

## 2020 TSMC CyberShuttle Service Plan

Version: 2H V1.6

Shuttle Type (Technology)	Tape-In Date (TWN/TIM) / T# / Fab / Captain / Technology Availability																
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
5 nm (*)				Apr-23 TMGG5 Fab18 Shirley		Jun-30 TMGG6 Fab18 FK			Sep-30 TMGG7 Fab18 Shirley			TMMG98 Fab18 V					
Logic, Fin FET Boost (0.75/1.2V)				V		V			V								
6 nm (*)				Mar-23 TMMF65 Fab15 ZR		Jun-30 TMMF66 Fab15 CC			Sep-9 TMMF67 Fab15 Francis			Dec-16 TMMF68 Fab15 CC					
Logic, Fin FET (0.75/1.8V)				V		V			V			V					
7 nm (*)				Jan-6 TMMF75 Fab15 Francis		Apr-22 TMMF76 Fab15 Jeff			Jul-29 TMMF77 Fab15 Jeff			Nov-4 TMMF78 Fab15 Vincent					
Logic, Fin FET (0.75/1.8V)				V		V			V			V					
12 nm (*)				Feb-4 TMMG75 Fab14 Vincent		Apr-15 TMMG76 Fab14 Jerry			Aug-4 TMMG78 Fab14 Lynn			Oct-1 TMMG79 Fab14 Jeff					
Logic, FinFET Compact (0.8/1.8V)				V		V			V			V					
Logic, FinFET Compact Plus (0.8/1.8V)				V		V			V			V					
16 nm (*)				Feb-4 TMMG75 Fab14 Vincent		Apr-15 TMMG76 Fab14 Jerry			Aug-4 TMMG78 Fab14 Lynn			Oct-6 TMMG79 Fab14 Jeff					
Logic, FinFET Compact (0.8/1.8V)				V		V			V			V					
Logic, FinFET Compact Plus (0.8/1.8V)				V		V			V			V					
Logic, FinFET Plus (0.8/1.8V)				V		V			V			V					
22 nm				Feb-12 TMMF20 Fab15 Lynn		Apr-8 TMMF21 Fab15 FK			Jun-17 TMMF22 Fab15 Jerry			Oct-14 TMMF24 Fab15 ZR					
Logic, ULP (0.8/1.8V, 0.8/2.5V)				V		V			V			V					
Logic, ULL (0.8/1.8V, 0.8/2.5V)				V		V			V			V					
RF ULP (0.8/1.8V)				V		V			V			V					
RF ULL (0.8/1.8V, 0.8/2.5V)				V		V			V			V					
MRAM ULL (0.8/1.8V, 0.8/2.5V)				V		V			V			V					
MRAM RF ULL (0.8/1.8V, 0.8/2.5V)				V		V			V			V					
28 nm				Jan-7 TMMH01 Fab15 Jeff	Feb-12 TMMH02 Fab15 ZR	Mar-18 TMMH03 Fab15 Lynn	Apr-8 TMMH04 Fab15 CC	May-13 TMMH05 Fab15 Lynn	Jun-17 TMMH06 Fab15 Vincent	Jul-15 TMMH07 Fab15 Lynn	Aug-12 TMMH08 Fab15 ZR	Sep-16 TMMH09 Fab15 FK	Oct-14 TMMH10 Fab15 CC	Nov-18 TMMH11 Fab15 Lynn	Dec-16 TMMH12 Fab15 Francis		
Logic, HPM (0.9/1.8V, 0.9/2.5V)				V		V			V			V					
Logic, HPC (0.9/1.8V, 0.9/2.5V)				V		V			V			V					
Logic, HPC Plus (0.9/1.8V, 0.9/2.5V)				V		V			V			V					
Logic, HP (0.85/1.8V, 0.85/2.5V)				V		V			V			V					
Logic, LP (1.05/1.8V, 1.05/2.5V)				V		V			V			V					
Logic, HPL (1.06/1.8V, 1.0/2.5V)				V		V			V			V					
RF HPC Plus (0.9/1.8V, 0.9/2.5V)				V		V			V			V					
RF HPC (0.9/1.8V, 0.9/2.5V)				V		V			V			V					
RF LP (1.05/1.8V)				V		V			V			V					
RF HPL (1.0/1.8V, 1.0/2.5V)				V		V			V			V					
40nm LP & 45nm GS (45GS = 40G)				Jan-7 TMMG81 Fab12 Shirley	Feb-4 TMMG82 Fab14 Jerry	Mar-10 TMMG83 Fab12 Francis	Apr-21 TMMG84 Fab14 Vincent	May-5 TMMG85 Fab12 ZR	Jun-16 TMMG86 Fab14 Jeff	Jul-21 TMMG87 Fab12 Shirley	Aug-11 TMMG88 Fab14 Jerry	Sep-22 TMMG89 Fab14 Jeff	Oct-13 TMMG90 Fab14 Lynn	Nov-10 TMMG91 Fab12 Francis	Dec-8 TMMG92 Fab14 ZR		
Logic, 40LP (1.1/1.8V, 1.1/2.5V)				V		V			V			V					
Logic, 40LP Plus (1.1/2.5V)				V		V			V			V					
Logic, 40ULP (1.1/2.5V, 0.9/2.5V)				V		V			V			V					
Mixed-Signal/RF, 40LP (1.1/1.8V, 1.1/2.5V)				V		V			V			V					
Mixed-Signal/RF, 40ULP (1.1/2.5V, 0.9/1.8V, 0.9/2.5V)				V		V			V			V					
Logic, 45GS (45GS = 40G) (0.9/1.8V, 0.9/2.5V)				V		V			V			V					
High Voltage (1.5/6/25/32V)				V		V			V			V					
High Voltage (1.8/25V)				V		V			V			V					
EmbFlash, 40LP (1.1/2.5V)				V		V			V			V					
EmbFlash, 40ULP (0.9/2.5V)				V		V			V			V					
55 nm				Feb-5 TMMG51 Fab12 CC	Mar-11 TMMG52 Fab14 FK	Apr-8 TMMG53 Fab12 Vincent	May-6 TMMG54 Fab14 Francis	Jun-3 TMMG55 Fab12 ZR	Jul-8 TMMG56 Fab12 Francis	Aug-5 TMMG57 Fab12			Oct-6 TMMG59 Fab12 Shirley	Nov-11 TMMG60 Fab14 Shirley			
Logic, GP (1.0/1.8V, 1.0/2.5V)				V		V			V			V					
Logic, LP (1.0/2.5V)				V		V			V			V					
Logic, ULP (0.9/2.5V)				V		V			V			V					
Mixed-Signal/RF, LP(1.2/2.5V)				V		V			V			V					
Mixed-Signal/RF, ULP (0.9/2.5V)				V		V			V			V					
EmbFlash (1.2/2.5V)				V		V			V			V					
EmbFlash, ULP (0.9/2.5V)				V		V			V			V					
High Voltage (1.2/6/32V)				V		V			V			V					
65 nm				Jan-7 TMMG61 Fab14 CC	Feb-5 TMMG62 Fab12 FK	Mar-11 TMMG63 Fab14 Vincent	Apr-8 TMMG64 Fab12 Francis	May-6 TMMG65 Fab14 Vincent	Jun-3 TMMG66 Fab12 Lynn	Jul-8 TMMG67 Fab12 Francis	Aug-5 TMMG68 Fab12 CC	Sep-9 TMMG69 Fab14 Vincent	Oct-6 TMMG70 Fab12 FK	Nov-11 TMMG71 Fab14 CC	Dec-9 TMMG72 Fab12 Lynn		
Logic, LP/DGO (1.2/2.5V, 1.2/3.3V)				V		V			V			V					
Logic, GP/DGO (1.0/1.8V, 1.0/2.5V, 1.0/3.3V)				V		V			V			V					
Logic, LP-based TG (1.0/1.2/2.5V)				V		V			V			V					
Logic, ULP (1.0/2.5V)				V		V			V			V					
Mixed-Signal/RF, GP(1.0/2.5V)				V		V			V			V					
Mixed-Signal/RF, ULP (0.9/2.5V)				V		V			V			V					
EmbFlash (1.2/2.5V)				V		V			V			V					
EmbFlash, ULP (0.9/2.5V)				V		V			V			V					
80 nm					Mar-4 TMMG80 Fab12 ZR												
Logic, GC (1.0/2.5V, 1.0/3.3V)					V												
Logic, High Performance (1.2/2.5V)					V												
Mixed-Signal/GC (1.0/2.5V, 1.0/3.3V)					V												
High Voltage (1.2/5/6/32V)					V												
90 nm					Feb-19 TMMF91 Fab6 Francis	Mar-18 TMMF92 Fab14 Jerry			May-20 TMMF93 Fab12 Shirley		Jun-10 TMMF94 Fab14 ZR			Aug-5 TMMF95 Fab12 Francis			Nov-4 TMMF97 Fab14 FK
Logic, G (1.0/1.8V, 1.0/2.5V, 1.0/3.3V, 1.0/1.8/3.3V)					V				V			V					
Logic, LP (1.2/2.5V, 1.2/3.3V)					V				V			V					
Logic, GT (High Performance) (1.2/2.5V)					V				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			V					
Mixed-Signal/RF, LP (1.2/2.5V, 1.2/3.3V)					V				V			V					
EmbFlash, LP (1.2/3.3V)					V				V			V					
High Voltage, BCD (1.5/1.8/4.5/5/6/Vg1.5/V)					V				V			V					
0.11 um									May-27 TMMF13 Fab6 Jeff						Nov-4 TMMF97 Fab14 FK		
Mixed-Signal, G (1.2/3.3V), FSG, Hybrid									V			V					
Mixed-Signal, LP (1.2/3.3V), FSG, Hybrid									V			V					
0.13 um									May-20 TMMF82 Fab6 CC						Dec-21 TMMF90 Fab6 Vince		
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, LP (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			V					
High Voltage, BCD (1.5/5.0/10/20/28/36V)									V			V					
High Voltage, BCD Plus (1.5/5.0/10/20/24/28/36G1.5/V)									V			V					
High Voltage, BCD Plus (5/10/12/16/20/24/28/36/Vg1.5/V)									V			V					
High Voltage, BCD Plus (1.5/3.5/10/12/16/20/24/28/36/Vg1.5/V)									V			V					
High Voltage, BCD Plus (1.5/3.5/10/12/16/20/24/28/36/Vg1.5/V)									V			V					

<b>0.15um</b>			<b>Mar-4</b> TMMH15 Fab10 Jerry		<b>Jun-3</b> TMMH16 Fab10 Shirley							
Logic, G (1.8/3.3V)			V		V							
Mixed-Signal, G (1.8/3.3V)			V		V							
Mixed-Signal GPIA, G (1.8/5V)			V		V							
<b>0.18 um: Part 1</b>	<b>Jan-7</b> TMMG01 Fab8 ZR	<b>Feb-5</b> TMMG02 Fab3 Shirley	<b>Mar-4</b> TMMG03 Fab5 CC	<b>Apr-8</b> TMMG04 SSMC Lynn	<b>May-6</b> TMMG05 Fab3 Jerry	<b>Jun-3</b> TMMG06 Fab11 Jeff	<b>Jul-1</b> TMMG07 Fab5 Francis	<b>Aug-5</b> TMMG08 Fab11 FK	<b>Sep-2</b> TMMG09 Fab3 Lynn	<b>Oct-14</b> TMMG10 Fab10 YW	<b>Nov-4</b> TMMG11 Fab3 Jeff	<b>Dec-2</b> TMMG12 Fab11 Shirley
Mixed-Signal/RF, G (1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
Mixed-signal/RF, G (1.8/3.3V) embedded MTP	V	V	V	V	V	V	V	V	V	V	V	
Mixed-signal/RF, G (1.8/3.3V) embedded OTP (Kilopass/eMemory)	V	V	V	V	V	V	V	V	V	V	V	
Mixed Signal, G, (1.8/5V)	V	V	V	V	V	V	V	V	V	V	V	
Logic, G (1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
Logic, LV (1.5/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
Logic, LP (1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
SiGe BiCMOS, G (1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
CMOS Image Sensor (1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
EmbFlash(1K,20K) (1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
EmbFlash Enhanced (1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
EmbFlash Enhanced (1.8/5V)	V	V	V	V	V	V	V	V	V	V	V	
EmbFlash HDR (1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
EmbFlash eLL(1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
High Voltage (1.8/3.3/32V)	V	V	V	V	V	V	V	V	V	V	V	
High Voltage (1.8/5/32V)	V	V	V	V	V	V	V	V	V	V	V	
High Voltage, BCD (Generation-2)	V	V	V	V	V	V	V	V	V	V	V	
High Voltage, BCD (Generation-3)	V	V	V	V	V	V	V	V	V	V	V	
<b>0.18 um: Part 2</b>	<b>Feb-12</b> TMMG13 Fab11 Jeff	<b>Mar-11</b> TMMG14 Fab5 Lynn	<b>Apr-22</b> TMMG15 Fab11 CC	<b>May-13</b> TMMG16 Fab5 CC	<b>Jun-17</b> TMMG17 Fab10 Shirley	<b>Jul-15</b> TMMG18 Fab6 Jerry	<b>Aug-19</b> TMMG19 SSMC CC	<b>Sep-9</b> TMMG20 Fab5 ZR	<b>Oct-21</b> TMMG21 Fab5 Francis	<b>Nov-11</b> TMMG22 Fab8 Jerry	<b>Dec-16</b> TMMG23 Fab10 Shirley	
Mixed-Signal/RF, G (1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
Mixed-signal/RF, G (1.8/3.3V) embedded MTP	V	V	V	V	V	V	V	V	V	V	V	
Mixed-signal/RF, G (1.8/3.3V) embedded OTP (Kilopass/eMemory)	V	V	V	V	V	V	V	V	V	V	V	
Mixed Signal, G, (1.8/5V)	V	V	V	V	V	V	V	V	V	V	V	
Logic, G (1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
Logic, G (1.8/3.3V), Embedded OTP / MTP	V	V	V	V	V	V	V	V	V	V	V	
Logic, LV (1.5/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
Logic, LP (1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
EmbFlash(1K, 20K) (1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
EmbFlash Enhanced (1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
EmbFlash Enhanced (1.8/5V)	V	V	V	V	V	V	V	V	V	V	V	
EmbFlash HDR (1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
EmbFlash eLL(1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
High Voltage (1.8/3.3/32V)	V	V	V	V	V	V	V	V	V	V	V	
High Voltage (1.8/5/32V)	V	V	V	V	V	V	V	V	V	V	V	
High Voltage, BCD (Generation-2)	V	V	V	V	V	V	V	V	V	V	V	
High Voltage, BCD (Generation-3)	V	V	V	V	V	V	V	V	V	V	V	
<b>0.18 um: Part 3</b>	<b>Jan-13</b> TMMG24 Fab6 Jerry	<b>Mar-18</b> TMMG25 Fab6 CC	<b>Apr-28</b> TMMG26 Fab6 FK	<b>May-20</b> TMMG27 Fab10 Jerry	<b>Jun-22</b> TMMG28 Fab6 ZR	<b>Jul-22</b> TMMG29 Fab8 ZR		<b>Sep-16</b> TMMG30 Fab6 Lynn		<b>Nov-25</b> TMMG32 Fab6 Jerry		
Mixed-Signal/RF, G (1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
Mixed-signal/RF, G (1.8/3.3V) embedded MTP	V	V	V	V	V	V	V	V	V	V	V	
Mixed-signal/RF, G (1.8/3.3V) embedded OTP (Kilopass/eMemory)	V	V	V	V	V	V	V	V	V	V	V	
Mixed Signal, G, (1.8/5V)	V	V	V	V	V	V	V	V	V	V	V	
Logic, G (1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
Logic, G (1.8/3.3V), Embedded OTP / MTP	V	V	V	V	V	V	V	V	V	V	V	
Logic, LV (1.5/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
Logic, LP (1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
EmbFlash(1K, 20K) (1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
EmbFlash Enhanced (1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
EmbFlash Enhanced (1.8/5V)	V	V	V	V	V	V	V	V	V	V	V	
EmbFlash HDR (1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
EmbFlash eLL(1.8/3.3V)	V	V	V	V	V	V	V	V	V	V	V	
High Voltage (1.8/3.3/2V)	V	V	V	V	V	V	V	V	V	V	V	
High Voltage (1.8/5/32V)	V	V	V	V	V	V	V	V	V	V	V	
High Voltage, BCD (Generation-2)	V	V	V	V	V	V	V	V	V	V	V	
High Voltage, BCD (Generation-3)	V	V	V	V	V	V	V	V	V	V	V	
<b>0.25 um</b>	<b>Jan-7</b> TMMF59 Fab10 Vincent	<b>Feb-5</b> TMMF60 Fab8 YWW	<b>Mar-11</b> TMMF61 Fab10 YWW	<b>Apr-8</b> TMMF62 Fab10 YWW	<b>Jun-3</b> TMMF63 Fab8 YWW	<b>Jul-8</b> TMMF70 Fab10 YWW		<b>Sep-2</b> TMMF72 Fab8 YWW		<b>Nov-4</b> TMMF73 Fab10 YWW		
Logic, G (2.5/3.3V, 2.5/5V)	V	V	V	V	V	V	V	V	V	V	V	
Mixed-Signal/RF, G (2.5/3.3V, 2.5/5V)	V	V	V	V	V	V	V	V	V	V	V	
High Voltage, BCD (2.5/5/12/24/40V/Vg2.5/5V)	V	V	V	V	V	V	V	V	V	V	V	
High Voltage, BCD (2.5/5/12/24/40V/g2.5/5/12V)	V	V	V	V	V	V	V	V	V	V	V	
High Voltage, BCD (2.5/5/60V/Vg 2.5/5V)	V	V	V	V	V	V	V	V	V	V	V	
High Voltage, BCD (2.5/5/12/24/40/60V/g2.5/5/12V)	V	V	V	V	V	V	V	V	V	V	V	
High Voltage, Gen-2 BCD (2.5/6/7/12/20/24/40/45/60V/Vg 2.5/5/12V)	V	V	V	V	V	V	V	V	V	V	V	
<b>0.35 um: Part 1</b>	<b>Jan-13</b> TMMF32 Fab10 YWW		<b>Mar-23</b> TMMF33 Fab3 YWW		<b>May-6</b> TMMF34 Fab10 FK			<b>Aug-19</b> TMMF36 Fab3 YWW		<b>Nov-11</b> TMMF37 Fab10 ZR		
Logic, G, Polycide/Silicide (3.3/5V)	V		V		V			V		V		
Mixed-Signal, G (3.3/5V)	V		V		V			V		V		
High Voltage, G, DDD (3.3/12/13.5)	V		V		V			V		V		
High Voltage, DDD (3.3/12/13.5/15/18V)	V		V		V			V		V		
High Voltage, BCD (3.3/20/23/Vg3.3/3.3V)	V		V		V			V		V		
High Voltage, BCD (3.3/5/12/15/20/40/60/Vg3.3/5/12V)	V		V		V			V		V		
<b>0.35 um: Part 2</b>		<b>Feb-19</b> TMMF38 Fab3 YWW		<b>May-20</b> TMMF39 Fab3 YWW				<b>Sep-23</b> TMMG93 Fab3 Vincent		<b>Nov-18</b> TMMG94 Fab3 YWW		
SiGe BiCMOS, G (3.3V)		V		V				V		V		
<b>0.5 um: Part 1</b>			<b>Mar-4</b> TMMF51 Fab3 Shirley		<b>Jun-17</b> TMMF52 Fab3 YWW			<b>Sep-9</b> TMMF53 Fab3 CC		<b>Dec-9</b> TMMF54 Fab3 YWW		
High Voltage, (5/20/450/600/700/800V)			V		V			V		V		
<b>0.5 um: Part 2</b>			<b>Feb-19</b> TMMF55 Fab2 FK									
High Voltage, GaN (650V)			V									
High Voltage, GaN (100V)												

\* the calendar is Taiwan time

Please email cybershuttle@tsmc.com

#### Special Note (\*)

1. tsmc owns the right to adjust shuttle plan and will inform customer about the change in 3 months ahead.

#### Change History :

1. Publish 2H2020 CyberShuttle schedule v1.6