

SEP. 15, 2000

Approved by: KyoYoung Jin



Checked by: SungIl Park



Issued by: Kim, MyeongKee



SPECIFICATION

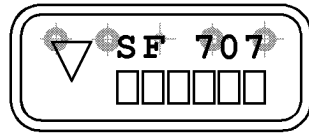
MODEL: 6389DS

SURFACE ACOUSTIC WAVE FILTER

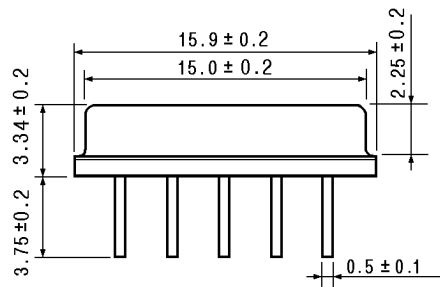
SAMSUNG ELECTRO-MECHANICS CO., LTD.
314. MAETAN3-DONG, PALDAL-KU,
SUWON-SI, KYUNGKI-DO, KOREA, 442-743

1. OUTLINE DRAWING AND DIMENSION

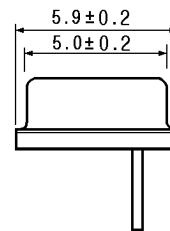
[Unit : mm]



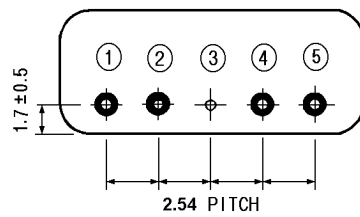
[TOP VIEW]



[SIDE VIEW]



[RIGHT SIDE VIEW]



[BOTTOM VIEW]

PIN NO.	FUNCTION
①	INPUT
②	GROUND
③	GROUND
④	OUTPUT
⑤	OUTPUT

2. MARKING

SF 903
 ▽ 6389DS

Color : Black/Red Ink or LASER Marking

Model No. : 6389DS (S-type Package)

Lot No. : 903

Pin No. 1: ▽

3. PERFORMANCE**3-1. APPLICATION**

IF Filter for PAL-B/G Intercarrier

3-2. MAXIMUM RATING

(Ta = 25℃)

CHARACTERISTICS		RATING	UNITS
Input signal voltage		5	V _{p-p}
DC voltage	between inputs	3	V
	between outputs		
	between others	15	
AC voltage : 50~60 Hz		10	V _{p-p}
Operating temperature range		-25 ~ +65	℃
Storage temperature range		-25 ~ +85	℃

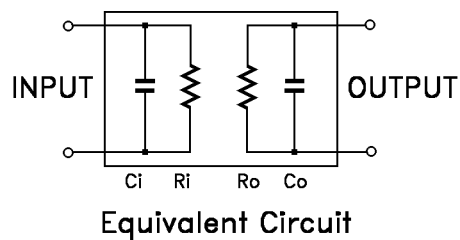
3-3. ELECTRICAL CHARACTERISTICS

3-3-1. TABLE

 $T_a = 25^\circ\text{C}$

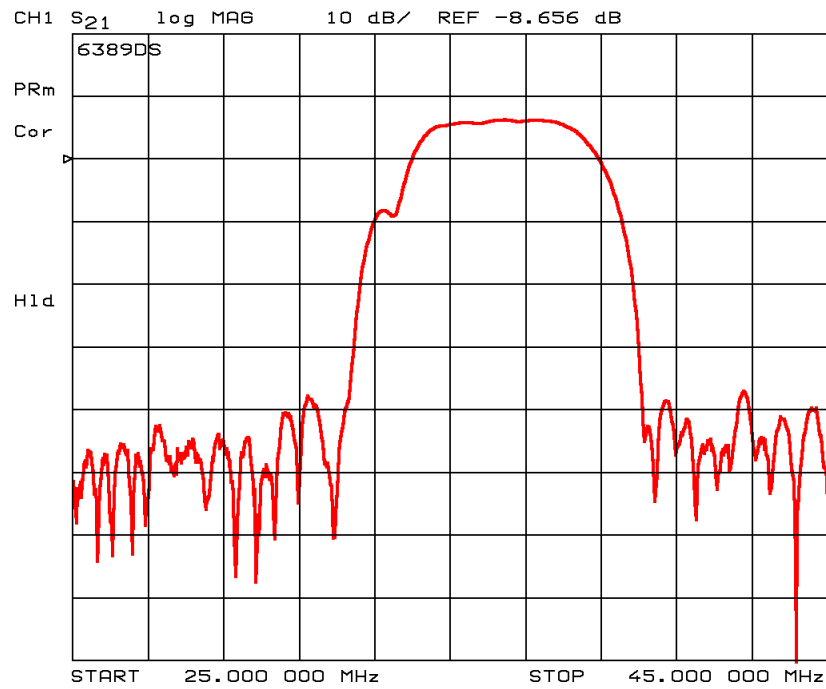
CHARACTERISTICS		Freq. (MHz)	Specification				Test Fixture
			Min.	Typ.	Max.	Units	
Insertion Loss(α)		37.4	1.6	2.6	3.6	dB	No. 1
Relative Attenuation (Ref.: α)	adj.picture UHF	30.9 fp-8	42	54		dB	
	adj.picture VHF	31.9 fp-7	42	54			
		32.4 fp-6.5	30	38			
	NICAM sound	33.05 fp-5.85	-	14.9	-		
	sound	33.4 fp-5.5	13.7	14.7	15.7		
	color	34.47 fp-4.43	0.5	1.5	2.5		
	peak		-	-0.2	-		
	picture	38.9 fp	4.9	5.9	6.9		
		40.15 fp+1.25	42	51	-		
	adj.sound VHF	40.4 fp+1.9	42	51			
adj.sound UHF	41.4 fp+2.5	40	48				
lower sidelobe		25.0 ~ 31.9	38	45	-		
upper sidelobe		40.4 ~ 45.0	38	45	-		
Group Delay Ripple(max-min)		34.47 ~ 38.9	-	120	-	nsec	
Group Delay (Ref. fp)		34.47	-	10	-		
		36.9	-	-90	-		
Temperature Coefficient of Frequency Response			-	-72	-	ppm/°C	No. 2
Impedance	R _i /C _i					k Ω /pF	
	R _o /C _o					k Ω /pF	

Impedance equivalent circuit is shown below.

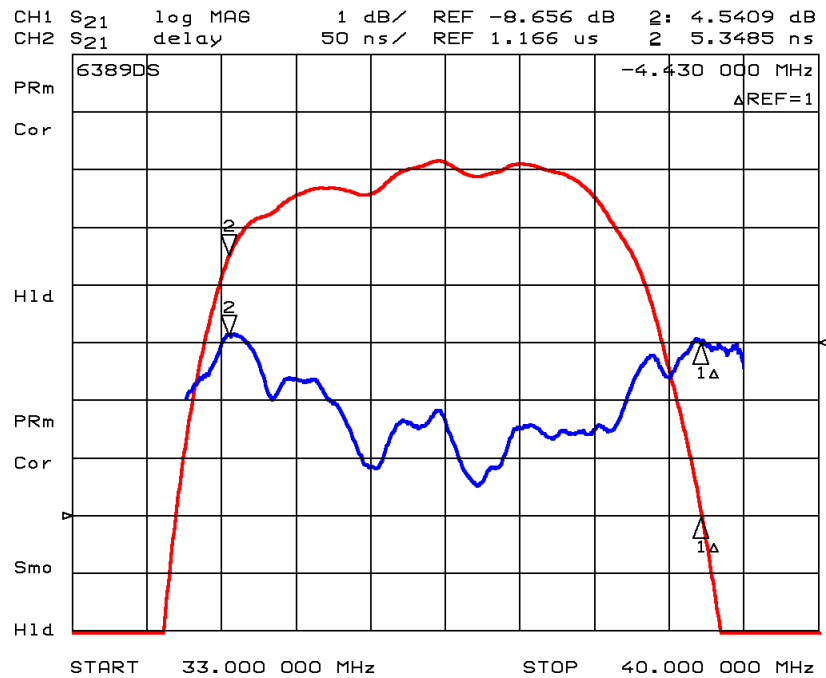


3-3-2. GRAPH

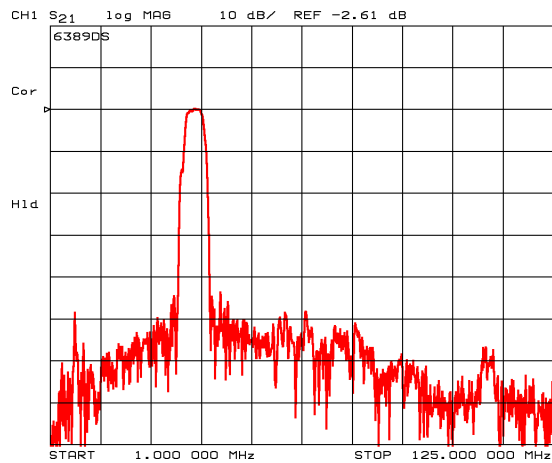
Frequency Response by Test Fixture No. 1



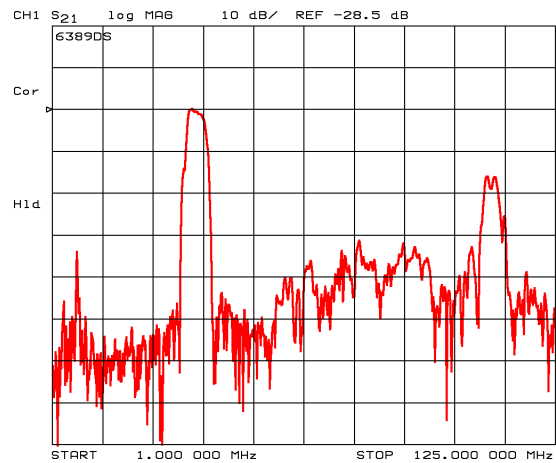
Frequency Response by Test Fixture No. 1



Test Fixture No. 1

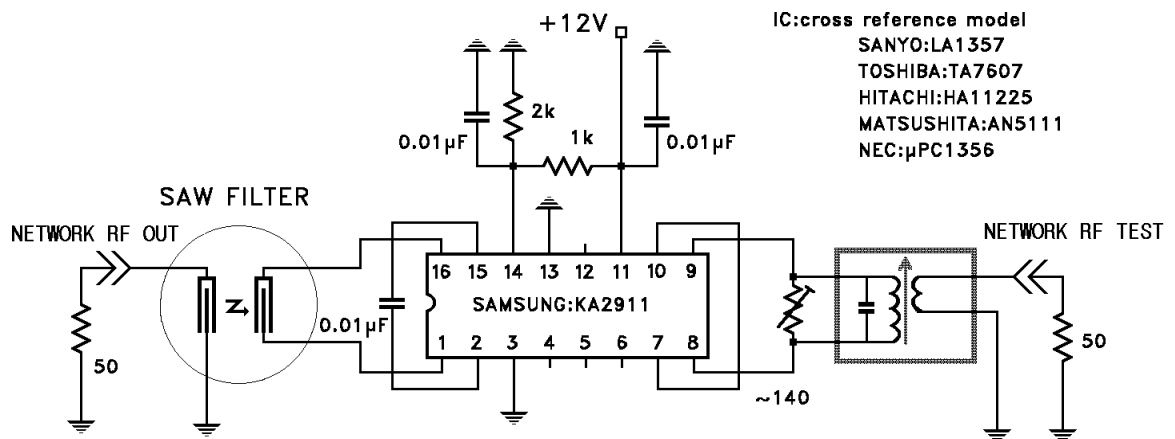


Test Fixture No. 2

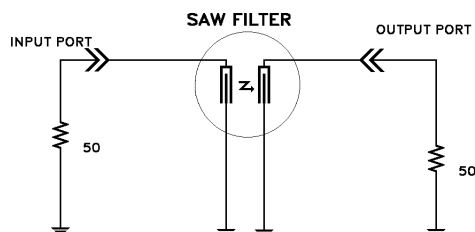


3-3-3. TEST FIXTURE

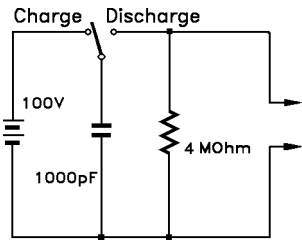
No. 1



No. 2



4. RELIABILITY

ITEM	TEST CONDITION	LIMIT
4-1. LIFE TEST		
High Temperature Operation	Ta=+70±2℃, 500h, DC 3V, Output ports load.	insertion loss : initial ±1.5dB amplitude response : pass bandwidth α -1dB,-3dB,-30dB initial ±0.5MHz (with test fixture on No. 1)
High Temperature Exposure	Tstg=+85±2℃, 500h	
Low Temperature Exposure	Ta=-40±2℃, 500h	
Moisture Resistance	Ta=+40±2℃, RH 90~95%, 500h	
Salt Spray	After soldering, 5% salt solution, 24h	
4-2. HEAT CYCLE, SOLDERING TEST		
Temperature Cycle	(-20℃,30min→25℃,5min→80℃,30min→25℃,5min) 5 cycle.	Same as 4-1.
Solderability	Immerse the pins in melt solder at 230±5℃ for 2+1-0 sec.	More than 90% of total area of the pins should be covered with solder
Heat Resistivity for Melt Solder	Immerse the pins in melt solder at 260±5℃ for 10+2-0 sec.	Same as 4-1.
4-3. MECHANICAL TEST		
Vibration	Amplitude=2mm, 20↔60Hz, sweep time 1 minute, 3 direction each 8h.	Same as 4-1.
Drop	On concrete plate from 1m high, 3 times.	
Lead Bend	90° bending with 450g weight, 2 times.	Should not be broken.
Lead Pull	After bending lead parallel to header base, pull with 1kg force for 1 minute.	Should not be lost or broken.
4-4. SURGE TEST		
Surge Test	10 times between any leads 	Same as 4-1.

5. REVISION

Date	Page	Revision	Reason