

Description of changes to be made to the DataPals Reader.

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The following changes will be made to the Reader, raising the issue number of the circuit diagram and bill of materials to V3.4 and the PCB to V3.4B or V3.5 (depending on vendor). Note that the Cct./BoM and the PCB issue numbers are currently out of step.

- 1) C24 is now 33n (was 10n). This change improves the integrity of some data patterns through the slicer. This is baseband data after demodulation in the phase detector and has no effect on the RF performance.
- 2) C5 and C12 may now be electrolytic or tantalum parts (was just electrolytic). These are decoupling components and the change has no effect on performance.
- 3) C23 and C26 may now be 10n or 220n (was just 10n). These are decoupling components and the change has no effect on performance.
- 4) L3 is now fabricated as a track on the PCB (was a wire link). Although this is part of the RF circuitry, there is no electrical change to the circuit or repositioning of components on the PCB. Therefore there is no change to the RF performance
- 5) The ground plane clearance around the PCB pads of through-hole components has been increased to approximately 0.5mm (was 0.25mm). This change reduces the risk of solder splashes. The integrity of the ground plane has been maintained in all areas

Please refer to the following files:

Filename	Type	Description
PCB33-T.prn	Postscript	Old PCB (V3.3) top copper layer and mechanical outline.
PCB33-B.prn	Postscript	Old PCB (V3.3) bottom copper layer and mechanical outline.
PCB34B-T.prn	Postscript	New PCB (Vendor 1) (V3.4B) top copper and mechanical outline.
PCB34B-B.prn	Postscript	New PCB (Vendor 1) (V3.4B) bottom copper and mech. outline.
PCB35-T.prn	Postscript	New PCB (Vendor 2) (V3.5) top copper and mechanical outline.
PCB35-B.prn	Postscript	New PCB (Vendor 2) (V3.5) bottom copper and mech. outline.
Cct32.prn	Postscript	Old circuit diagram (V3.2)
Cct34.prn	Postscript	New circuit diagram (V3.4)
BOM32.prn	MS Excel	Old bill of materials (V3.2)
BOM34.prn	MS Excel	New bill of materials (V3.4)