

Component-Level Information Packet for E4406-60044

Fan Control



Agilent Part Number: E4406-90066

Printed in USA June 1999

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HP Part Number E4406-60044
Fan Control

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-8278	1	CAP-FXD 2.2uF +80% -20% 16 V CER Y5V	02010	1206YG225ZATA
C2	0160-8278	1	CAP-FXD 2.2uF +80% -20% 16 V CER Y5V	02010	1206YG225ZATA
C3	0180-4069	1	CAP-FXD 1000uF +-20% 25 V AL-ELCTLT	06360	SME25VB102M12X20LL
C4	0180-4069	1	CAP-FXD 1000uF +-20% 25 V AL-ELCTLT	06360	SME25VB102M12X20LL
C200	0160-7798	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	02010	08055C104KAT_A
C201	0160-8278	1	CAP-FXD 2.2uF +80% -20% 16 V CER Y5V	02010	1206YG225ZATA
C202	0160-7798	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	02010	08055C104KAT_A
C203	0160-7798	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	02010	08055C104KAT_A
C204	0160-5944	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	02010	08055C473KAT A
C206	0160-7798	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	02010	08055C104KAT_A
C207	0160-8278	1	CAP-FXD 2.2uF +80% -20% 16 V CER Y5V	02010	1206YG225ZATA
C208	0180-4636	1	CAP-FXD 22uF +-20% 35 V TA	05524	293D226X0035E2W
C209	0180-4636	1	CAP-FXD 22uF +-20% 35 V TA	05524	293D226X0035E2W
C210	0180-3751	1	CAP-FXD 1uF +-20% 35 V TA	00039	NRS105M35R8
C211	0180-4636	1	CAP-FXD 22uF +-20% 35 V TA	05524	293D226X0035E2W
C212	0180-4636	1	CAP-FXD 22uF +-20% 35 V TA	05524	293D226X0035E2W
C213	0180-4636	1	CAP-FXD 22uF +-20% 35 V TA	05524	293D226X0035E2W
C214	0180-4636	1	CAP-FXD 22uF +-20% 35 V TA	05524	293D226X0035E2W
C215	0180-4636	1	CAP-FXD 22uF +-20% 35 V TA	05524	293D226X0035E2W
CR200	1906-0291	1	DIODE-DUAL 70V 100MA T0-236AA	02037	BAV99LT1
CR201	1901-1335	1	DIODE-PWR RECT 400V 1A 50NS	02037	MURS140T3
CR202	1901-1335	1	DIODE-PWR RECT 400V 1A 50NS	02037	MURS140T3
DS1	1990-1267	1	LED-LAMP LUM-INT=400UCD IF=12.5MA-MAX	06121	LS S260-DO
DS2	1990-1267	1	LED-LAMP LUM-INT=400UCD IF=12.5MA-MAX	06121	LS S260-DO
E1	1205-0618	1	HEAT SINK TO-220-CS	02608	6070B-SM-3
E2	9170-1704	1	CORE-SHIELDING BEAD	06352	HF50ACC321611
E3	9170-1704	1	CORE-SHIELDING BEAD	06352	HF50ACC321611
E4	9170-1704	1	CORE-SHIELDING BEAD	06352	HF50ACC321611
E5	9170-1704	1	CORE-SHIELDING BEAD	06352	HF50ACC321611
E200	9170-1704	1	CORE-SHIELDING BEAD	06352	HF50ACC321611
E201	9170-1704	1	CORE-SHIELDING BEAD	06352	HF50ACC321611
E202	9170-1704	1	CORE-SHIELDING BEAD	06352	HF50ACC321611
J1	1252-7021	1	CONN-RECT MICRORBN 40-CKT 40-CONT	01380	557101-5
L1	9140-1784	1	INDUCTOR 100uH +-20% 9.4W-mmX12.95LG-mm	01886	DO3316-104
L2	9140-1784	1	INDUCTOR 100uH +-20% 9.4W-mmX12.95LG-mm	01886	DO3316-104

**Indicates factory-selected value*

**HP Part Number E4406-60044
Fan Control (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
L3	9140-1784	1	INDUCTOR 100uH +-20% 9.4W-mmX12.95LG-mm	01886	DO3316-104
L4	9140-1784	1	INDUCTOR 100uH +-20% 9.4W-mmX12.95LG-mm	01886	DO3316-104
MP3	0380-1360	1	STANDOFF-HEX 8-MM-LG M3.0 X 0.5-THD	02121	0380-1360
Q1	1855-0645	1	TRANSISTOR MOSFET N-CHAN E-MODE TO-220	02910	BUK455-60A
Q2	1855-0734	1	TRANSISTOR MOSFET 2N7002 N-CHAN E-MODE	02037	2N7002LT1
Q3	1855-0734	1	TRANSISTOR MOSFET 2N7002 N-CHAN E-MODE	02037	2N7002LT1
Q200	1855-0734	1	TRANSISTOR MOSFET 2N7002 N-CHAN E-MODE	02037	2N7002LT1
Q201	1855-0734	1	TRANSISTOR MOSFET 2N7002 N-CHAN E-MODE	02037	2N7002LT1
Q202	1855-0734	1	TRANSISTOR MOSFET 2N7002 N-CHAN E-MODE	02037	2N7002LT1
R1	0699-1391	1	RESISTOR 10K +-1% .125W TKF TC=0+-100	00746	MCR18-FZHM-F-1002
R2	0699-2491	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	01172	BLU-1206 20K .1% 25PPM
R3	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R4	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R5	0699-1371	1	RESISTOR 1.33K +-1% .125W TKF TC=0+-100	00746	MCR18-F-1331
R6	0699-2839	1	RESISTOR 150K +-0.1% .125W TF TC=0+-25	01172	BLU-1206 150K .1% 25PPM
R7	0699-2839	1	RESISTOR 150K +-0.1% .125W TF TC=0+-25	01172	BLU-1206 150K .1% 25PPM
R8	0699-1503	1	RESISTOR 0 CWM	00746	MCR18-J-00
R9	0699-1371	1	RESISTOR 1.33K +-1% .125W TKF TC=0+-100	00746	MCR18-F-1331
R200	0699-1503	1	RESISTOR 0 CWM	00746	MCR18-J-00
R201	0699-2826	1	RESISTOR 3K +-0.1% .125W TF TC=0+-25	01172	BLU-1206 3K .1% 25PPM
R202	0699-2834	1	RESISTOR 400 +-0.1% .125W TF TC=0+-25	01172	BLU-1206 400R .1% 25PPM
R204	0699-2834	1	RESISTOR 400 +-0.1% .125W TF TC=0+-25	01172	BLU-1206 400R .1% 25PPM
R205	0699-1904	1	RESISTOR 1.62K +-1% .125W TKF TC=0+-100	00746	MCR18-F-1621
R206	0699-1904	1	RESISTOR 1.62K +-1% .125W TKF TC=0+-100	00746	MCR18-F-1621
R207	0699-1391	1	RESISTOR 10K +-1% .125W TKF TC=0+-100	00746	MCR18-FZHM-F-1002
R208	0699-1318	1	RESISTOR 1K +-1% .125W TKF TC=0+-100	00746	MCR18-F-1001
R211	0699-1330	1	RESISTOR 100K +-1% .125W TKF TC=0+-100	00746	MCR18-F-1003
R212	0699-1400	1	RESISTOR 26.1K +-1% .125W TKF TC=0+-100	00746	MCR18-F-2612
R213	0699-1400	1	RESISTOR 26.1K +-1% .125W TKF TC=0+-100	00746	MCR18-F-2612
R214	0699-1400	1	RESISTOR 26.1K +-1% .125W TKF TC=0+-100	00746	MCR18-F-2612
R215	0699-1415	1	RESISTOR 100 +-1% .125W TKF TC=0+-100	00746	MCR18-F-1000
R216	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R217	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R218	0699-1904	1	RESISTOR 1.62K +-1% .125W TKF TC=0+-100	00746	MCR18-F-1621
R219	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640

**HP Part Number E4406-60044
Fan Control (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R220	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R221	0699-1904	1	RESISTOR 1.62K +-1% .125W TKF TC=0+-100	00746	MCR18-F-1621
R222	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R223	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R224	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R225	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R226	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R227	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R228	0699-2843	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	01172	BLU-1206 100K .1% 25PPM
R229	0699-2840	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	01172	BLU-1206 2K5 .1% 25PPM
R230	0699-2843	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	01172	BLU-1206 100K .1% 25PPM
R231	0699-2843	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	01172	BLU-1206 100K .1% 25PPM
R232	0699-2843	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	01172	BLU-1206 100K .1% 25PPM
R233	0699-1453	1	RESISTOR 464K +-1% .125W TKF TC=0+-100	00746	MCR18-F-4643
R234	0699-1391	1	RESISTOR 10K +-1% .125W TKF TC=0+-100	00746	MCR18-FZHM-F-1002
R235	0699-1415	1	RESISTOR 100 +-1% .125W TKF TC=0+-100	00746	MCR18-F-1000
R236	0699-1422	1	RESISTOR 196 +-1% .125W TKF TC=0+-100	00746	MCR18-F-1960
R237	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R238	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R239	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R240	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R241	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R242	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R243	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R244	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R245	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R246	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R247	0699-2489	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	01172	BLU-1206 10K .1% 25PPM
R248	0699-1391	1	RESISTOR 10K +-1% .125W TKF TC=0+-100	00746	MCR18-FZHM-F-1002
R249	0699-2489	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	01172	BLU-1206 10K .1% 25PPM
R250	0699-2889	1	RESISTOR 4.7 +-5% .125W TKF TC=0+-500	00746	MCR18-J-4R7
R251	0699-2889	1	RESISTOR 4.7 +-5% .125W TKF TC=0+-500	00746	MCR18-J-4R7
R252	0699-2889	1	RESISTOR 4.7 +-5% .125W TKF TC=0+-500	00746	MCR18-J-4R7
R253	0699-2889	1	RESISTOR 4.7 +-5% .125W TKF TC=0+-500	00746	MCR18-J-4R7
R254	0699-2889	1	RESISTOR 4.7 +-5% .125W TKF TC=0+-500	00746	MCR18-J-4R7

**Indicates factory-selected value*

**HP Part Number E4406-60044
Fan Control (continued)**

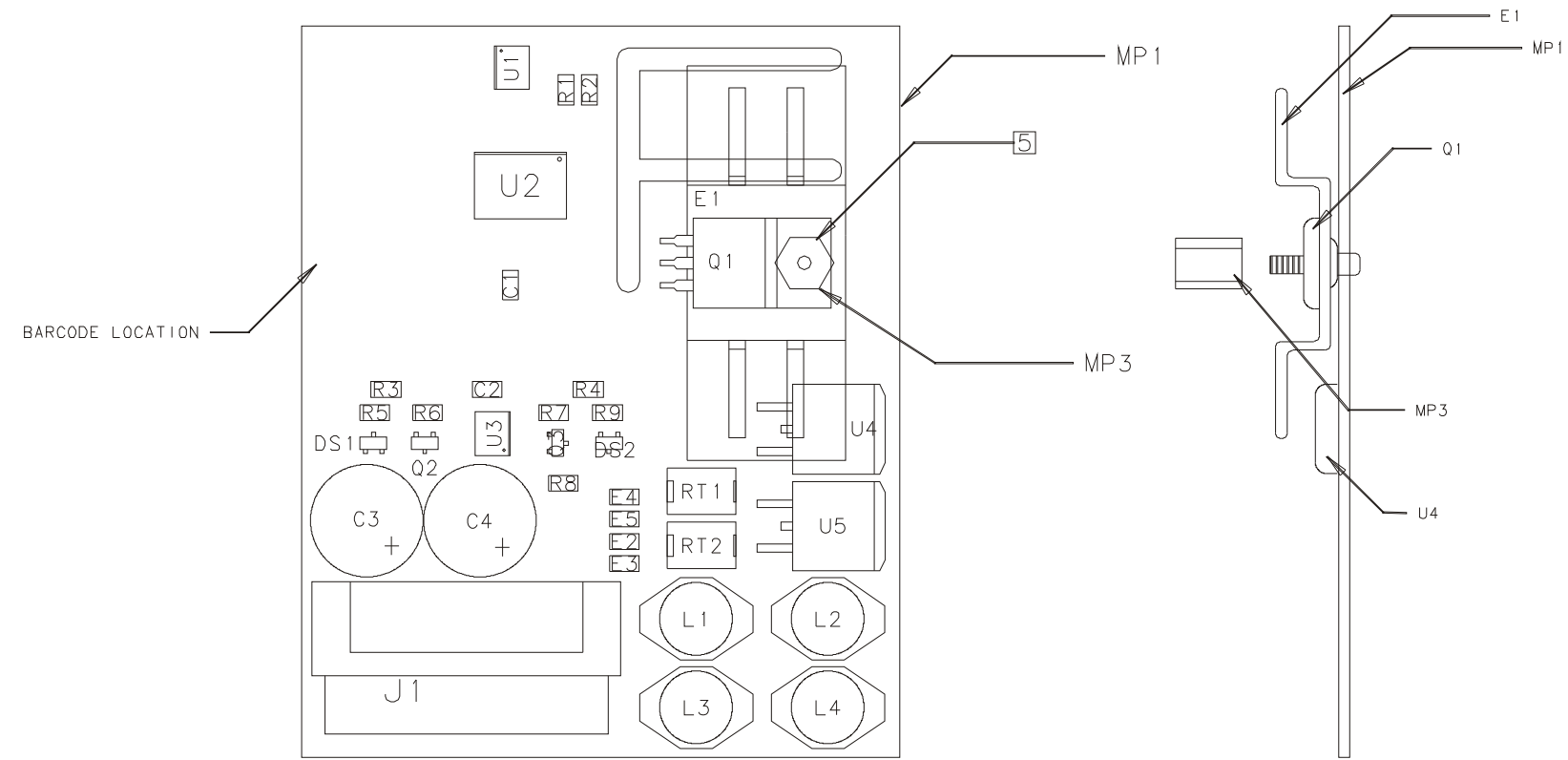
Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R255	0699-2889	1	RESISTOR 4.7 +-5% .125W TKF TC=0+-500	00746	MCR18-J-4R7
R256	0699-2889	1	RESISTOR 4.7 +-5% .125W TKF TC=0+-500	00746	MCR18-J-4R7
R257	0699-2889	1	RESISTOR 4.7 +-5% .125W TKF TC=0+-500	00746	MCR18-J-4R7
R258	0699-2889	1	RESISTOR 4.7 +-5% .125W TKF TC=0+-500	00746	MCR18-J-4R7
R259	0699-2889	1	RESISTOR 4.7 +-5% .125W TKF TC=0+-500	00746	MCR18-J-4R7
R260	0699-2490	1	RESISTOR 1K +-0.1% .125W TF TC=0+-25	01172	BLU-1206 1K .1% 25PPM
R261	0699-1330	1	RESISTOR 100K +-1% .125W TKF TC=0+-100	00746	MCR18-F-1003
R262	0699-1415	1	RESISTOR 100 +-1% .125W TKF TC=0+-100	00746	MCR18-F-1000
R263	0699-1330	1	RESISTOR 100K +-1% .125W TKF TC=0+-100	00746	MCR18-F-1003
R264	0699-1330	1	RESISTOR 100K +-1% .125W TKF TC=0+-100	00746	MCR18-F-1003
R265	0699-1503	1	RESISTOR 0 CWM	00746	MCR18-J-00
R266	0699-2490	1	RESISTOR 1K +-0.1% .125W TF TC=0+-25	01172	BLU-1206 1K .1% 25PPM
R267	0699-1503	1	RESISTOR 0 CWM	00746	MCR18-J-00
R268	0699-1431	1	RESISTOR 464 +-1% .125W TKF TC=0+-100	00746	MCR18-F-4640
R269	0699-1417	1	RESISTOR 121 +-1% .125W TKF TC=0+-100	00746	MCR18-F-1210
R270	0699-1904	1	RESISTOR 1.62K +-1% .125W TKF TC=0+-100	00746	MCR18-F-1621
R271	0699-1904	1	RESISTOR 1.62K +-1% .125W TKF TC=0+-100	00746	MCR18-F-1621
R272	0699-1904	1	RESISTOR 1.62K +-1% .125W TKF TC=0+-100	00746	MCR18-F-1621
R273	0699-1904	1	RESISTOR 1.62K +-1% .125W TKF TC=0+-100	00746	MCR18-F-1621
R274	0699-1503	1	RESISTOR 0 CWM	00746	MCR18-J-00
R275	0699-1503	1	RESISTOR 0 CWM	00746	MCR18-J-00
R276	0699-1391	1	RESISTOR 10K +-1% .125W TKF TC=0+-100	00746	MCR18-FZHM-F-1002
R277	0699-1417	1	RESISTOR 121 +-1% .125W TKF TC=0+-100	00746	MCR18-F-1210
R278	0699-1369	1	RESISTOR 1.1K +-1% .125W TKF TC=0+-100	00746	MCR18-F-1101
R279	0699-1904	1	RESISTOR 1.62K +-1% .125W TKF TC=0+-100	00746	MCR18-F-1621
R280	0699-1904	1	RESISTOR 1.62K +-1% .125W TKF TC=0+-100	00746	MCR18-F-1621
R281	0699-1904	1	RESISTOR 1.62K +-1% .125W TKF TC=0+-100	00746	MCR18-F-1621
R282	0699-1904	1	RESISTOR 1.62K +-1% .125W TKF TC=0+-100	00746	MCR18-F-1621
R283	0699-2776	1	RESISTOR 1 +-10% .125W TKF TC=0+-500	00746	MCR18-K-010
R284	0699-2776	1	RESISTOR 1 +-10% .125W TKF TC=0+-500	00746	MCR18-K-010
R285	0699-2776	1	RESISTOR 1 +-10% .125W TKF TC=0+-500	00746	MCR18-K-010
R286	0699-2776	1	RESISTOR 1 +-10% .125W TKF TC=0+-500	00746	MCR18-K-010
R287	0699-2832	1	RESISTOR 200 +-0.1% .125W TF TC=0+-25	01172	BLU-1206 200R .1% 25PPM
R288	0699-2490	1	RESISTOR 1K +-0.1% .125W TF TC=0+-25	01172	BLU-1206 1K .1% 25PPM
R289	0699-2484	1	RESISTOR 50K +-0.1% .125W TF TC=0+-25	01172	BLU-1206 50K .1% 25PPM

**HP Part Number E4406-60044
Fan Control (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R290	0699-1503	1	RESISTOR 0 CWM	00746	MCR18-J-00
R291	0699-1503	1	RESISTOR 0 CWM	00746	MCR18-J-00
RT1	0837-0437	1	THERMISTOR-SWITCHING	02145	SMD050
RT2	0837-0437	1	THERMISTOR-SWITCHING	02145	SMD050
U1	1826-1979	1	IC PWR MGT-V-REF-FXD 2.49/2.51V 8 PINS	10858	LT1009S8
U2	1826-2230	1	IC OP AMP LOW-OFS QUAD 16 PIN PLSTC-SOIC	03285	OP-400GS
U3	1826-1572	1	IC COMPARATOR PRCN DUAL 8 PIN PLSTC-SOIC	01698	LM393D
U4	1826-2772	1	IC PWR MGT-V-REG-ADJ-NEG 3 PINS	02037	LM337D2T
U5	1826-2772	1	IC PWR MGT-V-REG-ADJ-NEG 3 PINS	02037	LM337D2T
U200	1826-2261	1	IC TEMP XDCR PRCN SINGLE 8 PIN	03406	LM35DM

**Indicates factory-selected value*

5300		C-E4406-60044-2	
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED /TM		



BARCODE LOCATION

NOTES: UNLESS OTHERWISE SPECIFIED

- 1 SEE MATERIAL LIST: E4406-60044
- 2 THIS ASSEMBLY USES RAW BOARD NUMBER: E4406-20044
- 3 THIS BOARD CONTAINS .010" VIAS IN PADS: YES NO
- 4 THIS ASSEMBLY CONTAINS CROSSHATCHED COMPONENTS WHICH ARE NOT LOADED: YES NO
- 5 TORQUE MP3 TO 9 in-lb
- 6. KEEP TP200-TP221 HOLES FREE OF SOLDER

TOP SIDE

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DIMENSIONS ARE IN INCHES.
TOLERANCES: XX.XXX .010
 XX.XX .02
THIRD ANGLE
PROJECTION
DO NOT SCALE THIS DRAWING

DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

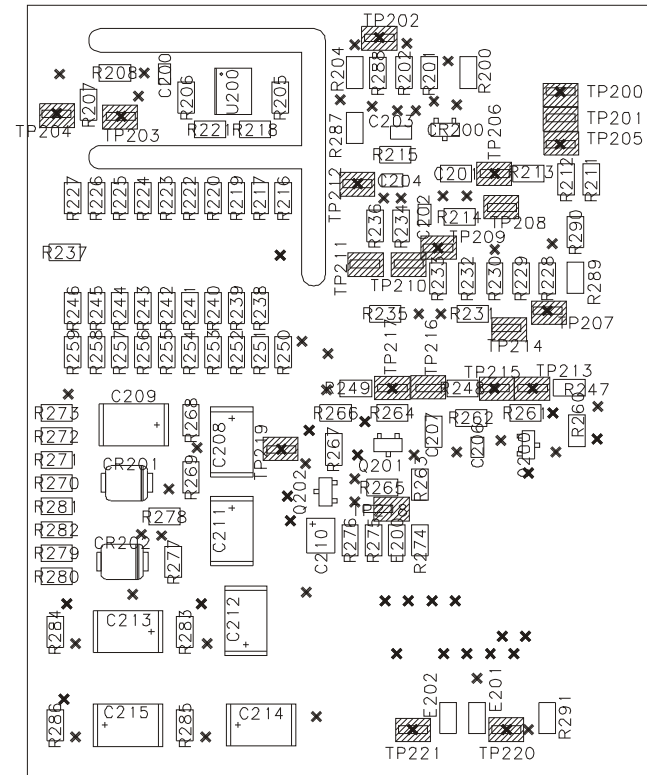
ASSEMBLY, PWA
FAN CONTROL
BOARD
TITLE

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C-E4406-60044-2	

5300


C-E4406-60044-2

SYM	REVISIONS	APPROVED	DATE
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DIMENSIONS ARE IN INCHES.
TOLERANCES: xx.xxx .010
 xx.xx .02
THIRD ANGLE
PROJECTION 
DO NOT SCALE THIS DRAWING

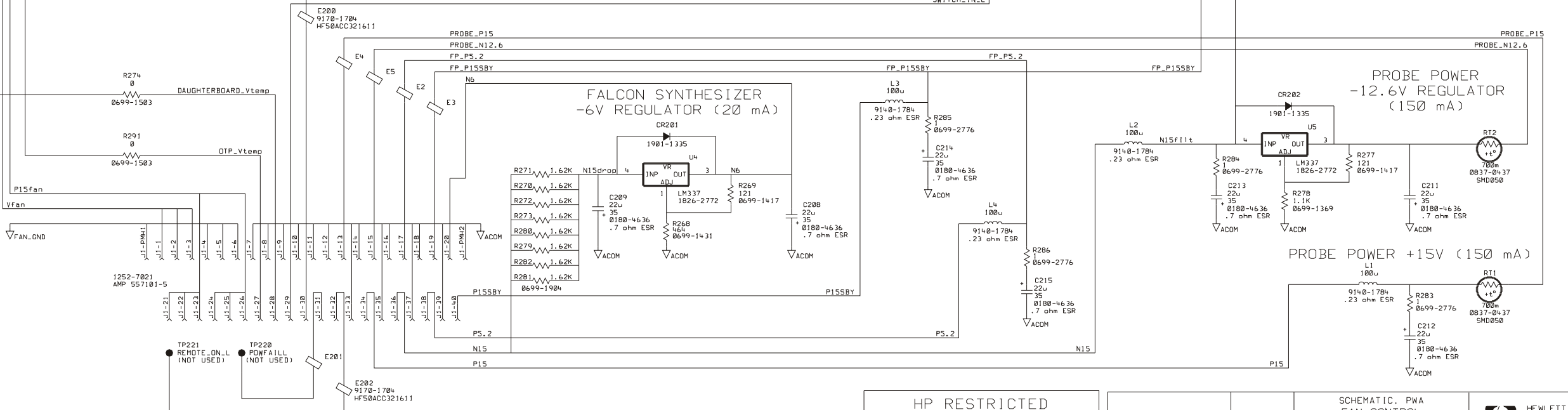
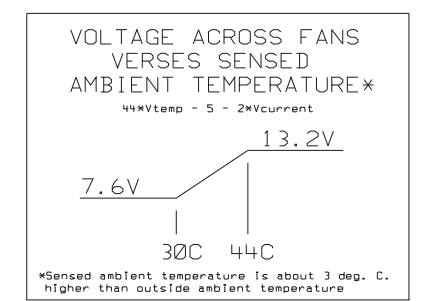
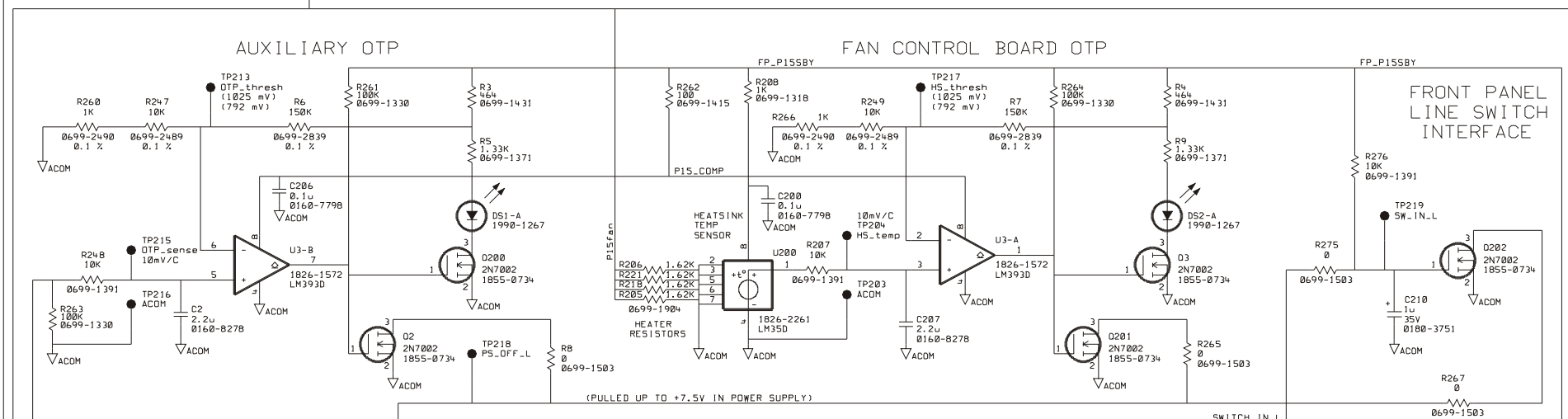
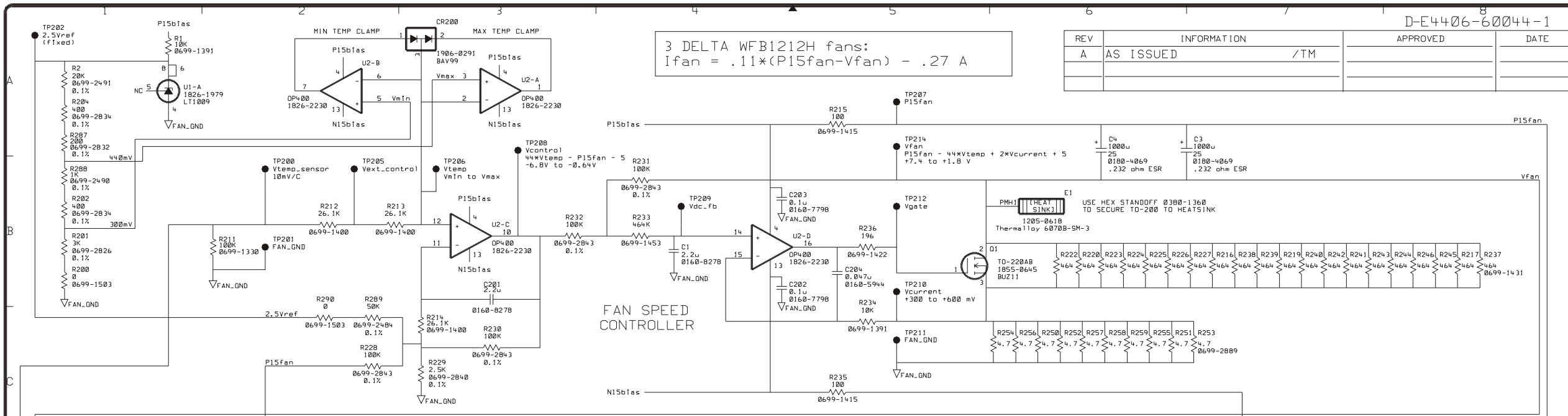
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ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

ASSEMBLY, PWB
FAN CONTROL
BOARD
TITLE

MENTOR FILENAME	 HEWLETT PACKARD
SCALE NONE	
SHEET 2 OF 2	E4406-60044 PART NUMBER
C-E4406-60044-2	

REV	INFORMATION	APPROVED	DATE
A	AS ISSUED /TM		

3 DELTA WFB1212H fans:
 $I_{fan} = .11 * (P15fan - V_{fan}) - .27 A$



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LAST CHECKED	DATE	SCHEMATIC, PWA FAN CONTROL		HEWLETT PACKARD 5300	
ENGINEER	SHEET 1 OF 1	TITLE			
DRAWN BY	SIZE D	SHP_E4406/60044/AA3831/fan-control PATHNAME sheet1	E4406-60044 PART NUMBER		
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