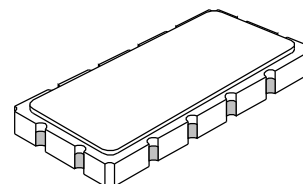


# SF1076A 149 MHz SAW Filter



- Designed for GSM Receiver IF Applications
- Low Insertion Loss
- Excellent Size-to-Performance Ratio
- Hermetic 13.3 x 6.5 mm Surface-Mount Case
- Unbalanced Input and Output



Characteristic	Sym	Min	Typ	Max	Units	Notes		
Nominal Center Frequency	fc		149.000		MHz	1		
Passband	Insertion Loss at fc			9.0	dB	1, 2		
		1 dB Passband	BW <sub>1</sub>	±90			kHz	
		3 dB Passband	BW <sub>3</sub>	±150	±300			
	Group Delay Variation over fc ±90 kHz	GDV		500	ns <sub>P-P</sub>			
Rejection	fc -750 to fc -600 and fc +600 to fc +750 kHz		10		dB	1, 2, 3		
		fc -1000 to fc -750 and fc +750 to fc +1000 kHz		20				
		fc -1500 to fc -1000 and fc +1000 to fc +1500 kHz		27			30	
		At fc -1500 and fc +1500 kHz		30			35	
		Ultimate					45	
Operating Temperature Range	T <sub>A</sub>	-30		+75	°C	1		

Impedance Matching to 50 Ω unbalanced	External L-C
Case Style	SM13365-12 13.3 x 6.5 mm Nominal Footprint
Lid Symbolization (YY = year, WW = week)	RFM SF1076A YYWW

## Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Max. DC voltage between any 2 terminals	30	VDC
Storage Temperature Range	-40 to +85	°C
Max Soldering Profile	265°C for 10 s	

## Electrical Connections

Connection	Terminals
Port 1 Hot	2
Port 1 Gnd Return	3
Port 2 Hot	8
Port 2 Gnd Return	9
Case Ground	All others

### Notes:

1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50 Ω and measured with 50 Ω network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, fc.
3. Rejection is measured as attenuation below the minimum IL point in the passband. Rejection in final user application is dependent on PCB layout and external impedance matching design. See Application Note No. 42 for details.
4. "LRIP" or "L" after the part number indicates "low rate initial production" and "ENG" or "E" indicates "engineering prototypes."
5. The design, manufacturing process, and specifications of this filter are subject to change.
6. Either Port 1 or Port 2 may be used for either input or output in the design. However, impedances and impedance matching may vary between Port 1 and Port 2, so that the filter must always be installed in one direction per the circuit design.
7. US and international patents may apply.
8. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.
9. ©Copyright 1999, RF Monolithics Inc.
10. Electrostatic Sensitive Device. Observe precautions for handling.

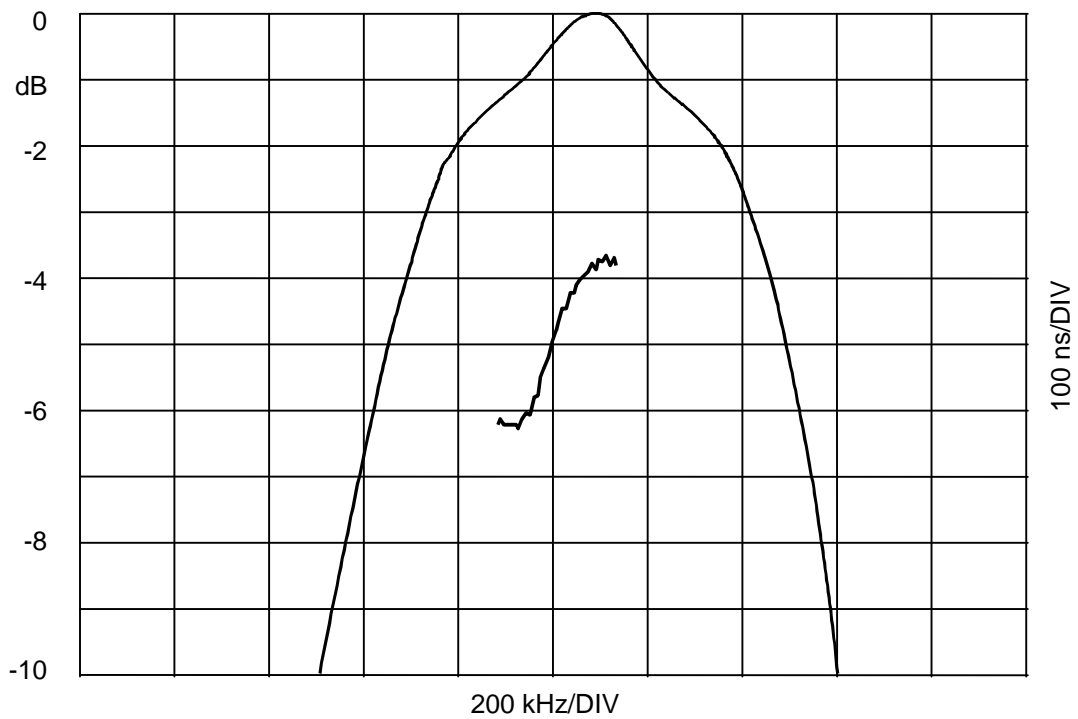
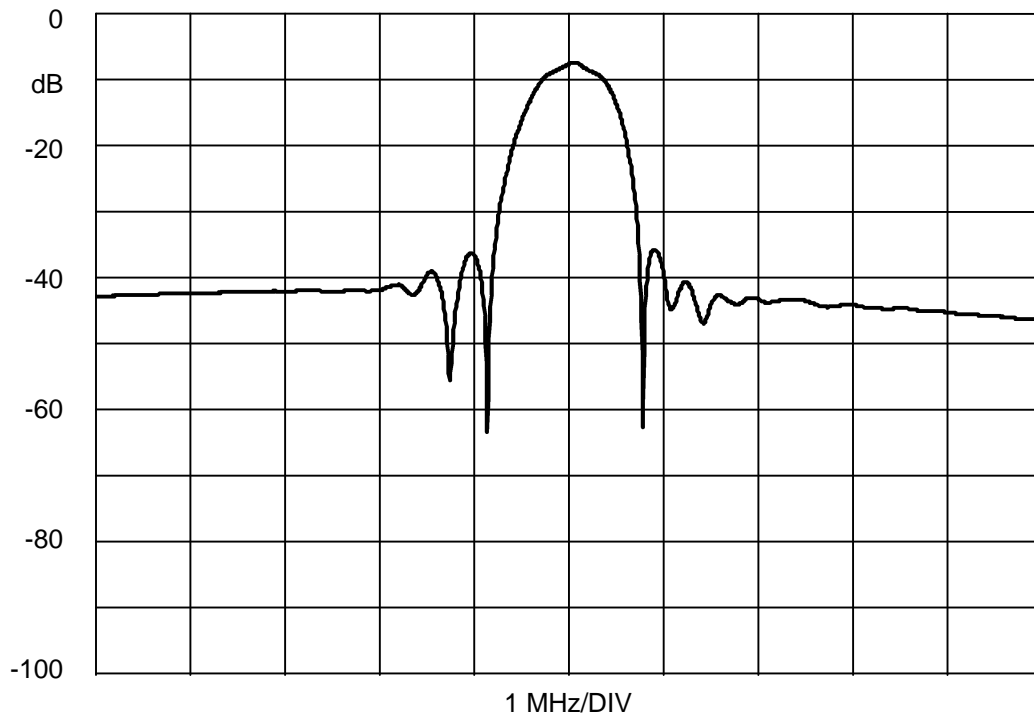


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**European Sales Office**  
44 1963 251383  
44 1963 251510

# SF1076A 149 MHz SAW Filter

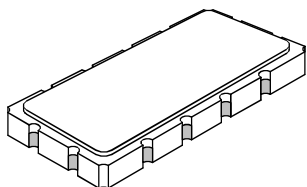


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## 12-Terminal Ceramic Surface-Mount Case 13.3 x 6.5 mm Nominal Footprint

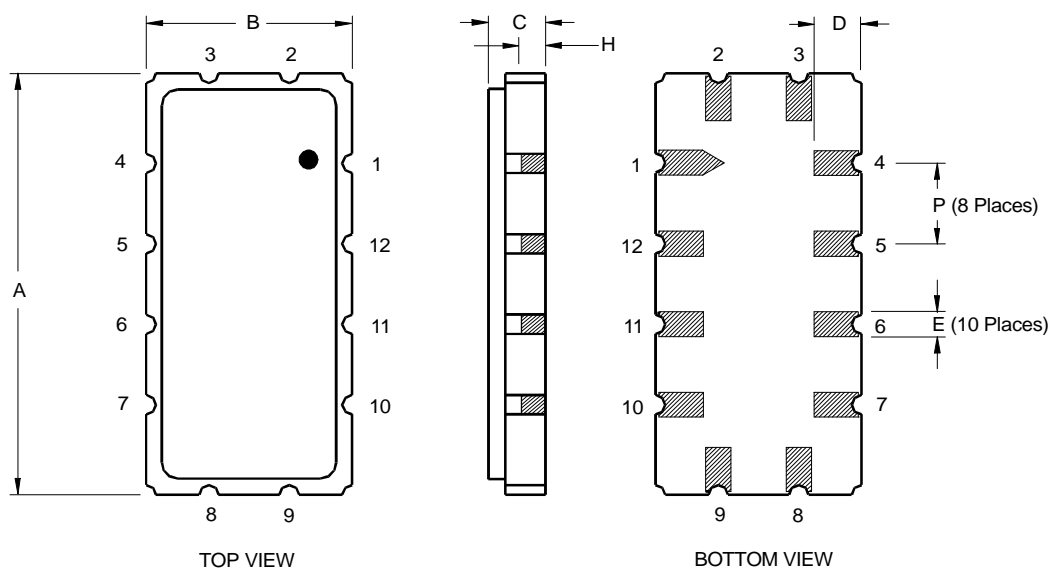


### Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	13.08	13.31	13.60	0.515	0.524	0.535
B	6.27	6.50	6.80	0.247	0.256	0.268
C		1.91	2.00		0.075	0.079
D		1.50			0.059	
E		0.79			0.031	
H		1.0			0.039	
P		2.54			0.100	

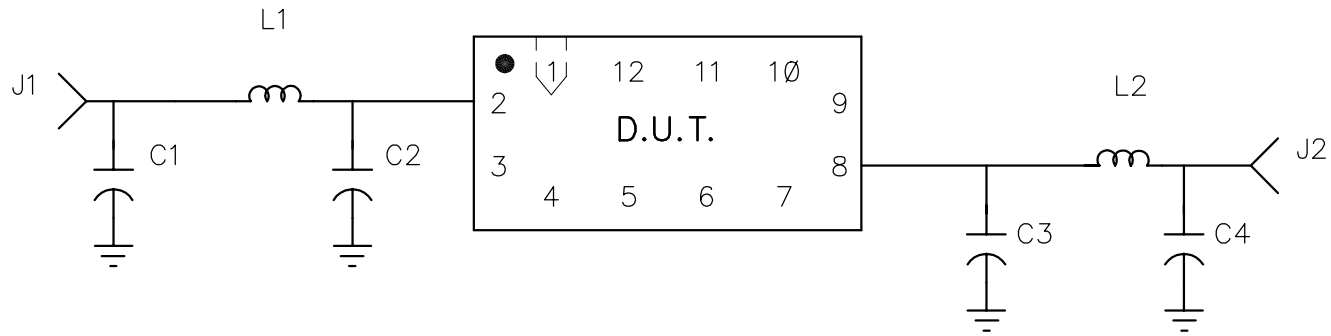
### Electrical Connections

Connection		Terminals
Port 1	Input or Return	2
	Return or Input	3
Port 2	Output or Return	8
	Return or Output	9
Ground		All others
<b>Single Ended Operation</b>		<b>Return is ground</b>
<b>Differential Operation</b>		<b>Return is hot</b>



REV	ECN NO.	DESCRIPTION	DATE
A	5076	INITIAL RELEASE	
B	10225	REVISED PIN NUMBERING	04oct01

SCHEMATIC, SF1076A (DEMO)



DRAWN BY/DATE: J.J. LAYTON 11/13/96

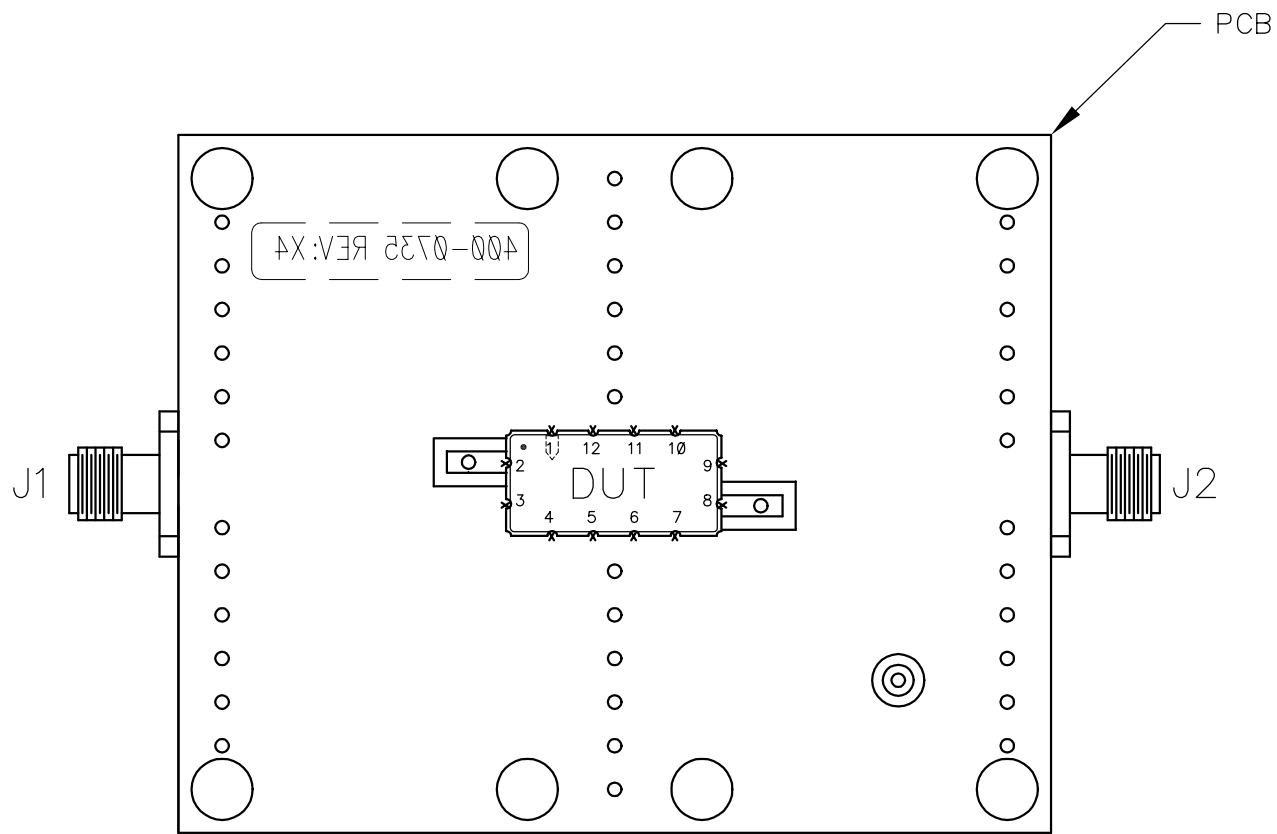
TITLE: DEMO PCB, SF1076A

**RF Monolithics, Inc.**  
DALLAS, TEXAS 75244

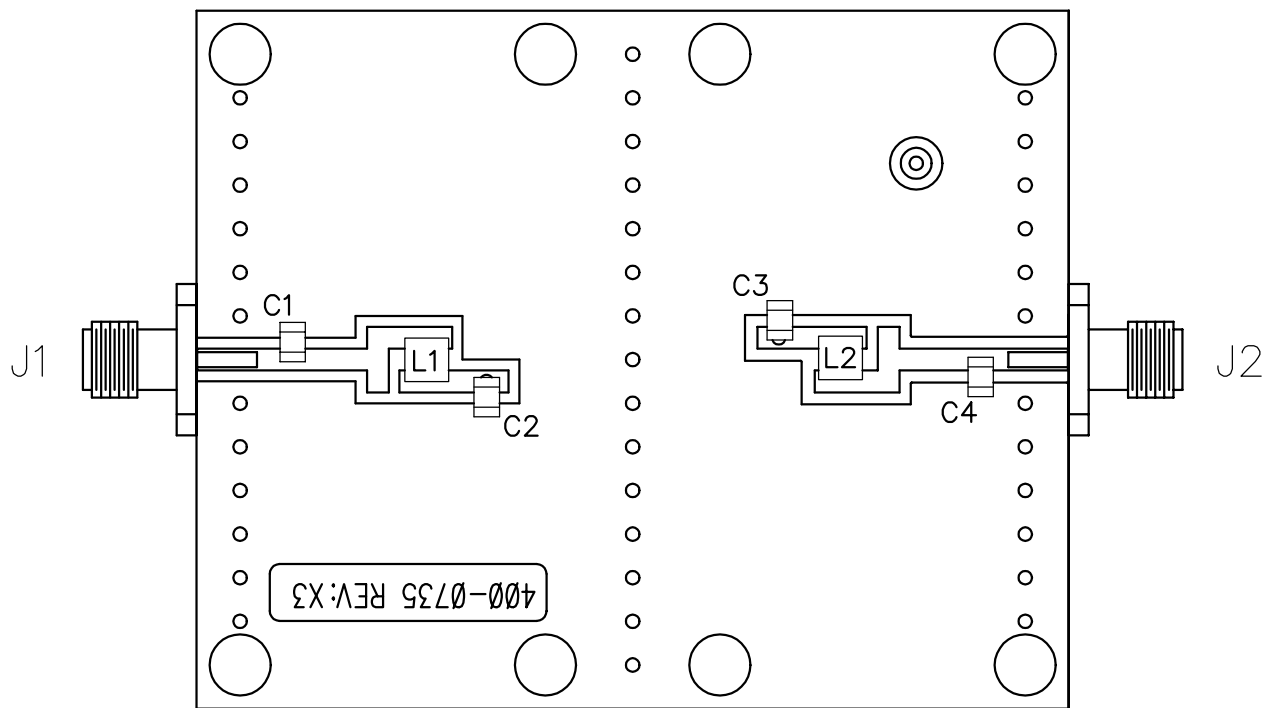
SIZE: **A**  
CODE IDENT: **2U874**

DWG. NO.: **SF1076A-000**

REV: **B** SHEET: **1/3**



COMPONENT SIDE



SOLDER SIDE

## SF1076 (DEMO)

<u>PART IDENTIFIER</u>	<u>DESCRIPTION 1</u>	<u>DESCRIPTION 2</u>	<u>QTY/ASSY</u>	<u>REFERENCE DESCRIPTION</u>
SF1076A(DEMO)	DEMO BOARD,SF1076A			
SF1076A-000	ASSY DIAGRAM,DEMO BOARD	SF1076A	0	
500-0003-390	CAP,CHIP,NPO,39(J),STD		1.0000	C1
500-0003-330	CAP,CHIP,NPO,33(J),STD		1.0000	C2
500-0248-001	CONN,COAX,	FLANGE MT.JACK	2.0000	J1,2
500-0010-820	IND,CHIP,1008CS,82NH,10%	COILCRAFT #1008CS-82XKBC	1.0000	L1
500-0010-101	IND,CHIP,1008CS,100NH,10%		1.0000	L2
400-0735-001	PCB1,TEST,SM FILTERS	(NOT MODIFIED)	1.0000	PCB



SIZE  
**A**

FSCM NO.  
**2U874**

DWG NO.  
**SF1076A(DEMO)**

SCALE **NONE**

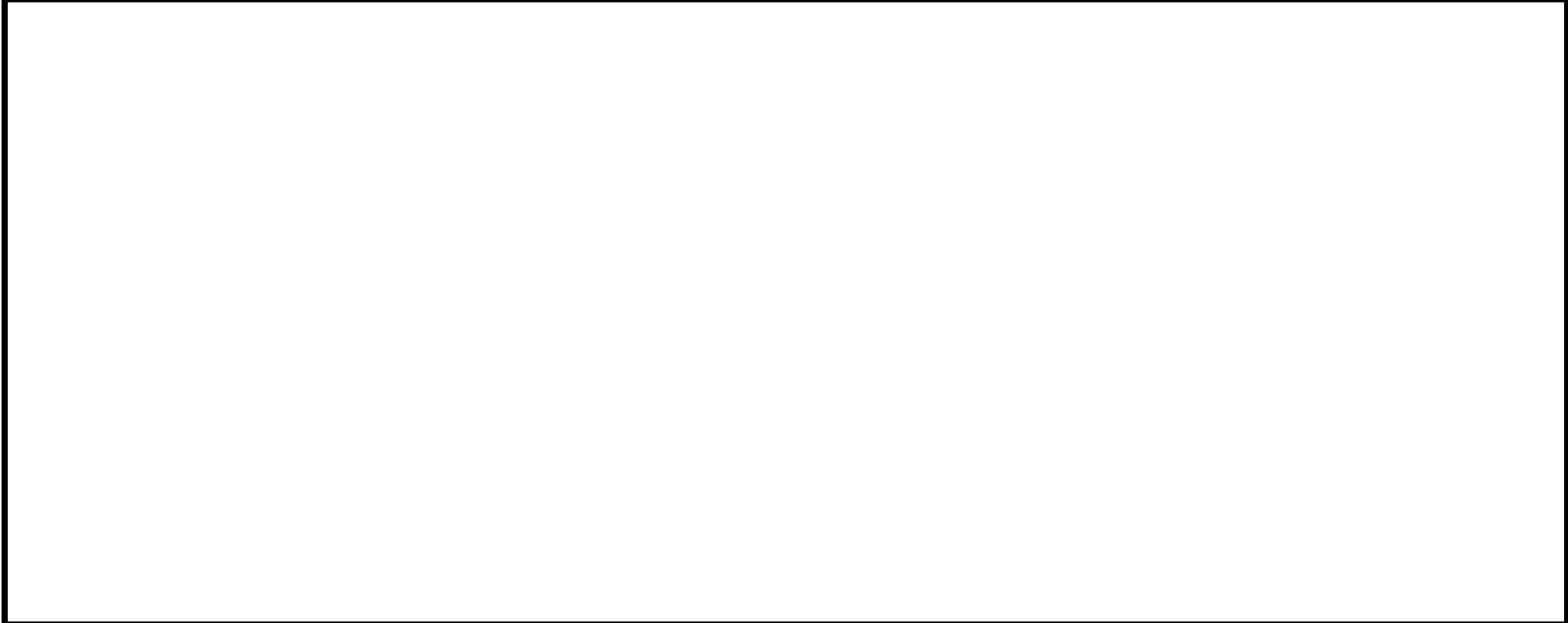
W/O or ECN **5076**

REV **A**

SHEET **1** OF **2**

**REV HISTORY**

REV	ECN	DATE	DESCRIPTION
A	5076	10/30/96	INITIAL RELEASE



	SIZE <b>A</b>	FSCM NO. <b>2U874</b>	DWG NO. <b>SF1076A(DEMO)</b>	
	SCALE <b>NONE</b>	W/O or ECN <b>5076</b>	REV <b>A</b>	SHEET <b>2</b> OF <b>2</b>