

PROGRAMMABLE SPECTRAL PROCESSOR MODEL 296

BILL OF MATERIALS REV 2.1

MAINBOARD

CAPACITORS

VALUE	DESIGNATOR	QTY	DESCRIPTION	MOUSER PART#
15nF	C1, C2	2	FILM 5MM LS	80-MMK5153J63J01TR16
1nF	C3, C4	2	FILM 5MM LS	80-MMK5102J50J01L4

RESISTORS

VALUE	DESIGNATOR	QTY	DESCRIPTION	MOUSER PART#
B50K	POT1, POT2, POT3, POT4, POT5, POT6, POT7, POT8, POT9, POT10, POT11, POT12, POT13, POT14, POT15, POT16	16	SLIDER POTENTIOMETER	FARNELL/NEWARK: RS4511150K
B25K	POT17, POT18, POT19, POT20, POT21	5	9MM POTENTIOMETER	http://smallbear-electronics.mybigcommerce.com/alpha-single-gang-9mm-right-angle-pc-mount/

MISC

VALUE	DESIGNATOR	QTY	DESCRIPTION	MOUSER PART#
	B17, B18, B19, B20, B21, B22, B23, B24, B25, B26, B27, B28, B29, B30, B31, B32, B33, B34	18	BANANA JACK BLACK	530-108-0903-1
	B1, B3, B5, B7, B9, B11, B13, B15	8	BANANA JACK BLUE	530-108-0910-1
	B2, B4, B6, B8, B10, B12, B14, B16	8	BANANA JACK VIOLET	530-108-0912-1
	J1, J2, J3, J4, J5, J6, J7, J8, J9, J10, J11, J12, J13, J14, J15, J16, J17, J18, J19, J20, J21, J22, J23, J24, J26	25	TINIJAX	502-41
	J25, J27	2	TINIJAX NORMALIZED	502-42A
	LED1, LED2	2	3MM RED LED	630-HLMP-K101
SPDT ON-ON-ON	SW1	1		633-M202401
SPDT ON-ON	SW2, SW3	2		633-M201201
	CARD-01, CARD-02, CARD-03, CARD-04, CARD-05, CARD-06, CARD-07, CARD-08, CARD-09, CARD-10	20	MOLEX 10 PIN MALE	538-26-48-1101
		19	BLUE SWITCH CAP	
		1	POWER CONNECTOR	587-306-50-010

CARDS

SEMICONDUCTORS

VALUE	DESIGNATOR	QTY	DESCRIPTION	MOUSER PART#
1N457	D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12, D13, D14, D15, D16, D17, D18, D19, D20, D21, D22, D23, D24, D25, D26, D27, D28, D29, D30, D31, D32, D33, D34, D35, D36, D37, D38, D39, D40, D41, D42, D43, D44, D45, D46, D47, D48, D49	49		512-1N457
V2164	IC6, IC9, IC18, IC29, IC37, IC49, IC53, IC60	8	DIP16	http://store.synthrotek.com/V2164D-Quad-Voltage-Controlled-Amplifier_p_464.html
AH5011	IC24	1		eBay
J201	Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9, Q10, Q13, Q14, Q15, Q16, Q17, Q18	16		106-J201
2N3904	Q11, Q12	2		610-2N3904
1N5233	Z1, Z2	2		78-1N5233B

CAPACITORS

VALUE	DESIGNATOR	QTY	DESCRIPTION	MOUSER PART#
4.7uF	C6	1	FILM 5MM LS	505-MKS2-4.7/50/10
1uF	C3, C5, C11, C21	4	FILM 5MM LS	80-R82DC4100AA60J
270nF	C20	1	FILM 5MM LS	80-MMK5274K63J02TR18
180nF	C7, C8, C10, C13, C48, C49, C153, C158	8	FILM 5MM LS	80-MMK5184K100J02L4
100nF	C76, C77	2	FILM 5MM LS	80-MMK5104J50J01TR18
68nF	C9, C12, C35, C39, C115, C116	6	FILM 5MM LS	80-MMK5683J100J01L4
47nF	C1, C2, C23, C24, C25, C27, C52, C53, C80, C81, C119, C120, C143, C144, C147, C148, C183, C184, C211, C212, C237, C238	22	FILM 5MM LS	80-MMK5473J100J01L4
33nF	C34, C37, C38, C41, C179, C180	6	FILM 5MM LS	80-MMK5333J50J01TR18
22nF	C4, C22, C26, C31, C33, C63, C67, C207, C208	9	FILM 5MM LS	80-MMK5223J50J01TR18
15nF	C36, C40, C51, C55, C62, C65, C235, C236	8	FILM 5MM LS	80-MMK5153J63J01TR16
10nF	C28, C29, C30, C32, C50, C54, C56, C57, C66, C69, C84, C85, C101, C102, C104, C106, C123, C124, C151, C152, C187, C188, C215, C216, C241, C242	26	FILM 5MM LS	80-MMK5103J63J01TR18
6.8nF	C59, C61, C64, C68, C79, C82, C83, C121, C122	9	FILM 5MM LS	80-MMK5682J63J01TR18
5.6nF	C58, C60, C98, C100, C105, C108, C130, C134, C149, C150, C185, C186	12	FILM 5MM LS	80-MMK5562J63J01TA18
4.7nF	C78, C97, C99, C103, C107, C129, C132, C166, C170, C213, C214, C239, C240	13	FILM 5MM LS	80-MMK5472J50J01TR18
3.9nF	C133, C136	2	FILM 5MM LS	80-MMK5392J63J01TR18
3.3nF	C118, C126, C128, C131, C135, C194, C198	7	FILM 5MM LS	80-MMK5332J50J01L4
2.2nF	C117, C125, C127, C162, C164, C165, C168, C169, C172, C193, C196, C221, C222, C224, C226	15	FILM 5MM LS	80-MMK5222J50J01L4
1.5nF	C145, C146, C161, C163, C167, C171, C190, C192, C197, C200	10	FILM 5MM LS	80-MMK5152J100J01L4
1nF	C181, C182, C189, C191, C195, C199, C217, C218, C219, C220, C223, C225, C227, C228	14	FILM 5MM LS	80-MMK5102J50J01L4
470pF	C209, C210	2	FILM 5MM LS	505-FKP2470/100/2.5
0.1uF	F1, F2, F3, F4, F5, F6, F7, F8, F9, F10	10	CERAMIC 5MM LS	581-SA105E104M
560pF	C14, C15, C16, C17, C42, C43, C44, C45, C70, C71, C72, C73, C109, C110, C111, C112, C137, C138, C139, C140, C173, C174, C175, C176, C201, C202, C203, C204, C229, C230, C231, C232	32	CERAMIC 5MM LS	581-SA101A561GAA
100pF	C18, C19, C46, C47, C74, C75, C86, C87, C88, C89, C90, C91, C92, C93, C94, C95, C96, C113, C114, C141, C142, C156, C157, C160, C177, C178, C205, C206, C233, C234	30	CERAMIC 5MM LS	581-SA102A101J
22pF	C154, C155, C159, C244	4	CERAMIC 5MM LS	581-SA102A220J
3.3pF	C243	1	CERAMIC 5MM LS	810-FK28C0G1H3R3C

RESISTORS

VALUE	DESIGNATOR	QTY	DESCRIPTION	MOUSER PART#
1K	TR1, TR2, TR3, TR6, TR7, TR8, TR9, TR10, TR11, TR14, TR15, TR16, TR17, TR18, TR19, TR22, TR23, TR24, TR25, TR26, TR27, TR30, TR31, TR32, TR33, TR34, TR35, TR38, TR39, TR40, TR41, TR42, TR43, TR46, TR47, TR48, TR49, TR50, TR51, TR54, TR55, TR56, TR57, TR58, TR59	45	SINGLE TURN ANGLED	652-3362X-1-102LF
100K	TR4, TR5, TR12, TR13, TR20, TR21, TR28, TR29, TR36, TR37, TR44, TR45, TR52, TR53, TR60, TR61	16	SINGLE TURN ANGLED	652-3362X-1-104LF

MISC

VALUE	DESIGNATOR	QTY	DESCRIPTION	MOUSER PART#
	MOLEX1, MOLEX2, MOLEX3, MOLEX4, MOLEX5, MOLEX6, MOLEX7, MOLEX8, MOLEX9, MOLEX10	20	MOLEX 20 PIN FEMALE ANGLED	538-09-62-3101