

# 2022H2 TSMC CyberShuttle Service Plan

Shuttle Type (Technology)	Tape-In Date (TWN Time)/ TM # / Fab / Captain / Technology Availability					
	Jul	Aug	Sep	Oct	Nov	Dec
<b>3 nm (*)</b>			Sep-7 TMQL99 FAB12 ZR V			
Logic, Fin FET (0.75/1.2V)						
<b>5 nm (*)</b>				Oct-5 TMQL91 Fab18 Lynn V		
Logic, FinFET (FF) ( 0.75/1.2V)						
<b>6 nm (*)</b>				Oct-19 TMQL77 FAB15 Jerry V		
Logic, Fin FET (0.75/1.8V)						
<b>7 nm (*)</b>			Sep-21 TMQL74 Fab15 Jeff V			Dec-14 TMQL75 Fab15 Vincent V
Logic, Fin FET (0.75/1.8V)						
<b>12 nm</b>		Aug-9 TMQL83 Fab14 Francis V V		Oct-4 TMQL84 Fab14 FK V V		Dec-6 TMQL85 Fab14 Jeff V V
Logic, FinFET Compact (0.8/1.8V)						
Logic, FinFET Compact Plus (0.8/1.8V)						
<b>16 nm</b>		Aug-9 TMQL83 Fab14 Francis V V V V		Oct-4 TMQL84 Fab14 FK V V V V		Dec-6 TMQL85 Fab14 Jeff V V V V
Logic, FinFET Compact (0.8/1.8V)						
Logic, FinFET Compact Plus (0.8/1.8V)						
Logic, FinFET Plus (0.8/1.8V)						
RF, FinFET Compact (0.8/1.8V)						
<b>22 nm</b>	Jul-13 TMQL36 Fab15 Vincent V V V V V V V		Sep-6 TMQL37 Fab15 Francis V V V V V	Oct-19 TMQL38 Fab15 CF V V V V	Nov-9 TMQL39 Fab15 ZR V V V V	
Logic, ULP (0.8/1.8V, 0.8/2.5V)						
Logic, ULL (0.8/1.8V, 0.8/2.5V)						
RF ULP ( 0.8/1.8V)						
RF ULL (0.8/1.8V, 0.8/2.5V)						
MRAM ULL (0.8/1.8V, 0.8/2.5V)						
MRAM RF ULL (0.8/1.8V, 0.8/2.5V)						
ReRAM RF ULL (0.8/2.5V)						
<b>28 nm</b>	Jul-20 TMQL25 Fab15 Jerry V V V V V V V V V V	Aug-17 TMQL26 Fab15 CF V V V V V V V V	Sep-21 TMQL27 Fab15 Vincent V V V V V V V		Nov-16 TMQL28 Fab15 CF V V V V	Dec-14 TMQL29 Fab15 Lynn V V V V V V V
Logic, HPM (0.9/1.8V, 0.9/2.5V)						
Logic, HPC (0.9/1.8V, 0.9/2.5V)						
Logic, HPC Plus (0.9/1.8V, 0.9/2.5V)						
Logic, HP (0.85/1.8V, 0.85/2.5V)						
Logic, LP (1.05/1.8V, 1.05/2.5V)						
Logic, HPL (1.0&1.8V, 1.0/2.5V)						
RF HPC Plus (0.9/1.8V, 0.9/2.5V)						
RF HPC (0.9/1.8V, 0.9/2.5V)						
RF LP (1.05V/1.8V)						
RF HPL (1.0/1.8V, 1.0/2.5V)						
<b>40nm LP &amp; 45nm GS (45GS = 40G)</b>		Aug-9 TMQL45 Fab14 Jerry V V V V V V V V	Sep-13 TMQL46 Fab12 FK V V V	Oct-18 TMQL47 Fab14 Francis V V V	Nov-8 TMQL48 Fab12 Jeff V V	Dec-6 TMQL49 Fab14 ZR V V
Logic, 40LP (1.1/1.8V, 1.1/2.5V)						
Logic, 40LP Plus (1.1/2.5V)						
Logic, 40ULP (1.1/2.5V, 0.9/2.5V)						
Mixed-Signal/RF, 40LP (1.1/1.8V, 1.1/2.5V)						
Mixed-Signal/RF, 40ULP (1.1/2.5V, 0.9/1.8V, 0.9/2.5V)						
Logic, 45GS (45GS = 40G) (0.9/1.8V, 0.9/2.5V)						
High Voltage (1.1/5/6/25/32V)						
High Voltage (1.1/8/25V)						
ReRAM, RF 40ULP (0.9V/2.5V)						
EmbFlash, 40LP (1.1/2.5V)						
EmbFlash, 40ULP (0.9V/2.5V)						

<b>55 nm</b>	<b>Jul-6</b> TMQL55 <b>Fab12</b> Francis			<b>Oct-12</b> TMQL56 <b>Fab14</b> Vincent		
Logic, GP (1.0/1.8V, 1.0/2.5V)	V			V		
Logic, LP (1.2/2.5V)	V			V		
Logic, ULP (0.9V/2.5V)	V			V		
Mixed-Signal/RF, LP(1.2/ 2.5V)	V			V		
Mixed Signal/RF, ULP (0.9V/2.5V)	V			V		
EmbFlash (1.2/2.5V)				V		
EmbFlash, ULP (0.9&2.5V)				V		
High Voltage (1.2/6/32V)				V		
<b>65 nm</b>	<b>Jul-6</b> TMQL66 <b>Fab14</b> ZR	<b>Aug-10</b> TMQL67 <b>Fab12</b> JR	<b>Sep-14</b> TMQL68 <b>Fab14</b> CF	<b>Oct-5</b> TMQL69 <b>Fab12</b> JR	<b>Nov-9</b> TMQL70 <b>Fab14</b> Francis	<b>Dec-14</b> TMQL71 <b>Fab12</b> CF
Logic, LP/DGO (1.2/2.5V,1.2/3.3V)	V	V	V	V	V	V
Logic, GP /DGO (1.0/1.8V, 1.0/2.5V, 1.0/3.3V)	V	V	V	V	V	V
Logic, LP-based TGO (1.0/1.2/2.5V)		V		V		V
Logic, ULP (1.0/2.5V)	V	V	V	V	V	V
Mixed-Signal/RF, GP(1.0/ 2.5V)	V	V	V	V	V	V
Mixed-Signal/RF, LP(1.2/ 2.5V)	V	V	V	V	V	V
<b>90 nm</b>		<b>Aug-24</b> TMQL88 <b>Fab14</b> YW				<b>Dec-21</b> TMQL89 <b>Fab14</b> FK
Logic, G (1.0/1.8V, 1.0/2.5V, 1.0/3.3V, 1.0/1.8/3.3V)		V				V
Logic, LP (1.2/2.5V, 1.2/3.3V)		V				V
Logic, GT (High Performance) (1.2/2.5V)		V				V
Mixed-Signal/RF,G(1.0/1.8V, 1.0/2.5V, 1.0/3.3V, 1.0/1.8/3.3V)		V				V
Mixed-Signal/RF, LP (1.2/2.5V, 1.2/3.3V)		V				V
EmbFlash, LP (1.2/3.3V)						V
<b>0.13 um</b>		<b>Aug-3</b> TMQL13 <b>Fab12</b> Lynn			<b>Nov-23</b> TMQL14 <b>Fab14</b> Jerry	
Logic, G (1.2/2.5V,1.2/3.3V); FSG		V			V	
Logic, LP (1.5/2.5V,1.5/3.3V); FSG		V			V	
Logic, LV (1.0/2.5V,1.0/3.3V); FSG		V			V	
Mixed-Signal/RF, G (1.2/2.5V,1.2/3.3V); FSG		V			V	
Mixed-Signal, LP (1.5/3.3V); FSG					V	
High Voltage, BCD (1.5/5/10/20/28/36V)		V			V	
High Voltage, BCD (1.5/3.3/5/10/20/28/36V)		V			V	
High Voltage, BCD Plus (5/10/12/16/20/24/28/36/VG5V)		V			V	
High Voltage, BCD Plus (1.5/5/10/12/16/20/24/28/36/VG1.5/5V)		V			V	
High Voltage, BCD Plus (1.5/3.3/5/10/12/16/20/24/28/36/VG1.5/3.3/5V)		V			V	
<b>0.18 um: Part 1</b>	<b>Jul-6</b> TMQM06 <b>Fab5</b> JR	<b>Aug-3</b> TMQM07 <b>Fab10</b> Jeff	<b>Sep-7</b> TMQM08 <b>SSMC</b> Lynn	<b>Oct-5</b> TMQM09 <b>Fab3</b> SW		<b>Dec-7</b> TMQM10 <b>Fab3</b> SW
Mixed-Signal/RF, G (1.8/3.3V)	V	V	V	V		V
Mixed-signal/RF, G (1.8/3.3V) embedded MTP		V		V		V
Mixed-signal/RF, G (1.8/3.3V) embedded OTP (Kilopass/eMemory)		V		V		V
Mixed Signal, G, (1.8/5V)		V	V			
Logic, G (1.8/3.3V)	V	V	V	V		V
Logic, G (1.8/3.3V), Embedded OTP/ MTP		V		V		V
Logic, LV (1.5/3.3V)	V			V		V
Logic, LP (1.8/3.3V)	V		V			
SiGe BiCMOS, G (1.8/3.3V)				V		
EmbFlash(1K,20K) (1.8/3.3V)						V
EmbFlash Enhanced (1.8/3.3V)		V				V
EmbFlash Enhanced (1.8/5V)		V				V
EmbFlash HDR (1.8/3.3V)						V
EmbFlash eLL(1.8/3.3V)						V
High Voltage (1.8/3.3/32V)						
High Voltage (1.8/5/32V)						
High Voltage, BCD (Generation-2)	V		V			
High Voltage, BCD (Generation-3)	V		V			
<b>0.18 um: Part 2</b>		<b>Aug-17</b> TMQM16 <b>Fab6</b> SW	<b>Sep-14</b> TMQM17 <b>Fab8</b> JR	<b>Oct-19</b> TMQM18 <b>Fab5</b> YW	<b>Nov-16</b> TMQM19 <b>Fab8</b> JR	<b>Dec-14</b> TMQM20 <b>Fab10</b> JR
Mixed-Signal/RF, G (1.8/3.3V)		V	V	V	V	V
Mixed-signal/RF, G (1.8/3.3V) embedded MTP		V	V		V	V
Mixed-signal/RF, G (1.8/3.3V) embedded OTP (Kilopass/eMemory)		V	V		V	V
Mixed Signal, G, (1.8/5V)			V	V	V	V
Logic, G (1.8/3.3V)		V	V		V	V

Logic, G (1.8/3.3V), Embedded OTP/ MTP		V	V	V	V	V
Logic, LV (1.5/3.3V)		V		V		
Logic, LP (1.8/3.3V)			V	V	V	
EmbFlash(1K, 20K) (1.8/3.3V)						
EmbFlash Enhanced (1.8/3.3V)						
EmbFlash Enhanced (1.8/5V)						
EmbFlash HDR (1.8/3.3V)						
EmbFlash eLL(1.8/3.3V)						
High Voltage (1.8/3.3/32V)			V		V	
High Voltage (1.8/5/32V)			V		V	
High Voltage, BCD (Generation-2)		V	V	V	V	V
High Voltage, BCD (Generation-3)		V	V	V	V	V
<b>0.18 um: Part 3</b>	<b>Jul-13</b> TMQM24 <b>Fab8</b>		<b>Sep-21</b> TMQM25 <b>Fab6</b>		<b>Nov-23</b> TMQM26 <b>Fab6</b>	
	SW		SW		YW	
Mixed-Signal/RF, G (1.8/3.3V)	V		V		V	
Mixed-signal/RF, G (1.8/3.3V) embedded MTP	V		V		V	
Mixed-signal/RF, G (1.8/3.3V) embedded OTP (Kilopass/eMemory)	V		V		V	
Mixed Signal, G, (1.8/5V)	V					
Logic, G (1.8/3.3V)	V		V		V	
Logic, G (1.8/3.3V), Embedded OTP/ MTP	V		V		V	
Logic, LV (1.5/3.3V)			V		V	
Logic, LP (1.8/3.3V)	V					
EmbFlash(1K, 20K) (1.8/3.3V)						
EmbFlash Enhanced (1.8/3.3V)						
EmbFlash Enhanced (1.8/5V)						
EmbFlash HDR (1.8/3.3V)						
EmbFlash eLL(1.8/3.3V)						
High Voltage (1.8/3.3/32V)	V					
High Voltage (1.8/5/32V)	V					
High Voltage, BCD (Generation-2)	V		V		V	
High Voltage, BCD (Generation-3)	V		V		V	
<b>0.25 um</b>	<b>Jul-20</b> TMQL03 <b>Fab8</b>			<b>Oct-19</b> TMQL04 <b>Fab10</b>		
	YW			SW		
Logic, G (2.5/3.3V, 2.5/5V)	V			V		
Mixed-Signal/RF, G (2.5/3.3V, 2.5/5V)	V			V		
High Voltage, BCD (2.5/5/12/24/40V/Vg2.5/5V)	V			V		
High Voltage, BCD (2.5/5/12/24/40/Vg2.5/5/12V)	V			V		
High Voltage, BCD (2.5/5/60V/Vg 2.5/5V)	V					
High Voltage, BCD (2.5/5/12/24/40/60/Vg2.5/5/12V)	V					
High Voltage, Gen-2 BCD (2.5/5/7/12/20/24/40/45/60V/Vg 2.5/5/12V)	V			V		
<b>0.35 um: Part 1</b>		<b>Aug-10</b> TMQM32 <b>Fab3</b>			<b>Nov-23</b> TMQM33 <b>Fab10</b>	
		YW			Vincent	
Logic, G, Polycide/Silicide (3.3/5V)		V			V	
Mixed-Signal, G (3.3/5V)		V			V	
High Voltage, G, DDD (3.3/12/13.5)		V			V	
High Voltage, DDD (3.3/12/13.5/15/18V)					V	
High Voltage, BCD (3.3/20/23/Vg3.3V)		V				
High Voltage, BCD (3.3/5/12/15/20/40/Vg3.3/5/12V)		V				
<b>0.35 um: Part 2</b>			<b>Sep-14</b> TMQM35 <b>Fab3</b>			
			Jerry			
SiGe BiCMOS, G (3.3V)			V			
<b>0.5 um: Part 1</b>						<b>Dec-14</b> TMQM39 <b>Fab3</b>
						YW
High Voltage, (5/20/450/600/700/800V)						V

\* the calendar is Taiwan time

\* Shuttle captain contact information

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Security Note (S) TSMC Secret

1. tsmc owns the right to adjust shuttle plan and will inform customers through TSMC on\_line Cybershuttle bulletin.
2. Oct-4 N12/N16 shuttle capacity enlarges to 2X by special arrangement.