some terminated products have close equivalent in other logic series. For others, the closest equivalents have only similar functionality. The table below provides some indications.

Root Part Number	Alternative	Comments
M54HC137	M54HC138, M54HC237	Close equivalent
M54HC158	M54HC153,	Close equivalent
M54HC194	-	Several 8-bit shift registers
M54HC20	M54HC00, RHFAC00	Quad 2-input vs dual 4-inputs
M54HC21	M54HC08, RHFAC08	Quad 2-input vs dual 4-inputs
M54HC30	-	
M54HC283	-	
M54HC367	M54HC244	Octal instead of Hex
M54HC4078	-	Other OR/NOR gates
M54HC590	-	Other binary counter
M54HCT138	M54HC138, RHFAC138, RHFACT138	All have the same functionality
M54HCT373DG	M54HC373, RHFAC373, RHFACT373	Close equivalent

PRODUCT/PROCESS CHANGE NOTIFICATION/INFORMATION

Appendix 1

Most common part numbers of the terminated products (1)

CPN	SMD PIN / Detail Spec	Quality level	Hirel Package	Lead Finish	Description
HC20DIE2S	_	Engineering Model	Die	-	Rad-Hard dual 4-input NAND gate
HC20DIE2HR	_	Flight Model	Die	-	
M54HC20DG	920111803F	ESCC Flight	DIL-14	Gold	
M54HC20DT	920111804F	ESCC Flight	DIL-14	Solder Dip	
M54HC20K1	-	Engineering Model	Flat-14E	Gold	
M54HC20KG	920111801F	ESCC Flight	Flat-14E	Gold	
M54HC20KT	920111802F	ESCC Flight	Flat-14E	Solder Dip	
HC21DIE2S	_	Engineering Model	Die	-	Rad-Hard dual 4-input AND gate
HC21DIE2HR	_	Flight Model	Die	-	
M54HC21DG	920110803F	ESCC Flight	DIL-14	Gold	
M54HC21DT	920110804F	ESCC Flight	DIL-14	Solder Dip	
M54HC21KG	920110801F	ESCC Flight	Flat-14E	Gold	
M54HC21KT	920110802F	ESCC Flight	Flat-14E	Solder Dip	
HC30DIE2S	_	Engineering Model	Die	-	Rad-Hard 8-input NAND gate
HC30DIE2HR	_	Flight Model	Die	-	
M54HC30D1	-	Engineering Model	Die	Gold	
M54HC30DG	920111003F	ESCC Flight	DIL-14	Gold	
M54HC30DT	920111004F	ESCC Flight	DIL-14	Solder Dip	
M54HC30K1	-	Engineering Model	Flat-14E	Gold	
M54HC30KG	920111001F	ESCC Flight	Flat-14E	Gold	
M54HC30KT	920111002F	ESCC Flight	Flat-14E	Solder Dip	
HC137DIE2S	_	Engineering Model	Die	-	Rad-Hard 3-to-8 line decoder latch inverter
HC137DIE2HR	-	Flight Model	Die	-	
M54HC137DG	920501310F	ESCC Flight	DIL-16	Gold	
M54HC137DT	920501311F	ESCC Flight	DIL-16	Solder Dip	
M54HC137K1	-	Engineering Model	Flat-16E	Gold	
M54HC137KG	920501301F	ESCC Flight	Flat-16E	Gold	
M54HC137KT	920501302F	ESCC Flight	Flat-16E	Solder Dip	
HC158DIE2S	_	Engineering Model	Die	-	Rad-Hard quad 2-channel multiplexer inverter
HC158DIE2HR	-	Flight Model	Die	-	
M54HC158DG	940805910F	ESCC Flight	DIL-16	Gold	
M54HC158DT	940805911F	ESCC Flight	DIL-16	Solder Dip	
M54HC158KG	940805901F	ESCC Flight	Flat-16E	Gold	
M54HC158KT	940805902F	ESCC Flight	Flat-16E	Solder Dip	
HC194DIE2S	_	Engineering Model	Die	-	Rad-Hard 4-bit PIPO shift register
HC194DIE2HR	-	Flight Model	Die	-	
M54HC194DT	930604711F	ESCC Flight	DIL-16	Solder Dip	
M54HC194K1	-	Engineering Model	Flat-16E	Gold	
M54HC194KG	930604701F	ESCC Flight	Flat-16E	Gold	
M54HC194KT	930604702F	ESCC Flight	Flat-16E	Solder Dip	
HC283DIE2S	_	Engineering Model	Die	-	Rad-Hard 4-bit binary full adder
HC283DIE2HR	-	Flight Model	Die	-	
M54HC283DG	920207510F	ESCC Flight	DIL-16	Gold	
M54HC283DT	920207511F	ESCC Flight	DIL-16	Solder Dip	
M54HC283K1	-	Engineering Model	Flat-16E	Gold	
M54HC283KG	920207501F	ESCC Flight	Flat-16E	Gold	
M54HC283KT	920207502F	ESCC Flight	Flat-16E	Solder Dip	

PRODUCT/PROCESS CHANGE NOTIFICATION/INFORMATION

Most common part numbers of the terminated products (continued)

CPN	SMD PIN / Detail Spec	Quality level	Hirel Package	Lead Finish	Description
HC367DIE2S	_	Engineering Model	Die	-	Rad-Hard hex bus buffer 3-state
HC367DIE2HR	-	Flight Model	Die	-	
M54HC367DG	940104410F	ESCC Flight	DIL-16	Gold	
M54HC367DT	940104411F	ESCC Flight	DIL-16	Solder Dip	
M54HC367K1	-	ESCC Flight	Flat-16E	Gold	
M54HC367KG	940104401F	ESCC Flight	Flat-16E	Gold	
M54HC367KT	940104402F	ESCC Flight	Flat-16E	Solder Dip	
HC590DIE2S	_	Engineering Model	Die	-	Rad-Hard 8 bit binary counter register 3-state
HC590DIE2HR	-	Flight Model	Die	-	
M54HC590D1	-	Engineering Model	DIL-16	Gold	
M54HC590DG	920407110F	ESCC Flight	DIL-16	Gold	
M54HC590DT	920407111F	ESCC Flight	DIL-16	Solder Dip	
M54HC590K1	-	Engineering Model	Flat-16E	Gold	
M54HC590KG	920407101F	ESCC Flight	Flat-16E	Gold	
M54HC590KT	920407102F	ESCC Flight	Flat-16E	Solder Dip	
HC4078DIE2S	_	Engineering Model	Die	-	Rad-Hard 8-input NOR / OR gate
HC4078DIE2HR	-	Flight Model	Die	-	
M54HC4078D1	-	Engineering Model	DIL-14	Gold	
M54HC4078DG	920112303F	ESCC Flight	DIL-14	Gold	
M54HC4078DT	920112304F	ESCC Flight	DIL-14	Solder Dip	
M54HC4078KG	920112301F	ESCC Flight	Flat-14E	Gold	
M54HC4078KT	920112302F	ESCC Flight	Flat-14E	Solder Dip	
HCT138DIE2S	_	Engineering Model	Die	-	Rad-Hard 3-to-8 line decoder inverter
HCT138DIE2HR	-	Flight Model	Die	-	
M54HCT138DG	920502210F	ESCC Flight	DIL-16	Gold	
M54HCT138DT	920502211F	ESCC Flight	DIL-16	Solder Dip	
M54HCT138KG	920502201F	ESCC Flight	Flat-16E	Gold	
M54HCT138KT	920502202F	ESCC Flight	Flat-16E	Solder Dip	
HCT373DIE2S	_	Engineering Model	Die	-	Rad-Hard octal D-type latch 3-state
HCT373DIE2HR	-	Flight Model	Die	-	
M54HCT373DG	920306403F	ESCC Flight	DIL-20	Gold	
M54HCT373DT	920306404F	ESCC Flight	DIL-20	Solder Dip	
M54HCT373K1	-	Engineering Model	Flat-20E	Gold	
M54HCT373KG	920306401F	ESCC Flight	Flat-20E	Gold	
M54HCT373KT	920306402F	ESCC Flight	Flat-20E	Solder Dip	

(1) The list includes several part numbers that have being made public but were never manufactured and sold. Such pat numbers are not available for Last Time Buy. Contact you ST representative for details.

Appendix 2

HC Logic types **NOT** concerned by the termination, supported by ST

Root Part Number	detail Specification	Comment
M54HC00	9201/105	
M54HC02	9201/113	
M54HC03	9201/114	Low runner
M54HC04	9401/033	
M54HC08	9201/106	
M54HC10	9201/107	Low runner
M54HC11	9201/117	
M54HC14	9409/007	
M54HC27	9201/109	Low runner
M54HC32	9201/111	
M54HC74	9203/050	
M54HC85	9209/004	
M54HC86	9201/119	
M54HC109	9306/048	
M54HC123	9207/006	
M54HC125	9401/039	
M54HC132	9201/120	
M54HC138	9408/046	
M54HC139	9205/017	Low runner
M54HC148	9410/017	Low runner
M54HC151	9408/054	
M54HC153	9408/038	Low runner
M54HC154	9205/023	
M54HC157	9408/057	
M54HC160	9204/062	Low runner
M54HC161	9204/059	
M54HC164	9306/041	
M54HC165	9306/042	
M54HC166	9306/043	Low runner
M54HC174	9306/052	Low runner
M54HC175	9203/052	Low runner
M54HC191	9204/066	Low runner

Root Part Number	detail Specification	Comment
M54HC193	9204/065	Low runner
M54HC237	9205/021	
M54HC240	9401/034	Low runner
M54HC244	9401/048	
M54HC245	9405/013	
M54HC251	9408/048	Low runner
M54HC257	9408/047	Low runner
M54HC259	9203/073	
M54HC273	9203/053	
M54HC373	9203/059	
M54HC374	9203/060	
M54HC393	9204/074	
M54HC540	9401/049	Low runner
M54HC541	9401/047	
M54HC573	9202/072	
M54HC574	9203/054	Low runner
M54HC595	9306/051	
M54HC597	9306/054	Low runner
M54HC688	9209/005	
M54HC4020	9204/070	
M54HC4040	9204/069	
M54HC4049	9401/037	
M54HC4050	9401/038	
M54HC4051	9408/064	
M54HC4053	9408/065	
M54HC4060	9204/076	
M54HC4066	9408/052	
M54HC4094	9306/050	
M54HC4514	9205/019	
M54HCT74	9203/070	Low runner
M54HCT244	9402/009	
M54HCT245	9405/014	Low runner