Содержание

Differential Standards

Conversions

https://doc.inmys.ru/list?id=2098

CML to CML (DC)

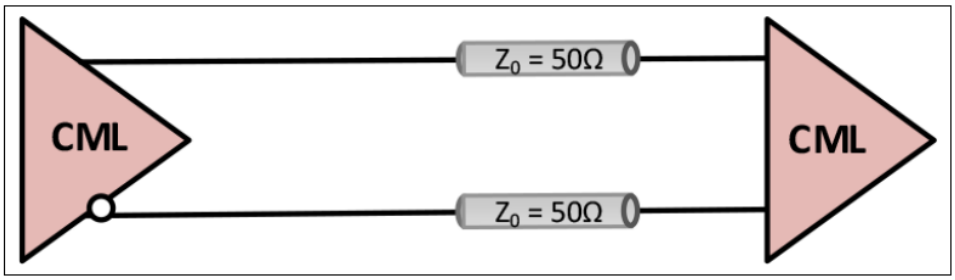


FIGURE 12: DC COUPLING CML TO CML (DRIVER WITH INTERNAL TERMINATION).

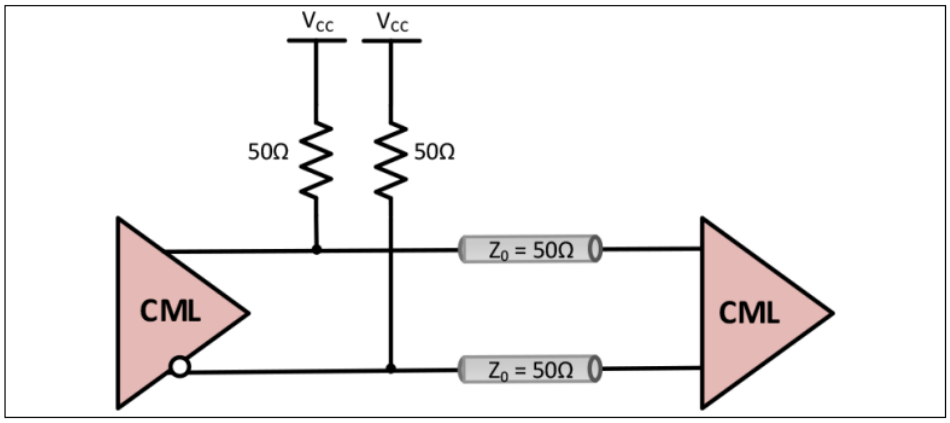


FIGURE 13: DC COUPLING CML TO CML (DRIVER WITHOUT INTERNAL TERMINATION).

CML to CML (AC)

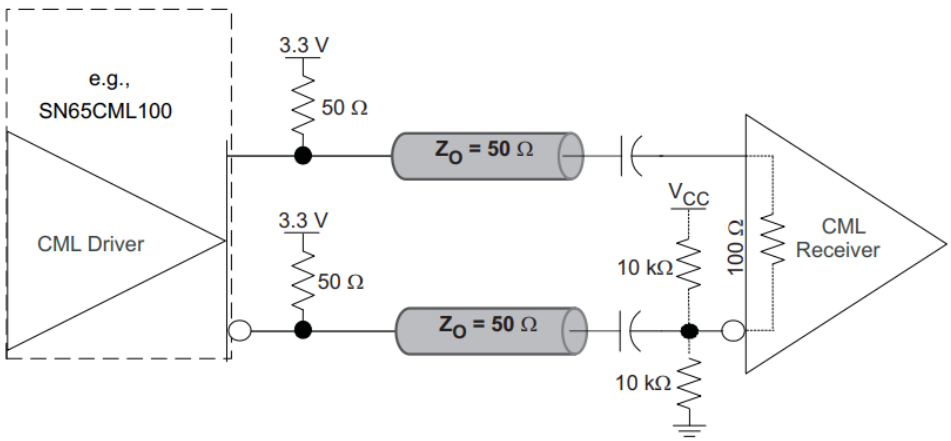


Figure 20. CML to CML

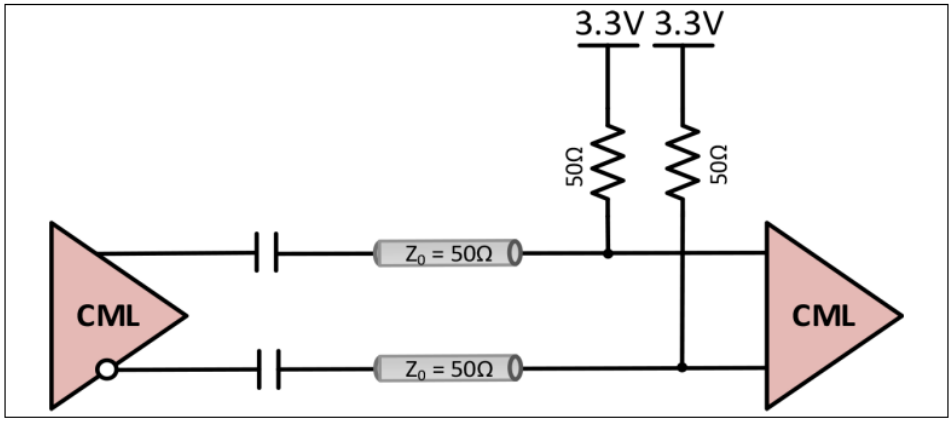


FIGURE 25: AC COUPLING CML TO CML (DRIVER WITH INTEGRATED 50Ω TERMINATION TO VCC).

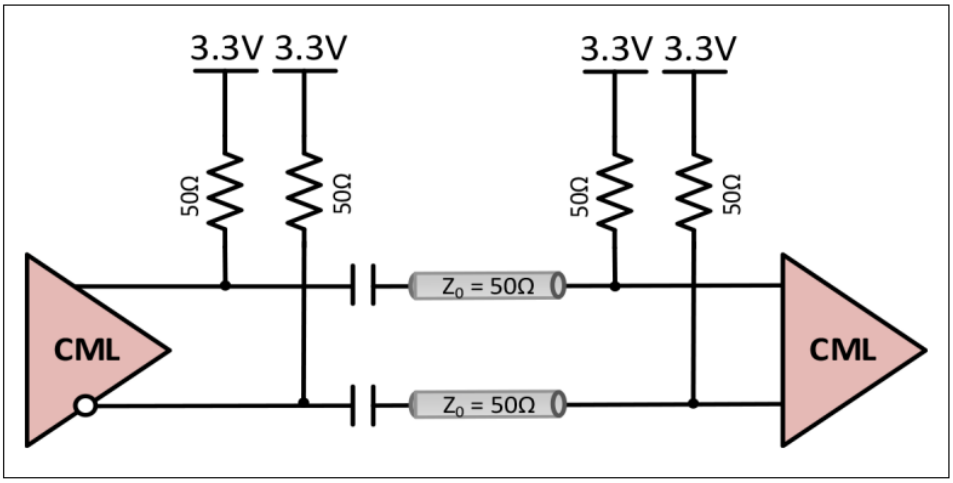


FIGURE 26: AC COUPLING CML TO CML (DRIVER WITHOUT INTEGRATED 50Ω TERMINATION TO VCC).

CML to HCSL (AC)

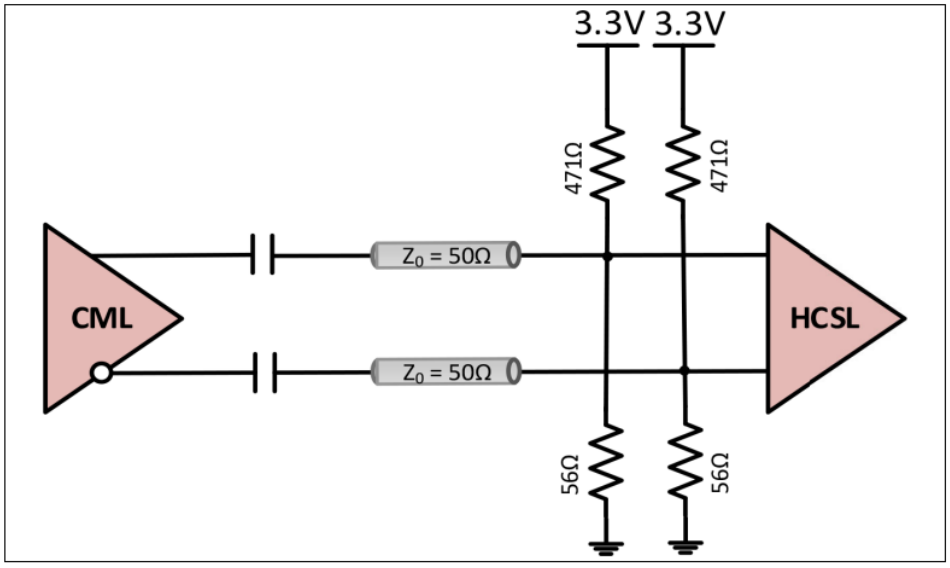
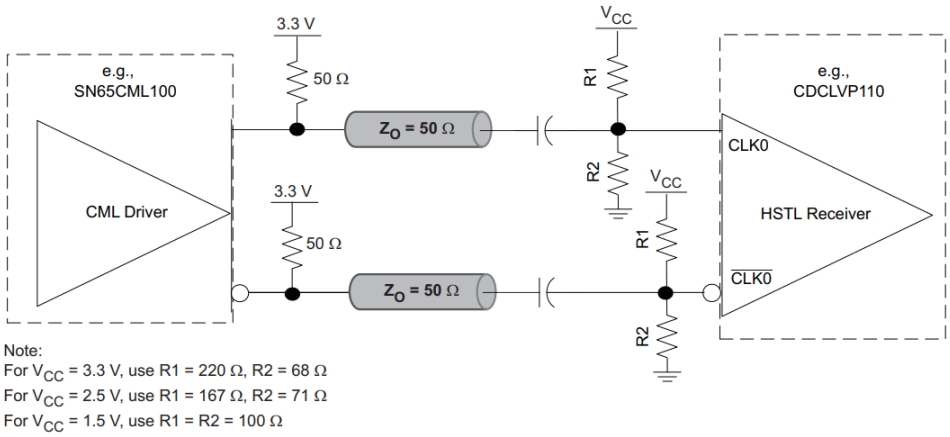


FIGURE 29: AC COUPLING CML TO HCSL.

CML to HSTL (AC)



Note:
For V_{CC} = 3.3 V, use R1 = 220 Ω, R2 = 68 Ω
For V_{CC} = 2.5 V, use R1 = 167 Ω, R2 = 71 Ω
For V_{CC} = 1.5 V, use R1 = R2 = 100 Ω

Figure 21. CML to HSTL

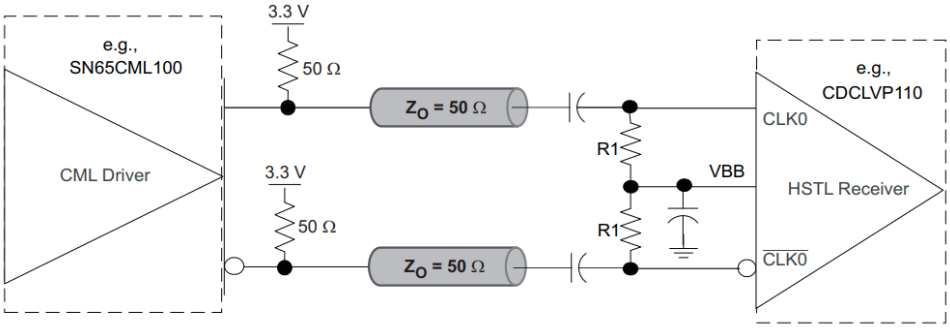


Figure 22. CML to HSTL

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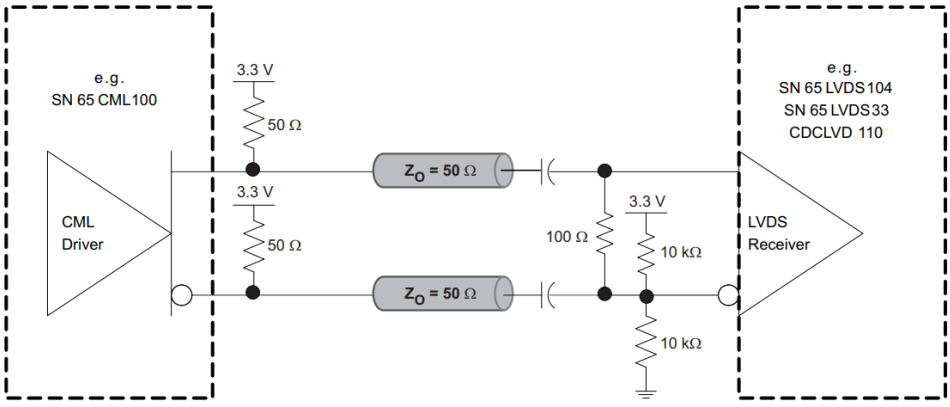

Figure 18. CML to LVDS

Common mode voltage = 1.2V

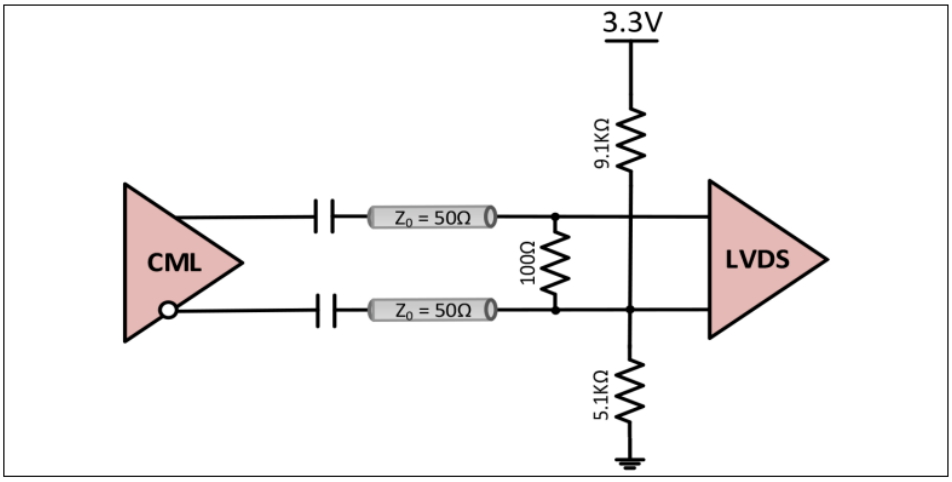

FIGURE 27: AC COUPLING CML TO LVDS.

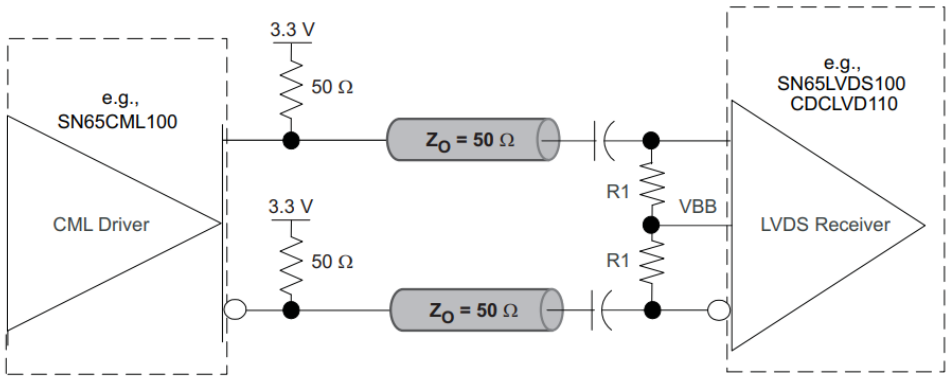

Figure 19. CML to LVDS

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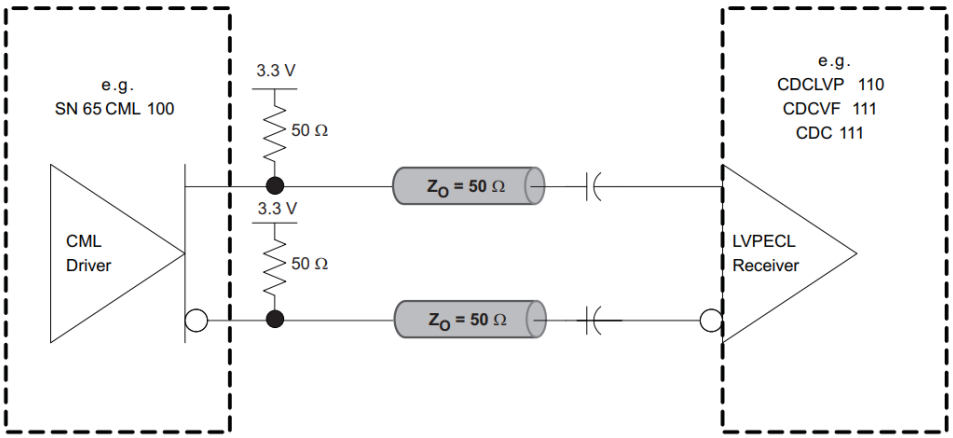


Figure 16. CML to LVPECL

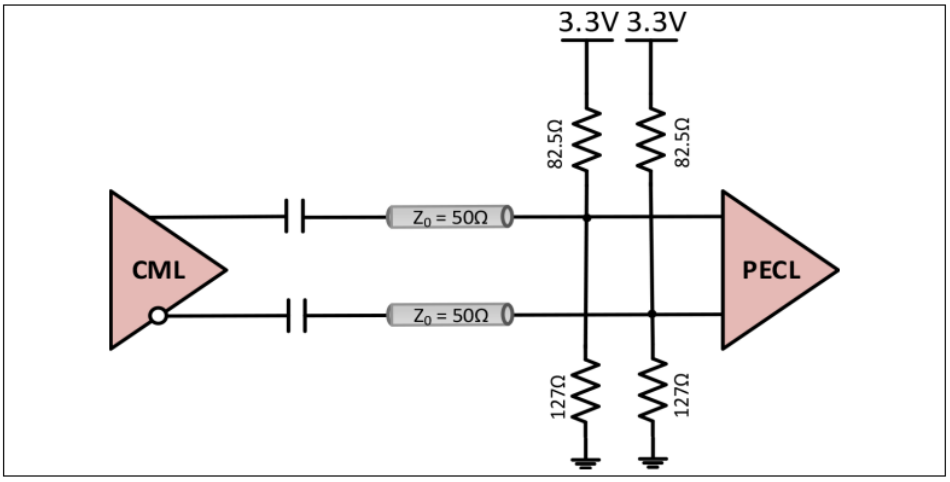


FIGURE 28: AC COUPLING CML TO LVPECL.

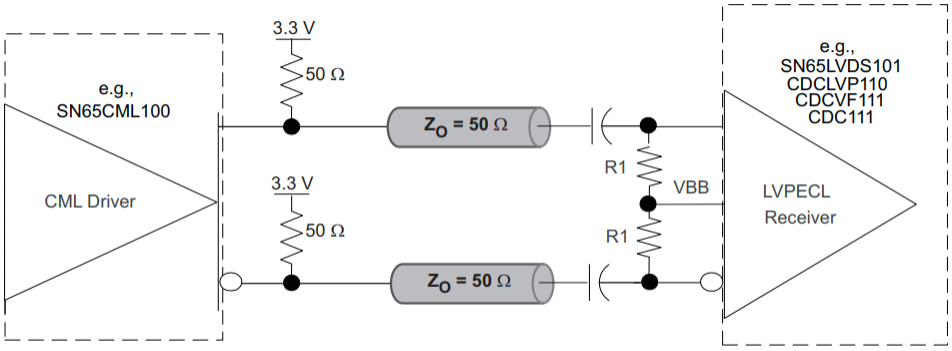


Figure 17. CML to LVPECL

HCSL to CML (AC)

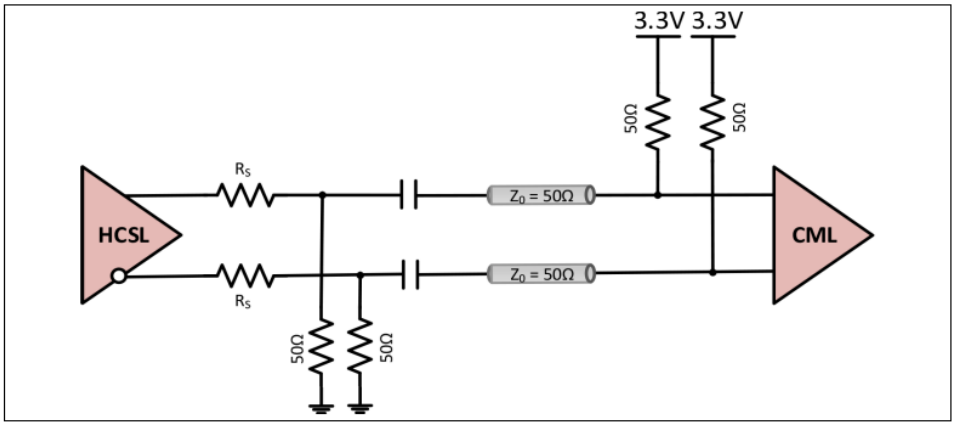


FIGURE 34: AC COUPLING HCSL TO CML.

HCSL to LVDS (AC)

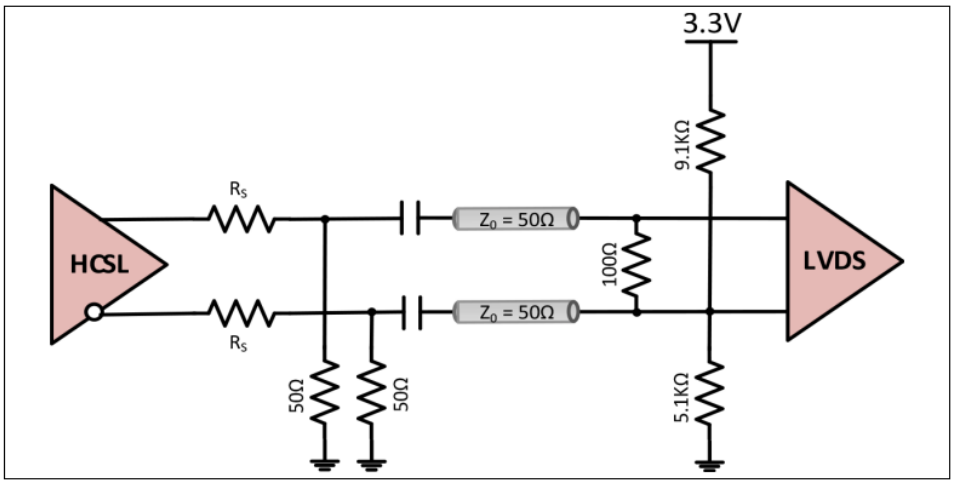


FIGURE 31: AC COUPLING HCSL TO LVDS.

HCSL to LVPECL (AC)

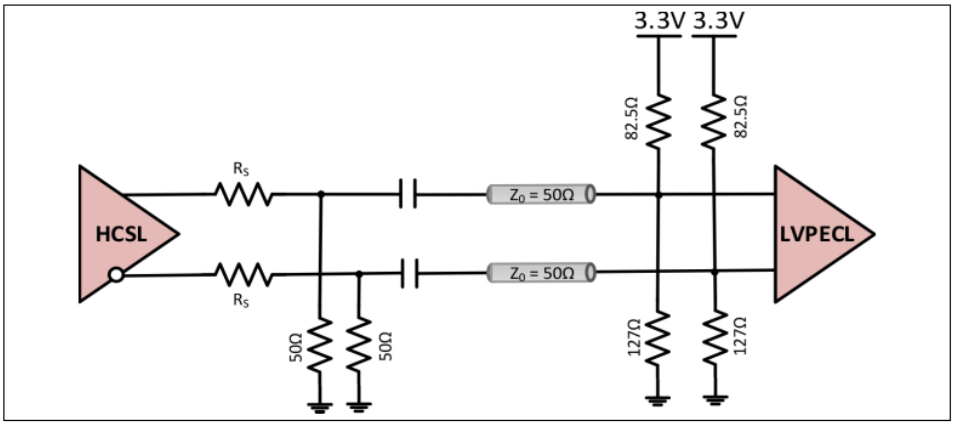


FIGURE 33: AC COUPLING HCSL TO LVPECL.

HCSL to HCSL (AC)

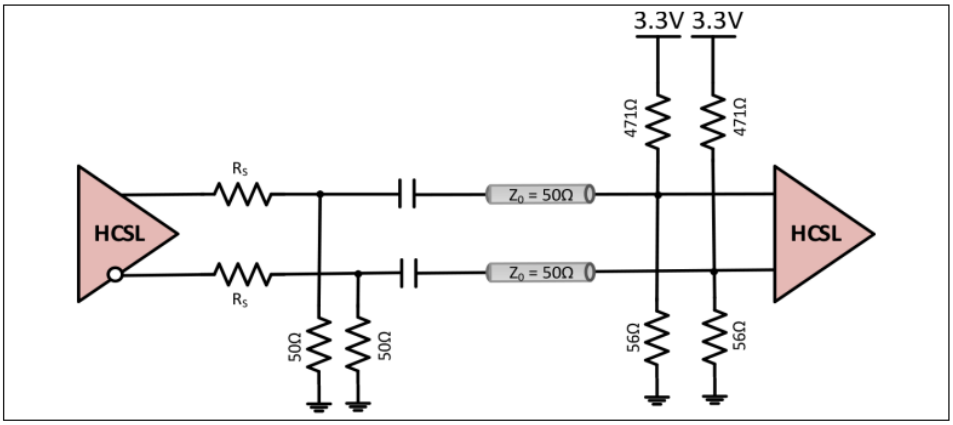


FIGURE 30: AC COUPLING HCSL TO HCSL.

HCSL to HCSL (DC)

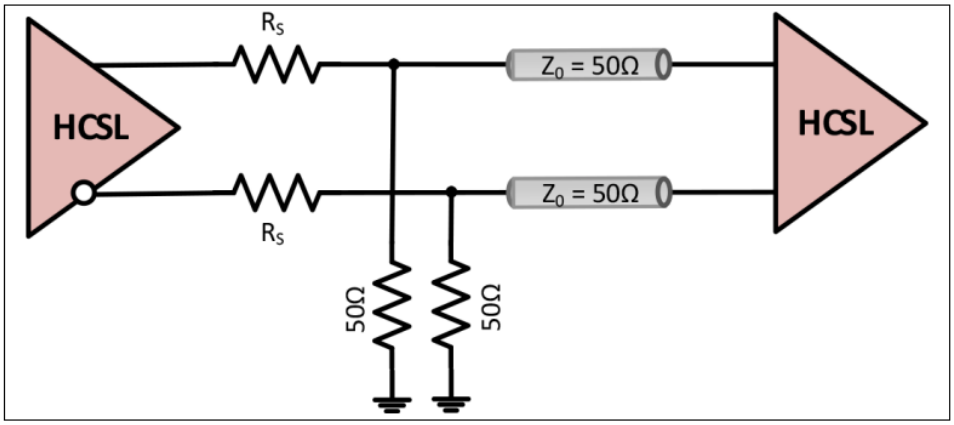


FIGURE 14: DC COUPLING HCSL TO HCSL.

LPHCSL to HCSL (DC)

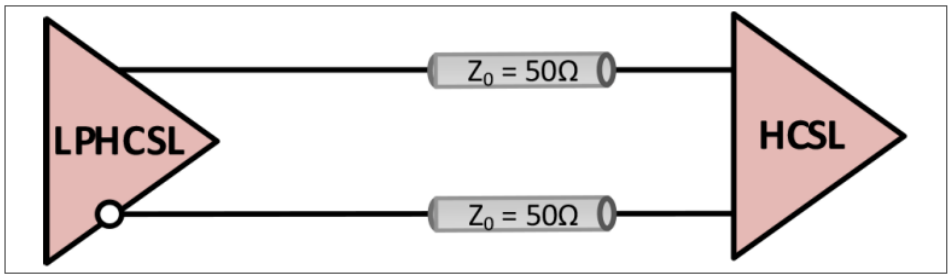
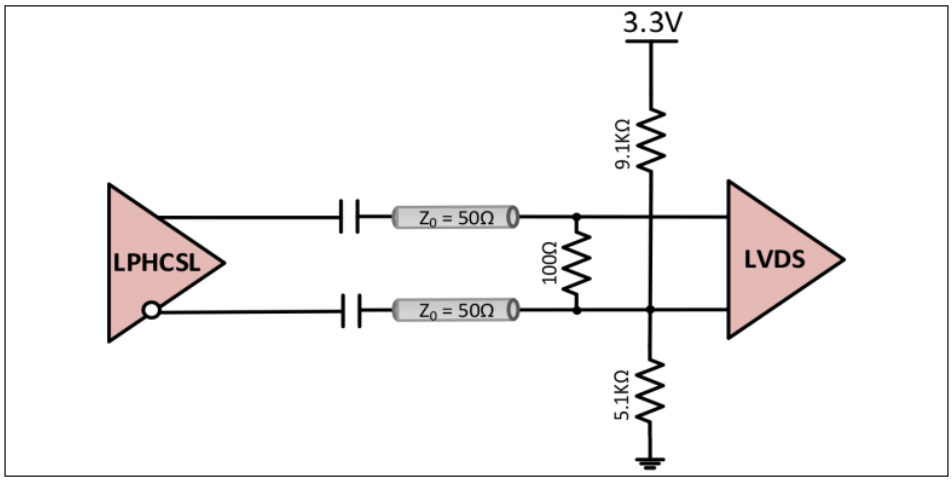


FIGURE 15: DC COUPLING LPHCSL TO HCSL.

LPHCSL to LVDS (AC)



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HSTL to HSTL (AC)

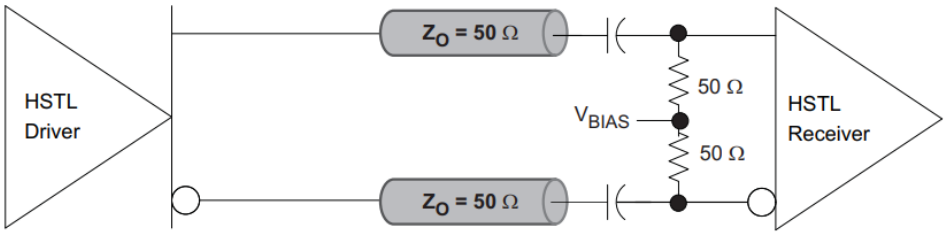


Figure 29. HSTL to HSTL

HSTL to CML (AC)

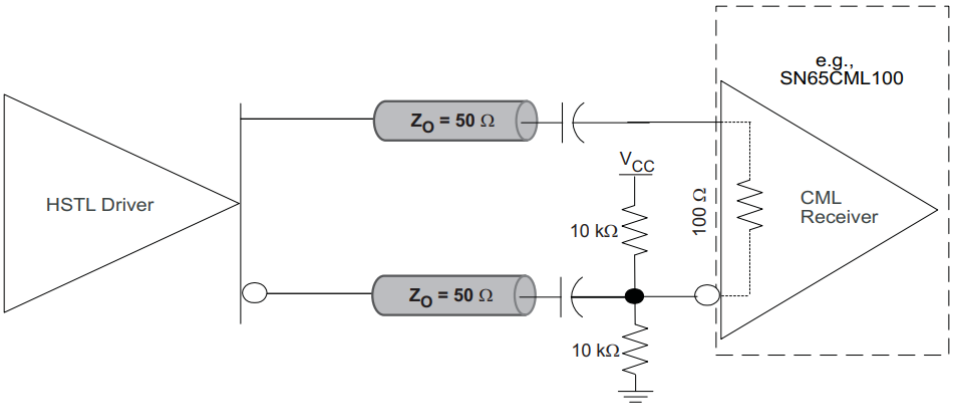


Figure 28. HSTL to CML

HSTL to LVDS (AC)

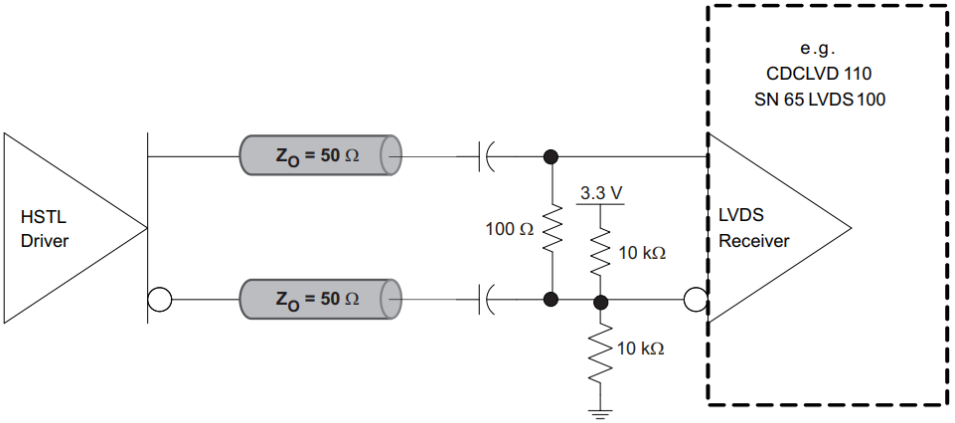


Figure 25. HSTL to LVDS

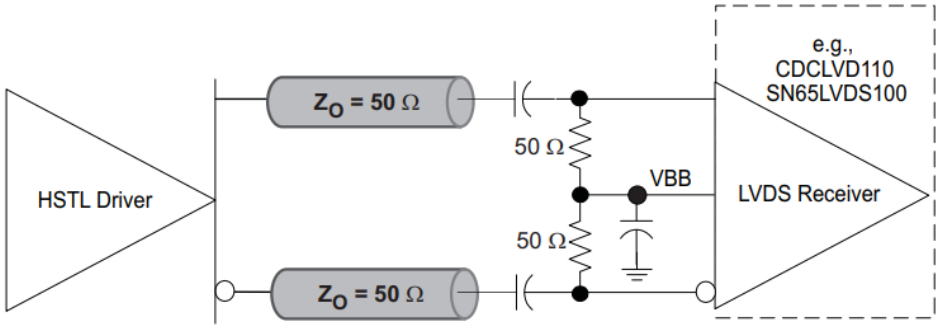


Figure 26. HSTL to LVDS

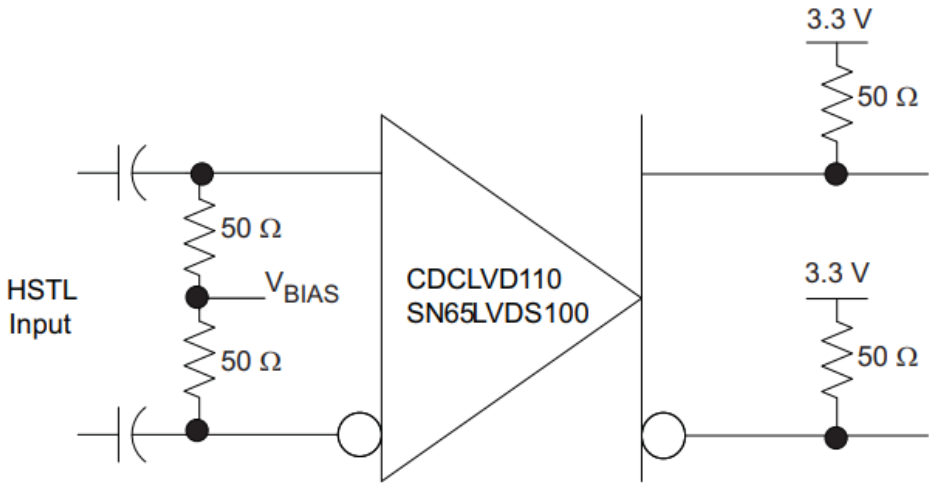


Figure 27. HSTL to LVDS Converter

HSTL to LVPECL (AC)

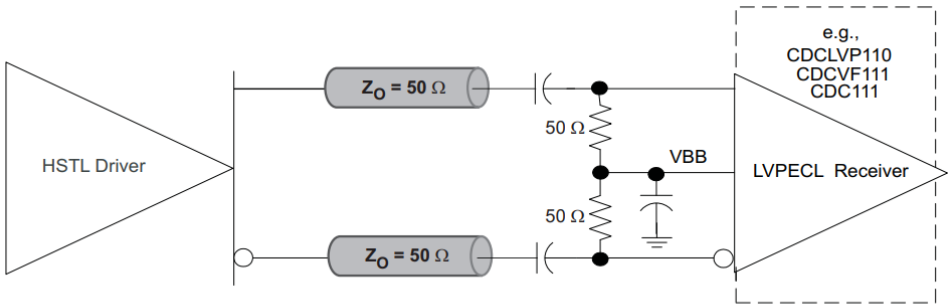


Figure 23. HSTL to LVPECL

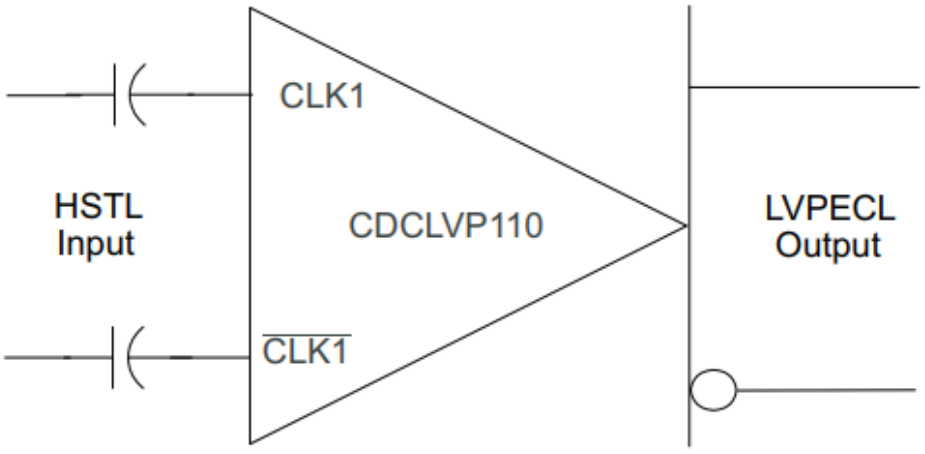


Figure 24. HSTL to LVPECL Converter

LVDS to LVDS (AC)

common mode voltage=1.2V

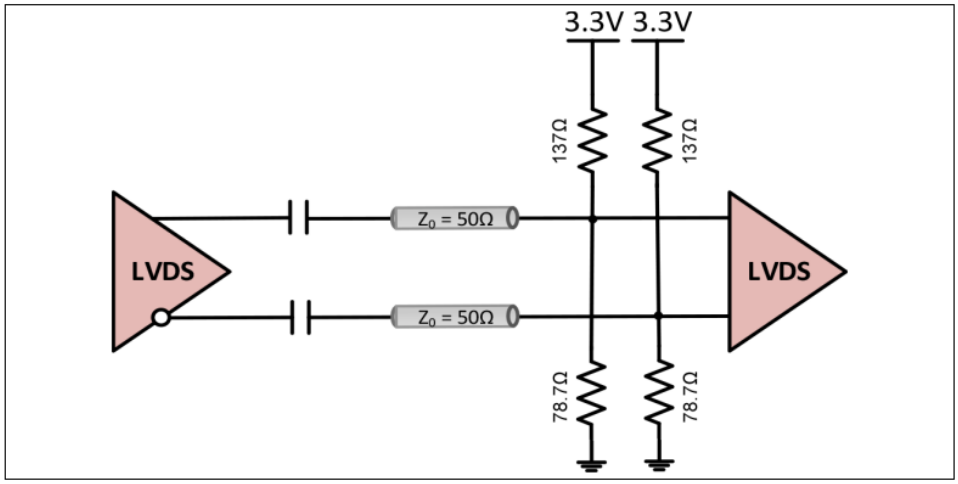


FIGURE 16: AC COUPLING LVDS TO LVDS.

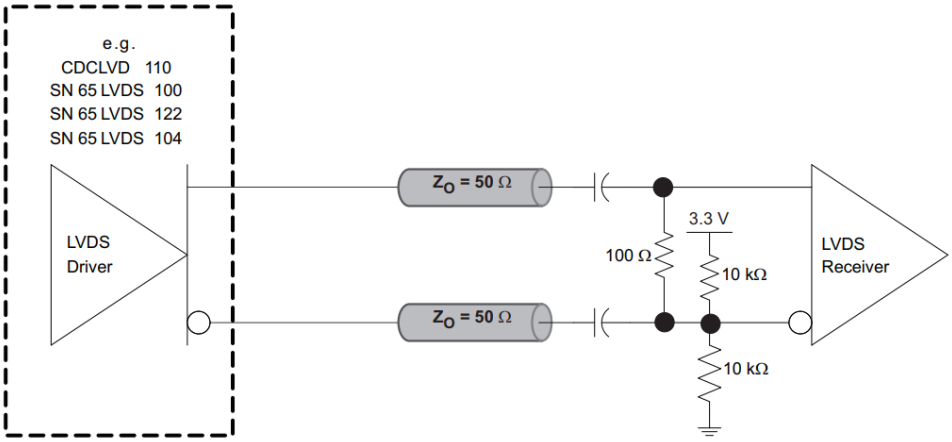


Figure 11. LVDS to LVDS

common mode voltage=1.2V

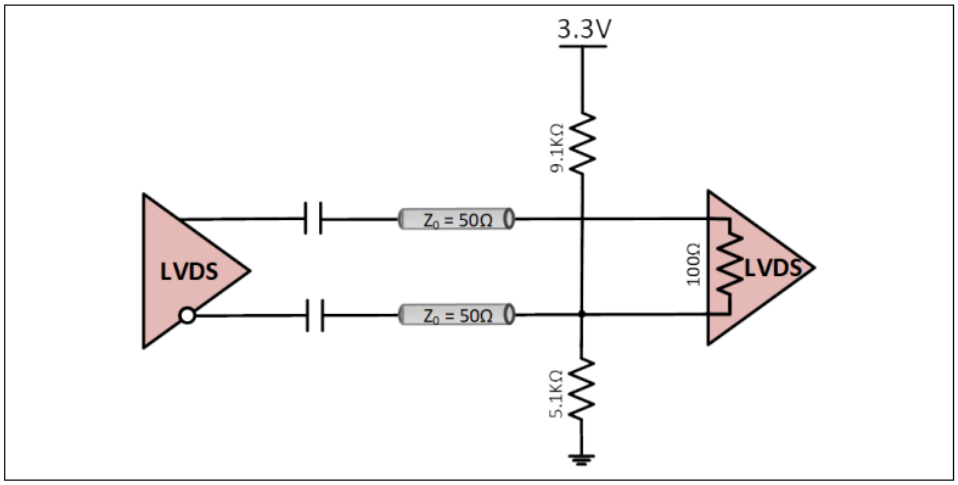


FIGURE 17: AC COUPLING LVDS TO LVDS (RECEIVER WITH INTERNAL TERMINATION).

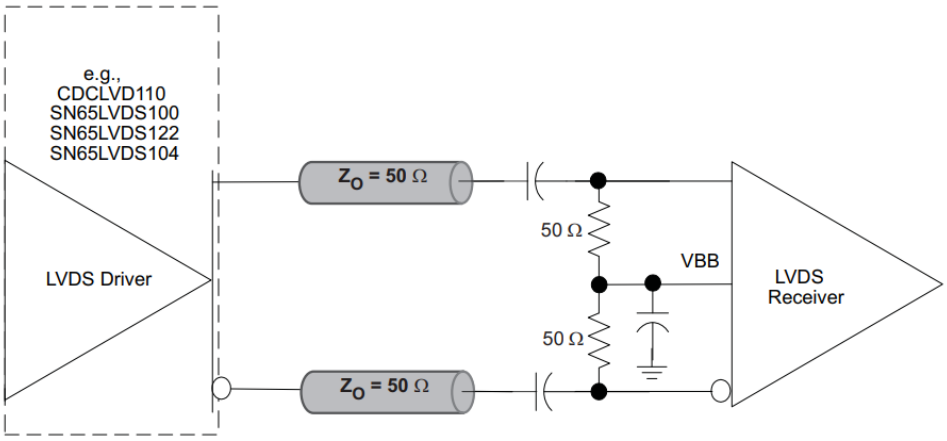


Figure 12. LVDS to LVDS

LVDS to LVDS (DC)

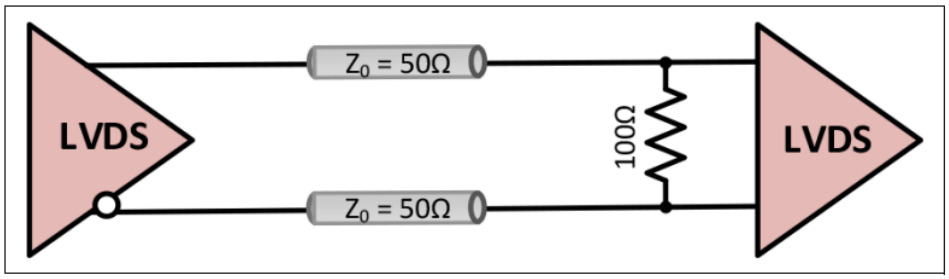


FIGURE 3: RECEIVER WITHOUT INTERNAL TERMINATION.

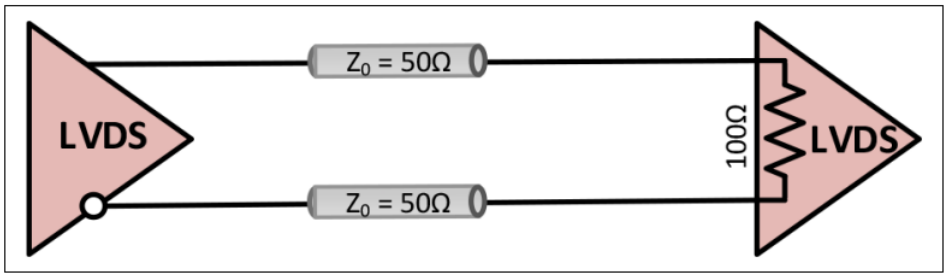


FIGURE 4: RECEIVER WITH INTERNAL TERMINATION.

LVDS to CML (AC)

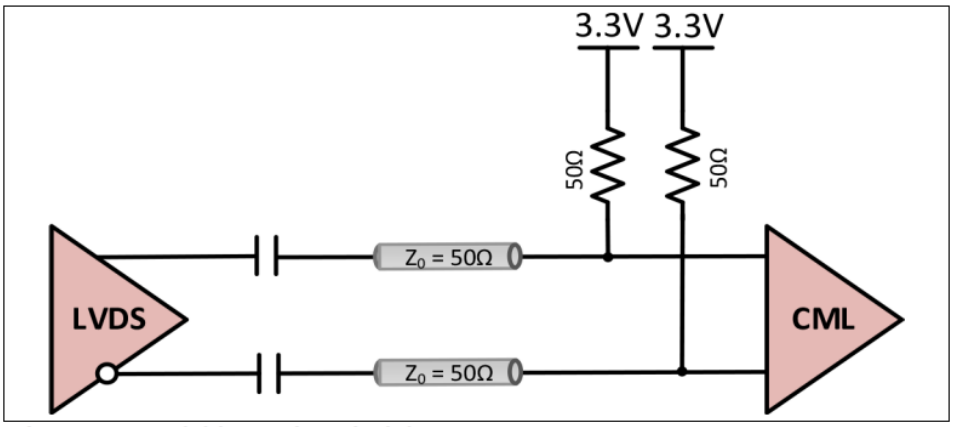


FIGURE 19: AC COUPLING LVDS TO CML.

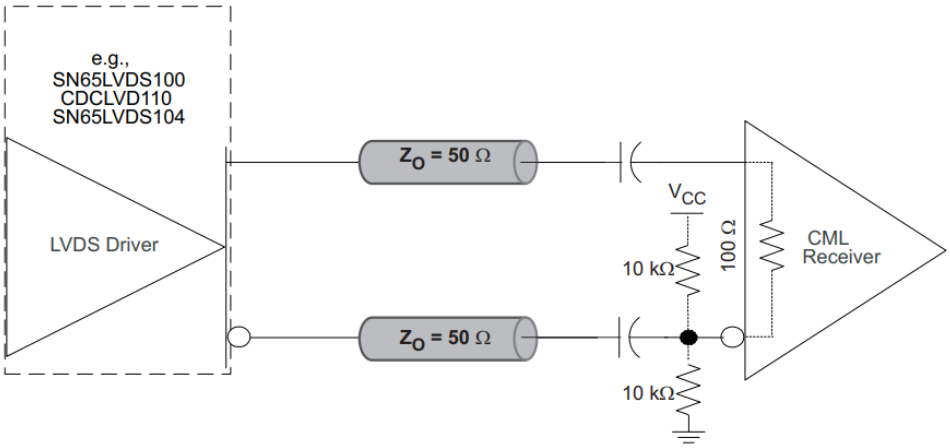


Figure 13. LVDS to CML

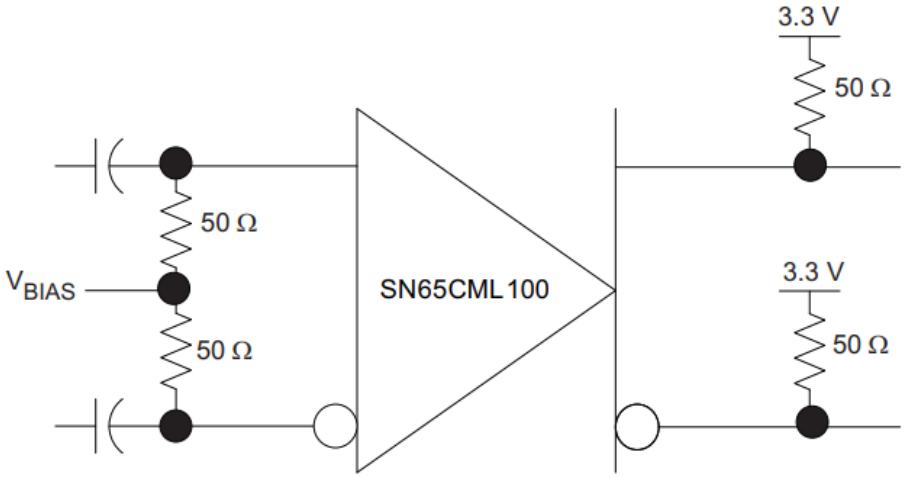
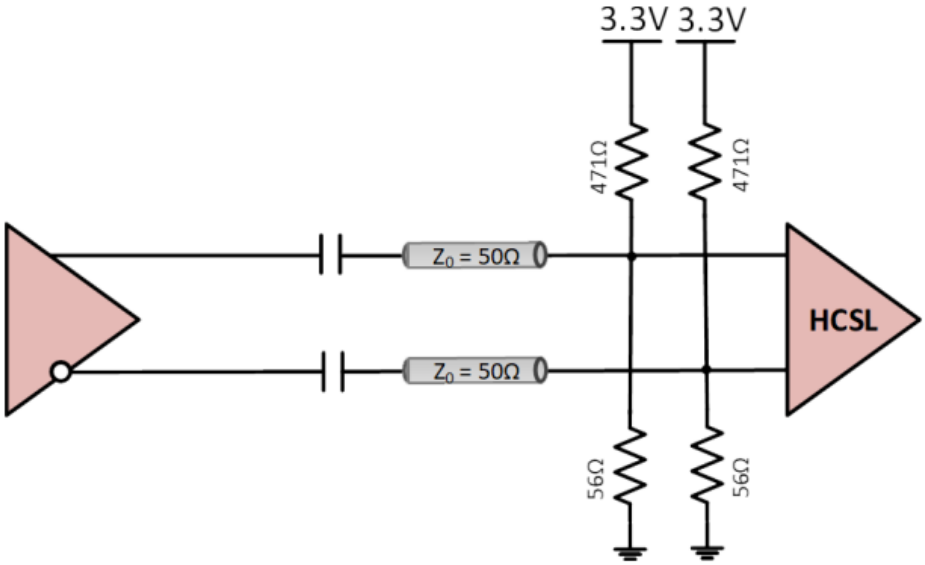


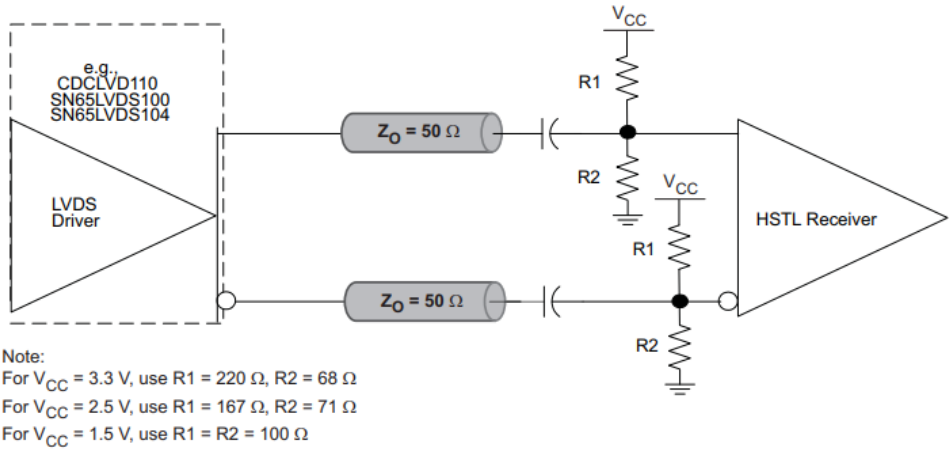
Figure 14. LVDS to CML Translator

LVDS to HCSL (AC)

common mode voltage = 400mV



LVDS to HSTL (AC)



Note:
For V_{CC} = 3.3 V, use R1 = 220 Ω, R2 = 68 Ω
For V_{CC} = 2.5 V, use R1 = 167 Ω, R2 = 71 Ω
For V_{CC} = 1.5 V, use R1 = R2 = 100 Ω

Figure 15. LVDS to HSTL

LVDS to LVPECL (DC)

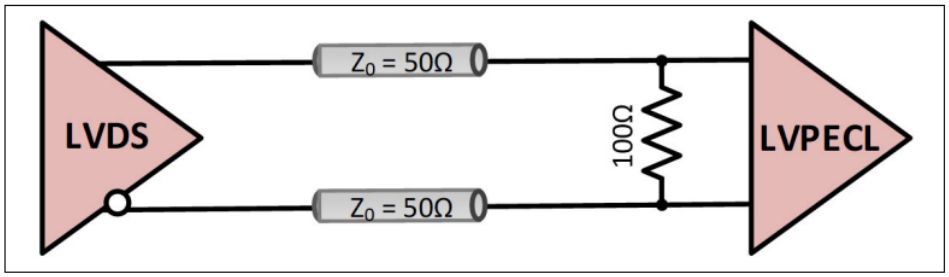


FIGURE 5: DC COUPLING LVDS TO LVPECL.

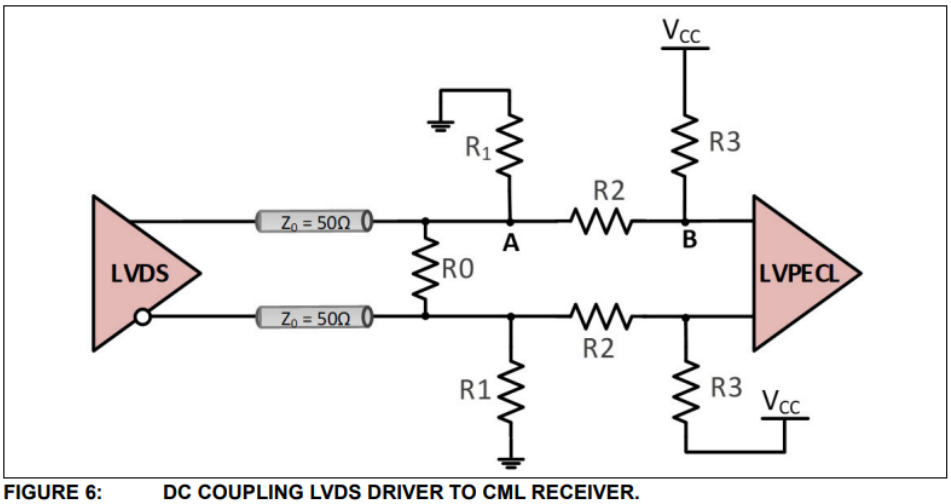


FIGURE 6: DC COUPLING LVDS DRIVER TO CML RECEIVER.

LVDS to LVPECL (AC)

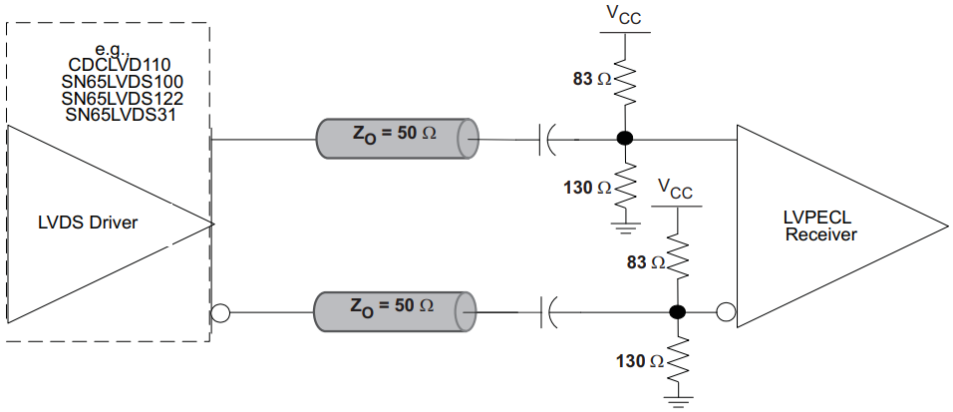


Figure 9. LVDS to LVPECL

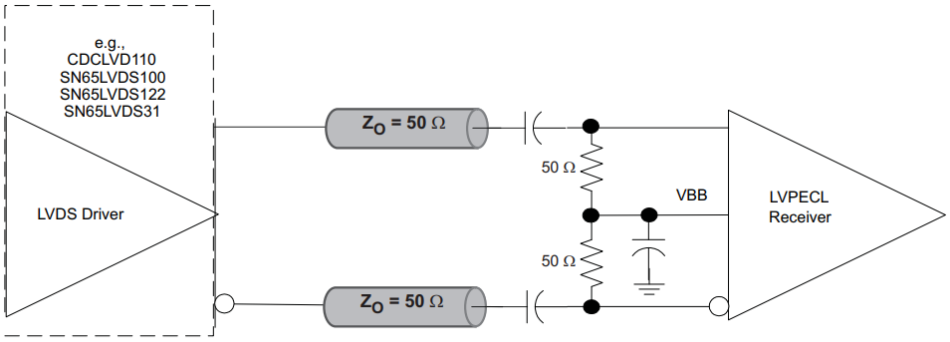


Figure 10. LVDS to LVPECL

LVPECL to LVPECL (DC)

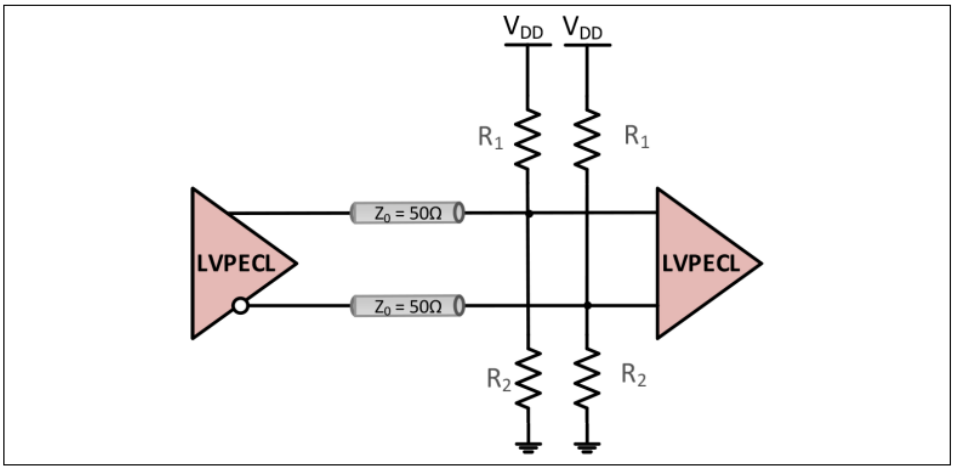


FIGURE 7: DC COUPLING LVPECL TO LVPECL.

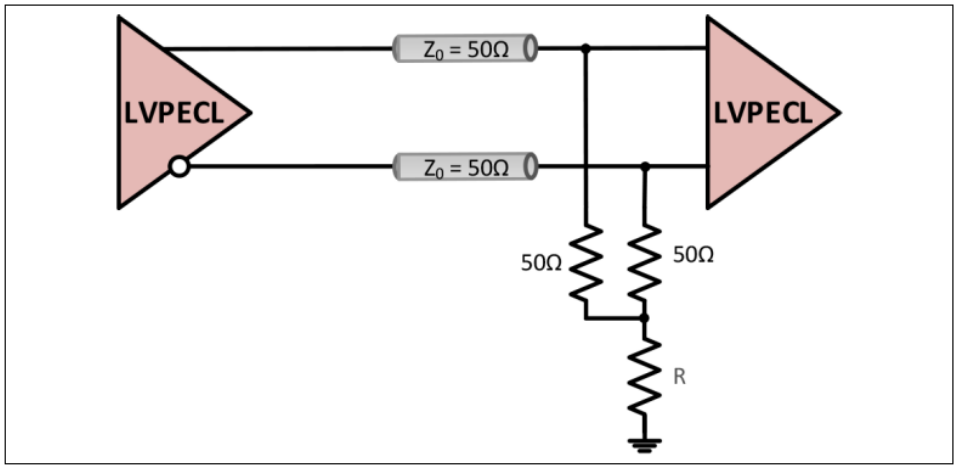


FIGURE 8: DC COUPLING LVPECL TO LVPECL.

LVPECL to LVPECL (AC)

Thevenin termination

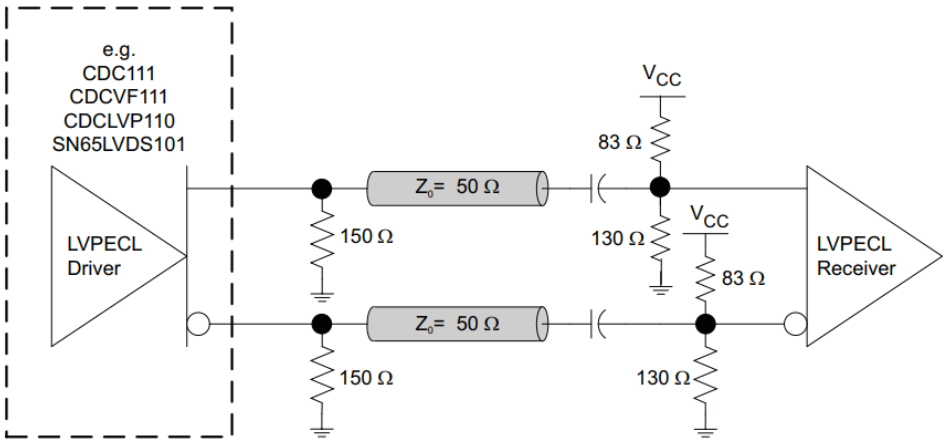


Figure 3. LVPECL to LVPECL

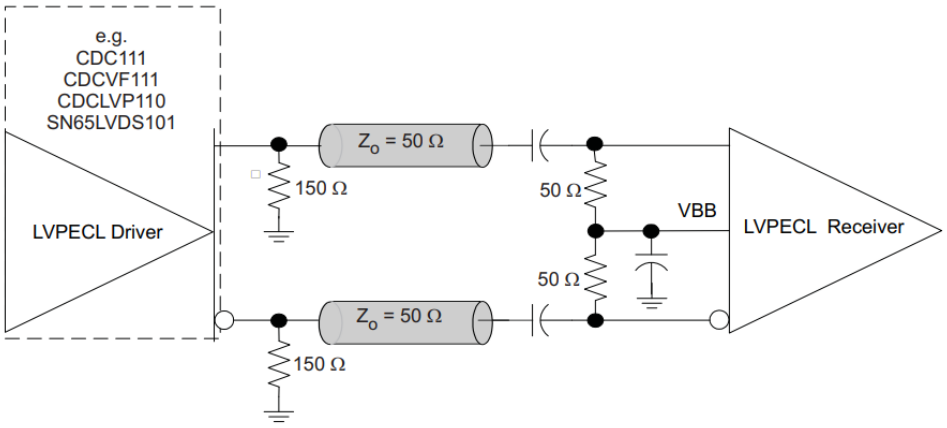


Figure 4. LVPECL to LVPECL

LVPECL to LVDS (DC)

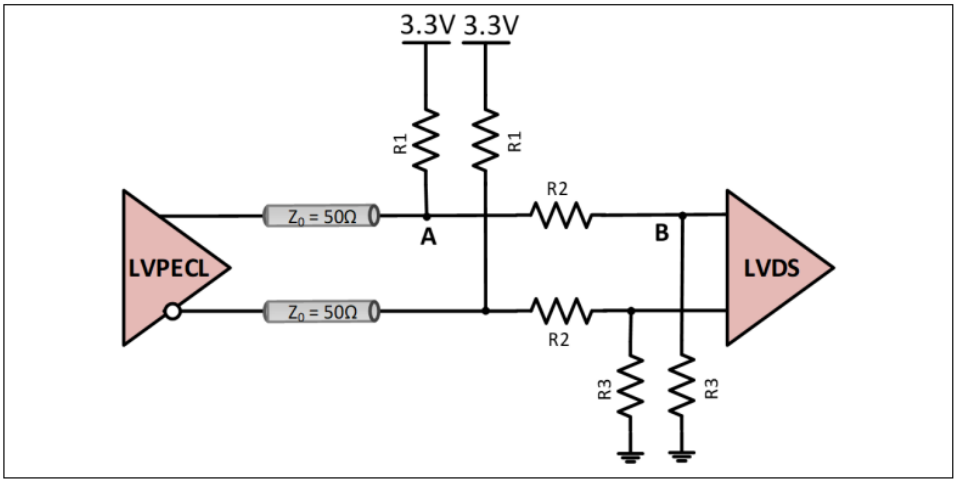


FIGURE 9: **DC COUPLING LVPECL TO LVDS.**

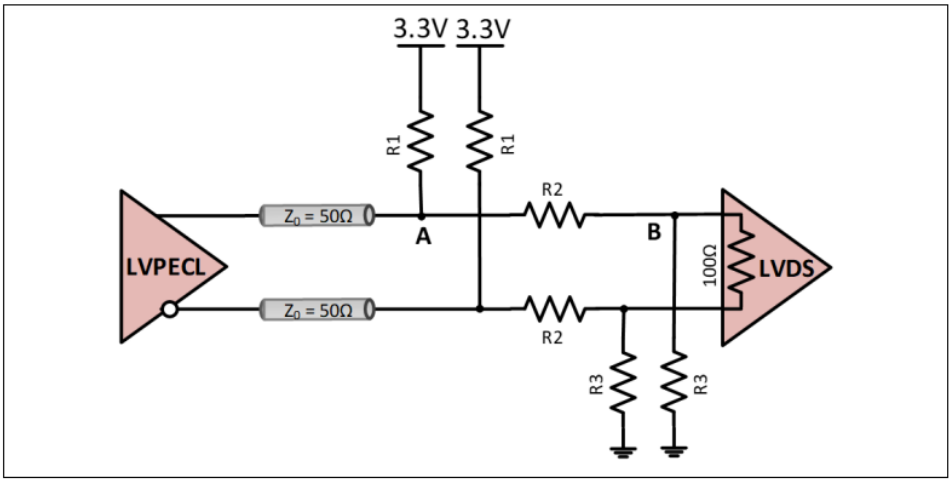


FIGURE 10: **DC COUPLING LVPECL TO LVDS WITH INTERNAL DIFFERENTIAL 100Ω TERMINATION.**

LVPECL to LVDS (AC)

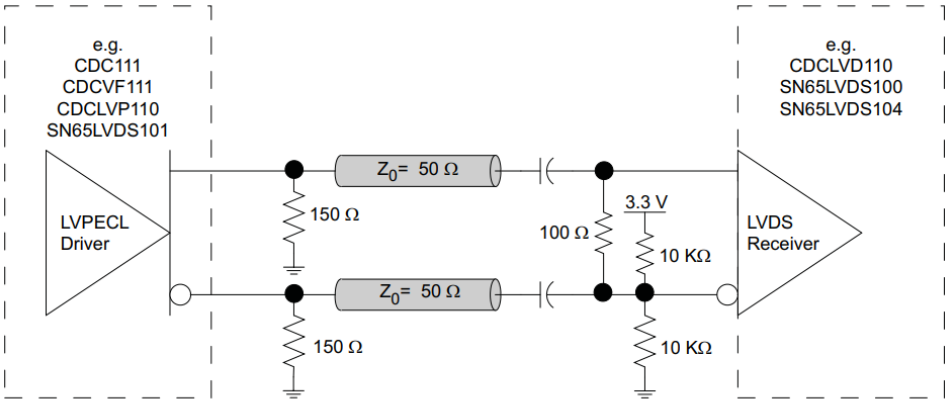


Figure 5. LVPECL to LVDS

common mode voltage=1.2V

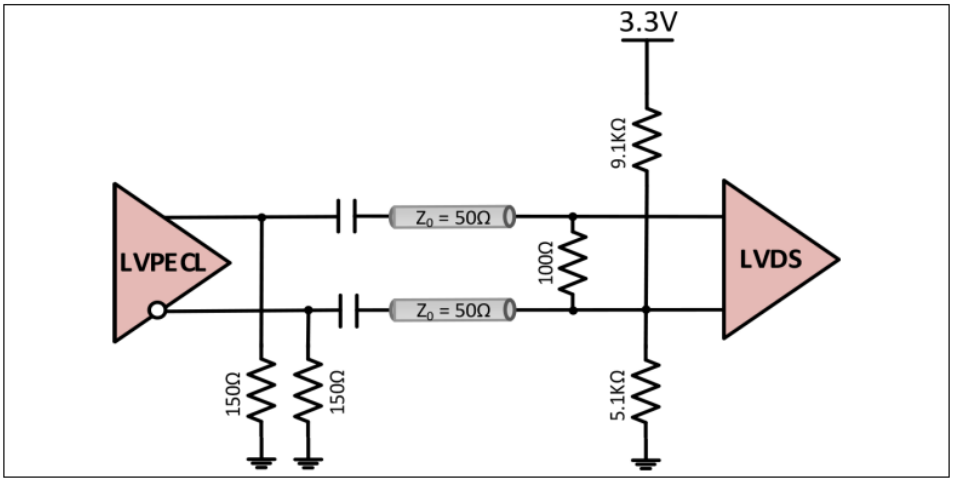


FIGURE 22: AC COUPLING LVPECL TO LVDS.

LVPECL to CML (DC)

It is not recommended to DC couple LVPECL to CML unless AC coupling cannot be used due, for example, to unbalanced data.

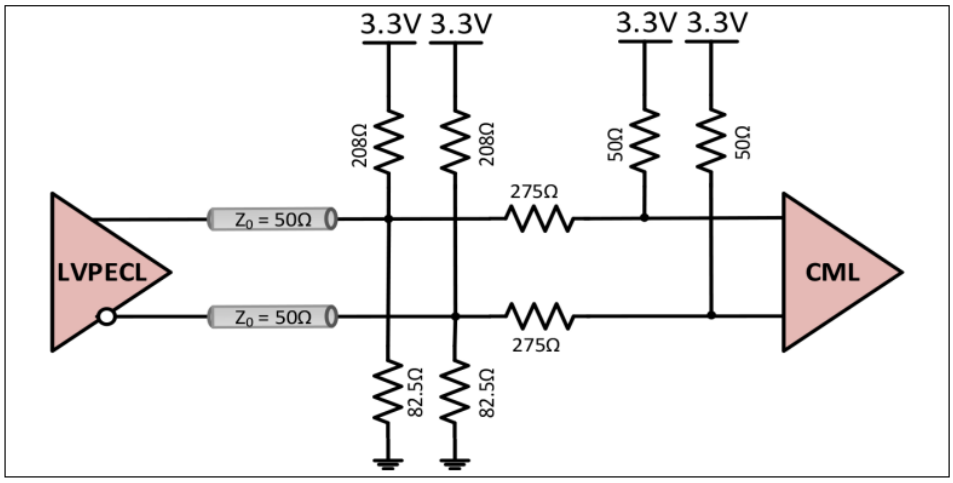


FIGURE 11: DC COUPLING LVPECL TO CML.

LVPECL to CML (AC)

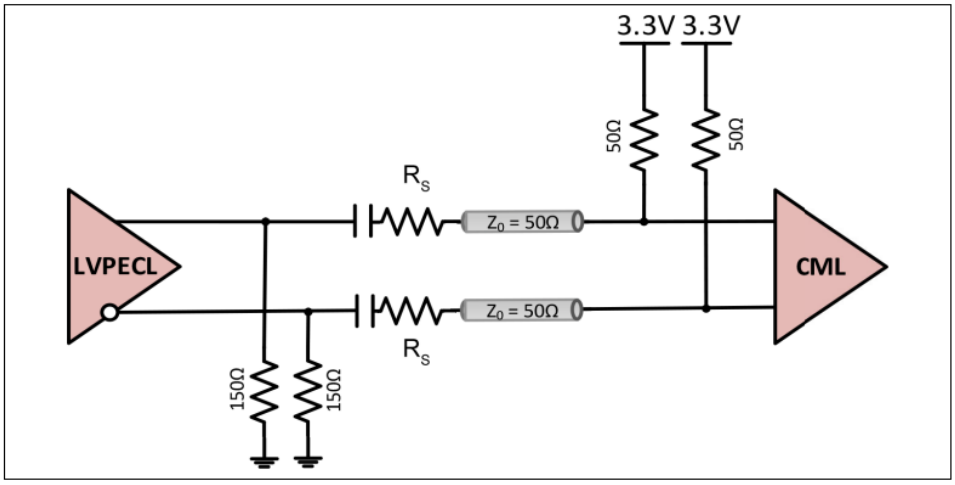


FIGURE 23: AC COUPLING LVPECL TO CML.

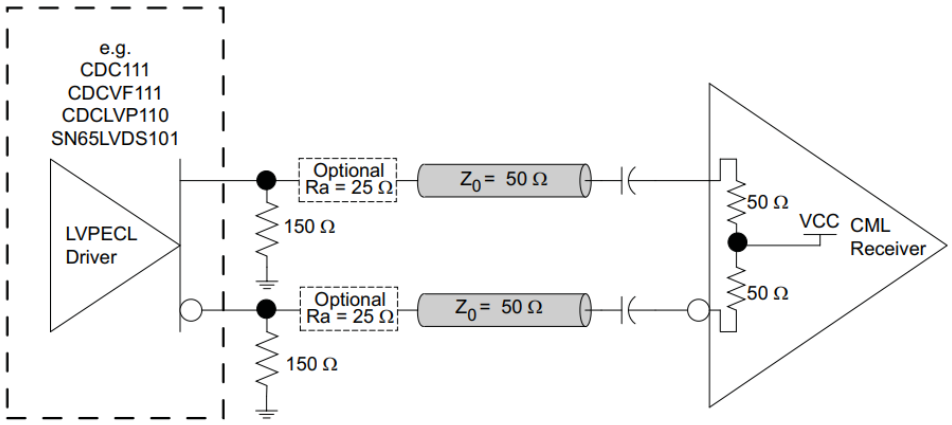


Figure 6. LVPECL to CML

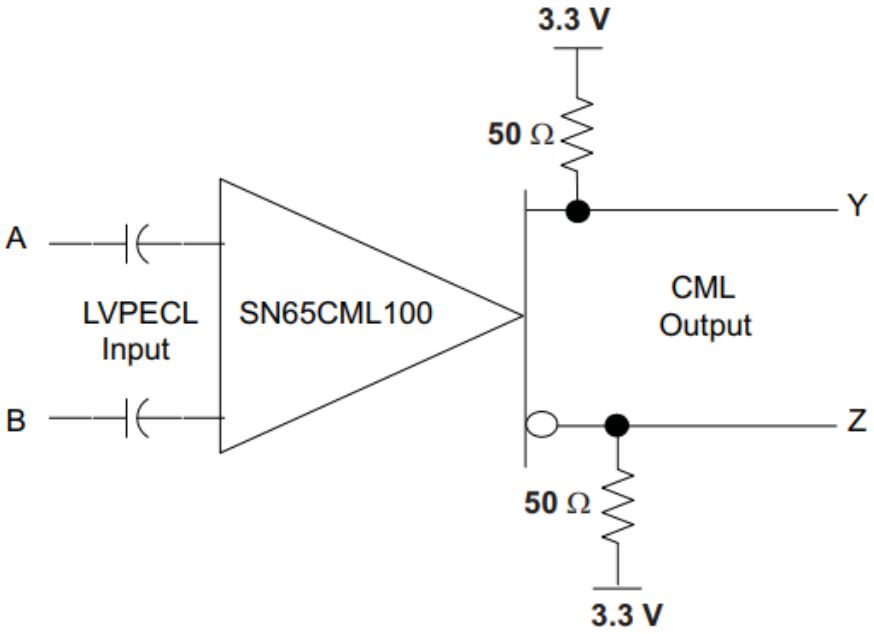
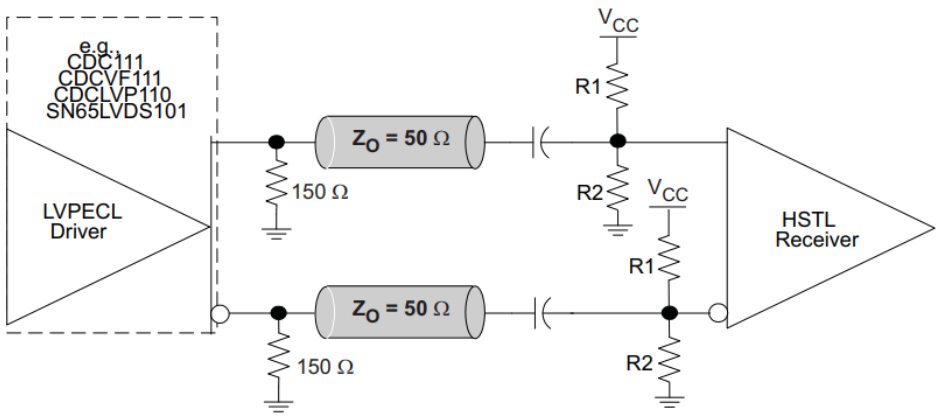


Figure 7. LVPECL to CML Converter

LVPECL to HSTL (AC)



Note:
For V_{CC} = 3.3 V, use R1 = 220 Ω, R2 = 68 Ω
For V_{CC} = 2.5 V, use R1 = 167 Ω, R2 = 71 Ω
For V_{CC} = 1.5 V, use R1 = R2 = 100 Ω

Figure 8. LVPECL to HSTL

LVPECL to HCSL (AC)

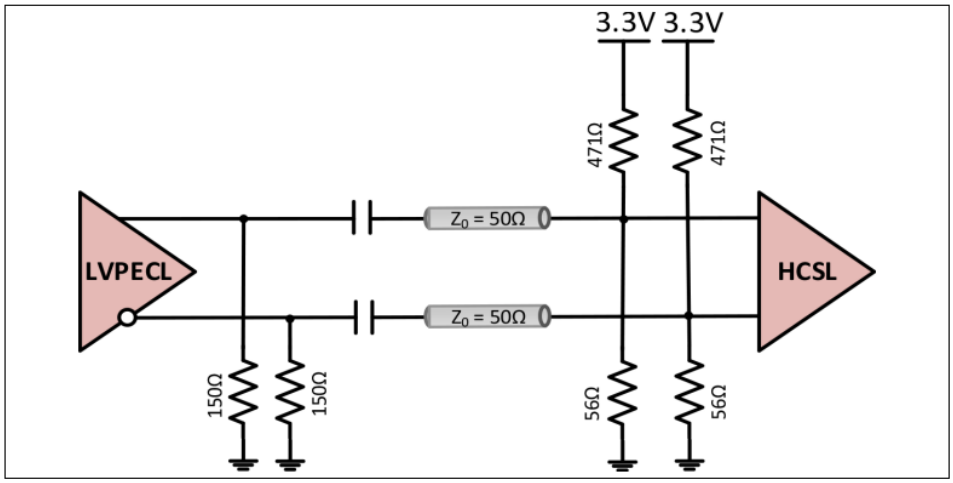


FIGURE 24: AC COUPLING LVPECL TO HCSL.

LVDS

SMARC