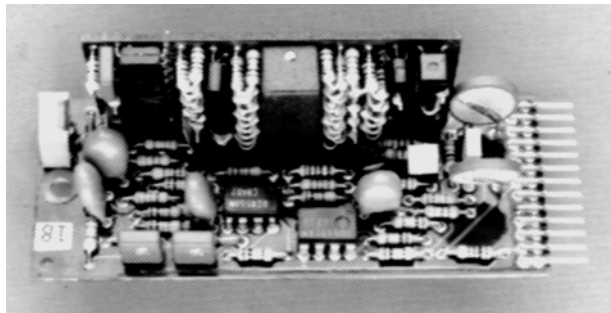


VCA with 1 or 3 Control Ports

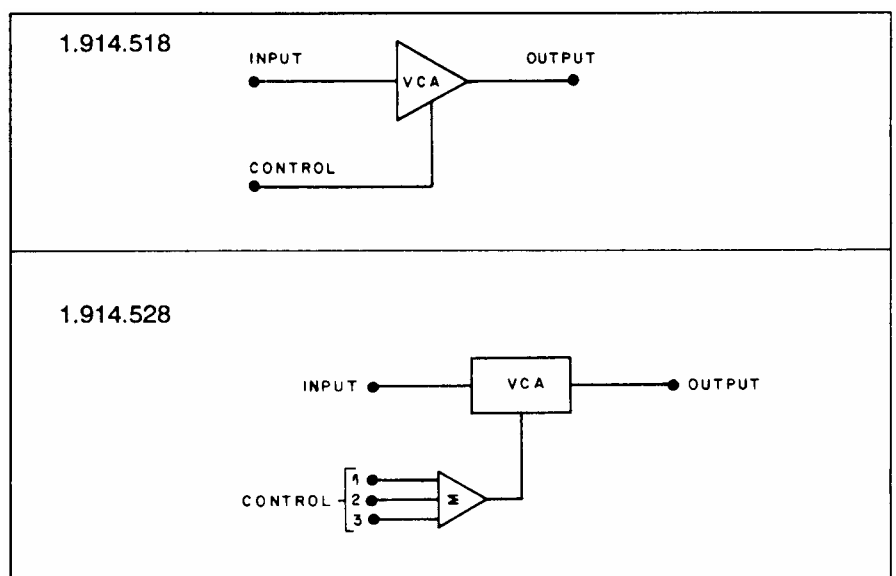
1.914.518/528

Within the range of modular sub-cards, two more VCAs are available. Voltage controlled amplifiers are ideally suited for applications such as remote level control, level limiting (in combination with the voltage processor 1.914.519) or for automatic “voice-over” circuits, when driven by suitable ramp generators. These VCAs offer outstandingly low noise and harmonic distortion.



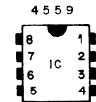
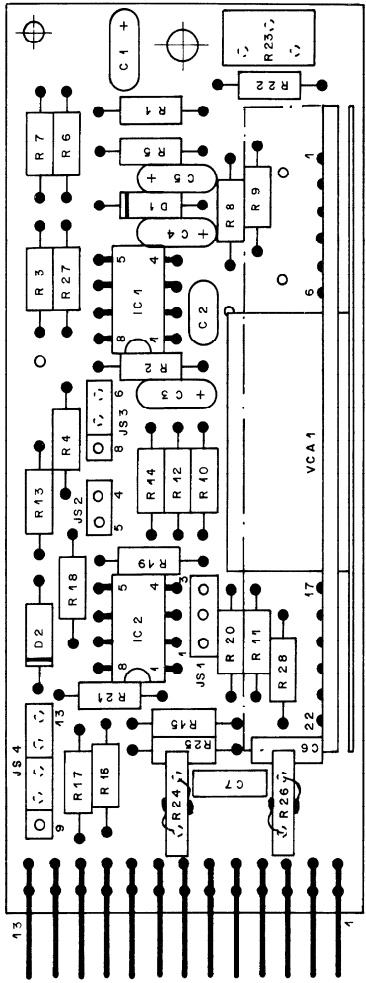
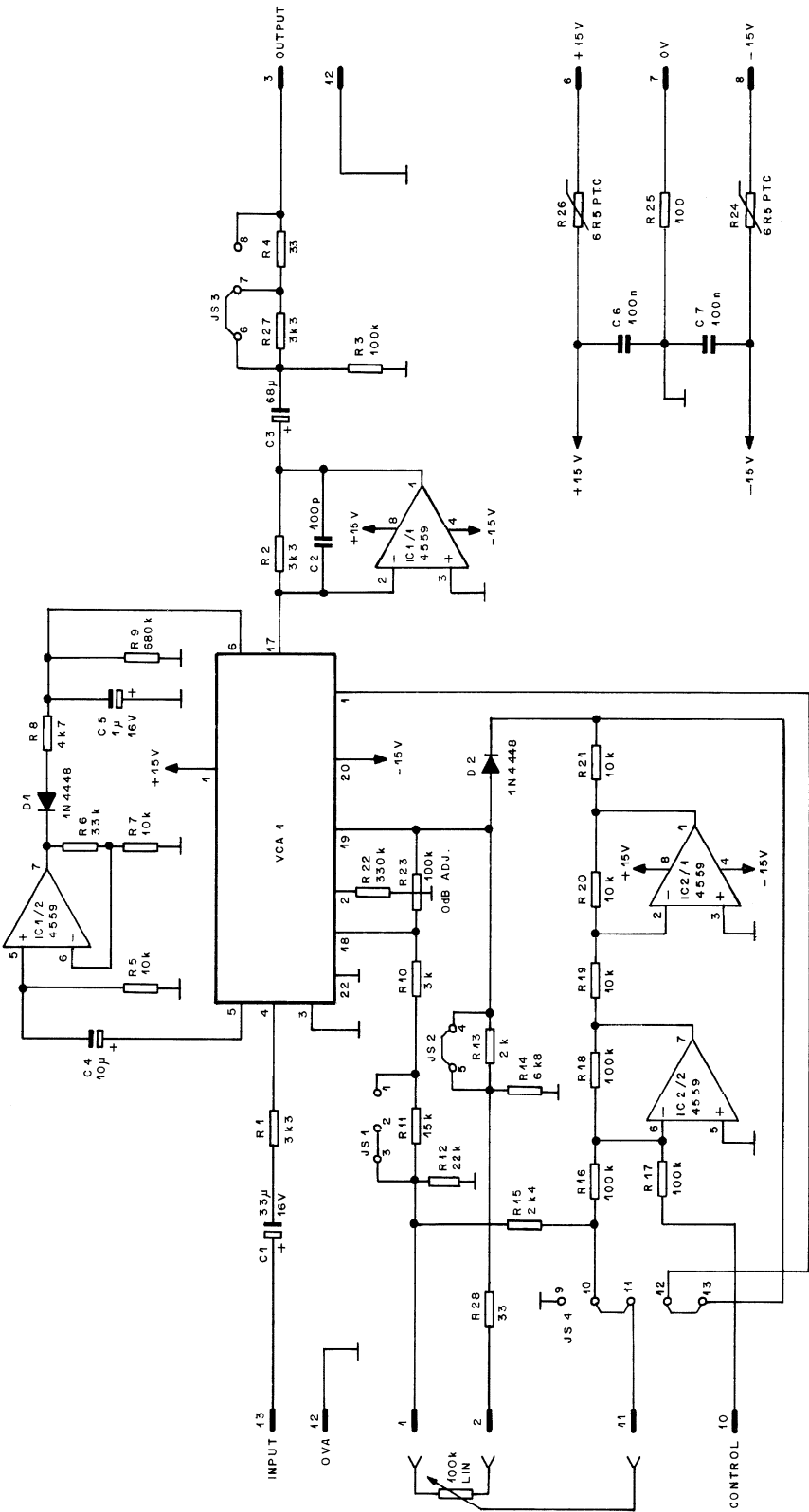
For best performance, they should be operated at a level of 0 dBu. Gain pre-selection is possible on the 1.914.518 version, allowing gain/attenuation ranges either from +10 to –90 dB or from +40 to –70 dB, using an external potentiometer.

The 1.914.528 VCA card differs in that it is equipped with three external control inputs, providing gain control from three different locations.



Technical Specifications

Input:	Impedance	> 3 kΩ	
	Clipping point	+20 dBu	
Output:	Impedance	33 Ω or 3.3 kΩ , selectable	
	Max. level	+20 dBu	
	Recommended load	≥ 2 kΩ	
	Frequency response	–0.5 dB , 30 Hz...16 kHz	
	External gain control	+40...–90 dB (1.914.518.xx) +40...–100 dB (1.914.528.xx)	
	Gain/attenuation range (pot. meter)	+40...–60 dB / +10...–70 dB / +10...–90 dB (1.914.518.xx only, jumper-selectable)	
	Gain tracking	10 dB/V	
	THD	< 0.1%	
	Equivalent input noise	–102 dBu	
	Supply:	± 15 V (40 mA)	
Dimensions:		MS-card , 34 \times 85 mm	
Ordering Information:	Voltage controlled amplifier with 1 control port		1.914.518.xx
	Voltage controlled amplifier with 3 control ports		1.914.528.xx



BOTTOM VIEW

CIS	PIN	EURO	32 PIN
INPUT	13	1	27
↓(INP./OUTP.)	12	2	28
LIN POT TAP	11	3	29
LEVEL CONTR.	10	17	48
-15V	9	14	
0V	7	15	
+15V	6	16	
	5		
	4		
OUTPUT	3	4	30
LIN POT 100k	2	5	34
LIN POT 100k	1	13	32

17.9.91			
STUDER REGENSDORF ZÜRICH	VCA UNIT	1.914.518.81	

MSC VCA

Ad	..POS..	..REF.No..	DESCRIPTION.....	MANUFACTURER
	A.....1	1.010.110.50	Studer VCA	St
01	A.....1	1.911.290.00	VCA-BOARD	St
02	A.....1	1.911.290.81	VCA BOARD	St
	C.....1	59.26.1330	33 uF	SAL
	C.....2	59.34.4101	100 pF	CER
	C.....3	59.26.0680	68 uF	SAL
	C.....4	59.26.2100	10 uF	SAL
	C.....5	59.26.9109	1 uF	SAL
	C.....6	59.06.5104	100 nF	PE
	C.....7	59.06.5104	100 nF	PE
	D.....1	50.04.0125	1N4448	any
	D.....2	50.04.0125	1N4448	any
	JS.....1	54.01.0020	JUMPER PLUG 3-PIN	
	JS.....2	54.01.0020	JUMPER PLUG 2-PIN	
	JS.....3	54.01.0020	JUMPER PLUG 3-PIN	
	JS.....4	54.01.0020	JUMPER PLUG 5-PIN	
	JP.....1	54.01.0021	JUMPER JACK	
	JP.....2	54.01.0021	JUMPER JACK	
	JP.....3	54.01.0021	JUMPER JACK	
	JP.....4	54.01.0021	JUMPER JACK	
	IC.....1	50.09.0107	RC4559	dual op. amp.
	IC.....2	50.09.0107	RC4559	dual op. amp.
	P.....1	54.01.0273	13 PIN	CIS
	R.....1	57.11.4332	3.3 kOhm	5% 0.25W MF
	R.....2	57.11.4332	3.3 kOhm	5% 0.25W MF
	R.....3	57.11.4104	100 kOhm	5% 0.25W MF
	R.....4	57.11.4330	33 Ohm	5% 0.25W MF
	R.....5	57.11.4103	10 kOhm	5% 0.25W MF
	R.....6	57.11.4333	33 kOhm	5% 0.25W MF
	R.....7	57.11.4103	10 kOhm	5% 0.25W MF
	R.....8	57.11.4472	4.7 kOhm	5% 0.25W MF
	R.....9	57.11.4684	680 kOhm	5% 0.25W MF
	R.....10	57.11.3302	3.0 kOhm	2% 0.25W MF
	R.....11	57.11.4153	15 kOhm	2% 0.25W MF
	R.....12	57.11.3242	2.4 kOhm	2% 0.25W MF
	R.....13	57.11.3202	2 kOhm	2% 0.25W MF
	R.....14	57.11.4682	6.8 kOhm	5% 0.25W MF
	R.....15	57.11.4223	22 kOhm	5% 0.25W MF
	R.....16	57.11.4104	100 kOhm	2% 0.25W MF
	R.....17	57.11.4104	100 kOhm	2% 0.25W MF
	R.....18	57.11.4104	100 kOhm	2% 0.25W MF
	R.....19	57.11.4103	10 kOhm	2% 0.25W MF
	R.....20	57.11.4103	10 kOhm	2% 0.25W MF
	R.....21	57.11.4103	10 kOhm	5% 0.25W MF
	R.....22	57.11.4334	330 kOhm	5% 0.25W MF
	R.....23	58.01.9104	100 kOhm	10% 0.5 W PMG trimming resistor
	R.....24	57.92.1271	6.5 Ohm	PTC Philips Nr.2322 662 12711
	R.....25	57.11.4101	100 Ohm	5% 0.25W MF
	R.....26	57.92.1271	6.5 Ohm	PTC Philips Nr.2322 662 12711
	R.....27	57.11.4332	3.3 kOhm	5% 0.25W MF
	R.....28	57.11.4330	33 Ohm	5% 0.25W MF

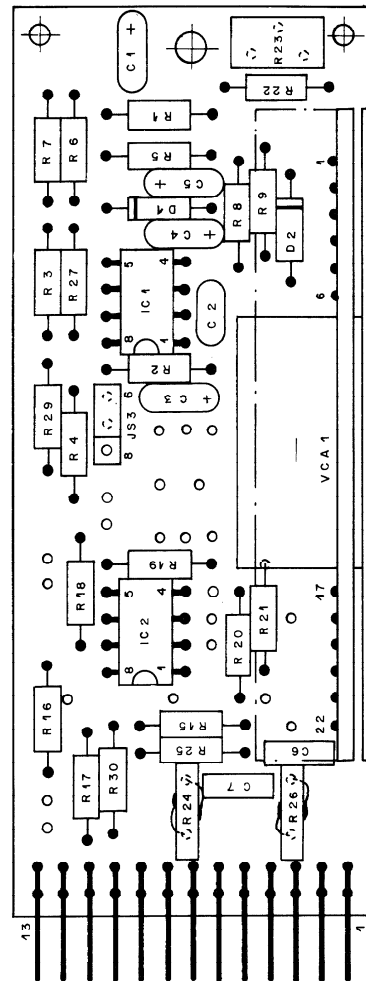
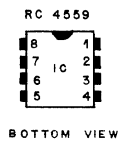
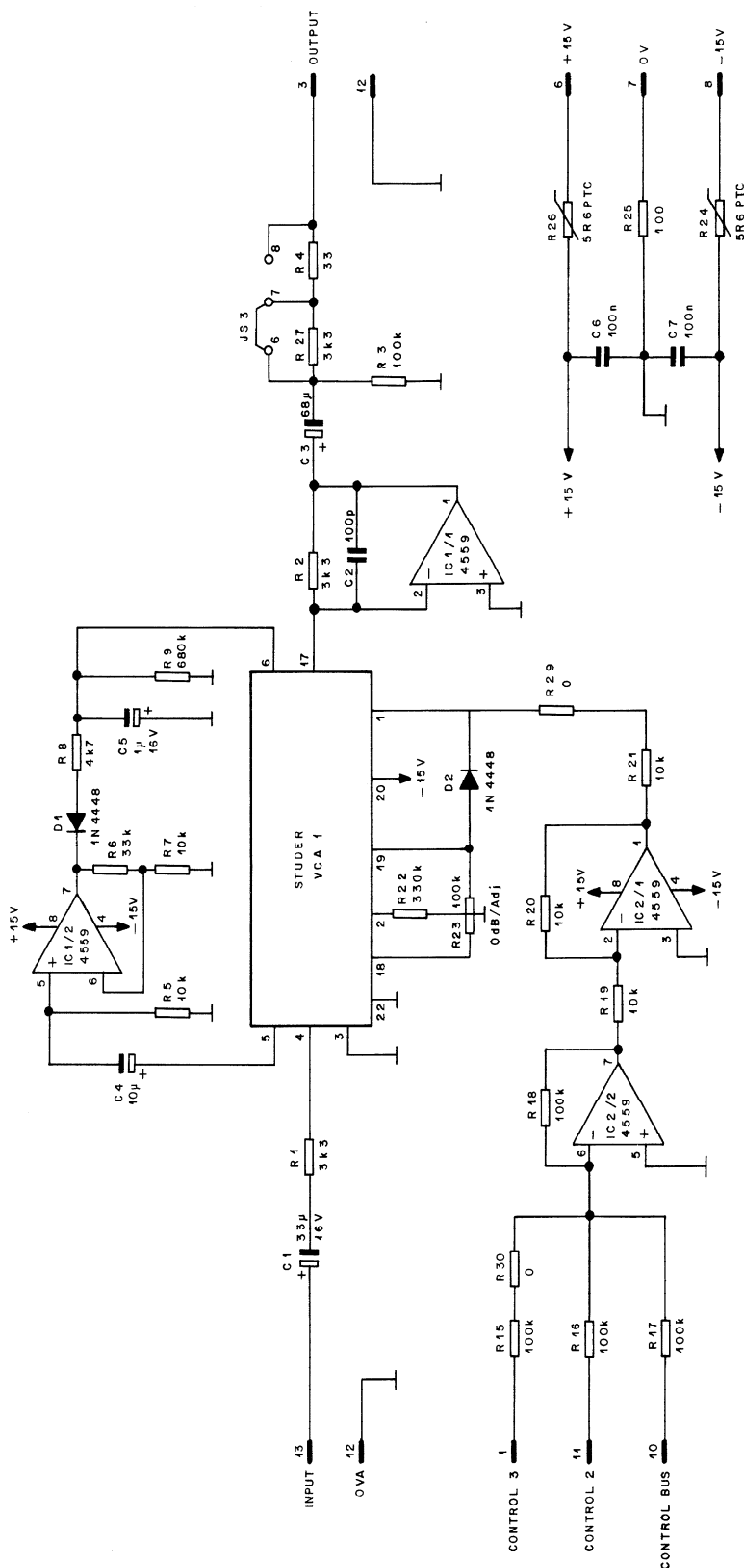
(1) 89/01/13 A1 VCA 1.010.110.50 replaced by 1.911.290.00

(2) 90/01/17 A1 VCA 1.911.290.00 replaced by 1.911.290.81

CER=Ceramic, PE=Polyester, SAL=Solid Aluminium Lacquard
MF=Metal Film, PMG=Cermet

MANUFACTURER: Ex=Exar, NE=NEC, Ph=Philips, Ra=Raytheon,
Sig=Signetics, St=Studer,

1.914.518.81	VCA UNIT	SE 86/11/0500
1.914.518.81	VCA UNIT	SE 89/01/1301
1.914.518.81	VCA UNIT	WY 90/01/1702



CIS	PIN	EURO 32 PIN			
		(a)	(b)	(c)	(d)
INPUT	13	1	7	21	27
1. IN/OUT	12	2	8	22	28
CONTROL 2	11	3	9	23	29
CONTROL BUS	10	17	17	18	18
-15V	9				
0V	8	14			
+15V	7	15			
	6	16			
	5				
	4				
OUTPUT	3	4	10	24	30
	2	5	11	25	31
CONTROL 3	1	6	13	26	32

① 23.9.91				
STUDER REGENSDORF ZÜRICH	VCA UNIT / 3 CONTROL			1.914.528.00

VCA MSC

Ad	POS.	REF.No.	DESCRIPTION	MANUFACTURER
		A.....1	1.010.110.50	Studer VCA St
01		A.....1	1.911.290.00	VCA-BOARD St
02		A.....1	1.911.290.81	VCA-BOARD St
		C.....1	59.26.1330 33 uF	SAL
		C.....2	59.34.4101 100 pF	CER
		C.....3	59.26.0680 68 uF	SAL
		C.....4	59.26.2100 10 uF	SAL
		C.....5	59.26.9109 1 uF	SAL
		C.....6	59.06.5104 100 nF	PE
		C.....7	59.06.5104 100 nF	PE
		D.....1	50.04.0125 1N4448	any
		D.....2	50.04.0125 1N4448	any
		JS....3	54.01.0020 JUMPER PLUG 3-PIN	
		JP....1	54.01.0021 JUMPER JACK	
		IC....1	50.09.0107 RC4559 dual op. amp.	Ra,NE
		IC....2	50.09.0107 RC4559 dual op. amp.	Ra,NE
		P.....1	54.01.0273 13 PIN CIS	
		R.....1	57.11.4332 3.3 kOhm 5% 0.25W MF	
		R.....2	57.11.4332 3.3 kOhm 5% 0.25W MF	
		R.....3	57.11.4104 100 kOhm 5% 0.25W MF	
		R.....4	57.11.4330 33 Ohm 5% 0.25W MF	
		R.....5	57.11.4103 10 kOhm 5% 0.25W MF	
		R.....6	57.11.4333 33 kOhm 5% 0.25W MF	
		R.....7	57.11.4103 10 kOhm 5% 0.25W MF	
		R.....8	57.11.4472 4.7 kOhm 5% 0.25W MF	
		R.....9	57.11.4684 680 kOhm 5% 0.25W MF	
		R....15	57.11.4104 100 kOhm 2% 0.25W MF	
		R....16	57.11.4104 100 kOhm 2% 0.25W MF	
		R....17	57.11.4104 100 kOhm 2% 0.25W MF	
		R....18	57.11.4104 100 kOhm 2% 0.25W MF	
		R....19	57.11.4103 10 kOhm 2% 0.25W MF	
		R....20	57.11.4103 10 kOhm 2% 0.25W MF	
		R....21	57.11.4103 10 kOhm 5% 0.25W MF	
		R....22	57.11.4334 330 kOhm 5% 0.25W MF	
		R....23	58.01.9104 100 kOhm 10% 0.5 W PMG trimming resistor	
		R....24	57.92.1271 6.5 Ohm PTC Philips Nr.2322 662 12711	
		R....25	57.11.4101 100 Ohm 5% 0.25W MF	
		R....26	57.92.1271 6.5 Ohm PTC Philips Nr.2322 662 12711	
		R....27	57.11.4332 3.3 kOhm 5% 0.25W MF	
		R....29	57.11.4000 0 Ohm	
		R....30	57.11.4000 0 Ohm	

(1) 89/01/13 A1 VCA 1.010.110.50 replaced by 1.911.290.00
(2) 90/01/17 A1 VCA 1.911.290.00 replaced by 1.911.290.81

CER=Ceramic, PE=Polyester, SAL=Solid Aluminium
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MANUFACTURER: Ex=Exar, NE=NEC, Ph=Philips, Ra=Raytheon,
Sig=Signetics, St=Studer,

1.914.528.00 VCA UNIT / 3 CONTROL SE 86/10/2800
1.914.528.00 VCA UNIT / 3 CONTROL SE 89/01/1301
1.914.528.00 VCA UNIT / 3 CONTROL WY 90/01/1702