Datasheet of SAW Device

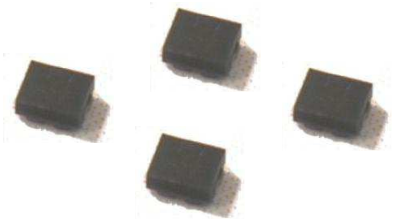
SAW Dual Filter

for Band38_Band40 / 1in4out Balanced / LH /1511

Murata PN: SAWFD2G35CA0F0A

■ Feature

- Useful to save ASM ports
- The smallest 1in4out solution
- 100ohm output impedance



Note : Murata SAW Component is applicable for Cellular /Cordless phone (Terminal) relevant market only.
Please also read caution at the end of this document.

SAWFD2G35CA0F0A (Band38_Band40 / 1in4out Balanced / LH / 1511)

Revision No.	Date	Description
SAWFD2G35CA0F0A_rev. A	May-22-2013	■ Initial Release
SAWFD2G35CA0F0A_rev. B	Aug-05-2016	■ Updated General Information

- Operating temperature : -30 to +85 deg.C
- Storage temperature : -40 to +85 deg.C
- Input Power : +10 dBm 8000 h
- D.C. Volatage between the terminals : 3V (25+/-2 deg.C)
- Minimum Resistance betweem the terminal : 10M ohm
- RoHS compliance : Yes

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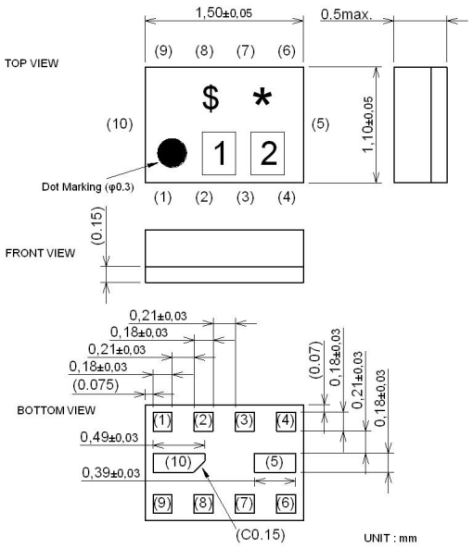
Package Dimensions & Recommended Land Pattern

unit: mm

Dimensions

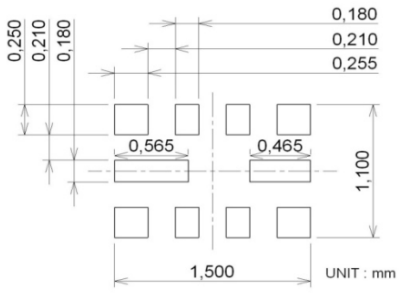


Marking : Laser Printing
* : Month code(Refer to the table A)
$: Date code(Refer to the table B)
1 : U
2 : S

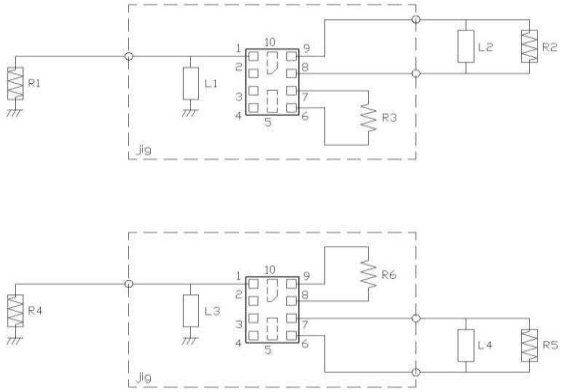
Terminal Number
(1) : Unbalanced port-Lch/Hch
(8)(9) : Balanced port-Lch
(6)(7) : Balanced port-Hch
Others : GND

Notice) Please refer to Measurement Circuit for Port information in detail.

Land Pattern



Measurement Circuit (Top Thru View)



(Lch)	R1 : 50 ohm	L1 :2.5nH(Ideal inductor)
	R2 : 100 ohm	L2 :11nH(Ideal inductor)
	R3 : 100 ohm	
	R4 : 50 ohm	L3 :2.5nH(Ideal inductor)
	R5 : 100 ohm	L4 :15nH(Ideal inductor)
	R6 : 100 ohm	
(Hch)		

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Electrical Characteristic < Low Freq. Filter >

Low Freq. Filter					Characteristics (-30 to +85 deg.C)			Unit	Note
					min.	typ.	max.		
Center Frequency						2350		MHz	
Insertion Loss	2300.	to	2400.	MHz		2.6	3.8	dB	
	2300.	to	2400.	MHz		2.6	3.2	dB	+23 to +27deg.C
Ripple Deviation	2300.	to	2400.	MHz		0.9	2.7	dB	
	2300.	to	2400.	MHz		0.9	2.0	dB	+23 to +27deg.C
VSWR	2300.	to	2400.	MHz		1.6	2.2		
	2300.	to	2400.	MHz		1.6	2.1		+23 to +27deg.C
Amplitude Balance	2300.	to	2400.	MHz	-2.0	1.4	2.0	dB	
	2300.	to	2400.	MHz	-1.9	1.4	1.9	dB	+23 to +27deg.C
Phase Balance	2300.	to	2400.	MHz	170	174	190	deg.	
	2300.	to	2400.	MHz	171	174	189	deg.	+23 to +27deg.C
Absolute Attenuation	1.	to	1980.	MHz	30	37		dB	
	1981.	to	2185.	MHz	25	30		dB	
	2185.	to	2215.	MHz	27	38		dB	
	2216.	to	2240.	MHz	20	37		dB	
	2430.	to	2459.	MHz	10	15		dB	
	2460.	to	2484.	MHz	15	25		dB	
	2485.	to	3409.	MHz	18	23		dB	
	3410.	to	3500.	MHz	30	37		dB	
	4600.	to	4800.	MHz	25	37		dB	

* Typical value at 25±2deg.C

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SAWFD2G35CA0F0A (Band38_Band40 / 1in4out Balanced / LH / 1511)

Electrical Characteristic < High Freq. Filter >

High Freq. Filter					Characteristics (-30 to +85 deg.C)			Unit	Note
					min.	typ.	max.		
Center Frequency						2595		MHz	
Insertion Loss	2570.	to	2620.	MHz		3.2	3.8	dB	
	2570.	to	2620.	MHz		3.2	3.6	dB	+23 to +27deg.C
Ripple Deviation	2570.	to	2620.	MHz		0.3	1.8	dB	
	2570.	to	2620.	MHz		0.3	1.2	dB	+23 to +27deg.C
VSWR	2570.	to	2620.	MHz		1.3	2.2		
	2570.	to	2620.	MHz		1.3	2.0		+23 to +27deg.C
Amplitude Balance	2570.	to	2620.	MHz	-1.0	0.3	1.0	dB	
	2570.	to	2620.	MHz	-0.9	0.3	0.9	dB	+23 to +27deg.C
Phase Balance	2570.	to	2620.	MHz	170	177	190	deg.	
	2570.	to	2620.	MHz	171	177	189	deg.	+23 to +27deg.C
Absolute Attenuation	1.	to	200.	MHz	40	70		dB	
	200.	to	1570.	MHz	35	70		dB	
	1570.	to	1580.	MHz	40	70		dB	
	1580.	to	2000.	MHz	35	56		dB	
	2000.	to	2300.	MHz	29	34		dB	
	2300.	to	2400.	MHz	24	29		dB	
	2400.	to	2485.	MHz	24	29		dB	
	2485.	to	2510.	MHz	20	43		dB	
	2510.	to	2550.	MHz	2.0	5.0		dB	
	2635.	to	2680.	MHz	2.0	4.0		dB	
	2680.	to	2705.	MHz	20	24		dB	
	2705.	to	3000.	MHz	30	41		dB	
	3000.	to	4000.	MHz	25	45		dB	
	4000.	to	4900.	MHz	20	41		dB	
	4900.	to	6000.	MHz	25	37		dB	

* Typical value at 25±2deg.C

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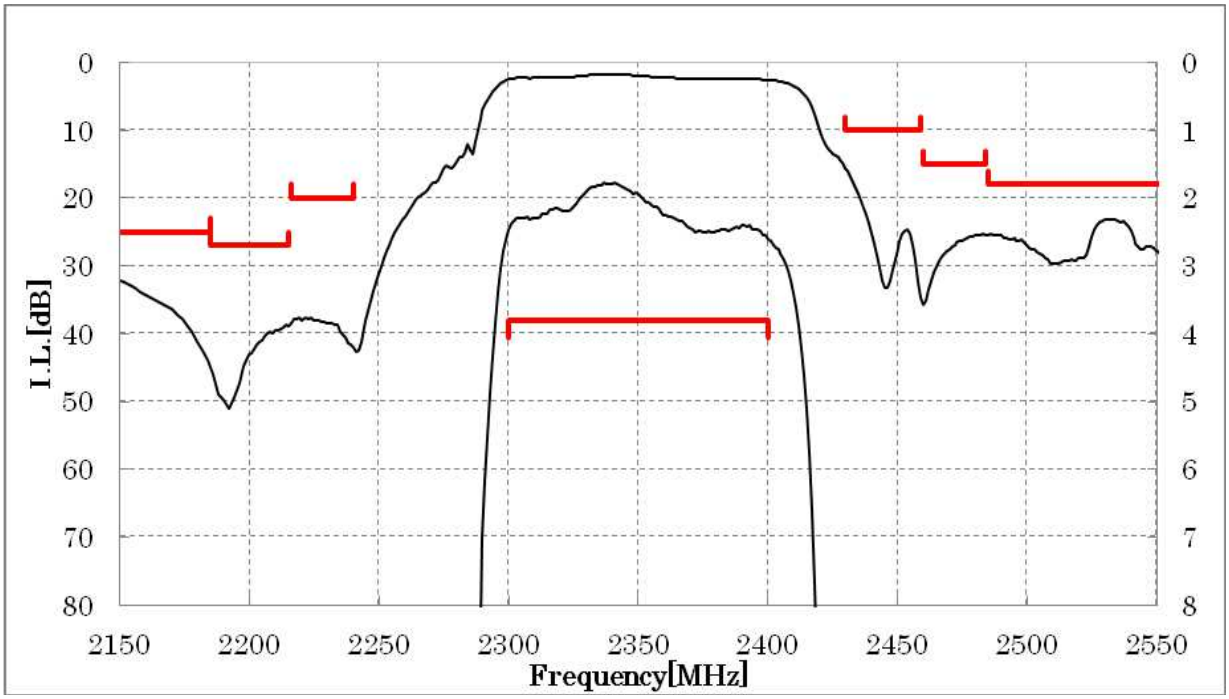
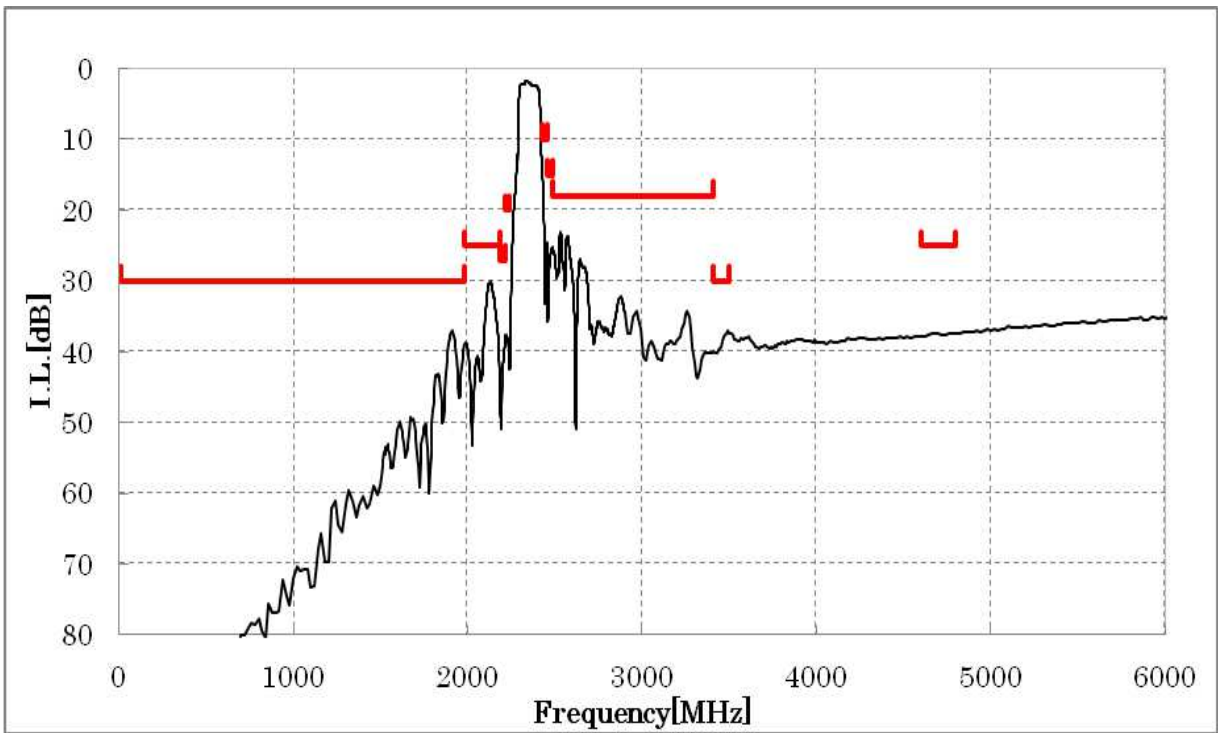
Electrical Characteristic

< Low Freq. Filter >





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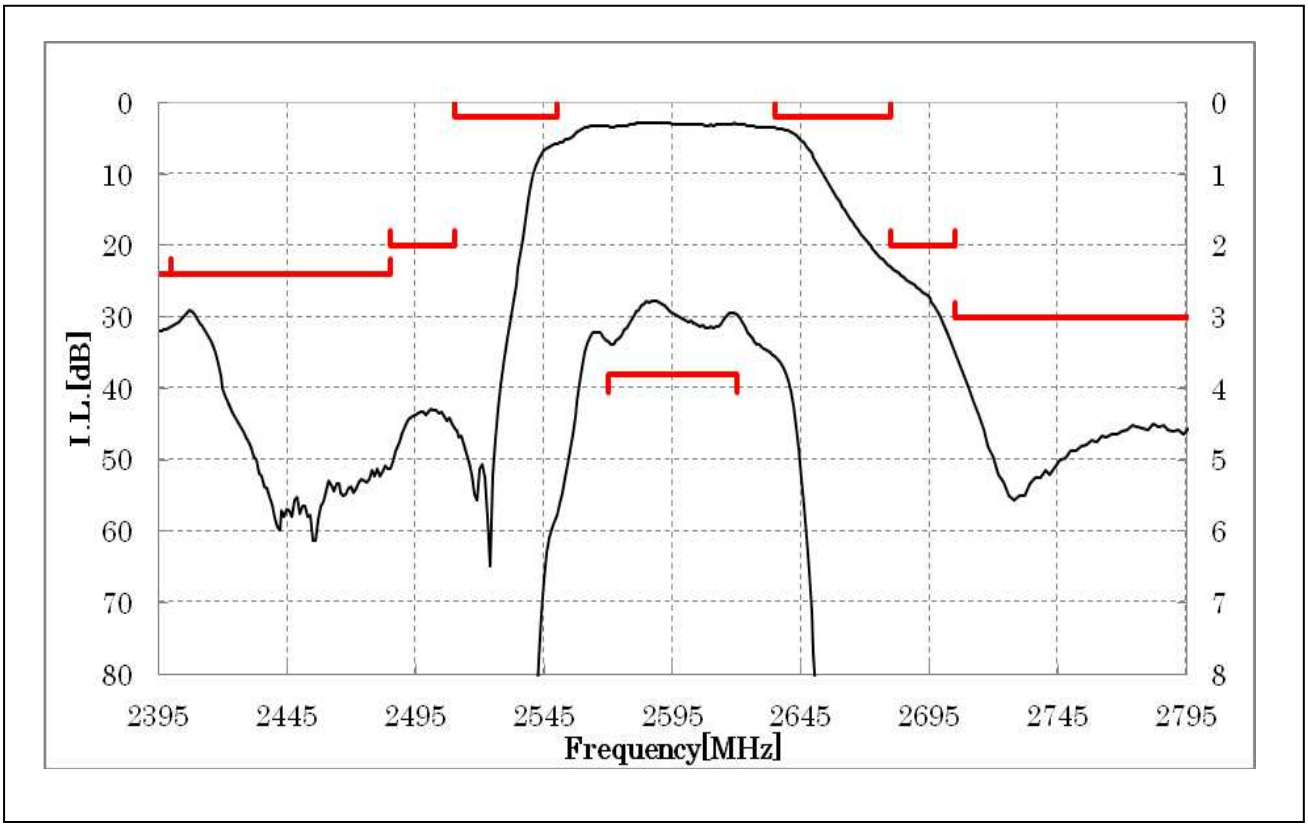
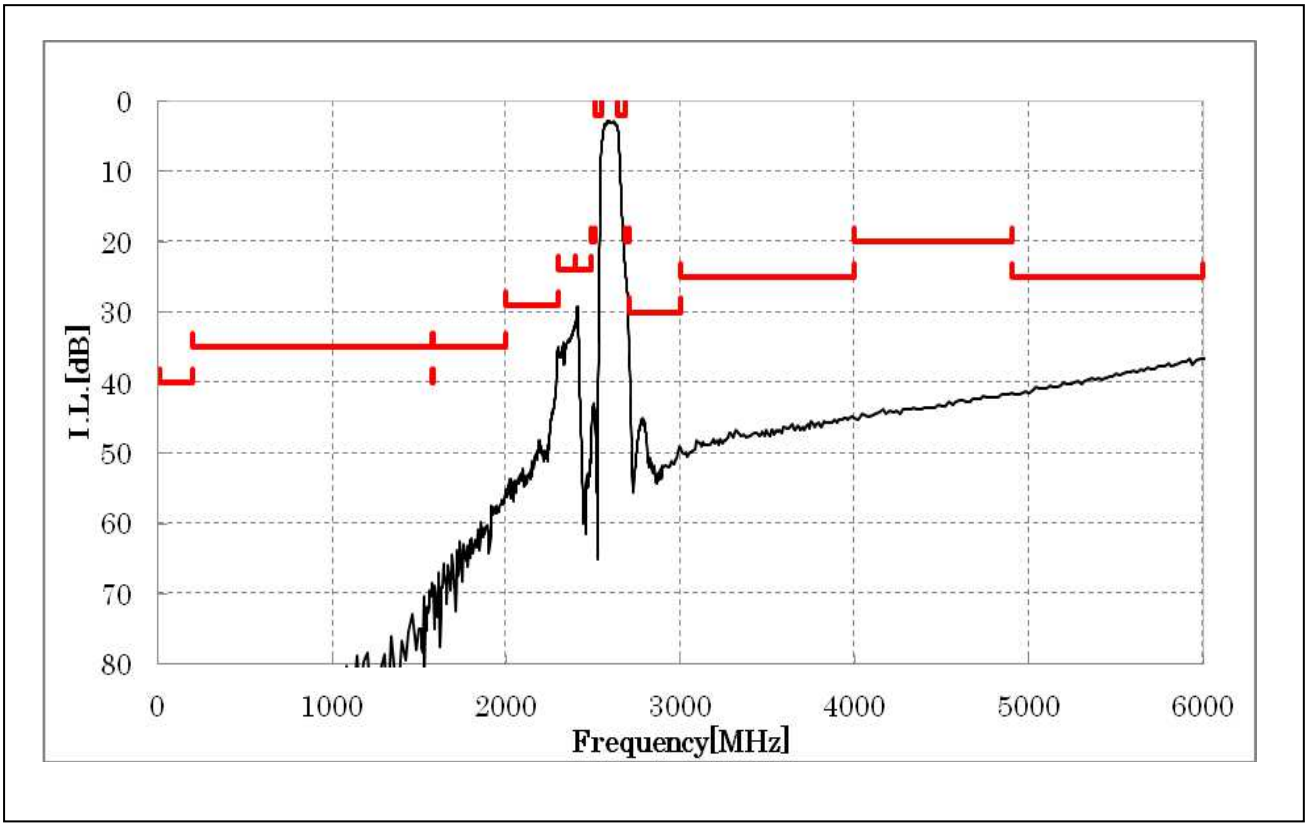
Electrical Characteristic

< High Freq. Filter >





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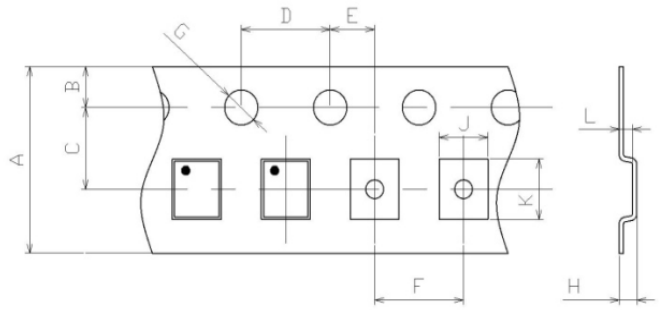
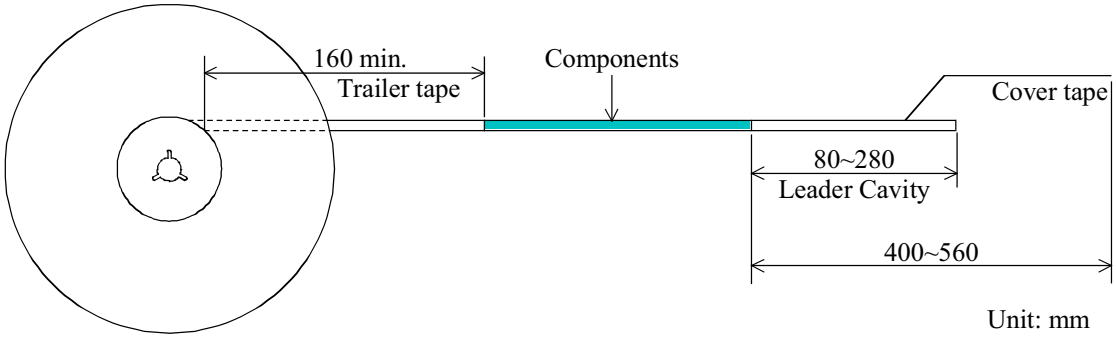
Dimensions of Tape & Reel unit: mm

Carrier Tape

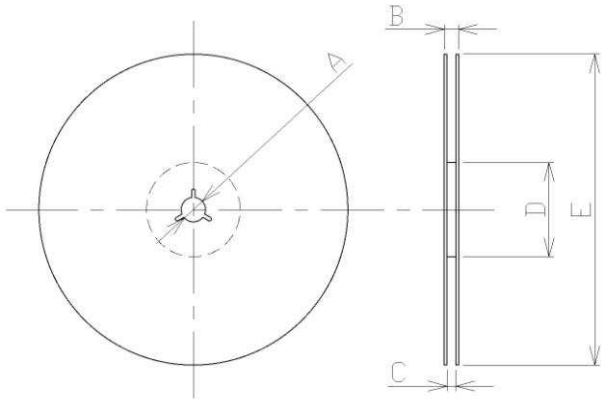


A:	8.0	J:	1.3
B:	1.75	K:	1.7
C:	3.50	L:	0.60
D:	4.0		
E:	2.00		
F:	4.0		
G:	φ1.5		
H:	0.90		

Tape



Reel



φ178Reel		φ330Reel	
A:	φ13.0	A:	φ13.0
B:	13.5max	B:	15.5max
C:	9.0	C:	9.5
D:	φ60	D:	φ100
E:	φ178	E:	φ330

SAWFD2G35CA0F0AR00… 10000pcs (φ330)
SAWFD2G35CA0F0AR15… 5000pcs (φ178)
SAWFD2G35CA0F0AR1S… sample Order (φ178/330)

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Marking Code

Table A: Month Code

2013 2017 2021	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	A	B	C	D	E	F	G	H	J	K	L	M
2014 2018 2022	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	N	P	Q	R	S	T	U	V	W	X	Y	Z
2015 2019 2023	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	a	b	c̄	d	e	f	g	h	j	k	l	m
2016 2020 2024	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	n	p	q	r	s	t	u	v	w	x	y	z

Table B: Date Code

date	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
code	A	B	C	D	E	F	G	H	J	K
date	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th
code	L	M	N	P	Q	R	S	T	U	V
date	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st
code	W	X	Y	Z	a	b	c̄	d	e	f	g

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- Aerospace equipment
- Undersea equipment.
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- Traffic signal equipment.
- Disaster prevention / crime prevention equipment.
- Burning / explosion control equipment
- Application of similar complexity and/ or reliability requirements to the applications listed in the above.

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