

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 Rectifier
02073	1	D79	11DQ10		Schottky, 100V
02074	1	D45	BZV85C18		Zenar Diode
02077	2	D41,D42	UX-FOB		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 Recovery
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 Voltage
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 R273, R279, R280, R305, R318, R324	100R	1%	0.25W
9103 10K	22 R68, R70, R128, R149, R163, R236, R257, R269, R271, R281 R292, R295, R304, R306, R307, R308, R310, R311, R312, R341, R349, R354	10K	1%	0.25W
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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