

Modulator/PSU PCB Parts List
4kW, Stepper Motor 4346-005

Part Nos	Qty	Reference	Part	Tol	Description
LEADED COMPONENTS					
01190	1	R352	4R7 2.5W	5%	2.5W W/W
01191	1	R137	10R 2.5W	5%	2.5W W/W
01192	1	R129	100K 2W	5%	2W Metal Film
01193	1	VD1	V39ZA1		Transient Suppressor
01205	1	PT1	PTH9M04BC222TS2F333		Thermistor
01208	3	R95, R179, R335	0.1R 1W	10%	1W Metal Film
01211	3	R96, R231, R136	33R 2W	5%	2W Metal Film
01225	1	R366	1K0	5%	2.5W W/W
01226	1	R135	22R 2W	5%	2W Metal Film
01227	1	R365	470k 1w 7Kv	5%	1W High Voltage (7kV)
02056	2	D22, D23	BYV26C		U.Fast, Soft Recovery Recti
02073	1	D79	11DQ10		Schottky, 100V
02074	1	D45	BZV85C18		Zenar Diode
02077	2	D41, D42	UX-F0B		High Voltage Diode
02078	1	D40	UF5404		U.Fast Rectifier
02079	1	D36	1N5404		Power Diode
02082	3	D29, D30, D70	BYV27-200		U.Fast Rectifier, Soft Rec.
03046	3	C59, C148, C168	10u 60V	20%	Low ESR Radial
03075	1	C150	220u 25V	20%	Radial
03083	2	C45, C112	2n2 1KV	20%	Ceramic Class II
03088	2	C113, C114	100p 1KV	10%	Ceramic - Class II
03090	1	C119	1n0 1KV	20%	Ceramic Class II
03093	2	C47, C48	0.1u, 250v	10%	Polyester 250V
03094	1	C67	0.1u, 400v	10%	Polyester 400V
03099	1	C90	68u 400V	20%	Radial
03101	3	C57, C61, C164	470u 10V	20%	Low ESR Radial
03102	2	C36, C100	560u 35V	10%	Low ESR Radial
03109	4	C46, C53, C60, C132	100u 35V	20%	Low ESR Radial
03116	1	C118	220p 100V	2%	Ceramic, Class II
03121	1	C98	33p 6kV	5%	Ceramic, Class I, High Volt
03122	1	C43	4n7 400V	10%	Polycarbonate/Polyester
03128	1	C178	2u2 400V	10%	Polypropylene, High Pulse
03138	1	C179	4n7 2kV	5%	Polypropylene, High Pulse
04072	1	U24	UC3517N		Stepper IC
05045	2	Q37, Q38	IRFI540N		N-chan Power Isol MOSFET
05046	1	Q42	IRFP350		N-chan Power HEXFET
05048	0		BUZ71F1		N-chan Power Isol MOSFET
05052	1	Q56	STP60N05FI		N-chan Power Isol MOSFET
07299	1	CN2	CON18		Mod-IF Connection
07307	1	CN6	CON2		Magnetron
07309	0		CON8		3-Phase Motor
07312	1	CN1	4way Clamp		Ships Supply
07324	1	CN5	CON3		Ships Heading Sensor
07325	1	CN4	CON6		Stepper Motor
15185	3	L3, L9, L10	100uH		Radial Inductor 1.4A
15249	3	FB1, F1, F2	BL01RN1A62		Ferrite Bead - 7Amp
15265	1	L2	10uH		Radial Inductor 10Amp
15278	2	CM1, L6	CMIND1		Common Mode Choke
3030-138-C	1	TX3	TXMOD		Pulse Transformer
3030-139-B	1	TX1	TX1		Flyback Transformer
3030-140-B	1	TX2	TX2		Flyback Transformer

SURFACE MOUNT COMPONENTS					
9103 100R	9	R115, R116, R181	100R	1%	0.25W
		R273, R279, R280, R305, R318, R324			
9103 10K	22	R68, R70, R128, R149, R163, R236, R257, R269, R271, R281	10K	1%	0.25W
		R292, R295, R304, R306, R307, R308, R310, R311, R312, R341, R349, R354			
9103 10R	20	R40, R114, R117, R119, R120, R138, R168, R175, R183, R228, R258, R297, R319, R320, R322, R338, R339, R340, R358, R359	10R	1%	0.25W
9103 1K	16	R69, R71, R93, R110, R148, R261, R274, R276, R277, R278 R289, R296, R330, R332, R348, R369	1K	1%	0.25W
9103 270R	1	R309	270R	1%	0.25W
9103 33K	2	R196, R283	33K	1%	0.25W
9103 3K3	1	R285	3K3	1%	0.25W
9103 510R	1	R256	510R	1%	0.25W
9103 5K6	2	R226, R329	5K6	1%	0.25W
9103 6K8	1	R199	6K8	1%	0.25W
9104 0R47	3	R132, R133, R164	0.47R .25W	5%	0.5W
9106 0R0	3	R275, R345, R346	0R0		0.25W
9106 100K	6	R88, R188, R235, R291, R325, R334	100K	5%	0.25W
9106 12K	2	R189, R294	12K	5%	0.25W
9106 15K	1	R326	15K	5%	0.25W
9106 1R0	2	R331, R351	1R0 .25W	5%	0.25W
9106 220K	2	R197, R323	220K	5%	0.25W
9106 220R	2	R248, R336	220R	5%	0.25W
9106 22K	5	R142, R147, R184, R327, R376	22K	5%	0.25W
9106 22R	4	R74, R84, R177, R321	22R	5%	0.25W
9106 2K2	8	R104, R109, R161, R162, R169, R170, R171, R172	2K2	5%	0.25W
9106 2K7	4	R192, R293, R316, R317	2k7	5%	0.25W
9106 330R	1	R357	330R	5%	0.25W
9106 3K9	1	R282	3k9		0.25W
91063R3	1	R127	3R3	5%	0.25W
9106 470R	8	R72, R73, R144, R166, R182, R190, R265, R284	470R	5%	0.25W
9106 47K	5	R180, R194, R272, R328, R344	47K	5%	0.25W
9106 47R	10	R90, R97, R98, R176, R178, R298, R299, R360, R361, R362	47R	5%	0.25W
9106 4K7	10	R76, R167, R185, R186, R195, R200, R262, R263, R270, R333	4K7	5%	0.25W
9106 680R	3	R86, R160, R372	680R	5%	0.25W
9106 68R	2	R39, R187	68R	5%	0.25W
9107 2KEVM	3	RV1, RV2, RV3	2K, Variable		SMC Potentiometer
9200 10BQ060	7	D46, D47, D48, D49, D65, D69, D80	10BQ060		U.Fast Schottky Rectifier
9200 BAS16	5	D57, D61, D62, D63, D77	BAS16		Small Signal Diode
9200 BAV70	8	D55, D59, D60, D64 D92, D93, D94, D95	BAV70		Dual Small Signal Diode
9200 BAV99	1	D97	BAV99		Dual Small Signal Diode
9203 BZX12V	1	D58	BZX84C12		12V Zener
9203 BZX15V	1	D99	BZX84C15		15V Zener
9203 BZX18V	1	D50	BZX84C18		18V Zener
9203 BZX84C5V1	1	D51	BZX84C5V1		5.1 V Zener
9302 100P	6	C27, C76, C77, C83, C161, C176	100p	10%	Ceramic X7R/COG
9302 220P	4	C40, C84, C153, C162	220p	10%	Ceramic X7R/COG

9302 470P	1	C85	470p	10%	Ceramic X7R/COG
9304 0U01	5	C28, C147, C151, C157, C166	10n	10%	Ceramic X7R
9304 1000P	15	C30, C38, C42, C82, C108, C133, C137, C138, C139, C152, C155, C156, C167, C182, C187	1n	10%	Ceramic X7R
9304 33N	1	C175	33n	10%	Ceramic X7R
9307 0U1	38	C31, C33, C34, C37, C51, C56, C58, C62, C63, C64, C65, C68, C69, C70, C71, C72, C73, C74, C78, C79, C80, C87 C88, C92, C109, C120, C121, C125, C128, C129, C134, C135, C136, C149, C171 C172, C184, C185	100n	10%	Ceramic X7R
9309 1U	2	C154, 165	1u 16v	10%	Tant
9324 10U	5	C101, C103, C104, C110, C122	10u 16V	20%	SMC Electrolytic
93BDHXXX2N2	4	C54, C117, C173, C183	2n2	10%	Ceramic X7R
93BDHXXX4N7	3	C29, C116, C174	4n7	10%	Ceramic X7R
93HEFEXX4U7	3	C86, C95, C146	4u7 25V	20%	SMC Electrolytic
93HEHEXX1U	1	C102	1u 50V	20%	SMC Electrolytic
9400 317	1	U17	LM317LM		Adj Reg
9400 431	1	U26	TL431CD		Shunt Reg
9400 4427	1	U22	TC4427		MOSFET Driver
9400 74HC02	1	U30	74HC02		CMOS Quad 2 I/P NOR
9400 74HC14ST	1	U29	74HC14		CMOS Hex Inverter
9400 74LS221	2	U20, U21	DM74LS221M		TTL Dual Monostable
9400 LM358	1	U23	LM358		Dual Op-amp
9400 PC357D	2	OP3, OP5	PC357D		Opto-isolator
9400 UCC3800	2	U11, U12	UCC3800		PWM Controller
9500 BC846	11	Q28, Q30, Q31, Q33, Q46, Q54 Q55, Q58, Q60, Q62, Q63	BC846		NPN Small Signal Bipolar
9500 BC856	6	Q29, Q40, Q48, Q50, Q52, Q57	BC856		PNP Small Signal Bipolar

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:. 200V

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