

Document / Project reference: BLDC/PMSM Fan Controller				PCB reference: STEVAL-IHM038V1		Date: 11-Dec-12			
Company: STMicroelectronics									
Category	S. No.	Reference Designator	Component Description	Package	Manufacturer	Manufacturer's ordering code / Orderable Part Number	Supplier	Supplier Ordering Code	Quantity
ST Devices	1	U1	SLLIMM-nano Intelligent Power Module (IPM) 3A	NDIP-26L	ST	STGIPN3H60			1
	2	U2	STM32 (32-bit Microcontroller)	LQFP48	ST	STM32F100C6T6			1
	3	U3	VIPer16 SMPS Controller	DIP8	ST	VIPER16LN DIP-7			1
	4	U4	3.3V voltage regulator	SOT-223	ST	LD1117S33TR			1
	5	U5	EEPROM	TSSOP8	ST	M24C01WDW6TP			1
	6	D7,D8	Ultrafast Diode	SMA	ST	STTH1L06A			2
	7	D11 (Note 2)	Ultrafast Diode	SMA	ST	STTH1L06A			1
Capacitors	1	C1,C4,C5	2.2uF/25V (Multilayer Ceramic Capacitors)	SMD 1206	TDK	CGA5L2X7R1E225K	Mouser	810-CGA5L2X7R1E225K	3
	2	C2	470nF 25V Ceramic	SMD0805	Any				1
	3	C3	220uF/25V Electrolytic	6.3mm/2.5mm Pitch Through Hole	Any				1
	4	C6,C10,C17,C19,C26,C27,C28,C31,C33	100nF Ceramic	SMD0805	Any				9
	5	C7	330nF/10V Ceramic	SMD0805	Any				1
	6	C8	4.7uF/10V Electrolytic	5mm/2.5mm Pitch Through Hole	Any				1
	7	C9	33pF/10V Ceramic	SMD0805	Any				1
	8	C12,C13	22pF Ceramic	SMD0805	Any				2
	9	C14	10nF 10V Ceramic	SMD0805	Any				1
	10	C15	2.2nF	SMD0805	Any				1
	11	C16	100pF 10V Ceramic	SMD0805	Any				1
	12	C18	10uF/50V Electrolytic	6.3mm/2.5mm Pitch Through Hole	Any				1
	13	C20,C25 (Note 1)	68uF/250V Electrolytic	16mm/7.5mm Pitch Through Hole	Any				2
	14	C21,C24	2.2nF/Y2	10mm Pitch Through Hole	EPCOS	B32021A3222M	Mouser	871-B32021A3222M	2
	15	C22	0.1uF/X2	18mm x 7.5mm/15mm Pitch	EPCOS	B32922C3104M	Mouser	871-B32922C3104M	2
	16	C23	0.22uF/X2	18mm x 7.5mm/15mm Pitch	EPCOS	B32922C3224M289	Mouser	871-B32922C3224M289	1
	17	C30,C37	100uF /25V	6.3mm/2.5mm Pitch Through Hole	Any				2
	18	C32 (Note 1)	1uF/400V	6.3mm/2.5mm Pitch Through Hole	Any				1
	19	C34	47nF	SMD1206					1
	20	C35	1uF/50V	5mm/2.5mm Pitch Through Hole	Any				1
	21	C36	220nF	SMD1206	Any				1
	22	C38	22nF	SMD0805	Any				1
	23	C40	100nF Ceramic	SMD0402	Any				1
	24	C39 (Note 2)	100uF /25V	6.3mm/2.5mm Pitch Through Hole	Any				1

<b>Diodes</b>	1	D1	600V/1.5A Bridge Rectifier	SMD	Diodes incorporated	DF1506S-T	Mouser	621-DF1506S-T	1
	2	D2,D3,D4	1N4007	Through hole	Any				1
	3	D9	1N4148	Through hole	Any				1
	4	D12	BZV55-C18 Zener 18V	SOD80C	Any				1
<b>Resistors</b>	1	NTC1	10k	SMD0805	Vishay	NTCS0805E3103JMT	Mouser	594-2381-615-53103	1
	2	NTC2	10E	22mm Dia/7.5mm Pitch	EPCOS	B57237S100M	Mouser	871-B57237S100M	1
	3	RV1	320V MOV	10mm Dia/7.5mm Pitch	EPCOS	B72210S0321K101	Mouser	871-B72210S0321K101	1
	4	R1	4.99k	SMD0805	Any				1
	5	R2	3.3k	SMD0805	Any				1
	6	R3,R13,R22,R23,R38	0R	SMD0805	Any				5
	7	R4,R16	820R	SMD0805	Any				2
	8	R5	100k	SMD0805	Any				1
	9	R6,R7,R11,R14,R18	4.7k	SMD0805	Any				5
	10	R9	330E 1/4W	SMD1206	Any				1
	11	R10,R19	1k	SMD0805	Any				2
	12	R12	0.3E/2W	SMD2512	Any				1
	13	R17,R24,R25,R29,R30,R31,R36,R37	10k	SMD0805	Any				8
	14	R20	3k	SMD0805	Any				1
	15	R21	2.7k	SMD0805	Any				1
	16	R26,R27	470k	SMD1206	Any				2
	17	R28	6.8k	SMD0805	Any				1
	18	R32	120E	SMD0805	Any				1
	19	R33	68k	SMD0805	Any				1
	20	R34	51k	SMD0805	Any				1
	21	R35	13k	SMD0805	Any				1
	22	R39 (Note 2)	0R	SMD0805	Any				1
<b>Other Devices</b>	1	J1, J6	3 pin Screw Terminal		Any				2
	2	J2	38kHz IR Demodulator	Through hole	Vishay	TSOP34838	Mouser	782-TSOP34838	1
	3	J7	10X2 2.5mm Header	Through hole	Any				1
	4	L1	470uH	8.7mm Dia/5mm Pitch Through Hole	Würth Electronics	744741471	Digikey	732-3732-ND	1
	5	L2	1.5mH	7.8mm Dia / 5mm Pitch Through hole	Würth Electronics	768772152	Digikey	732-3263-ND	1
	6	L3 (Note 3)	1.5mH		Magnetics				1
	7	SW1, SW2	Tactile Switch	Through Hole	TE Connectivity	FSM10JH	Digikey	450-1647-ND	2
	8	T1	Common Mode Choke	Through hole	Schaffner	RN114-0.8-02	Mouser	631-RN114-0.8-02	1
	9	Y1	8MHz Crystal	Through hole	Any				1
		<b>Notes :</b>							
	1	C20,C25 and C32 must be low ESR type rated at 105°C operation							
	2	D11, C39, L3 and R39 : Not mounted							
	3	L3 is a custom 1.4mH/0.17A Inductor with aux winding from Magnetics part no. 05455 : Not Mounted							
<b>End of File</b>									