



## SAW multimedia filters

### Series/Type: X7268L

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39349X7268L100		2011-01-14	2011-09-30	2012-09-30

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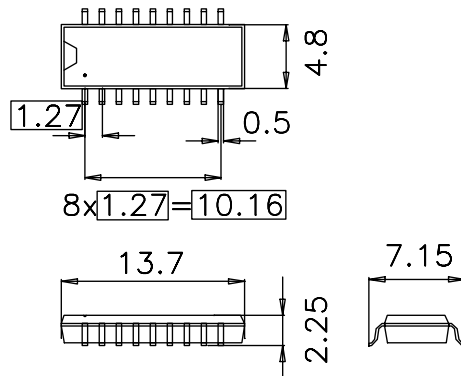
**Application**

- Standard: B/G, D/K & M/N
- Switchable between usable bandwidths 7.6MHz and 6.6MHz
- Constant group delay
- Balanced input option



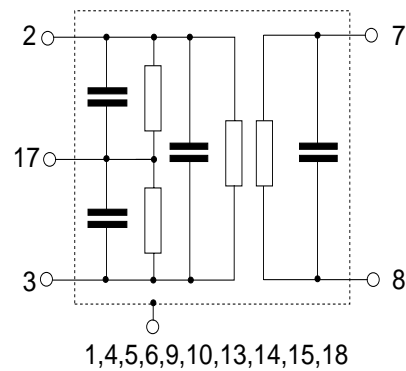
**Features**

- Duroplast package **DIP18D**
- Approximate weight 0.5 g
- **Surface Mounted Technology (SMT)**
- Standard IC small outline (SO) package
- RoHS compatible
- Tinned CuFe alloy terminals



**Pin configuration**

- 2 Input
- 3 Input - ground
- 17 Switching input
- 7 Output
- 8 Output
- 1,4,5,6,9,10,13,14,15,18 Chip carrier - ground
- 11,12,16 Not connected




**SAW Components**
**X 7268 L**
**SAW IF filter**
**34.85 MHz and 35.35 MHz**
**Data Sheet**

**Characteristics of channel 1 (switching pin 17 connected to pin 3)**

Reference temperature:  $T_A = 25\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

		min.	typ. @ 25 °C	max.	
<b>Center frequency</b> (center between 10 dB points)	$f_C$	—	34.85	—	MHz
<b>Insertion attenuation</b> Reference level for the following data	$\alpha$ 34.85 MHz	20.2	21.7	23.2	dB
<b>Pass bandwidth</b> $\alpha_{rel} \leq 3\text{ dB}$	$B_{3dB}$	—	7.6	—	MHz
$\alpha_{rel} \leq 15\text{ dB}$	$B_{15dB}$	—	8.6	—	MHz
$\alpha_{rel} \leq 30\text{ dB}$	$B_{30dB}$	—	9.1	—	MHz
<b>Relative attenuation</b> 30.00 MHz	$\alpha_{rel}$	30.0	37.0	—	dB
31.00 MHz		—	3.7	—	dB
31.50 MHz		—	0.6	—	dB
38.00 MHz		—	0.0	—	dB
38.70 MHz		—	3.5	—	dB
39.50 MHz		28.0	35.0	—	dB
Lower sidelobe 25.00 ... 30.00 MHz		30.0	36.0	—	dB
Upper sidelobe 39.50 ... 45.00 MHz		28.0	34.0	—	dB
<b>Reflected wave signal suppression</b> 1.2 $\mu$ s ... 6.0 $\mu$ s after main pulse (test pulse 250 ns, carrier frequency 36.50 MHz)		32.0	42.0	—	dB
<b>Group delay ripple (p-p)</b> 31.00 ... 38.70 MHz	$\Delta\tau$	—	60	—	ns
<b>Impedance at 34.85 MHz</b> Input: $Z_{IN} = R_{IN} \parallel C_{IN}$ Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	2.4    14.7 4.0    3.6	—	k $\Omega$    pF k $\Omega$    pF
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-72	—	ppm/K


**SAW Components**
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**Characteristics of channel 2 (switching pin 17 connected to pin 2)**

Reference temperature:  $T_A = 25\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

		min.	typ. @ 25 °C	max.	
<b>Insertion attenuation</b>					
	$\alpha$				
Reference level for the following data	35.35 MHz	19.5	21.0	22.5	dB
<b>Pass bandwidth</b>					
$\alpha_{\text{rel}} \leq 3\text{ dB}$	$B_{3\text{dB}}$	—	6.6	—	MHz
$\alpha_{\text{rel}} \leq 15\text{ dB}$	$B_{15\text{dB}}$	—	7.6	—	MHz
$\alpha_{\text{rel}} \leq 30\text{ dB}$	$B_{30\text{dB}}$	—	8.2	—	MHz
<b>Relative attenuation</b>					
	$\alpha_{\text{rel}}$				
	31.00 MHz	30.0	37.0	—	dB
	32.00 MHz	—	3.4	—	dB
	32.50 MHz	—	0.3	—	dB
	38.00 MHz	—	0.0	—	dB
	38.70 MHz	—	3.3	—	dB
	39.50 MHz	28.0	35.0	—	dB
Lower sidelobe	25.00 ... 31.00 MHz	30.0	36.0	—	dB
Upper sidelobe	39.50 ... 45.00 MHz	28.0	34.0	—	dB
<b>Reflected wave signal suppression</b>					
1.2 $\mu\text{s}$ ... 6.0 $\mu\text{s}$ after main pulse (test pulse 250 ns, carrier frequency 35.35 MHz)		42.0	49.0	—	dB
<b>Group delay ripple (p-p)</b>					
	$\Delta\tau$				
	32.00 ... 38.70 MHz	—	50	—	ns
<b>Impedance at 35.35 MHz</b>					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	1.5 $\parallel$ 23.8	—	k $\Omega$ $\parallel$ pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	4.0 $\parallel$ 3.4	—	k $\Omega$ $\parallel$ pF
<b>Temperature coefficient of frequency</b>					
$\text{TC}_f$		—	-72	—	ppm/K



SAW Components

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Data Sheet

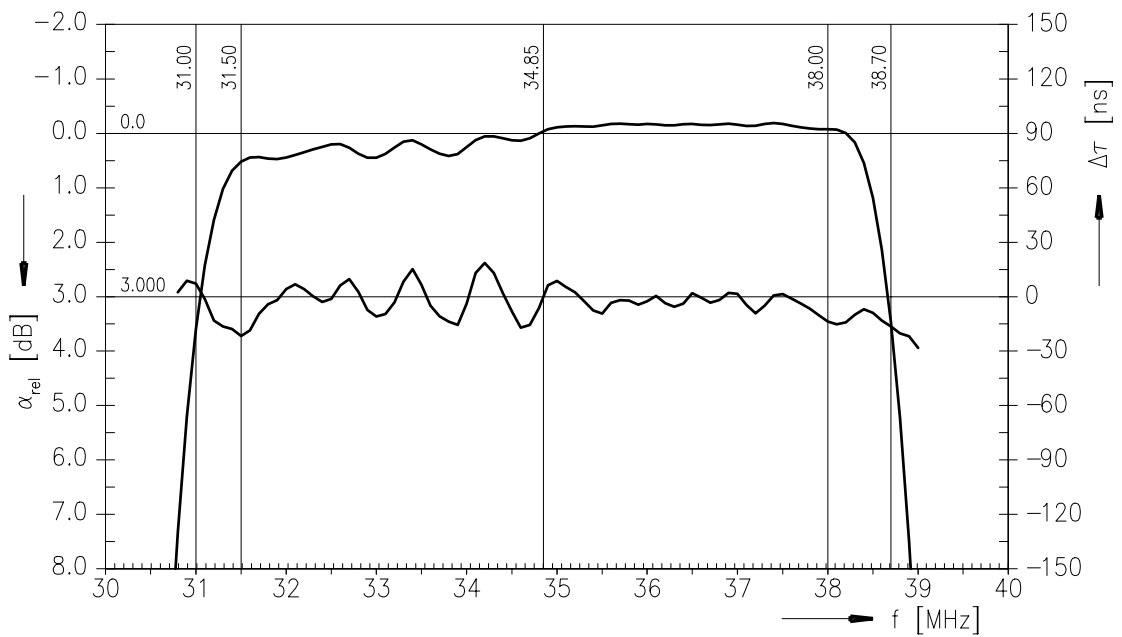
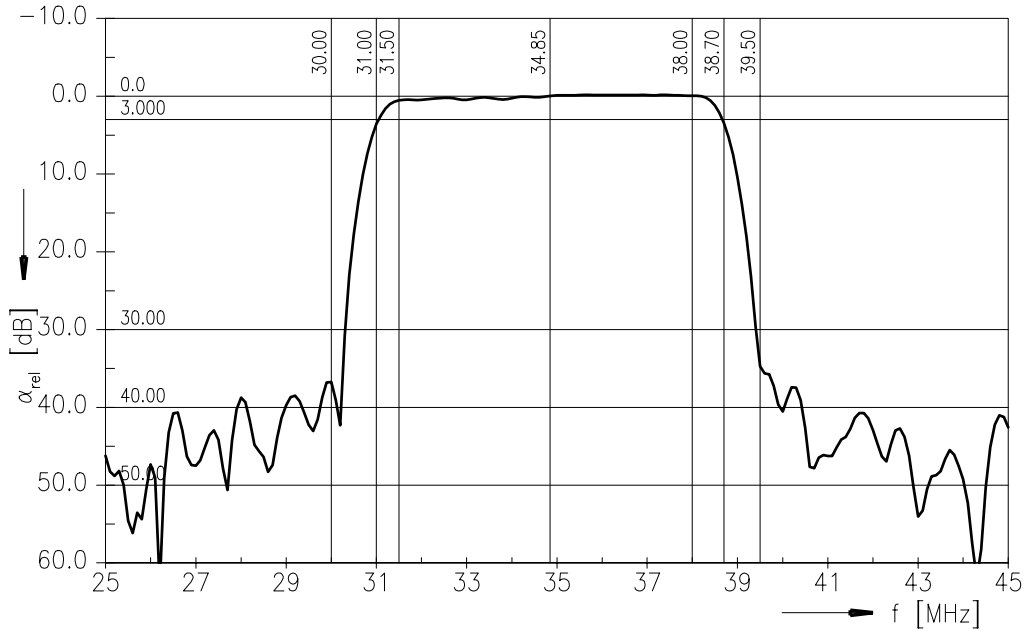


### Maximum ratings

Operable temperature range	T	-25 / +65	°C	
Storage temperature range	T <sub>stg</sub>	-40 / +85	°C	
DC voltage	V <sub>DC</sub>	5	V	between any terminals
AC voltage	V <sub>pp</sub>	10	V	between any terminals

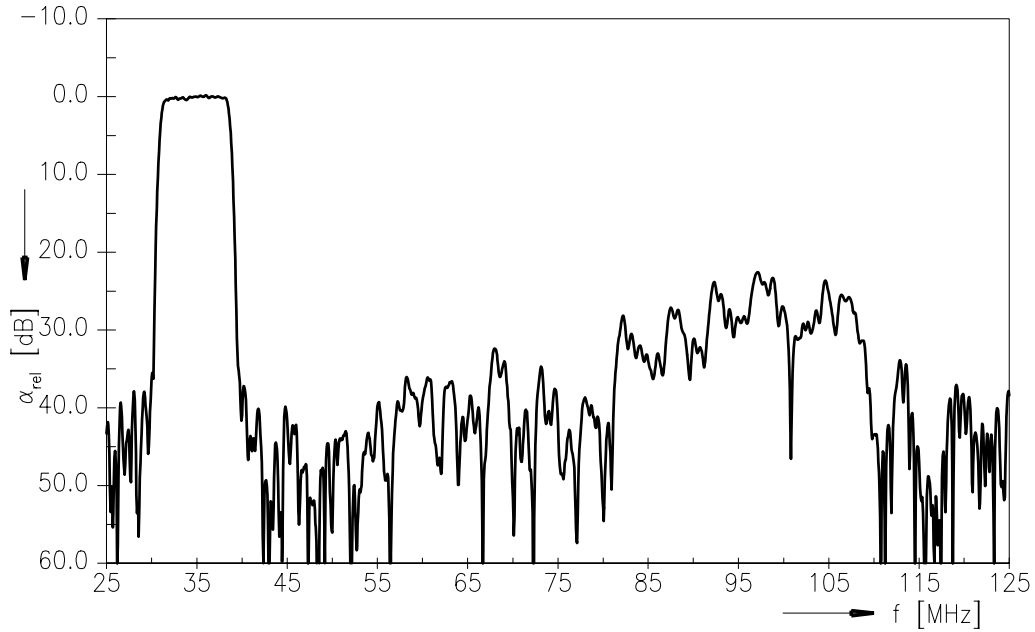


Frequency response of channel 1

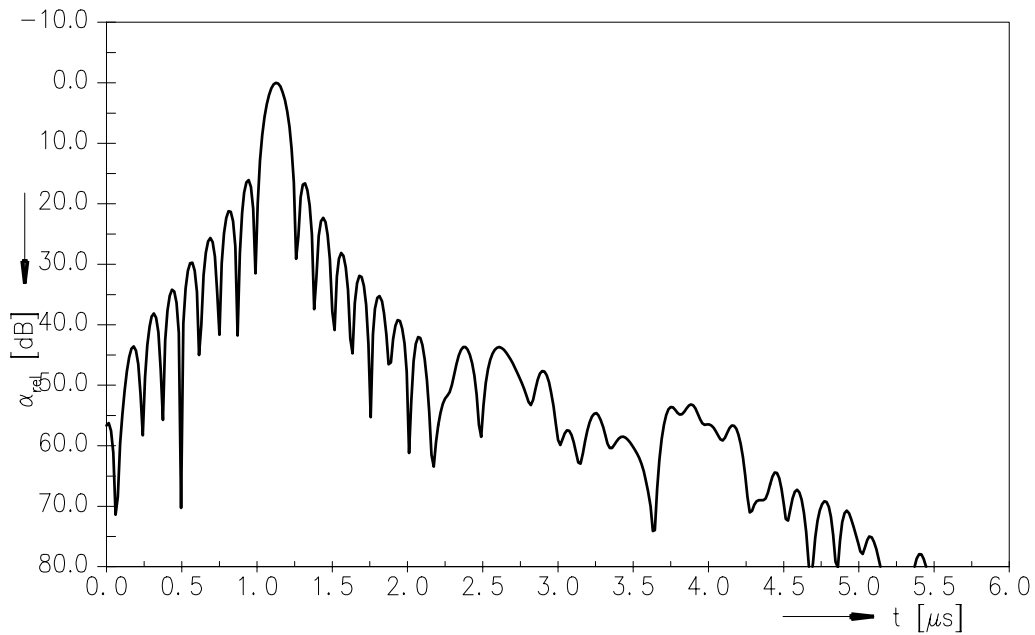




Frequency response of channel 1

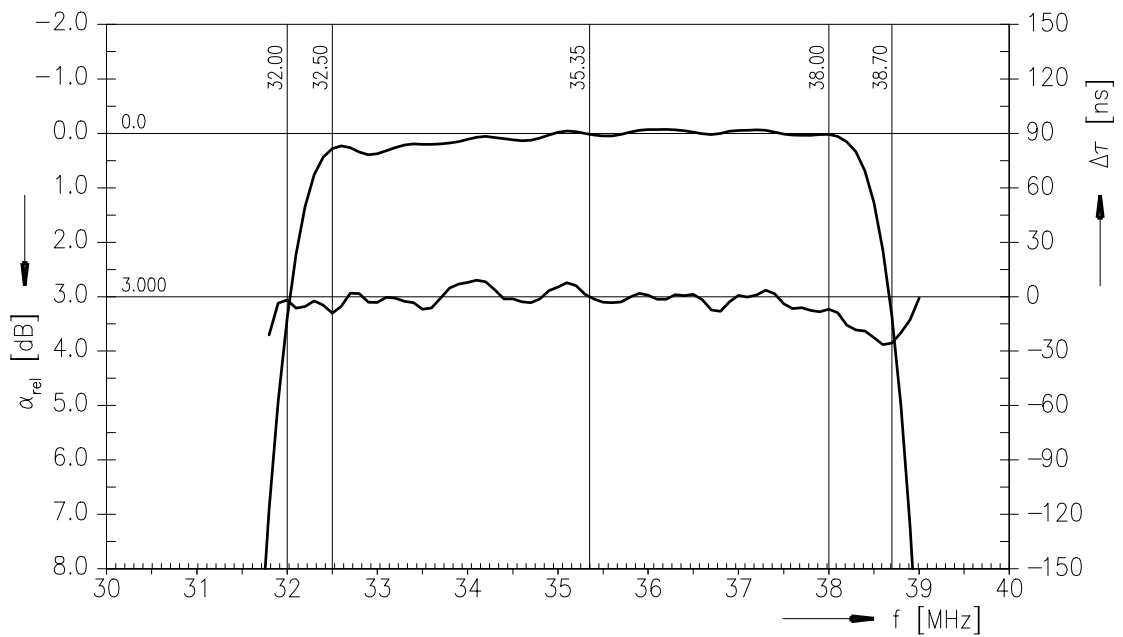
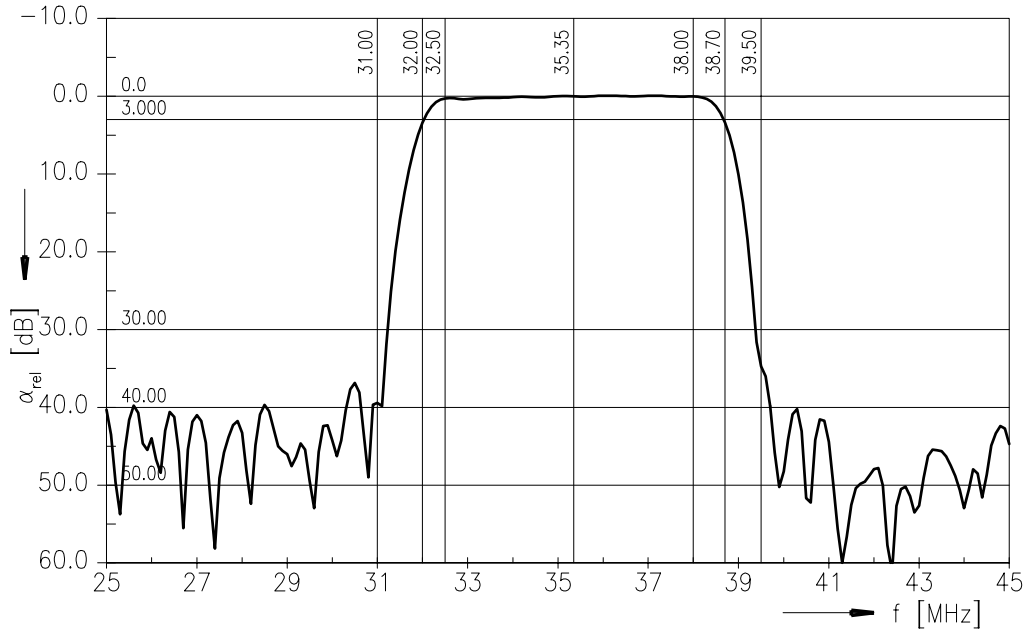


Time domain response of channel 1





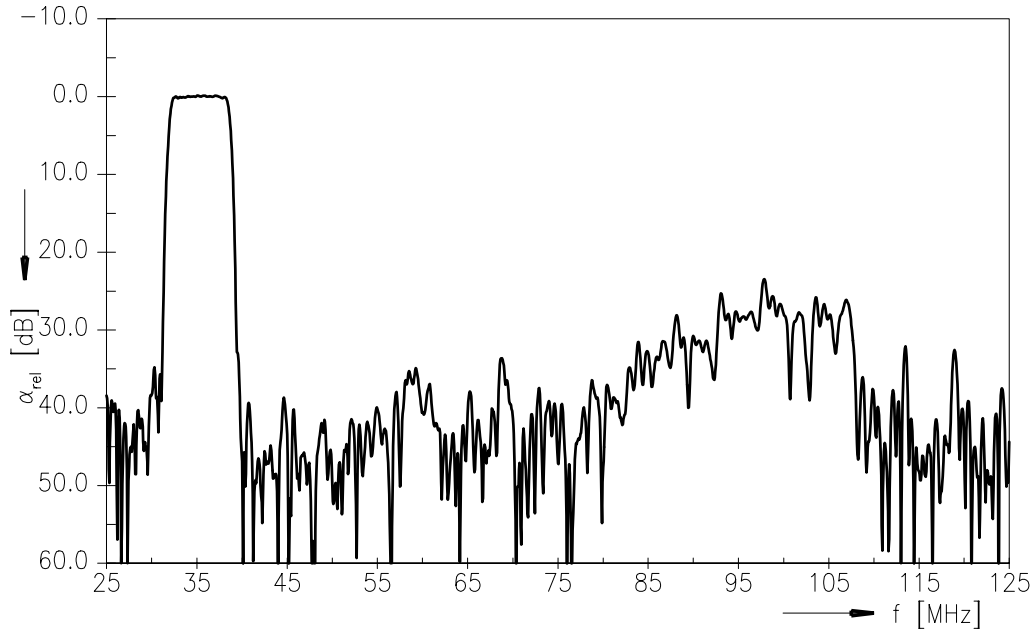
Frequency response of channel 2



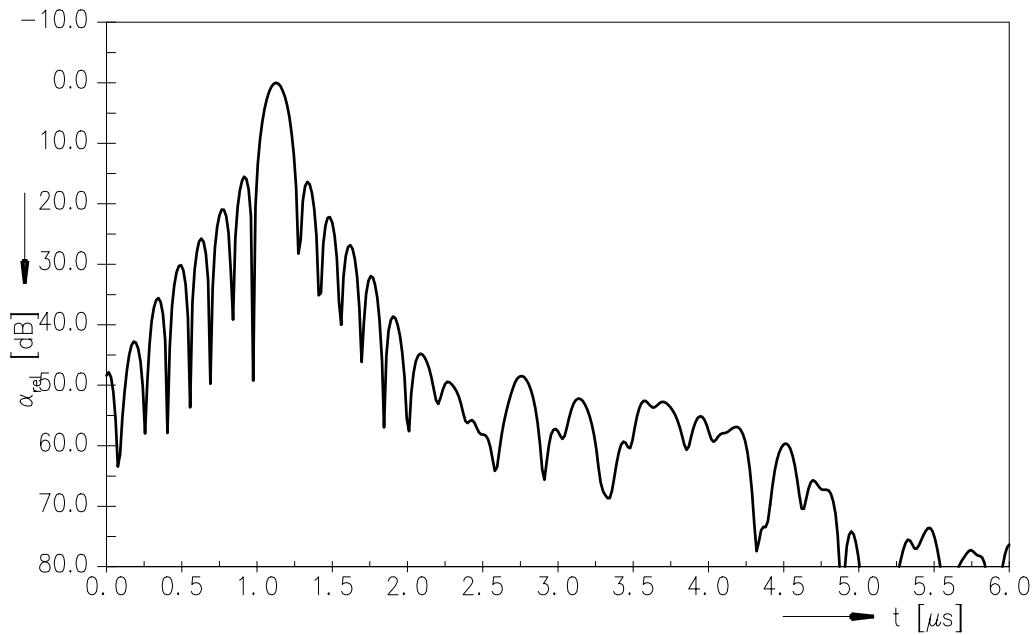
Please read *cautions and warnings and important notes* at the end of this document.



Frequency response of channel 2



Time domain response of channel 2





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## References

<b>Type</b>	X 7268 L
<b>Ordering code</b>	B39349-X7268-L100
<b>Marking and package</b>	C61157-A2-A4
<b>Packaging</b>	F61074-V8058-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	X7268L_LB_NB.s4p X7268L_UB_NB.s4p
<b>Soldering profile</b>	S_6001
<b>RoHS compatible</b>	defined as compatible with the following documents: "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. 2005/618/EC from April 18th, 2005, amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment."

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