

Customer Name	<b>Standard specification</b>	FUJITSU MEDIA DEVICES LIMITED	
Application	IF Filter for Digital Terrestrial TV (Switchable)		
Center Frequency	36.125 MHz	DATE	Jun. 30 2003
FMD Part Number	SBSF03AAPL	Version 1.3	

**Table 1-1 Electrical Specification (Ta=25°C)**

Channel 1 (BW=7MHz)		Pin No.1&2=INPUT			Pin No.3=GROUND	
Items	Conditions	Specification			Unit	Remarks
		Min.	Typ.	Max.		
Center frequency		–	36.125	–	MHz	
Insertion Loss	36.125 MHz	20.4	21.9	23.4	dB	
Pass bandwidth	1 dB	–	6.5	–	MHz	
	3 dB	–	7.0	–	MHz	
	30 dB	–	8.6	–	MHz	
Relative level	31.875 MHz	–	-26	-19	dB	
	32.625 MHz	- 4.5	- 2.9	–	dB	
	32.825 MHz	- 2.2	- 1.2	–	dB	
	36.125 MHz	–	0	–	dB	Reference
	39.425 MHz	- 2.2	- 1.1	–	dB	
	39.625 MHz	- 4.5	- 3.0	–	dB	
	40.525 MHz	–	-34	-25	dB	
	46.875 MHz	–	-48	-33	dB	
	25.125 ~ 30.125 MHz	–	-40	-34	dB	
	42.125 ~ 50.125 MHz	–	-36	-30	dB	
Amplitude ripple (p-p)	33.125 ~ 39.125 MHz	–	0.5	1.0	dB	
Group delay ripple (p-p)	32.625 ~ 39.625 MHz	–	44	80	ns	
Input Capacitance	Cin1 (1.0 MHz)	–	19.0	–	pF	
Output Capacitance	Cout (1.0 MHz)	–	4.3	–	pF	
Temperature coefficient		–	-72	–	ppm/°C	

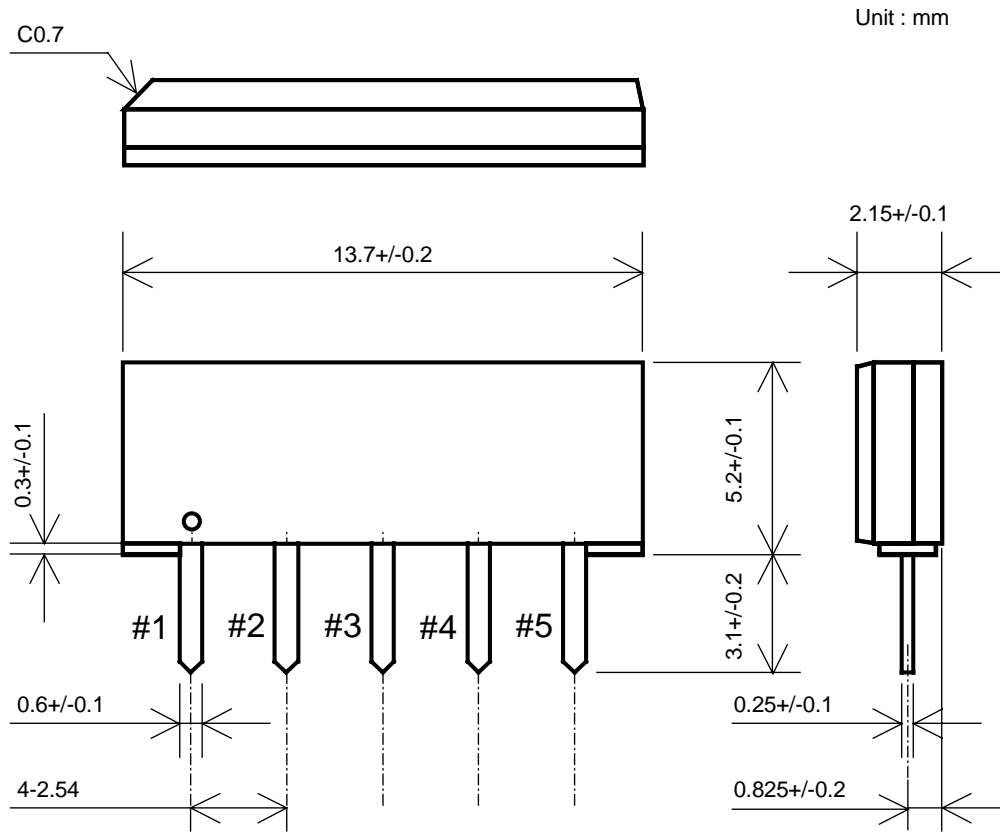
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**Table 1-2 Electrical Specification (Ta=25°C)**

Channel 2 (BW=8MHz)						
Pin No.1=INPUT Pin No.2&3=GROUND						
Items	Conditions	Specification			Unit	Remarks
		Min.	Typ.	Max.		
Center frequency		–	36.125	–	MHz	
Insertion Loss	36.125 MHz	20.4	21.9	23.4	dB	
Pass bandwidth	1 dB	–	7.4	–	MHz	
	3 dB	–	7.9	–	MHz	
	30 dB	–	9.5	–	MHz	
Relative level	31.375 MHz	–	-30	-23	dB	
	32.125 MHz	- 5.7	- 4.0	–	dB	
	32.325 MHz	- 2.8	- 1.6	–	dB	
	36.125 MHz	–	0	–	dB	Reference
	39.925 MHz	- 2.8	- 1.5	–	dB	
	40.125 MHz	- 5.5	- 3.8	–	dB	
	41.025 MHz	–	-42	-30	dB	
	47.375 MHz	–	-50	-30	dB	
	25.125 ~ 30.125 MHz	–	-40	-34	dB	
	42.125 ~ 50.125 MHz	–	-34	-29	dB	
Amplitude ripple (p-p)	33.125 ~ 39.125 MHz	–	0.5	1.0	dB	
Group delay ripple (p-p)	32.775 ~ 39.725 MHz	–	40	80	ns	
Input Capacitance	Cin2 (1.0 MHz)	–	22.6	–	pF	
Output Capacitance	Cout (1.0 MHz)	–	4.3	–	pF	
Temperature coefficient		–	-72	–	ppm/°C	

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● **Dimensions**



**Fig.1**

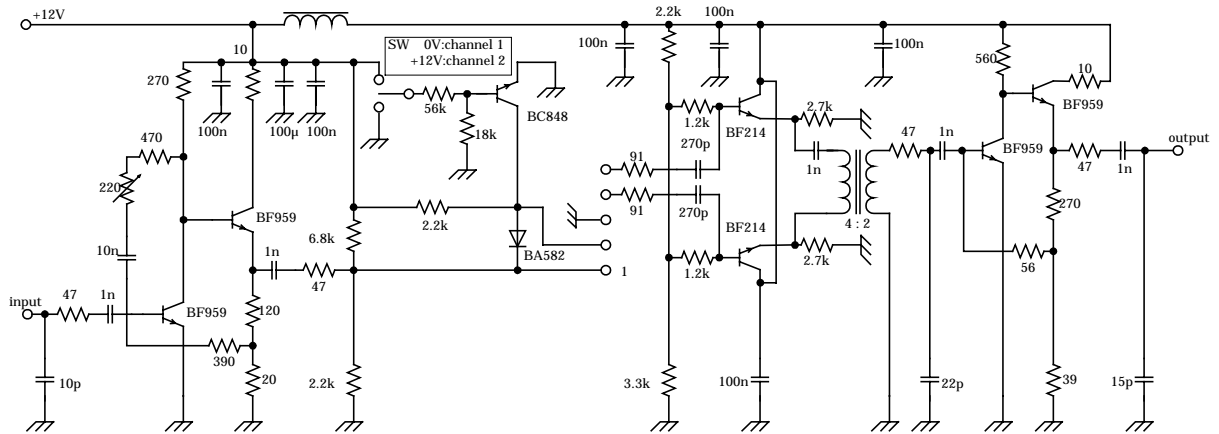
● **Pin Configuration**

**Table 2**

Pin No.	Symbol	Function
#1	IN	Input
#2	SW	Switching
#3	GND	Ground
#4	OUT	Output
#5	OUT	Output

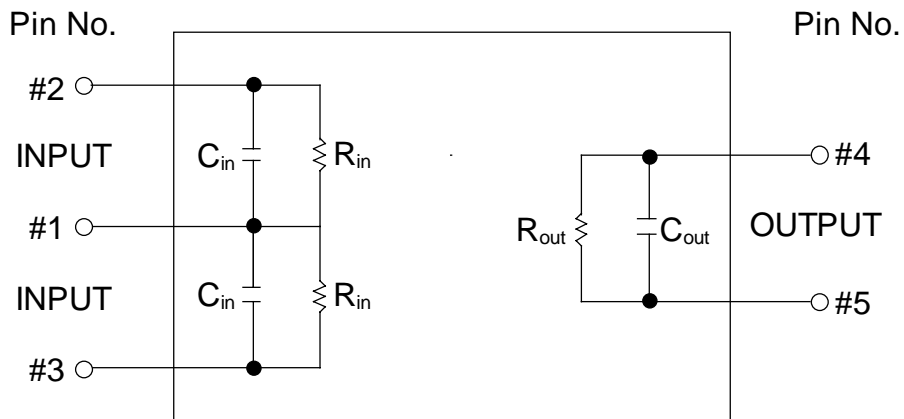
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● **Evaluation Circuit**



**Fig.2 Evaluation circuit**

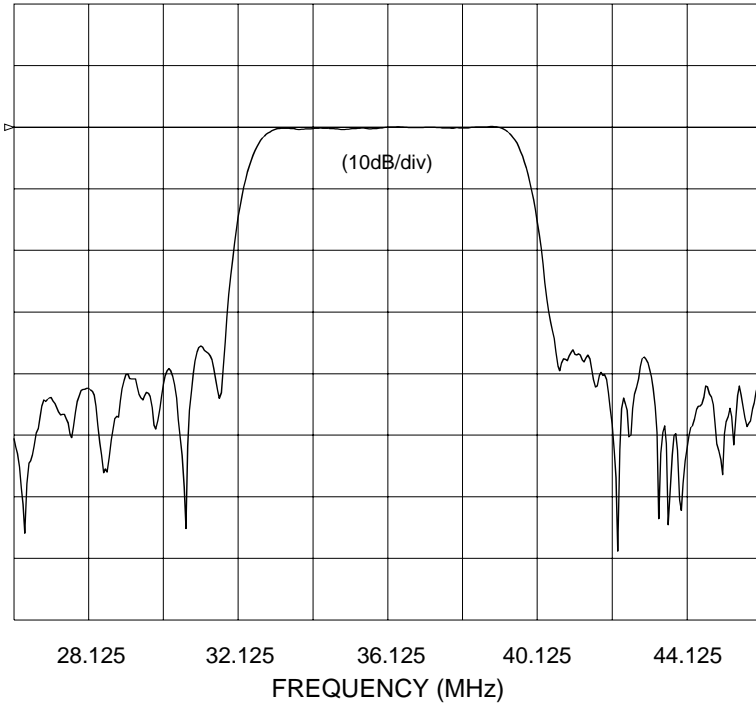
● **Equivalent Circuit**



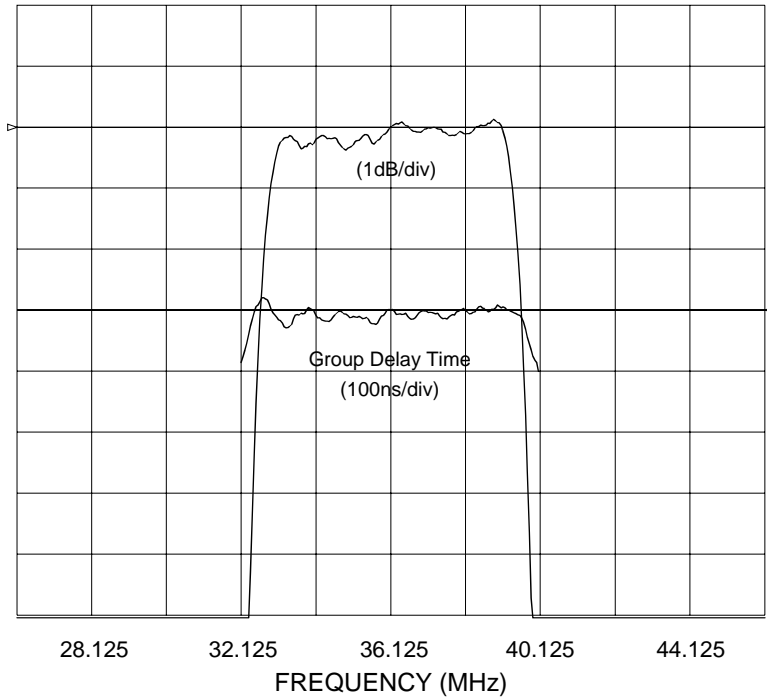
**Fig.3 Equivalent circuit**

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Channel 1 (BW=7MHz)



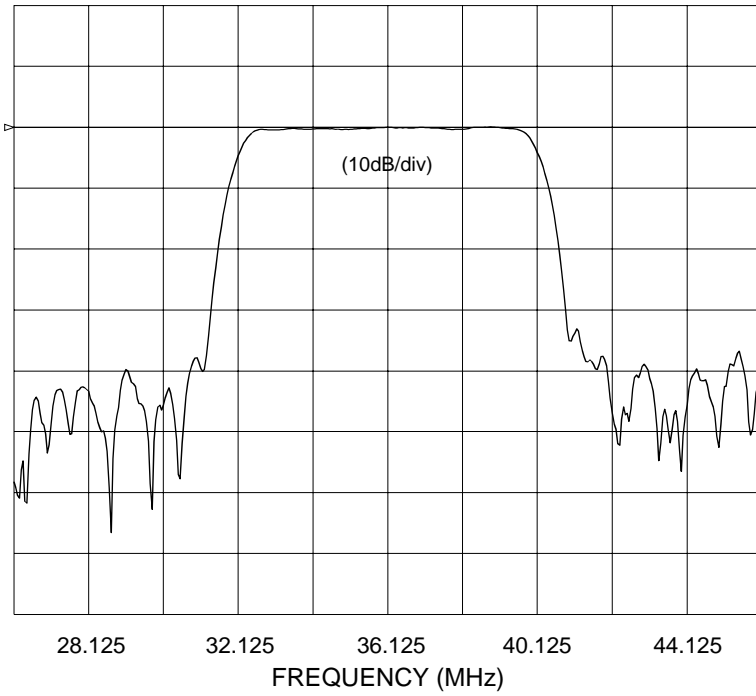
**Frequency Characteristics**



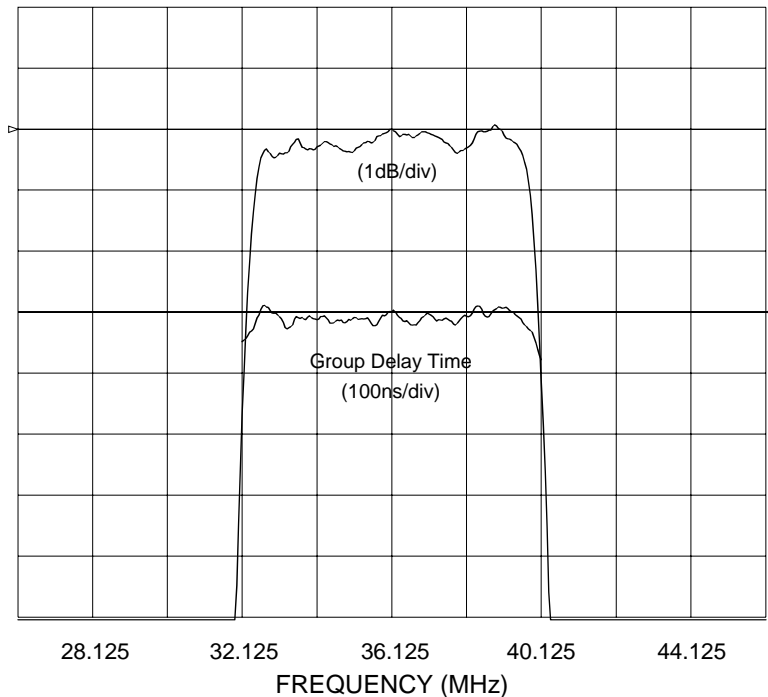
**In-band Characteristics**

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Channel 2 (BW=8MHz)



**Frequency Characteristics**



**In-band Characteristics**