

Bill of materials
Table 1. STDES-ST87M01IGN bill of materials

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
1	1	BP1	430182043816	WS-TASV SMT Tact Switch	WURTH ELEKTRONIK	430182043816
2	1	B1	ST87M01-1301, SMD MODULE	ST87M01-1301	ST	ST87M01-1301
3	1	C2	10 μ F	Chip Multilayer Ceramic Capacitors for General Purpose	MURATA	GRM188R61C106 MA73D
4	1	C3	0.1 μ F	Chip Multilayer Ceramic Capacitors for General Purpose	MURATA	GRM155R71C104 KA88D
5	3	C5,C11,C12	10 μ F	Chip Multilayer Ceramic Capacitors for General Purpose	MURATA	GRM155R61A106 ME11
6	7	C1,C18,C19,C21,C14,C15,C13	0.1 μ F	Chip Multilayer Ceramic Capacitors for General Purpose	MURATA	GRM155R61H104 KE14
7	1	C6	1 μ F	XR5 SMD Multilayer Ceramic Chip Capacitors	KEMET	C0402C105K4PAC TU
8	4	C7,C9,C16,C17	1 μ F	Chip Multilayer Ceramic Capacitors for General Purpose	MURATA	GRM155R61E105K E11
9	2	C4,C10	33pF	High Q Chip Multilayer Ceramic Capacitors for General Purpose	MURATA	GJM1555C1H330J B01
10	2	C22,C20	4.7 μ F	Chip Multilayer Ceramic Capacitors for General Purpose	MURATA	GRM185R61C475 KE11
11	1	C8	100pF	Chip Multilayer Ceramic Capacitors for General Purpose	MURATA	GRM1555C1H101J A01
12	2	D5,D3	150060RS75000	Red Led - SMD WL-SMCW	WURTH ELEKTRONIK	150060RS75000
13	3	D4,D2,D1	150060VS75000	Green Led - SMD WL-SMCW	WURTH ELEKTRONIK	150060VS75000
14	1	E1	NN03-310	TRIO mXTEND™ IGNION NB-IoT ANTENNA	IGNION	NN03-310
15	1	E2	NN03-320	DUO mXTEND™ IGNION GNSS ANTENNA	IGNION	NN03-320

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
16	1	F1	10nH	Wire Wound RF Inductor	MURATA	LQW18AN10NG80
17	1	F2	0.6pF	High Q Chip Multilayer Ceramic Capacitors for General Purpose	MURATA	GJM1555C1HR60WB01
18	1	F3	N.M.	THICK FILM Resistors	YAGEO	RC0402FR-070RL
19	1	F4	0Ω	THICK FILM Resistors	YAGEO	RC0402FR-070RL
20	1	J1	B2B-PH-SM4-TBT	CONN SMT VERT 2POS 2MM	JST	B2B-PH-SM4-TBT
21	1	J2	61300311121	3 position WR-PHD Pin Header	WURTH ELEKTRONIK	61300311121
22	1	K2	105017-0001	Micro USB Bottom Mount Receptacle, B type	MOLEX	105017-0001
23	1	K1	G85D1160022HHR	SIM Card Socket	AMPHENOL ICC	G85D1160022HHR
24	1	L1	140Ω	EMI Suppression Ferrite Bead	Wurth Elektronik	742792621
25	3	Q2,Q1,Q3	STR2N2VH5, SOT-23-3	N-channel Power MOSFET	ST	STR2N2VH5
26	1	R8	0Ω	THICK FILM Resistors	YAGEO	RC0402FR-070RL
27	1	R1	24KΩ	THIN FILM Resistors	YAGEO	RT0402BRD0724K L
28	1	R2	51KΩ	THIN FILM Resistors	YAGEO	RT0402BRD0751K L
29	5	R7,R6,R4,R3,R5	1KΩ	THICK FILM Resistors	YAGEO	RC0402JR-131KL
30	1	R9	4.7KΩ	THICK FILM Resistors	YAGEO	RC0402JR-074K7L
31	3	TP2,TP3,TP4	N.M.	1 position WR-PHD Pin Header	WURTH ELEKTRONIK	61300111121
32	1	TP1	61300111121	1 position WR-PHD Pin Header	WURTH ELEKTRONIK	61300111121
33	1	U1	LD39050PUR, DFN6	500 mA low quiescent current and low noise voltage regulator	ST	LD39050PUR
34	1	U3	FPF2004	Power Switch ICs - Power Distribution	ON SEMI	SC-70-5
35	1	U4	CP2105-F01-GM	USB to UART converter	SILICON LABS	CP2105-F01-GM
36	1	U5	USBLC6-2SC6, SOT-23-6	TVS Diodes / ESD Suppression Diodes	ST	USBLC6-2SC6
37	1	U2	EMIF03-SIM02M8, QFN-8	EMI Filter Circuits	ST	EMIF03-SIM02M8
38	1	Z1	0Ω	THICK FILM Resistors	YAGEO	RC0402FR-070RL

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
39	1	Z2	5nH	Wire Wound RF Inductor	MURATA	LQW15AN5N0B80
40	1	Z3	3.1pF	High Q Chip Multilayer Ceramic Capacitors for General Purpose	MURATA	GJM1555C1H3R1WB01
41	1	Z4	7nH	Wire Wound RF Inductor	MURATA	LQW15AN7N0G80
42	1	Z5	0Ω	THICK FILM Resistors	YAGEO	RC0402FR-070RL
43	1	Z6	N.M.	THICK FILM Resistors	YAGEO	RC0402FR-070RL
44	1	Z7	1.5pF	High Q Chip Multilayer Ceramic Capacitors for General Purpose	MURATA	GJM1555C1H1R5WB01
45	1	Z8	2.3nH	Wire Wound RF Inductor	MURATA	LQW15AN2N3G80
46	1	X1	0.7pF	High Q Chip Multilayer Ceramic Capacitors for General Purpose	MURATA	GJM1555C1HR70WB01
47	1	X2	0.6pF	High Q Chip Multilayer Ceramic Capacitors for General Purpose	MURATA	GJM1555C1HR60WB01
48	1	X3	1pF	High Q Chip Multilayer Ceramic Capacitors for General Purpose	MURATA	GJM1555C1H1R0WB01

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