Datasheet of SAW Device

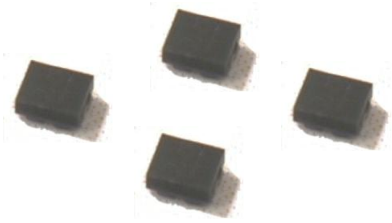
SAW Dual Filter

for B34/39 / 2in2out Balanced / LH /1511

Murata PN: SAWFD1G90BH0F0A

■ Feature

- Output Diplex Type



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

SAWFD1G90BH0F0A (B34/39 / 2in2out Balanced / LH / 1511)

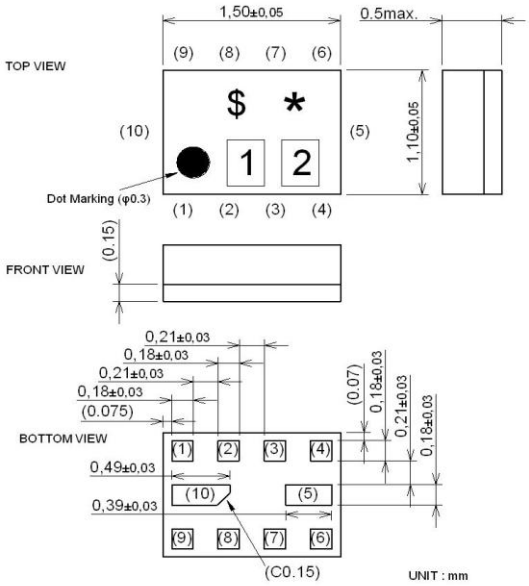
Revision No.	Date	Discription
SAWFD1G90BH0F0A_rev. A	Apr-09-2013	■ Initial Release

- Operating temperature : -30 to +85 deg.C
- Storage temperature : -40 to +85 deg.C
- Input Power : +13 dBm 2000 h
- D.C. Volatage between the terminals : 3V (25+/-2 deg.C)
- Minimum Resistance betweem the terminals : 10M ohm
- RoHS compliance : Yes

Package Dimensions & Recommended Land Pattern

unit: mm

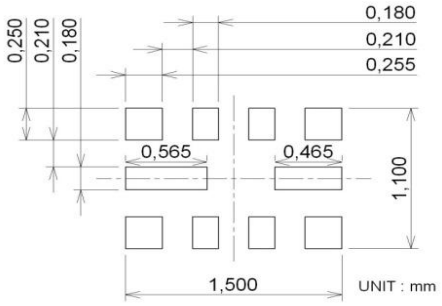
Dimensions



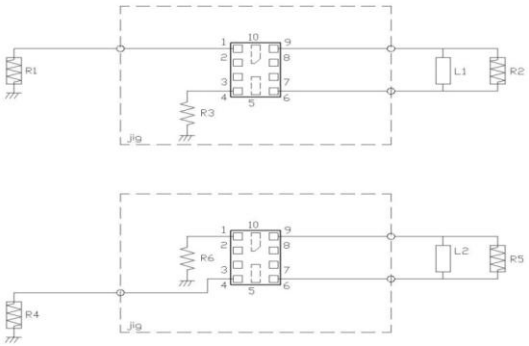
Marking : Laser Printing
* : Month code(Refer to the table A)
$: Date code(Refer to the table B)
1 : Y
2 : P

Terminal Number
(1) :Unbalance Port-Lch
(4) :Unbalance Port-Hch
(6)(9) :Balance Port
Others :GND.

Land Pattern



Measurement Circuit (Top View)



(Lch)

(Hch)

R1 : 50 ohm
R2 : 100 ohm L1 : 8.2 nH(Ideal inductor)
R3 : 50 ohm
R4 : 50 ohm
R5 : 100 ohm L2 : 8.2 nH(Ideal inductor)
R6 : 50 ohm

Electrical Characteristic < Low Freq. Filter >

Matching Impedance (nominal)

- :Unbalance Port : 50 ohm
- :Balance Port : 100 ohm // 8.2 nH(Ideal inductor)

Low Freq. Filter				Characteristics (-30 to +85 deg.C)			Unit	Note
				min.	typ.	max.		
Center Frequency					1900		MHz	
Insertion Loss	1880.	to	1920. MHz		2.4	3.0	dB	
Insertion Loss	1880.	to	1920. MHz		2.4	2.6	dB	+23 to +27deg.C
Ripple Deviation	1880.	to	1920. MHz		0.7	1.0	dB	
VSWR	1880.	to	1920. MHz		1.7	2.2		
Amplitude Balance	1880.	to	1920. MHz	-4.0	2.7	+4.0	dB	
Phase Balance	1880.	to	1920. MHz	150	156	210	deg.	
Absolute Attenuation	0.1	to	915. MHz	50	58		dB	
	915.	to	1710. MHz	36	44		dB	
	1710.	to	1785. MHz	29	40		dB	
	1785.	to	1830. MHz	29	32		dB	
	1830.	to	1850. MHz	6	11		dB	
	1950.	to	1980. MHz	5	26		dB	
	1980.	to	2010. MHz	20	30		dB	
	2010.	to	2025. MHz	27	32		dB	
	2025.	to	2400. MHz	30	34		dB	
	2400.	to	2500. MHz	40	48		dB	
	2500.	to	3000. MHz	30	40		dB	
	3000.	to	4000. MHz	30	40		dB	
	4000.	to	6000. MHz	30	36		dB	

* Typical value at 25±2deg.C

SAWFD1G90BH0F0A (B34/39 / 2in2out Balanced / LH / 1511)

Electrical Characteristic < High Freq. Filter >

Matching Impedance (nominal)

- :Unbalance Port : 50 ohm
- :Balance Port : 100 ohm // 8.2 nH(Ideal inductor)

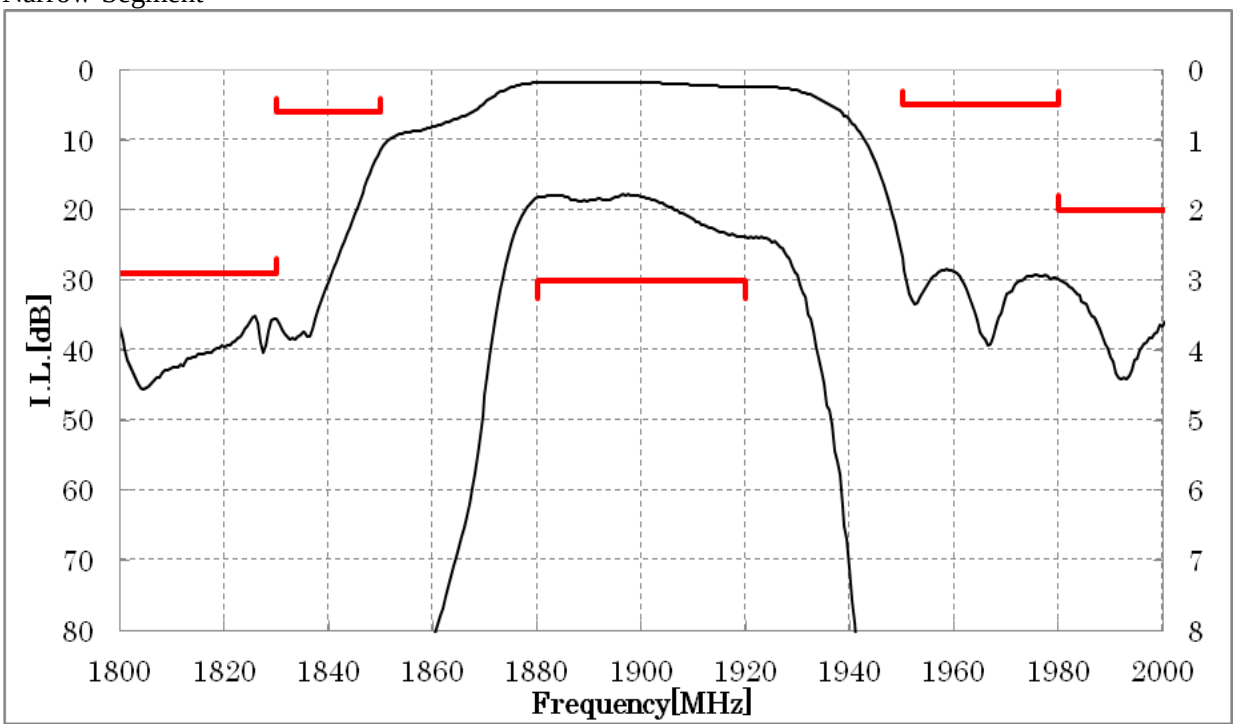
High Freq. Filter				Characteristics (-30 to +85 deg.C)			Unit	Note
				min.	typ.	max.		
Center Frequency					2017.5		MHz	
Insertion Loss	2010.	to	2025. MHz		2.7	3.4	dB	
Insertion Loss	2010.	to	2025. MHz		2.7	3.0	dB	+23 to +27deg.C
Ripple Deviation	2010.	to	2025. MHz		0.3	1.0	dB	
VSWR	2010.	to	2025. MHz		2.1	2.5		
Amplitude Balance	2010.	to	2025. MHz	-3.0	0.6	+3.0	dB	
Phase Balance	2010.	to	2025. MHz	170	185	190	deg.	
Absolute Attenuation	0.1	to	1805. MHz	35	55		dB	
	1805.	to	1850. MHz	35	51		dB	
	1850.	to	1895. MHz	30	40		dB	
	1925.	to	1980. MHz	15	20		dB	
	2050.	to	2085. MHz	3	5		dB	
	2085.	to	2110. MHz	30	39		dB	
	2110.	to	2170. MHz	35	38		dB	
	2170.	to	2400. MHz	37	45		dB	
	2400.	to	2500. MHz	40	60		dB	
	2500.	to	6000. MHz	30	36		dB	

* Typical value at 25±2deg.C

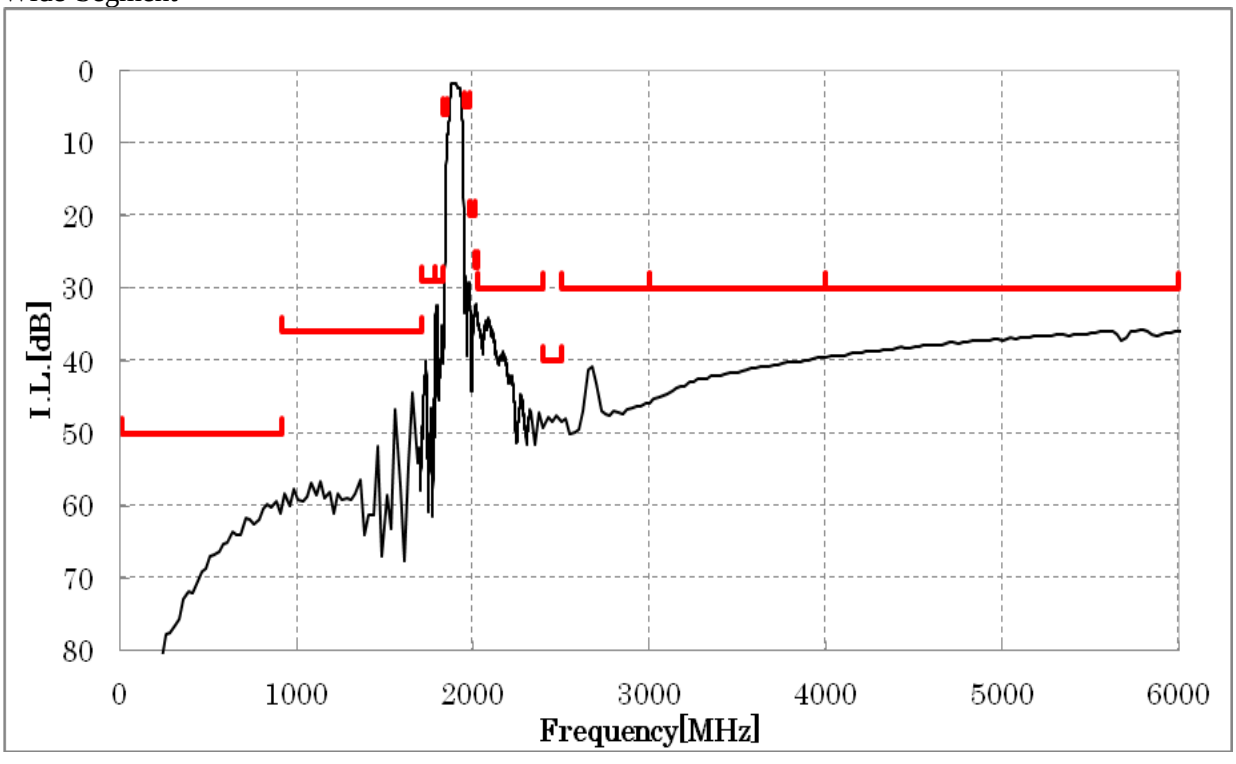
Electrical Characteristic

< Low Freq. Filter >

Narrow-Segment



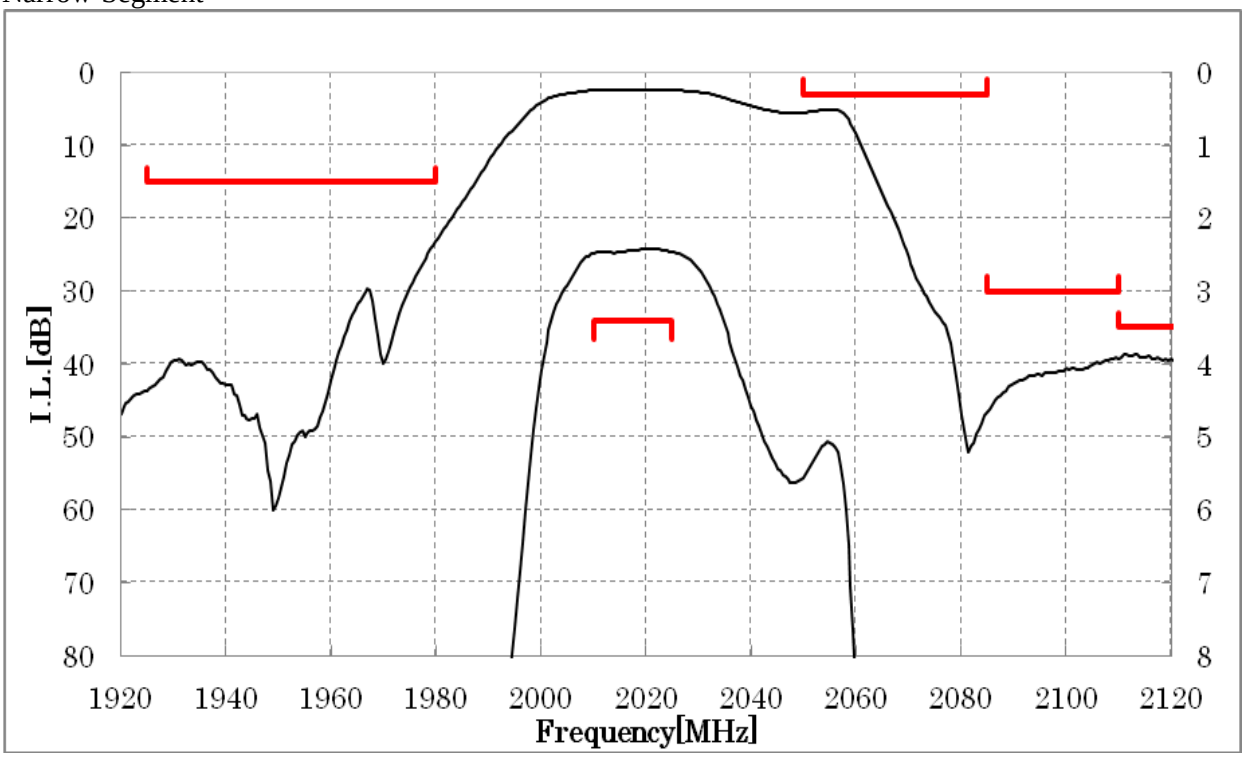
Wide-Segment



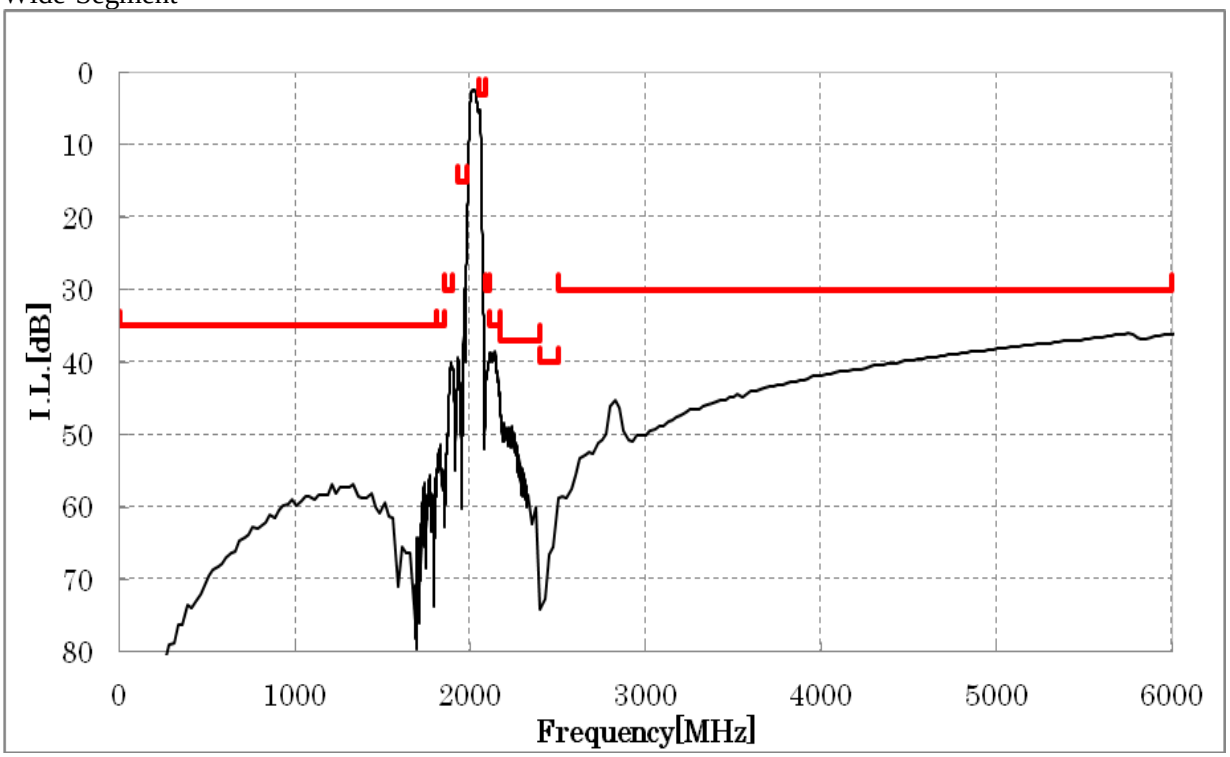
Electrical Characteristic

< High Freq. Filter >

Narrow-Segment

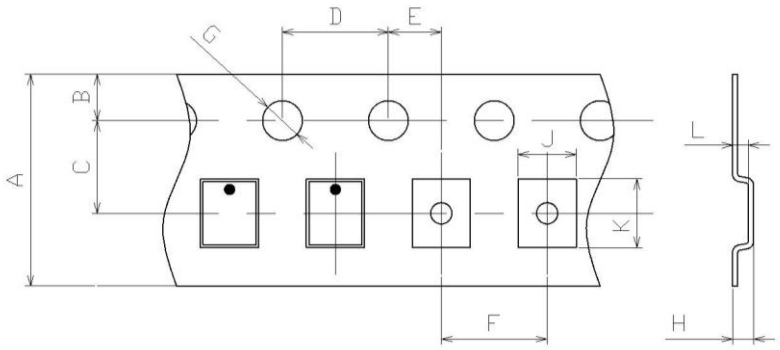


Wide-Segment



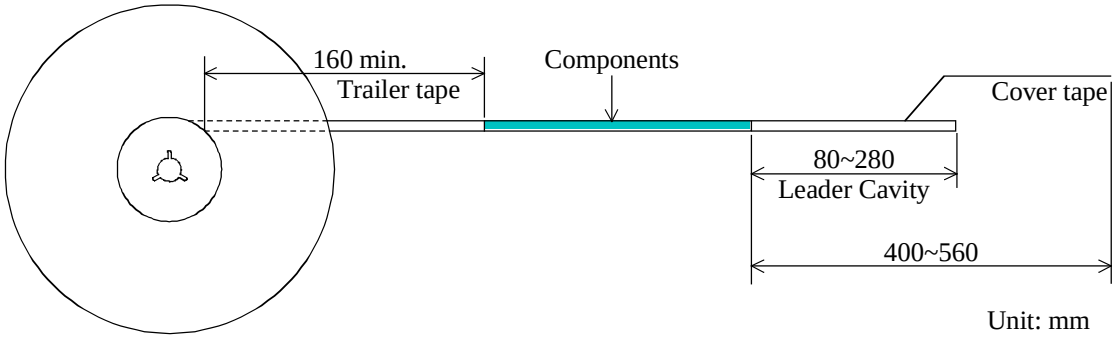
Dimensions of Tape & Reel unit: mm

Carrier Tape



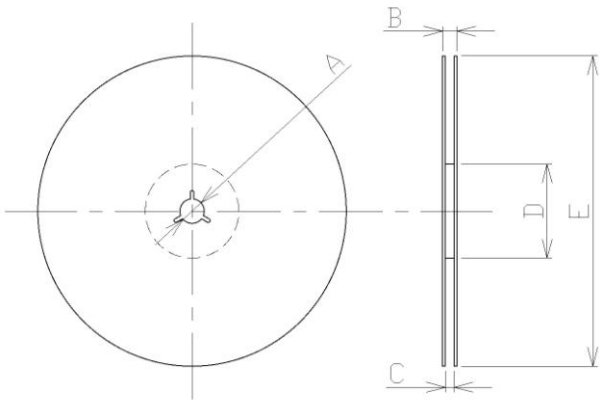
A:	8.0	J:	1.3
B:	1.75	K:	1.7
C:	3.50	L:	0.60
D:	4.0		
E:	2.00		
F:	4.0		
G:	φ1.5		
H:	0.90		

Tape



Unit: mm

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

SAWFD1G90BH0F0AR00… 10000pcs (φ330)
SAWFD1G90BH0F0AR15… 5000pcs (φ178)
SAWFD1G90BH0F0AR1S… sample Order (φ178)

Marking Code

Table A: Month Code

2009 2013 2017	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	A	B	C	D	E	F	G	H	J	K	L	M
2010 2014 2018	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	N	P	Q	R	S	T	U	V	W	X	Y	Z
2011 2015 2019	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	a	b	c̄	d	e	f	g	h	j	k	l	m
2012 2016 2020	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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The product shall not be used in any application listed below which requires especially high reliability for the prevention of such defect as may directly cause damage to the third party's life, body or property. You acknowledge and agree that, if you use our products in such applications, we will not be responsible for any failure to meet such requirements.

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- Aerospace equipment
- Undersea equipment.
- Power plant control equipment - Medical equipment.
- Transportation equipment (vehicles, trains, ships, elevator, etc.).
- 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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