

		Document reference: STEVAL-IEG001V1		PCB reference: Smart vehicle Tracking System			
		Company: STMicroelectronics					
Category	S. No.	Reference Designator	Component Description	Package	Manufacturer	Manufacturer's ordering code / Orderable Part Number or Equivalent	Supplier
ST Devices	1	U1	M24M01	SO-8	ST	M24M01HRMN6TP	ST
	2	U5	STM32F207	LQFP	ST	STM32F207VCT6	ST
	3	U6	LD29300P2MTR	P2PAK/A	ST	LD29300P2MTR	ST
	4	U7	LD39150	DDPAK	ST	LD39150DT33-R	ST
	5	U8	L4978	SO16	ST	L4978D013TR	ST
	6	U9	LDS3985MI8R	SOT23-5L	ST	LDS3985MI8R	ST
	7	U10	STLDC08	DFN10 (3 x 3 mm.)	ST	STLDC08PUR	ST
	8	U11	L6924D	VFQFPN16	ST	L6924D	ST
	9	U12	STTS751 TEMP. SENSOR	SOT23-6L	ST	STTS751-0WB3F	ST
	10	U13	L3G4200D pitch/yaw/roll Gyroscope	LGA-16 (4x4x1.1 mm)	ST	L3G4200DTR	ST
	11	U14	LIS331DLH 3-axis Accelerometer	LGA 16 (3x3x1 mm)	ST	LIS331DLH	ST
	12	Q1	2STR2215 PNP transistor	SOT-23	ST	2STR2215	ST
	13	Q2	STS6NF20V	SO-8	ST	STS6NF20V	ST
	14	Q3,Q4	2STR1160 NPN transistor	SOT-23	ST	2STR1160	ST
	15	Q6	2STR2160 PNP transistor	SOT-23	ST	2STR2160	ST
	16	D3	STTH102	SMA	ST	STTH102A	ST
	17	D4,D6,D7,D10,D11	STPS2L30A	SMA	ST	STPS2L30A	ST
	18	D5	DNM				
	19	D1,D16	BAT54	SOD-323	ST	BAT54JFILM	ST
Other Devices	20	U2	TFBS4711 serial infrared transceiver SIR	6-SMD 1 (6mm x 3.1mm x 1.9mm)	VISHAY SEMICONDUCTORS	TFBS4711-TR3	Digikey
	21	U3	LCD board connector	2.54mm pitch 20-pin bergstrip	Samtec Inc	TSW-150-17-T-S or equivalent	Digikey
	22	U4	GNSS module based on STA8088FG (TESEO II)	custom			
Connectors/ Jumpers	23	J1	uSD Connector	Surface Mount, Right Angle	Hirose Electric Co Ltd	DM3AT-SF-PEJM5	Digikey
	24	J2	GPS connector	Through Hole right angle	TE Connectivity	5-1814400-1	Digikey
	25	J3,J4	GSM connector	2.54mm x 2.54mm 4-pin bergstrip through hole	FCI	77311-101-14LF or equivalent	Mouser
	26	J5	CAN_CONN	2.54mm x 2.54mm 2-pin bergstrip through hole	FCI	77311-101-14LF or equivalent	Mouser
	27	J6	BAT_12V	SMD right angle, JACK	CUI Inc	PJ-042-SMT	Digikey

	28	J7	3.7V Li ion	2.54mm x 2.54mm 2-pin bergstrip through hole	FCI	77311-101-14LF or equivalent	Mouser
	29	J8	SWD_CONN	SMD	Sullins Connector Solutions	GRPB052VWQS-RC or equivalent	Digikey
	30	GPS	GPS antenna	44 mm L x 36 mm W x 14 mm H	Laird Technologies	637114	Mouser
Inductance	31	L1	10uH	SMD0805	Murata Electronics North America	LQM21FN100N00L	Digikey
	32	L2	47uH	SMD	Taiyo Yuden	NR6045T470M	Digikey
	33	L6	47uH	SMD	Taiyo Yuden	NR8040T470M	Mouser
	34	L5	100uH	SMD	Bourns	SRN8040-101M	Mouser
Switches	35	SW1,SW2,SW5	SW PUSH BUTTON	Tactile & Jog Switches	BI Technologies	SWT6-R4R or equivalent	Mouser
	36	SW3, SW4	TAMPER, RESET SWITCH	SMD	MULTICOMP	DTSM-32S-B	Farnell
Diodes/LEDs	37	D2	LED BI-COLOR	5mm Through Hole	Lumex Opto / Components Inc	SSL-LX5097IGW	Digikey
	38	D8,D9	LED	SMD0805	Lite-On Inc	LTST-C170CKT	Digikey
	39	D12,D17,D18,D19	4148	SOD 80	Fairchild	LL4148	Digikey
	40	D13	GREEN-LED	SMD 1206	Lite-On Inc	LTST-C150GKT	Digikey
	41	D14	YELLOW-LED	SMD 1206	Lite-On Inc	LTST-C150YKT	Digikey
	42	D15	DNM				
Resistances	43	R1,R5,R6,R15,R17,R39,R40	100K	SMD0805	Panasonic - ECG	ERJ-6GEYJ104V or equivalent	Digikey
	44	R3,R4,R28,R35,R43,R60,R73,R74,R77,R79,R84,R88,R99	0	SMD0805	Panasonic - ECG	ERJ-6GEY0R00V or equivalent	Digikey
	45	R7,R11,R68	47	SMD0805	Panasonic - ECG	ERJ-6GEYJ470V or equivalent	Digikey
	46	R8,R9,R10,R44,R56,R59,R70	1K	SMD0805	Panasonic - ECG	ERJ-6GEYJ102V or equivalent	Digikey
	47	R12,R13,R16	220E	SMD0805	Panasonic - ECG	ERJ-6ENF2200V	Digikey
	48	R14,R31,R55,R75,R85,R89,R92,R97,R98,R100,R101,R102	10K	SMD0805	Panasonic - ECG	ERJ-6GEYJ103V or equivalent	Digikey
	49	R18,R19,R20,R21,R24,R27,R30,R38,R52,R53,R54,R62,R63,R71,R76,R78,R81,R82,R83,R86,R87,R94	4.7K	SMD0805	Panasonic - ECG	ERJ-6GEYJ472V or equivalent	Digikey
	50	R22,R23,R32,R37	33E	SMD0805	Panasonic - ECG	ERJ-6GEYJ330V or equivalent	Digikey
	51	R25,R26,R33,R34	100E	SMD0805	Panasonic - ECG	ERJ-6GEYJ101V or equivalent	Digikey
	52	R45	1M	SMD0805	Panasonic - ECG	ERJ-6GEYJ105V or equivalent	Digikey
	53	R46,R48	15K	SMD0805	Panasonic - ECG	ERJ-6GEYJ153V or equivalent	Digikey
	54	R47	33K	SMD0805	Panasonic - ECG	ERJ-6GEYJ203V or equivalent	Digikey

	55	R49	20K	SMD0805	Panasonic - ECG	ERJ-6GEYJ333V or equivalent	Digikey
	56	R50,R57,R64	2K7	SMD0805	Panasonic - ECG	ERJ-6GEYJ272V or equivalent	Digikey
	57	R51	9K1	SMD0805	Panasonic - ECG	ERJ-6GEYJ912V or equivalent	Digikey
	58	R58	10E	SMD0805	Panasonic - ECG	ERJ-6GEYJ100V or equivalent	Digikey
	59	R61	0.03E	SMD0805	Panasonic - ECG	ERJ-L06KJ50MV or equivalent	Digikey
	60	R65	27K	SMD0805	Panasonic - ECG	ERJ-6GEYJ273V or equivalent	Digikey
	61	R66,R72	12K	SMD0805	Panasonic - ECG	ERJ-6GEYJ123V or equivalent	Digikey
	62	R67	3.5K	SMD0805	Panasonic - ECG	ERJ-6ENF3481V or equivalent	Digikey
	63	R69	470	SMD0805	Panasonic - ECG	ERJ-6ENF4700V or equivalent	Digikey
	64	R93	2K2	SMD0805	Panasonic - ECG	ERJ-6GEYJ222V or equivalent	Digikey
	65	R90,R91,R95,R96	47K	SMD0805	Panasonic - ECG	ERJ-6GEYJ473V or equivalent	Digikey
	66	R2,R42,R36,R80,R29	DNM				
Capacitors	67	C1,C4	4.7uF	SMD0805	AVX Corporation	08056D475KAT2A or equivalent	Digikey
	68	C2,C3,C5,C6,C7,C12,C13,C17,C18,C19,C22,C23,C24,C25,C26,C27,C33,C34,C35,C36,C37,C38,C42,C45,C47,C50,C56,C63,C66,C68,C70	100nF	SMD0805	TDK	CGA4F2X7R1H104K	Mouser
	69	C8,C9	47uF	SMD0805	Taiyo Yuden	JMK212BJ476MG-T	Digikey
	70	C10,C11,C14,C15,C30,C31	22pF	SMD0805	Kemet	C0805C220KBRCTU	Digikey
	71	C16	0.22F	SMD	Panasonic - ECG	EEC-EN0F204RK	Digikey
	72	C20,C32,C46,C48,C52,C65,C69	10uF	SMD0805	Panasonic - ECG	ECJ-2FB1A106K or equivalent	Digikey
	73	C21,C49,C59,C64	10nF	SMD0805	Taiyo Yuden	UMK212SD103KD-T	Digikey
	74	C28,C29	10pF	SMD0805	AVX Corporation	08055A100JAT2A or Equivalent	Digikey
	75	C39	100uF	SMD1206	Kemet	T491A107M004AT	Mouser
	76	C40	220nF	SMD0805	Taiyo Yuden	UMK212B7224KG-T	Digikey
	77	C41	2.7nF	SMD0805	Kemet	C0805C272K5RACTU	Digikey
	78	C43,C54	470uF/25V	Thru Hole	Panasonic - ECG	ECA-1VM471 or equivalent	Digikey
	79	C44	220uF	Thru Hole	Panasonic - ECG	EEU-FM1E221 or equivalent	Digikey
	80	C51,C60	22nF	SMD0805	Taiyo Yuden	QMK212B7223KG-T	Digikey
	81	C55,C58, 61	1uF	SMD0805	Taiyo Yuden	EMK212B7105KG-T	Digikey
	82	C57	4.7uF/16V	SMD0805	Panasonic - ECG	ECJ-GVFIC475Z or equivalent	Digikey
	83	C62	1nF	SMD0805	Murata	GRJ21AR72E102KWJ1D	Mouser

	84	C67	470nF	SMD0805	Taiyo Yuden	EMK212B7474KD-T	Digikey
	85	C56,C73	DNM				
Miscellaneous	86	Y1	32.768 KHz crystal	Through Hole	ECS Inc	ECS-3X8X	Mouser
	87	Y2	8 MHz	Through Hole	ECS Inc	ECS-80-S-5PX-TR	Digikey
	88	BZ1	Piezoelectric Buzzer	12.2mmx6.5mm (Through Hole)	TDK	PS1240P02BT	Mouser
	89	F1	Fuse-R	Through Hole	TE Connectivity	AHEF050	Mouser
Mounting Screws and Nuts	90		Small Hemisphere Bumpers	Thickness: 5 mm , Outside Diameter: 11.1 mm	3M Electronic Specialty	SJ-5003 (BLACK)	Mouser
STEVAL-IEG001V1_GSM/GPRS Daughter Card				PCB reference: VTS_GSM			
ST Devices	1	U1	Quad Transil ESD Protection Device	SOT323-5L	ST	ESDALC6V1W5	ST
	2	Q1, Q2	DNM				
Other Devices	3	GSM module	SAGEM HiLo	40-pin SMD	SAGEM	Sagem-HILO	SOANAR PTE. LTD.
	4	GSM	RF ADAPTER CABLE SMA ST-F TO UFL 220MM	RFCABLE-SMA-F-STG-TO-UFL	SAGEM	RFCABLE-SMA-F-STG-TO-UFL	SOANAR PTE. LTD.
	5	GSM	GSM QUAD BAND SMA MALE RIGHT ANGLE	GSM-BH014	SAGEM	GSM-BH014	SOANAR PTE. LTD.
LEDs	6	D1,D2	DNM				
Switches	7	SW1	push buttun	SMD	MULTICOMP	DTSM-32S-B	Farnell
Connectors/ Jumpers	8	J2	40-Pin SMD connector for SAGEM Module	SMD 40-pin dual row	Molex	M-54102-0403	SOANAR PTE. LTD.
	9	J3	SIM card connector	Surface Mount, Right Angle	Amphenol-Tuchel Electronics	C707 10M006 0492	Digikey
	10	J7	SuperCap	COIN SMD	Panasonic - ECG	EEC-EN0F204RK	Digikey
	11	J9,J10	4-Pin Interface connector	2.54 mm 4-pin bergstrip female	Sullins Connector Solutions	PPTC041LFBN-RC or equivalent	Digikey
Resistances	12	R7,R12,R38,R50	0R	SMD0805	Panasonic - ECG	ERJ-6GEY0R00V or equivalent	Digikey
	13	R11,R13	DNM				
	14	R2,R9	DNM				
	15	R3,R10	DNM				
	16	R14	50K	SMD0805	Vishay Thin Film	PLT0805Z5002AST5	Digikey
Capacitors	17	C1,C29	100nF	SMD0805	TDK	CGA4F2X7R1H104K or equivalent	Mouser
	18	C2	100uF	SMD1206	TDK	C3216X5R1A107M	Digikey
	19	C3,C5	10pF	SMD0805	AVX Corporation	08055A100JAT2A or Equivalent	Digikey

	20	C4	22pF	SMD0805	AVX Corporation	08055A220JAT2A or Equivalent	Digikey
	21	C6	33pF	SMD0805	AVX Corporation	08055A330JAT2A or Equivalent	Digikey
	22	C7	10nF	SMD0805	TDK	C2012X7T2W103M/SOFT	Mouser
STEVAL-IEG001V1_Display Daughter Card				PCB reference: LCD_VTS			
Connectors/ Jumpers	1	J1	LCD connector	Surface Mount, Right Angle 66.80mm L x 35.50mm W		3-1734592-0	Digikey
	2	J2	LCD		Kyocera Display America, Inc.	F-51553GNBJ-LW-AEN	Digikey
	3	J3	LCD board connector	2.54mm x 2.54mm 20-pin bergstrip female	TE Connectivity	6-534237-8 or equivalent	Digikey
Resistances	4	R1,R2,R3,R4,R6,R9	DNM				
	5	R5,R7,R8	0	SMD0805	Panasonic - ECG	ERJ-6GEY0R00V or equivalent	Digikey
	6	R10	47	SMD0805	Panasonic - ECG	ERJ-6GEYJ470V or equivalent	Digikey
Capacitors	7	C1,C2,C3,C4	1uF	SMD0805	Taiyo Yuden	EMK212B7105KG-T	Digikey
	8	C5,C6,C7,C8,C9,C10,C11,C12	100nF	SMD0805	TDK	CGA4F2X7R1H104K	Mouser
Mounting Screws and Nuts							
The term equivalent has been used where the exact part number from the mentioned vendor may not have been used.							