

BOOSTXL-CANFD-LIN

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
IPC81	1		Printed Circuit Board		INT107	Any		
C1, C7, C12, C13, C20, C24, C26, C29	8	0.1uF	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	CGA3E2X7R1H104K08 0AA	TDK		
C2, C23, C28	3	1uF	CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, 0603	0603	UMK107AB7105KA-T	Taiyo Yuden		
C3, C25	2	10uF	CAP, CERM, 10 uF, 50 V, +/- 10%, X7R, 1206	1206	CL31B106KBHNNNE	Samsung		
C4, C5, C6	3	1000pF	CAP, CERM, 1000 pF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	CGA3E2X7R2A102K08 0AA	TDK		
C8, C9	2	10pF	CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603	CGA3E2NP01H100D08 0AA	TDK		
C10	1	220pF	CAP, CERM, 220 pF, 50 V, +/- 1%, C0G/NP0, 0603	0603	06035A221FAT2A	AVX		
C11	1	4700pF	CAP, CERM, 4700 pF, 100 V, +/- 10%, X7R, 0603	0603	06031C472KAT2A	AVX		
C14, C17	2	8pF	CAP, CERM, 8 pF, 50 V, +/- 6.25%, C0G/NP0, 0402	0402	CC0402DRNPO9BN8R0	Yageo		
C15	1	0.01uF	CAP, CERM, 0.01 uF, 100 V, +/- 5%, X7R, 1206	1206	12061C103JAT2A	AVX		
C16, C18	2	100pF	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603	06035A101JAT2A	AVX		
C19	1	0.33uF	CAP, CERM, 0.33 uF, 16 V, +/- 10%, X7R, 0603	0603	C0603C334KRACTU	Kemet		
C21	1	10uF	CAP, CERM, 10 uF, 16 V, +/- 10%, X7R, 0805	0805	CL21B106KOQNNNE	Samsung Electro-Mechanics		
C22, C27	2	10uF	CAP, CERM, 10 uF, 16 V, +/- 10%, X7R, 1206	1206	C1206C106K4RACTU	Kemet		
C30, C31, C32	3	1uF	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	GCM188R71C105KA64 J	MuRata		
D1	1	40V	Diode, Schottky, 40 V, 1 A, SMA	SMA	MBRA140T3G	ON Semiconductor		
D2	1	100V	Diode, Switching, 100 V, 0.15 A, SOD-123	SOD-123	1N4148W-TP	Micro Commercial Component		
D3	1	30V	Diode, Zener, 30 V, 3 W, SMA	SMA	3SMAJ5936B-TP	Micro Commercial Component		
D4, D5, D6, D10	4	Green	LED, Green, SMD	LED_0603	150060GS75000	Würth Elektronik		
D7	1	15V	Diode, TVS, Bi, 15 V, SOD-323	SOD-323	PESD1LIN.115	NXP Semiconductor		
D8	1	24V	Diode, TVS, Bi, 24 V, 70 Vc, AEC-Q101, SOT-23	SOT-23	PESD1CAN.215	NXP Semiconductor		
D9	1	Yellow	LED, Yellow, SMD	LED_0603	150060YS75000	Würth Elektronik		
D11	1	Blue	LED, Blue, SMD	LED_0603	150060BS75000	Würth Elektronik		
D12	1	Red	LED, Red, SMD	LED_0603	150060RS75000	Würth Elektronik		
J1, J4, J15	3		Header, 100mil, 3x1, Gold, TH	3x1 Header	TSW-103-07-G-S	Samtec		
J2	1		Power Jack, 2mm, R/A, TH	Power Jack, R/A, TH	PJ-037AH	CUI Inc.		
J3, J6, J9, J10, J11, J12	6		Header, 100mil, 2x1, Gold, TH	2x1 Header	TSW-102-07-G-S	Samtec		
J5	1		Terminal Block, 2.54mm, 2x1, Brass, TH	Terminal Block, 2.54mm, 2-pole, Brass, TH	OSTVN02A150	On-Shore Technology		
J7	1		D-Sub, 2.74mm, 9 Position, R/A, TH	D-Sub, 2.74mm, 9 Position, R/A, TH	5747840-5	TE Connectivity		
J8	1		Header, 100mil, 6x1, Gold, TH	6x1 Header	TSW-106-07-G-S	Samtec		
J13, J14	2		Receptacle, 2.54mm, 10x2, Tin, TH	10x2 Receptacle	SSQ-110-03-T-D	Samtec	CRD-081413-A-G	Major League Electronics
L1	1	4.7uH	Inductor, Wirewound, Ferrite, 4.7 uH, 1.65 A, 0.08 ohm, AEC-Q200 Grade 0, SMD	6x6mm	B82462A4472M000	TDK		
L3	1	10uH	Inductor, Shielded Drum Core, Ferrite, 10 uH, 1 A, 0.17 ohm, SMD	Inductor, 2.8x2.8x2.8mm	744025100	Würth Elektronik		
Q1, Q2, Q3, Q4, Q5	5	20V	MOSFET, 2-CH, N-CH, 20 V, 6.7 A, DQK0006B (WSON-6)	DQK0006B	CSD85301Q2	Texas Instruments		None
R1	1	0	RES, 0, 1%, 0.5 W, 0805	0805	5106	Keystone		
R2, R3, R5, R6, R8, R19, R23, R24, R26, R27, R29, R31, R32, R34, R38, R47, R62	17	10.0k	RES, 10.0 k, 1%, 0.063 W, 0402	0402	RC0402FR-0710KL	Yageo America		
R4, R18, R33	3	4.99k	RES, 4.99 k, 1%, 0.063 W, 0402	0402	RC0402FR-074K99L	Yageo America		
R7	1	1.00k	RES, 1.00 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW04021K00FKED	Vishay-Dale		
R9, R25, R45	3	100k	RES, 100 k, 1%, 0.063 W, 0402	0402	RC1005F104CS	Samsung Electro-Mechanics		
R10, R14	2	0	RES, 0, 5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206	ERJ-8GEY0R00V	Panasonic		
R11, R12	2	60.4	RES, 60.4, 1%, 0.1 W, 0603	0603	RC0603FR-0760R4L	Yageo		
R13, R35	2	3.30k	RES, 3.30 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402	ERJ-2RKF3301X	Panasonic		
R15	1	1.00Meg	RES, 1.00 M, 1%, 0.1 W, 0402	0402	ERJ-2RKF1004X	Panasonic		
R16	1	33.2k	RES, 33.2 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040233K2FKED	Vishay-Dale		
R17, R20, R21, R36, R39, R42, R44, R46, R48, R49, R50, R51, R52, R53, R54, R55, R60	17	0	RES, 0, 5%, 0.063 W, 0402	0402	RC0402JR-070RL	Yageo America		
R22, R28	2	1.00k	RES, 1.00 k, 1%, 0.0625 W, 0402	0402	RC0402FR-071KL	Yageo America		
R30	1	5.90k	RES, 5.90 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW04025K90FKED	Vishay-Dale		
R37, R43	2	1.50k	RES, 1.50 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW04021K50FKED	Vishay-Dale		
R56	1	17.4k	RES, 17.4 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040217K4FKED	Vishay-Dale		
S1, S2	2		SWITCH TACTILE SPST-NO 0.05A 12V	3x1.6x2.5mm	B3U-1000P	Omron Electronic Component		
SH-J1, SH-J2, SH-J3, SH-J4, SH-J5, SH-J6, SH-J7, SH-J8, SH-J9	9		Shunt, 2.54mm, Gold, Black	Shunt, 2.54mm, Black	60900213421	Würth Elektronik		
TP1	1		Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint	5010	Keystone		
TP2	1		Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint	5011	Keystone		
U1	1		Fault Protected Local Interconnect Network (LIN) Transceiver with Dominant State Timeout, D0008A (SOIC-8)	D0008A	TLIN2029DQ1	Texas Instruments	TLIN2029DRQ1	Texas Instruments
U2	1		CAN-FD Controller with Integrated Transceiver, RGY0020A (VQFN-20)	RGY0020A	TCAN4550RGYRQ1	Texas Instruments	TCAN4550RGYQ1	Texas Instruments

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
U3	1		Dual-Channel Antenna LDO With Current Sense, PWP0016J (TSSOP-16)	PWP0016J	TPS7B7702QPWPRQ1	Texas Instruments		Texas Instruments
U4	1		Low Power, 1.8/2.5/3.3-V Input, 3.3-V CMOS Output, Single Inverter Gate, DCK0005A, LARGE T&R	DCK0005A	SN74AUP1T04DCKR	Texas Instruments		
Y1	1		Crystal, 40 MHz, 10 ppm, 8 pF, AEC-Q200 Grade 0, SMD	2.0x0.45x1.6mm	NX2016SA-40M-STD-CZS-3	NDK		
FID1, FID2, FID3	0		Fiducial mark. There is nothing to buy or mount.	N/A	N/A	N/A		
L2	0	100uH	Inductor, Ferrite, 100 uH, 0.15 A, 2 ohm, SMD	SMD, 4-Leads, Body 4.7 x 3.7 mm	ACT45B-101-2P-TL003	TDK		
R40, R41, R57, R59	0	0	RES, 0, 5%, 0.063 W, 0402	0402	RC0402JR-070RL	Yageo America		
R58	0	33.2k	RES, 33.2 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040233K2FKED	Vishay-Dale		
R61	0	10.0k	RES, 10.0 k, 1%, 0.063 W, 0402	0402	RC0402FR-0710KL	Yageo America		

Notes:

Unless otherwise noted in the Alternate PartNumber and/or Alternate Manufacturer columns, all parts may be substituted with equivalents.