

# SAW DEVICE SELECTION TABLE

for

## Multimedia applications

(TV, CATV, VCR, DVD-R, DVB, DAB, SAT)

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### TV IF filters for intercarrier applications

Picture			PC - SC	Sound	Color	Group Delay	Group Delay		Av	ailable	Package	s	
Carrier	Туре		Distance	Carrier	Carrier	sag	CC	Standard	SIP5K	SIP5D	DIP10K	SMD	Features
MHz			MHz	dB	dB	ns	ns						
	K2959M	i	5.56.5	17, 19	1.0	ripple=30	ripple=30	D/K, B/G	+				flat GD,
38.00	K2965M	i	5.56.5	19, 20	2.9	-50	50	D/K, B/G	+				GD predistortion
00.00	K2983M	s, i	5.56.5	15, 15	2.5	-60	-120	D/K, B/G	+				GD predistortion, economic
	M1973D	i	4.5	20	1.1	0	40	M/N		+			PAL M/N
	G1865M	i	5.5	20	2.7	-50	70	B/G	+				economic
	G1975M	*,i	5.5	20	2.8	-90	100	B/G	+	0			high performance
	G1985M	*, i	5.55.85	14, 14	0.2	-90	70	B/G NICAM	+	0			high performance & high SC
38.90	J1956M	*,i	6.0	20	2.5	ripple=40	ripple=40	I	+	0			
	K2962M	i	5.56.0	15, 15	1.0	ripple=40		B/G, I, L/L'	+				flat GD
	K2966M	i	5.56.5	19, 20	3.1	-55	45	B/G, D/K	+	0			GD predistotion
	K2982M	i	5.56.5	20, 20	2.5	-55	45	B/G, D/K	+				GD predistortion, economic
39.50	J1951M	*, i	6.0	22	3.8	ripple=40	ripple=40		+				
	M1867D	i	4.5	14	1.0	ripple=40	ripple=40	M/N	+	0		0	high performance & high SC
45.75	M1871M	i	4.5	17	4.3	ripple=50	ripple=50	M/N	+	0		0	economic
	M1971M	i	4.5	17	2.0	ripple=40	ripple=40	M/N	+	0		0	high performance
58.75	N1952D	i	4.5	19	2.0	ripple=50	ripple=50	M	+	0			
various		c, i						various	0	0		0	

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- c: more filter types are available for the different standards and packages; please contact your SAW filter counterpart (Sales / Marketing) for details
- p: pin configuration different from standard package
- h: high temperature stability
- \*: suitable for CENELEC EN 55020

- +: Same key electrical performance type available in this package
- O: Same functional type available in this package; please contact your SAW filter counterpart (Sales / Marketing)

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#### IF filters for video applications

Picture Carrier MHz	Туре		PC - SC Distance MHz	Sound Carrier dB	Color Carrier dB	Group Delay sag ns	Group Delay CC ns	Standard			Packages DIP10K		Features
	K3953M	*, i	-6.5	53	-	ripple=50	ripple=50	L	+	+		+	high performance
33.90	K3958M	*, i	-6.5	58	-	ripple=40	ripple=40	L	+	0		0	economic
	K3974D	*,s, i	-6.5	50	-	-65	0	┙		+			high performance, GD predistortion
38.00	K3964M	*, i	5.56.5	49, 59	3.5	ripple=50	ripple=50	B/G, D/K	+				economic
30.00	K3966D	*, i	5.56.5	54, 61	0.9	-80	-40	B/G, D/K	0	+			high performance, GD predistortion
	G3956M	*, i	5.5	39	1.0	-85	70	B/G	+	+			GD predistortion
	K3953M	*, i	5.56.5	24, 52	1.3	ripple=50	ripple=50	B/G, D/K, L,I	+	+		+	high performance
38.90	K3958M	*, i	5.56.5	18, 57	0.6	ripple=40	ripple=40	B/G, D/K, L,I	+	0		0	economic
	K3974D	*,s, i	5.56.5	22, 60	0.3	-65	0	B/G, D/K, L,I		+			high performance, GD predistortion
	M3960M	i	4.5	45	3.3	ripple=35	ripple=35	M/N	+				
39.50	J3961D	*, i	6.0	48	0.8	-10	-95	I	0	+			
45.75	M3953M	i	4.5	37	0.2	ripple=40	ripple=40	M/N	+	+		0	flat GD
43.73	M3954D	i	4.5	37	1.3	-90	20	M/N	+	+			GD predistortion
58.75	N3954D	i	4.5	30	0.1	ripple=60	ripple=60	M	0	+			
various		c, i						various	0	0		0	

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### IF filters for audio applications

Picture	Sound			PC - SC	Picture		А	vailable	Package	)	
carrier MHz	Carrier MHz	Туре		Distance MHz	Carrier dB	Standard	SIP5K	SIP5D	DIP10K	SMD	Features
33.90	40.40	L9353M	i	-6.5	-55	L	+				
	31.50-32.50	K9351M	i	5.56.5	-48	B/G, D/K, I	+	+			
38.00	31.50-32.50	K9355D	i	5.56.5	-54	B/G, D/K, I		+			31.0MHz suppressed
30.00	31.50-32.50	K9358M	i	5.56.5	-48	B/G, D/K, I	+	+			economic
	31.50-33.50	K9352M	i	4.56.5	-52	B/G, D/K, I, M/N	+	+		+	
	32.40-33.40	K9356M	i	5.56.5	-47	B/G, D/K, I, L	+	0			
	32.40-33.40	K9363D	i	5.56.5	-61	B/G, D/K, I, L		+			economic
38.90	32.40-34.40	K9362M	i	4.56.5	-61	B/G, D/K, I, M/N	+			0	
	32.90	K9353M	i	6.06.55	-57	I NICAM	+				
	33.40	G9353M	i	5.55.85	-55	B/G NICAM	+	+			
39.50	33.50	J9361D	i	6.06.55	-57	I NICAM					
45.75	41.25	M9370M	i	4.5	-60	M/N	+	+			
58.75	54.25	N9350D	i	4.5	-47	M		+			
various			c, i			various	0	0		0	

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#### IF filters with switching function between two channels

Туре		Fc MHz	<b>Cha</b> i Type	nnel 1 Standard	Fc MHz	<b>Chann</b> Type	-			Package DIP10K		Features
L9653M	i	33.9	AU	L'	38.9	AU	L	+				
K9656M	i	33.9	AU	L' NICAM	38.9	AU	B/G, D/K, I, L	+	+		+	
X7253D	i	36.0	BP	7.7MHz DVB-T	36.0	BP	6.8MHz DVB-T		+			
X7257M	s, i	36.125	BP	8.0MHz	36.125	BP	6.0MHz	+				For Micronas VCT 49xyl IC
X7251D	÷	36.17	BP	8.0MHz DVB-T	36.17	BP	7.0MHz DVB-T		+		0	
K7253M	i	38.0	IC	B/G, D/K, I	38.0	IC	M/N	+	0	0		
K7254M	·	38.0	VI	B/G, D/K, I	38.0	IC	M/N	+	0	0		
K7262D	i	38.0	VI	B/G, D/K, I	38.0	VI	M/N	0	+	0		
K9655D	i	38.0	AU	B/G, D/K, I	38.0	AU	M/N		+			
K7252M	i	38.9	IC	B/G, D/K, I	38.9	IC	M/N	+		0		
K7268D	i	38.9	VI	B/G, D/K, I, L	38.9	IC	M/N		+	0		
K7257M	i	38.9	VI	B/G, D/K, I, L	38.9	VI	M/N	+	+	0		
K9663D	i	38.9	AU	D/K, L, I NICAM	38.9	AU	B/G		+			
K9653D	i	38.9	AU	B/G, D/K, I	38.9	AU	M/N	0	+			
X9650M	i	44.0	BP	1.8MHz DVB-C	44.0	BP	1.2MHz DVB-C	+			0	US cable, out of band
X7256D	i	57.0	BP	6.0MHz ISDB-T	57.0	BP	4.1MHz ISDB-T	+			0	13 segments
	c, i			various			various	0	0	0	0	

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- h: high temperature stability
- IC: Intercarrier channel, Fc=picture carrier frequency
- VI: Video channel, Fc=picture carrier frequency
- AU: Audio channel, Fc=picture carrier frequency
- BP: Bandpass channel, Fc=center frequency

- +: Same key electrical performance type available in this package
- O: Same functional type available in this package; please contact your SAW filter counterpart (Sales / Marketing)

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### IF filters for quasi/split sound applications

Picture Carrier MHz	Туре		PC - SC Distance MHz	Sound Carrier dB	Color Carrier dB	Group Delay sag ns	Group Delay CC ns	Standard			Package DIP10K		Features
38.00	K3352K	i	5.56.5	54, 52	2.8	30	-22	B/G, D/K	0	0	+		
	G3361K	*, i	5.55.85	46, 30	1.8	-95	-80	B/G NICAM			+		
38.90	J3353K	*, i	6.06.55	52, 56	-0.1	0	-50	I NICAM	0		+		
	K3565M	p, i	5.56.5	51, 39	1.5	-60	40	B/G, D/K	+	0	0		
39.50	J3356K	*, i	6.06.55	55, 51	0.3	ripple=30	ripple=30	I NICAM			+		
45.75	M3565M	p, i	4.5	32	0.2	ripple=60	ripple=60	M/N	+	+	0		
58.75	N3564D	p, i	4.5	40	0.0	0	80	М	0	+	0		
various		c, i						various	0	0	0	0	

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### Bandpass IF filters for TV applications

Center Frequency MHz	Туре		Bandwidth 3dB MHz	Standard			Packages DIP10K SMI	) Features
23.40	X6756M	i	2.3	DVB-C (Europe)	+	0		Cable, out of band
35.825	X6753M	i	7.5	Analog Multistandard	+	0		for Micronas IC DRX3960
00.00	X6857D	i	8.1	DVB-C, DVB-T (Europe)	0	+	0	
36.00	X6867D	i	8.1	DVB-C, DVB-T (Europe)		+		economic
	X6865D	i	6.0	DVB-C (Europe)		+		EuroDOCSIS
36.125	X6872D	i	6.9	DVB-T (Europe)		+	0	
36.125	X6966M	i	8.0	DVB-C, DVB-T (Europe)	+	+	0	EuroDOCSIS, high performance
	X6885D	s	8.0	DVB-C, DVB-T (Europe)		+		EuroDOCSIS, economic
43.75	X6864D	i	6.2	DVB-C (US)		+		OpenCable DOCSIS
43.75	X6964M	i	6.0	DVB-C (US)	+	+	0	OpenCable DOCSIS
	X6893D	i	6.2	DVB-C (US)	+	+		OpenCable DOCSIS
	X6855D	i	8.0	DVB-C (Europe)	+	+		
	X6959D	i	1.7	DVB-C (Europe)	+	+		Cable, out of band
	X6965M	i	6.0	DVB-C (US)	+	+	0	OpenCable
44.00	X6875D	i	6.0	DVB-C (US)	0	+		OpenCable, economic
	X6941D	h, i	5.6	ATSC (US)	0	+	0	high performance
	X6764D	i	5.5	ATSC (US)		+		economic
	X7550D	s, i	5.7	ATSC (US)		+		low insertion attenuation
	X6892D	i	5.6	ATSC (US)		+		optimized for cascade
	X6933D	h, i	5.8	ISDB-T 13-segment (Japan)		+	0	high performance
57.00	X6940D	h, i	5.4	ISDB-T 13-segment (Japan)		+	0	high performance, optimized for single use
	X6989D	i	6.0	ISDB-T 13-segment (Japan)		+	0	optimized for cascade
various		c, i	various	various	0	0	0	

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### Vestigial sideband filters

							A	vailable	Package	es	
Center Frequency MHz	Туре		Vestigial Sideband MHz	Bandwidth 3dB MHz	Sound Carrier	Standard	SIP5K	SIP5D	DIP10K	SMD	Features
38.90	G4963D	i	0.75	7.0	yes	B/G	0	+			
30.90	K4960D	i	0.75	8.0	yes	D/K		+			
45.75	M4952M	i	0.75	6.0	yes	M/N	+				

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### Bandpass filters for digital audio applications

Center			Bandwidth		A۱	/ailable	Packa	ges	
Frequency MHz	Туре		3dB MHz	Standard	SIP5K	SIP5D	DIP10	K SMD	Features
30.72	X7001L	h, i	1.5	DAB				Х	
38.912	X6922D	h, i	1.5	DAB	Х	Х		Х	
72.54	B1708	h, i	4.3	Sirius satellite radio				Х	QCC12C
76.50	B1707	h, i	4.7	Sirius satellite radio				Х	QCC12C
76.50	B1710	h, i	14.6	Sirius satellite radio				Х	QCC12C
80.46	B1709	h, i	4.6	Sirius satellite radio				Х	QCC12C
115.18	B1717	h,s, i	14.0	XM Radio				Х	QCC12C
259.86	B1706	h, i	14.9	XM Radio				Х	QCC12C
919.55	B4030	h, i	1.5	DAB				Х	QCC8B
1472	B1608	h, i	40	DAB, WorldSpace				Х	QCC8B, single ended or balanced operation at 50 Ohm
various		c, i	various	various				0	

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### RF bandpass filters

Center Frequency MHz	Туре		Usable Passband MHz	Package	Features
1216	B1618	i	8	QCC8D	For double conversion applications, bal. 200 Ohm to bal. 200 Ohm. Low loss
	B1605	i	28	QCC8D	For double conversion applications, bal. 200 Ohm to bal. 200 Ohm. Low loss
1220	B1603	i	8	QCC8B	For double conversion applications, bal. 200 Ohm to bal. 200 Ohm. Low loss
	B1614	i	8	QCC8D	For double conversion applications, bal. 100 Ohm to bal. 100 Ohm. Low loss
974.00 1178.12 1210.00 1280.18 1382.24 1420.00 1680.00 1688.42 1790.48 2040.00	B1615 B1617 LP85A B1616 B1620 B1623 B1622 LP39A LP41A B1621	s	40	QCC8D	For channel stacking applications, bal. 150 Ohm to bal. 150 Ohm. Low loss
various	DIVE	c, i			

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### Bandstop filters

Notch Frequency MHz	Туре		<b>Passband</b> MHz	Maximum Insertion Attenuation dB	Package	Features
815 - 825	LP12A	s, i	470 - 770	2.2	QCS5C	Frontend filter for ISDB-T 1-segment, 2.0 x 1.4 x 0.54 mm <sup>3</sup>
820 - 830	LP66A	s, i	470 - 770	1.8	QCS5C	Frontend filter for ISDB-T 1-segment, 2.0 x 1.4 x 0.54 mm <sup>3</sup>
830 - 840	LN31B	s, i	470 - 770	2.0	QCS5C	Frontend filter for ISDB-T 1-segment, 2.0 x 1.4 x 0.54 mm <sup>3</sup>
830 - 840	LP62A	s, i	470 - 770	1.1	QCS5I	Frontend filter for ISDB-T 1-segment, 1.4 x 1.1 x 0.4 mm <sup>3</sup>
880 - 915	LP38A	s, i	702 - 862	1.5	QCS9A	Frontend filter for DVB-H, Europe, 3.0 x 2.5 x 0.68 mm <sup>3</sup>
various		c, s, i	various	·	various	

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### Satellite filters

Center Frequency MHz	Туре		Bandwidth 3dB MHz	Package	Features
479.50	B 801	i	18 + 27	QCC8C	2 channel
480.00	B 800	i	27	QCC8C	1 channel; optimized for PAL / NTSC

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