S/UNI-155-DUAL™

PM5948

DART BOARD

S/UNI-DUAL ATM REFERENCE TRANSCEIVER BOARD ERRATA

Issue 2: July 1997

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NEW ISSUE OF THE ERRATA FOR THE DART BOARD

This document is the errata notice for the Issue 1 of the S/UNI-DUAL reference design, DART BOARD, PM5948, document Number PMC-960552. This Issue 2 errata notice supersedes all prior editions and prior versions of errata notices.

REFERENCES

- PM5948, DART BOARD, S/UNI-DUAL Reference Transceiver Board, PMC-960552
- PM5348, S/UNI-DUAL, PMC-950919

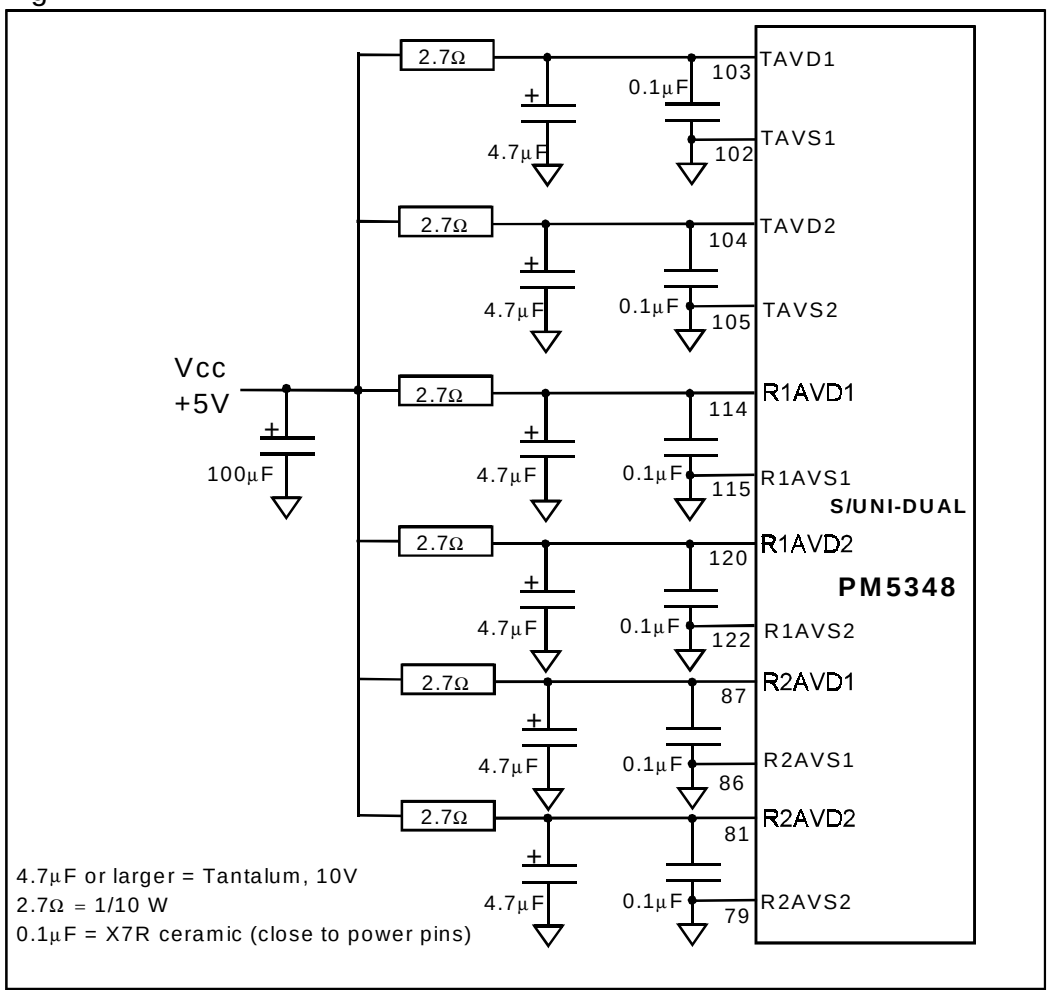
SUMMARY OF CHANGES

Filter Circuit for Analog Power Pins of PM5348

We have found that it may be desirable to include a low frequency power supply filter circuit, especially if powered by a switching power supply. This circuit is recommended to reduce noise seen by the S/UNI-DUAL analog power pins TAVD1, TAVD2, R1AVD1, R1AVD2, R2AVD1, and R2AVD2. All the other power pins must be de-coupled as recommended in the reference design schematic as per document PMC-960552 (R1).

The final analog power supply filter circuit should looks like fig. 1 below. Optional ferrites may be used in series with each 2.7ohm resistor to reduce EMI. The recommended ferrites are made by Fair-Rite Corporation, P.N.# 2743019447.

Fig.1:



The original schematic on page 4 of 10 of Appendix F of PMC-960552 must be modified as follows:

1) Replace the ferrites L3, 4, 7, 8, 18 and L9 with a 2.7Ω resistor.
2) Replace the 1.0µF capacitor C89 with a 4.7µF or larger , 10V Tantalum.
3) Replace capacitors 0.1µF C80, 81, 91, 95 & C96 with a 4.7µF or larger , 10V Tantalum.
4) Replace 0.01µF capacitors, C2, 15, 19, 22, 88 and C82 with a 0.1µF X7R ceramic.

Make sure that in the final version, the 0.1µF ceramic capacitors are close to the IC pins. The 2.7Ω resistors can be low power 1/10 W.

Filter Circuit for 19.44MHz Oscillator Power Supply

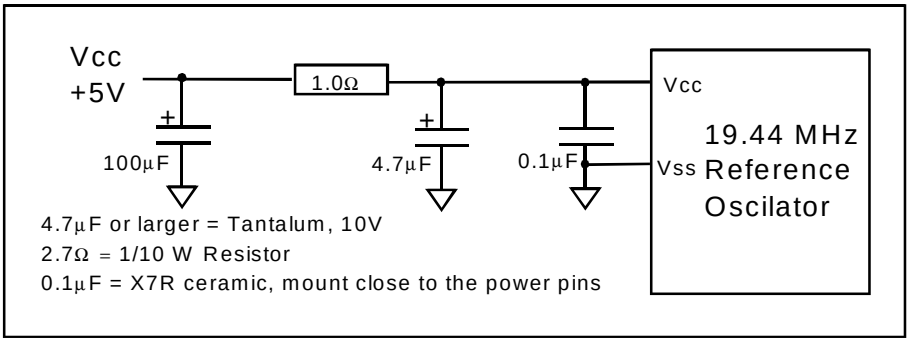
Oscillators are susceptible to noise on their power supply pins. The following change is recommended especially if powered by a switching power supply.The original schematic on page 1 of 10 in Appendix F of the PMC-960552 must be modified as follows:

1) Replace L32 with a 1.0 Ω resistor.
2) Replace 0.1µF capacitor C157 with a 4.7µF or larger, 10V Tantalum.
3) Replace 0.01µF capacitor, C148 with a 0.1µF X7R Ceramic.

Make sure the 0.1µF capacitors are close to the IC pins. The 1.0Ω resistor can be low a power 1/10 watt.

The final power supply low pass circuit is shown below in fig. 2:

Fig.2:



Terminating unused JTAG pins

Since pins TMS and TDI have internal pull-ups, and TDO is an output, the original schematic on page 3 and 5 of 10 in Appendix F of the PMC-960552 must be modified as follows:

1) Delete R30, R31, R32, R35, R36 and R37.

Connect Pin 89 of S/UNI-DUAL to ground

Pin 89 of the S/UNI-DUAL, PM5348 acts a guard pin for the TXD2+, pin 90. Pin 89 is not connected internally. This pin should be connected to ground as per the Issue 6 Data sheet PMC-950716. Modify the Schematics of Appendix F, as follows:

1) On page 5 of 10 connect pin 89 of U3 to ground.

2) On page 3 of 10, connect pin 89 of U2 to ground.

R1AVDQ3 and R2AVDQ3 don't require filtering

R1AVDQ3 pin 106 and R2AVDQ3 pin 93 on Revision D S/UNI-DUAL parts are used as shields and don't require special power filtering like the other analog power pins. These two pins can be connected directly to a relatively quiet +5 volt DC supply. The original schematic on page 4 of 10 in Appendix F of the PMC-960552 must be modified as follows:

1) Replace the ferrites L6, and L19 with a short.
2) Delete capacitors C85, 86, 90, and C93.

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