

## Bill Of Materials for UKCRIC-NRFIS LabJack Extn Bd

**Design Title** UKCRIC-NRFIS LabJack Extn Bd  
**Author** MW  
**Document Number** 2011101  
**Revision** B  
**Design Created** 15 April 2021  
**Design Last Modified** 15 April 2021  
**Total Parts In Design** 129

### 31 Resistors

Quantity	References	BOM Value	Value	Tol	Package	Description	Key Properties	Manufacturer	Manufacturer's PN	Supplier	Order Code
2	R1-R2	470R	470R	1%	0805	Thick Film SMT Resistor 150V	Preferred	Panasonic	ERJ6ENF4701V	Farnell	230-3515
3	R3-R4,R7	0R	0R	5%	0805	Thick Film SMT Resistor 150V		Panasonic	ERJ-6GEY0R00V	Farnell	205-7661
2	R5-R6	2k7	2k7	1%	0805	Thick Film SMT Resistor 150V		Panasonic	ERJ6ENF2701V	Farnell	230-3597
16	R101-R102,R201-R202,R301-R302,R401-R402,R501-R502,R601-R602,R701-R702,R801-R802	3k9	3k9	1%	0805	Thick Film SMT Resistor 150V	Preferred	Panasonic	ERJ6ENF3901V	Farnell	230-3613
8	R103,R203,R303,R403,R503,R603,R703,R803	100R	100R	1%	0805	Thick Film SMT Resistor 150V	Preferred	Panasonic	ERJ6ENF1000V	Farnell	230-3442

Sub-totals:

### 62 Capacitors

Quantity	References	BOM Value	Value	Tol	Package	Description	Key Properties	Manufacturer	Manufacturer's PN	Supplier	Order Code
2	C1-C2	4u7	4.7u	20%	1206	25V Multilayer X7R		Kemet	C1206C475M3RACTU	Farnell	282-0941
2	C3-C4	1u0	1u0	10%	1206	100V Multilayer X7R		AVX	12061C105KAT2A	Farnell	165-7939
2	C5-C6	100n	100n	10%	0805	Ceramic 50V X7R	Preferred	Kemet	C0805C104K5RAC	Farnell	141-4664

16	C101-C102,C201-C202,C301-C302,C401-C402,C501-C502,C601-C602,C701-C702,C801-C802	1n0	1n0	5%	0805	50V Ceramic COG		Kemet	C0805C102J5GACTU	Farnell	141-4658
16	C103,C105,C203,C205,C303,C305,C403,C405,C503,C505,C603,C605,C703,C705,C803,C805	10n	10n	10%	0805	Ceramic 50V X7R		Kemet	C0805C103K5RAC	Farnell	141-4662
16	C104,C106,C204,C206,C304,C306,C404,C406,C504,C506,C604,C606,C704,C706,C804,C806	330n	330n	10%	0805	Ceramic 50V X7R		Kemet	C0805C334K5RACTU	Farnell	233-2405
8	C107,C207,C307,C407,C507,C607,C707,C807		47n	10%				Kemet	C0805C473K5RAC	Farnell	141-4697

Sub-totals:

### 12 Integrated Circuits

Quantity	References	BOM Value	Value	Tol	Package	Description	Key Properties	Manufacturer	Manufacturer's PN	Supplier	Order Code
1	U1	5V->+5V,-5V	NTA0505MC		10-pin SMT	DC/DC Converter		Murata	NTA0505MC	Farnell	102-1591
1	U2	5V->+12V,-12V	NTA0512MC		10-pin SMT	DC/DC Converter		Murata	NTA0512MC	Farnell	102-1593
2	U3-U4	Quad	SN74HCT125M		14-pin SOIC	Tristate buffer	VIH > 2.0V	Texas Instruments	SN74HCT125M	Farnell	312-1014
8	U101,U201,U301,U401,U501,U601,U701,U801	Precision	AD623ARZ		8-pin SOIC	Instrumentation Amp		Analog Devices	AD623ARZ	RS Components	806-5522

Sub-totals:

### 4 Wound Components

Quantity	References	BOM Value	Value	Tol	Package	Description	Key Properties	Manufacturer	Manufacturer's PN	Supplier	Order Code
2	L1-L2		10uH		SMT	500mA Power Inductor		Murata	82103C	Farnell	284-0105
2	L3-L4		47uH		SMT	250mA Power Inductor		Murata	82473C	Farnell	211-2805

Sub-totals:

### 12 Connectors

Quantity	References	BOM Value	Value	Tol	Package	Description	Key Properties	Manufacturer	Manufacturer's PN	Supplier	Order Code
1	J1	40-way	M20-9982045		0.1" pitch dual row}	Pin header		Harwin	M20-9982045	Farnell	322-6016

1	J2	16-way	M20-9980845	0.1" pitch dual row	Pin header	Harwin	M20-9980845	Farnell	102-2239
2	J3-J4	15-pin	171-015-113R911	15-pin Vertical	D-SUB Male	Norcomp	171-015-113R911	RS Components	174-8712
8	J101,J201,J301,J401,J501,J601,J701,J801	15-pin	171-015-213R911	15-pin Vertical	D-SUB Female	Norcomp	171-015-213R911	RS Components	174-8730

Sub-totals:

#### 8 Miscellaneous

Quantity	References	BOM Value	Value	Tol	Package	Description	Key Properties	Manufacturer	Manufacturer's PN	Supplier	Order Code
2	FU1-FU2	250mA	0ZCJ0025FF2E		1206	SMT Fuse		Bel Power Solutions	0ZCJ0025FF2E	Farnell	283-4885
3	Z1,Z3,Z5		0V		PCB feature	Test point		None	None	None	None
1	Z2		PGND		PCB feature	Test point		None	None	None	None
1	Z4		GND		PCB feature	Test point		None	None	None	None
1	Z6		EARTH		PCB feature	Test point		None	None	None	None

Sub-totals:

Totals: