

NEW PRODUCT PROPOSAL

Solid State Micro Technology for Music, Inc.

SSM 2120

----- COMPANDER -----

The SSM 2120 is a state of the art compander integrated circuit designed specifically for use in professional audio systems. The chip has two fully independent class A VCA's that exhibit extremely low distortion and offer a 106dB dynamic range. Each VCA has two complimentary antilog (dB/volt) control ports to simplify system design. Also included on-chip are two independent control side chain circuits, each of which consist of a full wave rectifier, a logging circuit, and a high impedance amplifier. The log/antilog nature of the control paths make possible precisely defined compression/expansion ratios over a 100dB dynamic range.

FEATURES

- * 0.01% THD @ +10dBV
- * 106dB VCA Dynamic Range
- * Low VCA Control Feedthrough
- * 100dB Level Detection Range
- * Log/Antilog Control Paths
- * Low External Component Count

APPLICATIONS

- * Compressors
- * Expanders
- * Limiters
- * AGC Circuits
- * Voltage Controlled Filters
- * Complementary (Encode/Decode) Noise Reduction Systems

The information contained herein is a confidential new product proposal with no assurance of future availability, which will be based on market review. However, substantial development work has been completed and the specifications provided can be considered to be reasonably accurate (September, 1986). Contact SSMT for further information.

SOLID STATE MICRO TECHNOLOGY FOR MUSIC, INC.

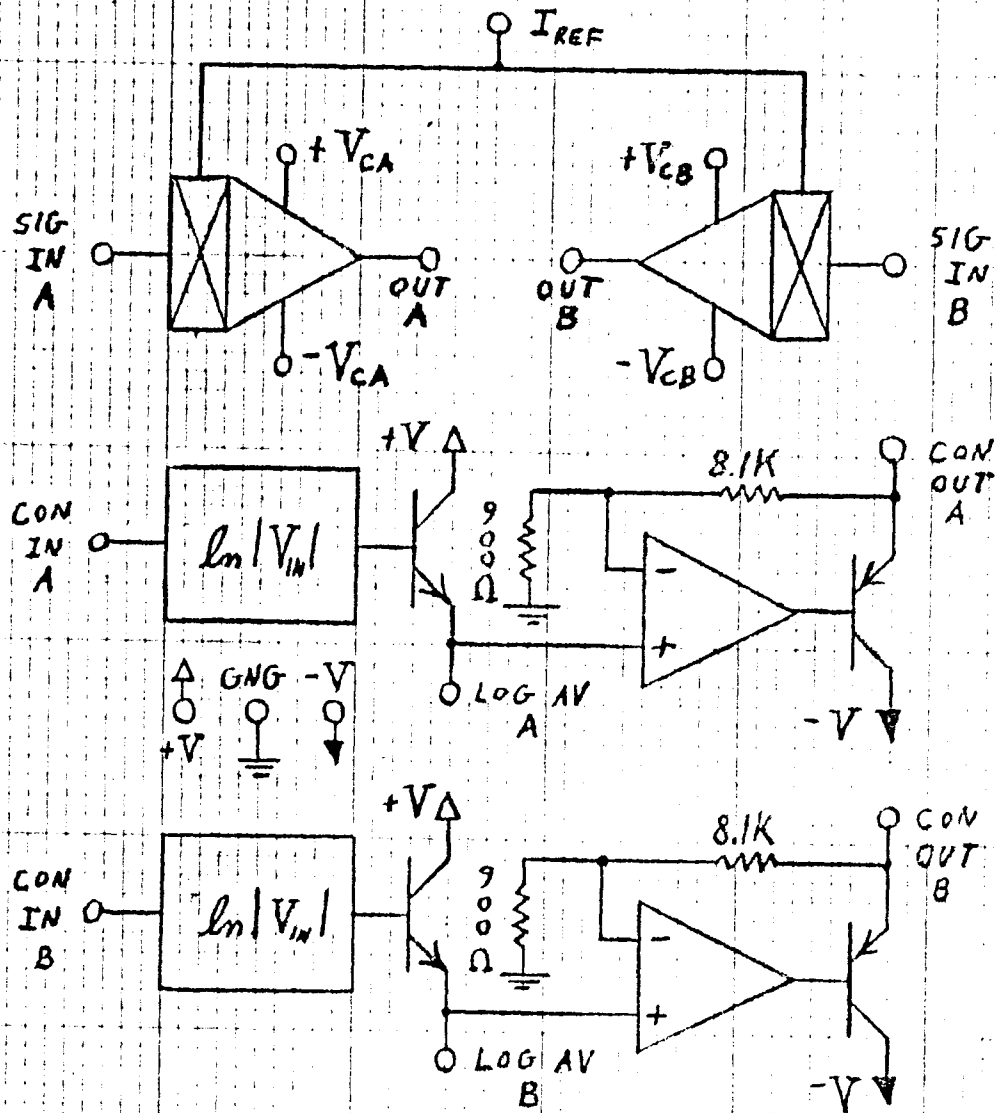
2076B Walsh Avenue, Santa Clara, CA 95050 U.S.A. (408) 727-0917 TLX 171189

TARGET SPECIFICATIONS*

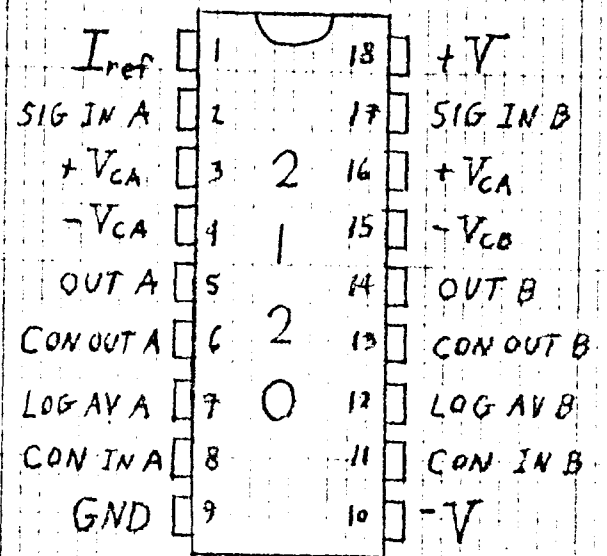
@ Vs = +/-15V, Ta = 25 Degrees C, Iref = 200uA

Parameter	MIN	TYP	MAX	UNITS	CONDITIONS
General:					
Positive Supply Range	+5		+18	V	
Negative Supply Range	-18		-5	V	
Icc		8	10	mA	
Iee		6	8	mA	
VCA's:					
Max Isignal (in/out)	+/-775	+/-800	+/-825	uA	
Output Offset		+/-1	+/-2	uA	
Gain Control Range	-100		+40	dB	
Output Leakage			+/-1	nA	
Control Sensitivity		6		mV/dB	
Frequency Response		1		MHz	Unity Gain
Off Isolation		100		dB	@ 1KHz
Current Gain	-0.25	0	+0.25	dB	Ve+ = Ve- = 0V
THD (Unity Gain)		0.005	.02	%	+10dBv In/Out
Noise (20KHz Bandwidth)		-86		dB	RE: 0dBv
Level Detectors:					
Dynamic Range	100	110		dB	
Input Current Range	0.03		3000	uApp	
Rectifier Input Bias Current		4	16	nA	
Output Sensitivity		3		mV/dB	
Output Offset Voltage		+/-0.5	+/-2	mV	
Frequency Response-					
Iin > 1mApp		1000		KHz	
Iin = 10uApp		50		KHz	
Iin = 1uApp		7.5		KHz	
Control Amplifiers:					
Input Bias Current		85	175	nA	
Gain	9.8	10	10.2		
Output Drive (Max Sink Current)	5.0	7.5		mA	
Input Offset Voltage		+/-0.5	+/-2	mV	

*Specifications are subject to change without notice



BLOCK DIAGRAM



PROPOSED PIN OUT