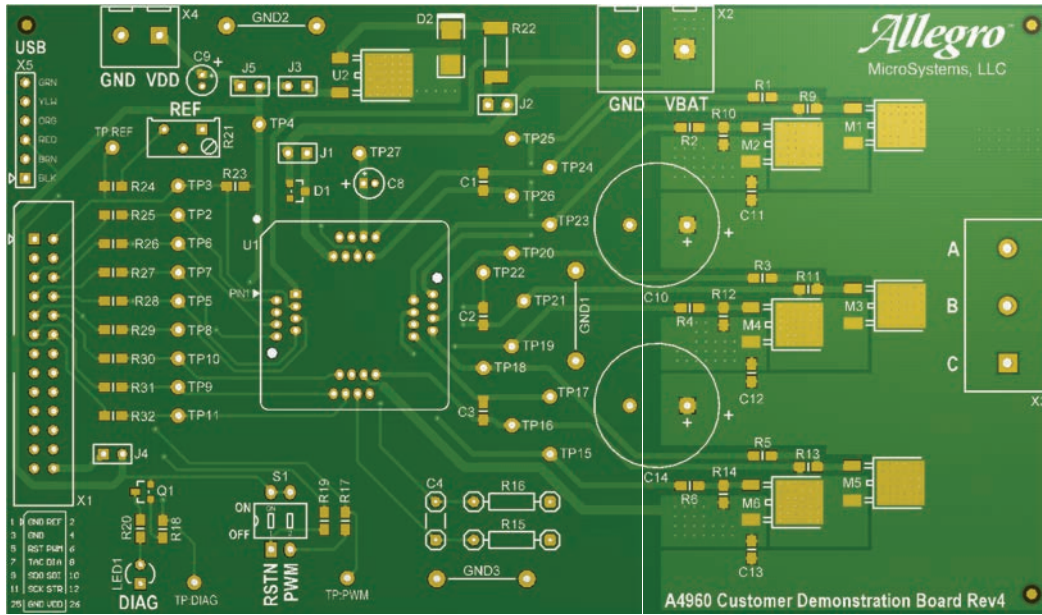
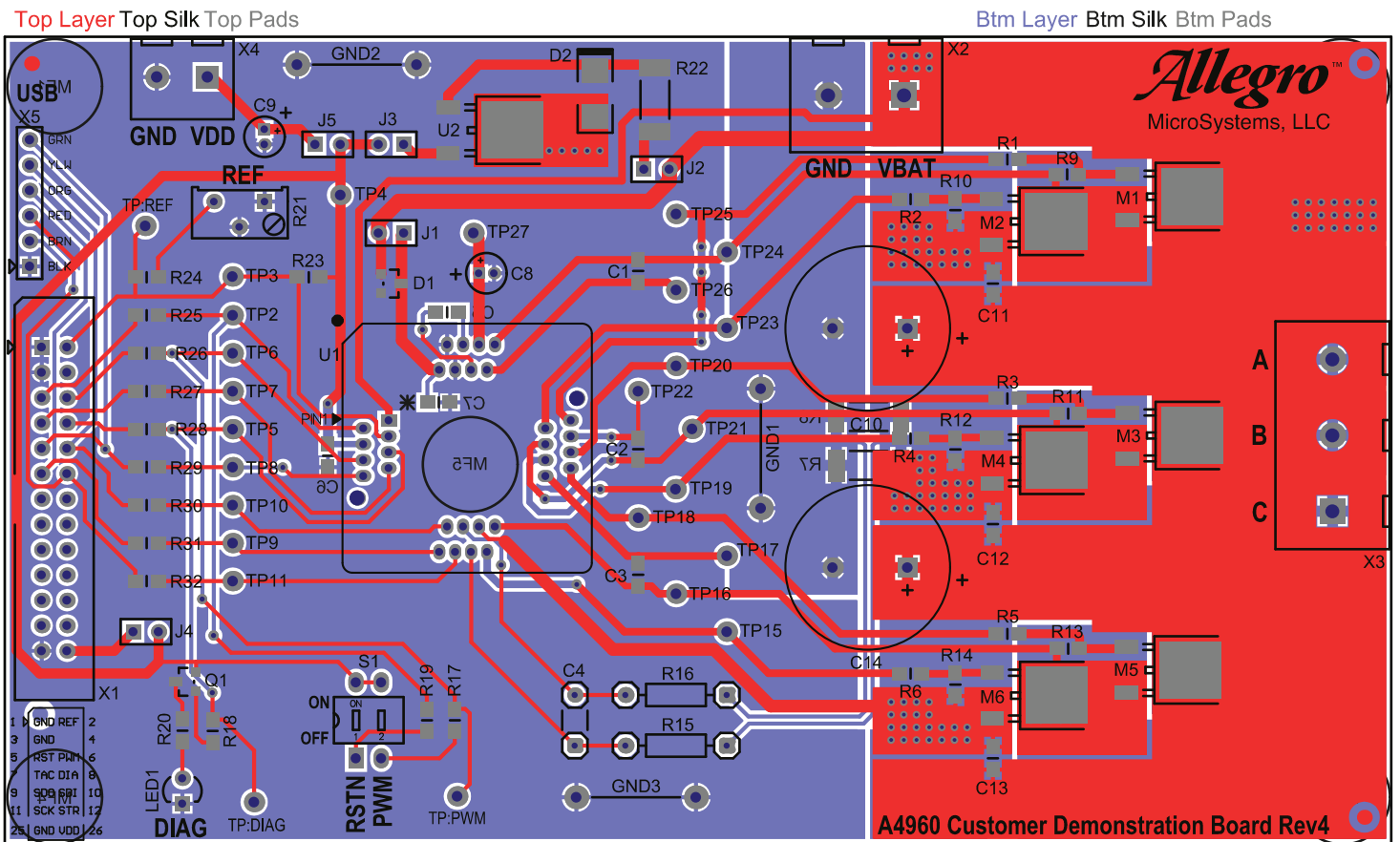
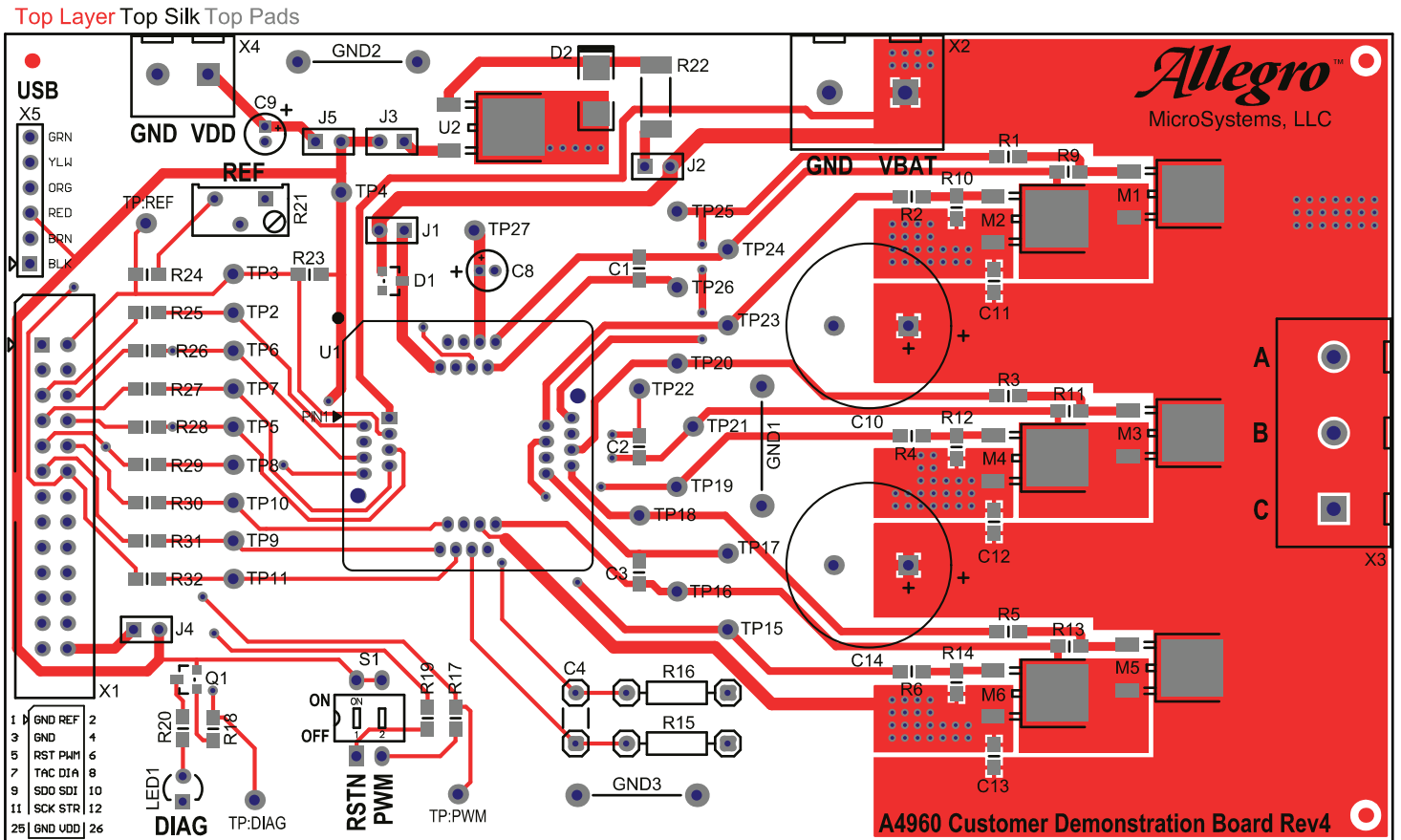


LAYOUT

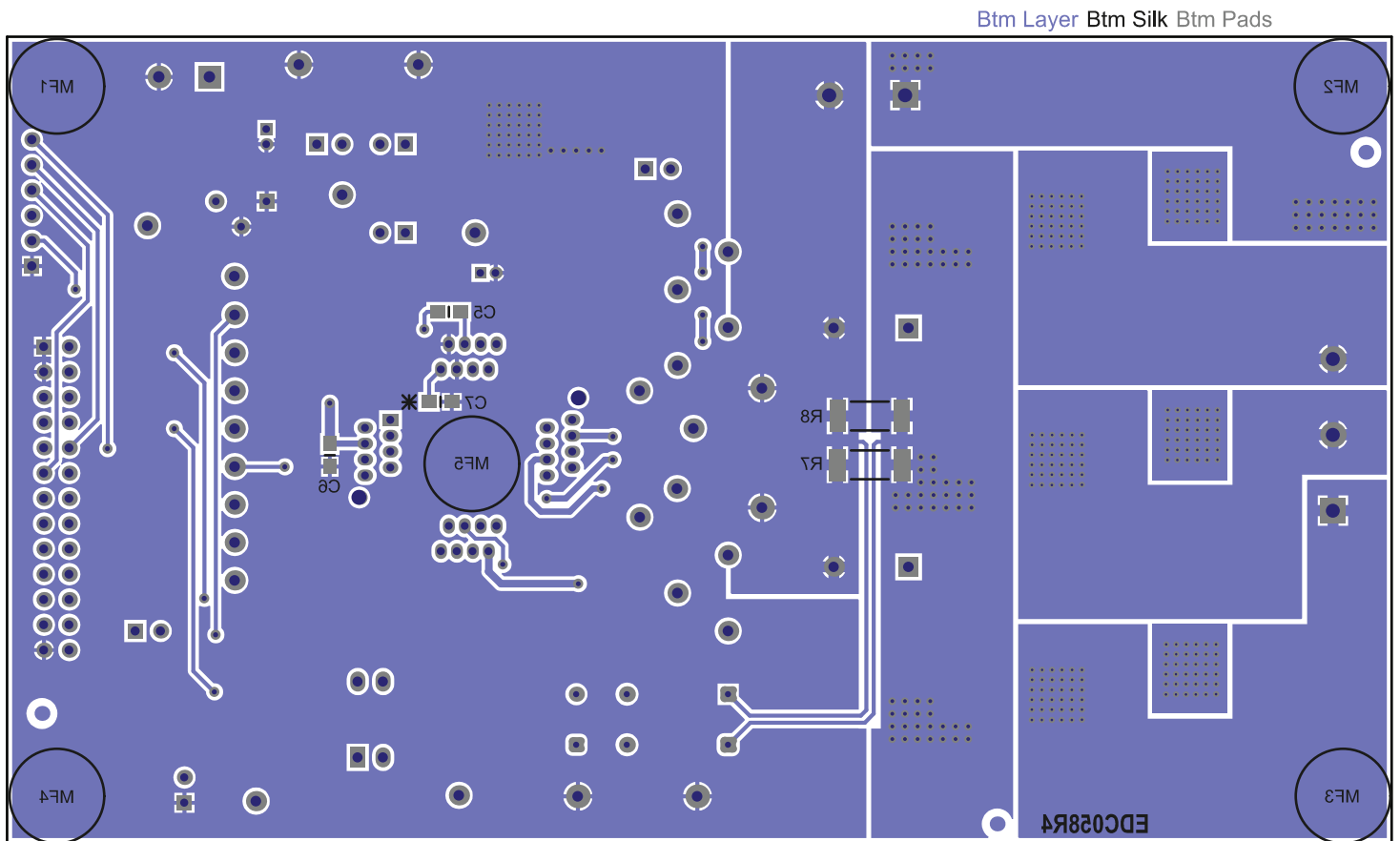




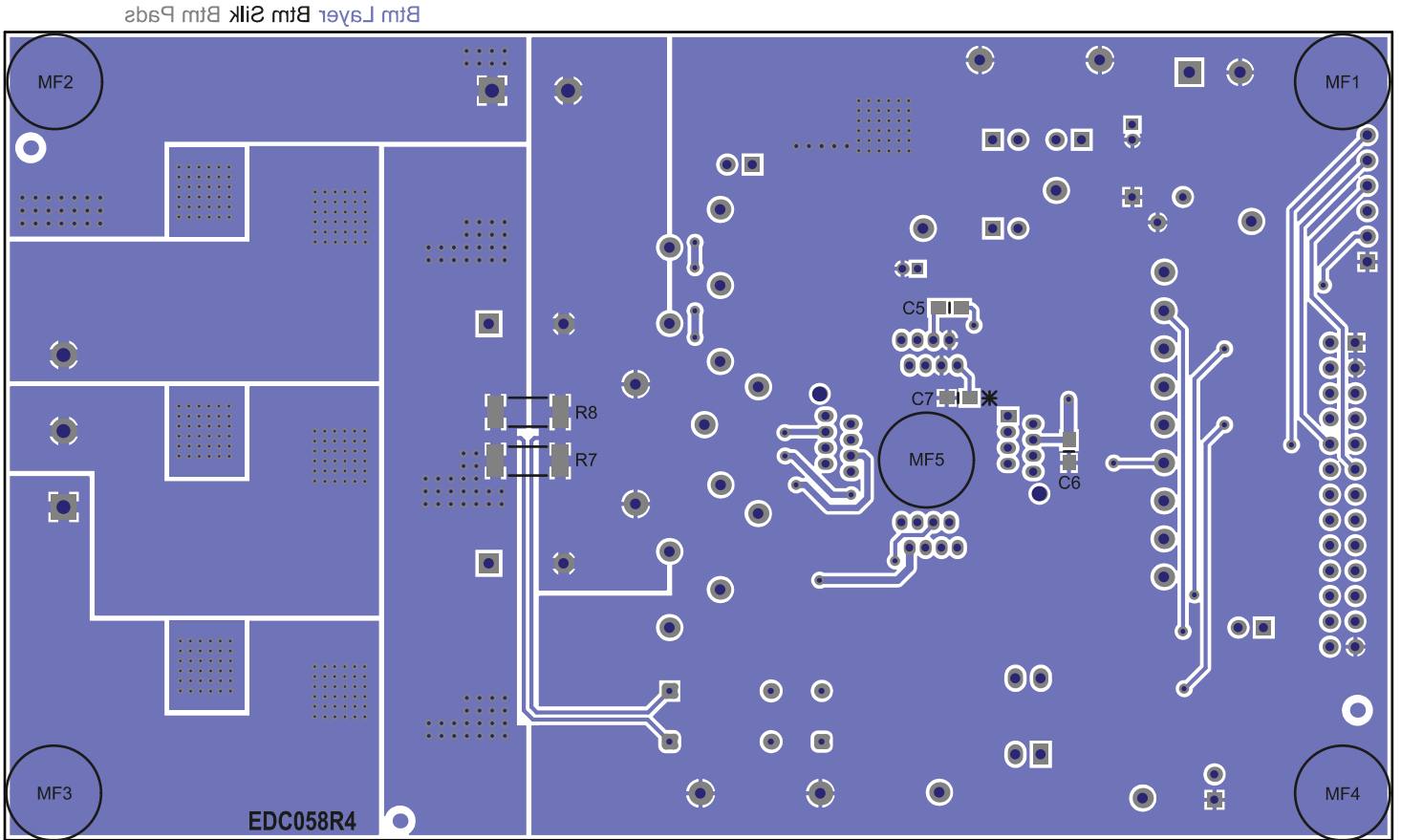
Top View Orientation Watermark



Top View Orientation Watermark



Top View Orientation Watermark



View Orientation Westmark

BILL OF MATERIALS

Designator	SIL Skt	Value	Rating	Tol	Part Number	Footprint	Description	DNF	Qty	RS	Farnell
C1, C2, C3	\	220n	6.3V	X7R	\	SM : 0805	Capacitor : Ceramic Chip	\	3	723-6114	\
C4	Skt	1n	6.3V	X7R	\	TH : 5mm Pitch [SKT]	Capacitor : Dipped Ceramic Radial	\	1	537-3779	1216427
C5	\	470n	25V	X7R	\	SM : 0805	Capacitor : Ceramic Chip	\	1	723-6118	\
C6, C7, C11, C12, C13	\	100n	50V	X7R	\	SM : 0805	Capacitor : Ceramic Chip	\	5	264-4416	2070445
C8	\	4.7u	25V	20%	\	TH : 4mm Dia, 1.5mm Pitch	Capacitor : Alu Electrolytic Radial	\	1	475-9037	\
C9	\	10u	16V	20%	\	TH : 4mm Dia, 1.5mm Pitch	Capacitor : Alu Electrolytic Radial	\	1	475-8911	\
C10, C14	\	680u	50V	20%	\	TH : 16mm Dia, 5mm Pitch, 20mm H	Capacitor : Alu Electrolytic Radial	\	2	315-0899	9692452
D1	\	\	\	\	BAT54	SM : SOT23	Diode : Schottky, 30V, 0.2A	\	1	436-7818	1081190
D2	\	\	\	\	BZG03C27	SM : DO214AC (SMA)	Diode : Zener, 27V	\	1	710-4130	9398147
GND1, GND2, GND3	\	\	\	\	\	TH : 12mm Pitch, 20swg	Ground Bar : Tinned Copper Wire	\	3	355-063	\
J1, J2, J3, J4, J5	\	\	\	\	\	TH : SIL2, 2.54mm Pitch, 1x2	Jumper Header : Male 2-pin	\	5	251-8086	\
LED1	\	\	\	\	\	TH : 3mm (T-1), 2.54mm Pitch	LED : 3mm, Red	\	1	228-4979	\
M1, M2, M3, M4, M5, M6	\	\	\	\	IRFR2405PBF	SM : TO-252 (DPAK)	Mosfet : N Channel, 56A, 55V	\	6	543-2222	8649723
MF1, MF2, MF3, MF4, MF5	\	\	\	\	\	SM : 9.5mm Dia	Mount Foot : Adhesive Rubber	\	5	\	1165068
PCB	\	\	\	\	EDC058R4	FR4, 2oz Cu, 2 Layer	PCB : A4960 Demo Board	\	1	\	\
Q1	\	\	\	\	BC857B	SM : SOT23	Transistor : PNP, 65V, 0.1A	\	1	303-1603	1773624
R1, R2, R3, R4, R5, R6	\	100R	0.125W	1%	\	SM : 0805	Resistor : Ceramic Chip	\	6	223-0297	\
R7, R8	\	0R010	2W	1%	\	SM : 2512	Resistor : Ceramic Chip	\	2	720-3253	\
R9, R10, R11, R12, R13, R14	\	470k	0.125W	1%	\	SM : 0805	Resistor : Ceramic Chip	\	6	223-0786	2074471
R15, R16	Skt	100R	0.125W	1%	\	TH : 10mm Pitch, 6mm Body [SKT]	Resistor : Axial [SKT]	\	2	148-269	\
R17, R19	\	6k8	0.125W	1%	\	SM : 0805	Resistor : Ceramic Chip	\	2	679-1651	1099806
R18	\	47k	0.125W	1%	\	SM : 0805	Resistor : Ceramic Chip	\	1	223-0641	\
R20	\	3k3	0.125W	1%	\	SM : 0805	Resistor : Ceramic Chip	\	1	223-0499	2074438
R21	\	50k	0.5W	10%	\	TH : 3pin, 2.54mm Pitch, 10x5mm Body	Resistor : Trim Pot, 3296Y	\	1	522-0221	9353640
R22	\	47R	1W	1%	\	SM : 2512	Resistor : Ceramic Chip	\	1	679-2449	\
R23	\	75k	0.125W	1%	\	SM : 0805	Resistor : Ceramic Chip	\	1	679-1664	2073840
R24, R25, R26, R27, R28, R29, R30, R31, R32	\	1k	0.125W	1%	\	SM : 0805	Resistor : Ceramic Chip	\	9	223-0427	2078954
S1	\	\	\	\	\	TH : 2.54mm (100mils) Pitch	Switch : DIL, 2-way, Raised Actuator	\	1	756-1338	1123936
TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP15, TP16, TP17, TP18, TP19, TP20, TP21, TP22, TP23, TP24, TP25, TP26, TP27, TP:DIAG, TP:PWM, TP:REF	\	\	\	\	\	TH : 1mm Dia Hole	Test Point : Test Terminal, 1mm, Red	\	26	262-2185	8731144
U1 (Socket)	\	\	\	\	OTQ-32-0.8-02	TH : LQFP32 skt	Socket : Enplas (LQFP32)	\	1	\	\
U1 (Device)	\	\	\	\	A4960	SM : eLQFP32	Device : Allegro Motor Driver	DNF	0	\	\
U2	\	\	\	\	MC78M05ABDTG	SM : TO-252 (DPAK)	Device : Voltage Regulator 5V	\	1	625-6338	2102552
X1	\	\	\	\	\	TH : 2.54mm Pitch, 2x13	Connector : IDC 26-way Ribbon Header	\	1	542-8835	9838287
X2	\	\	\	\	\	TH : 7.62mm (300mils) Pitch	Screw Terminal : 2-way	\	1	189-5966	1793006
X3	\	\	\	\	\	TH : 7.62mm (300mils) Pitch	Screw Terminal : 3-way	\	1	189-5972	1793008
X4	\	\	\	\	\	TH : 5.08mm (200mils) Pitch	Screw Terminal : 2-way	\	1	425-8720	1131855
X5	\	\	\	\	\	TH : 2.54mm Pitch, 1x6, SIL6	Connector : 6-way Header Unshrouded	\	1	360-6308	9733337
[ESDBAG_6x10]	\	\	\	\	\	\	ESD Bag : 152x254mm (6x10")	\	1	182-8821	168488
[JMP_SHORT_R]	\	\	\	\	\	\	Jumper Short/Shunt Link : Red	\	5	251-8531	150411
[SIL_SKT]	\	\	\	\	\	TH : SIL1	Socket : SIL1 (Parts = x3, Skts = x6)	\	6	267-7416	\

Note: "DNF" = "Do No Fit" (component not fitted).

Note: An FTDI TTL-232R-5V USB cable will be required for SPI connection at X5 (& driver file & GUI file).

<http://uk.RS-online.com/>
<http://uk.FARNELL.com/>

Revision History

Number	Date	Description
–	September 6, 2016	Initial release

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