



**Atacama
Large
Millimeter /
submillimeter
Array**

TLL-LVDS Level Converter Bill of Materials

ALMA-05.11.35.12-0001-A-BOM

2014-09-30

| Prepared by: | Organization Role: | Date and Signature: |
|---------------------|-------------------------------|----------------------------|
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Change Record

| Version | Date | Affected Section(s) | Author | Reason/Initiation/Remarks |
|---------|------------|---------------------|------------|---------------------------|
| A | 2014-09-30 | All | Bob Treacy | Initial Draft |
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1 Introduction

1.1 Applicable documents

The following documents are part of this document to the extent specified herein. If not explicitly stated otherwise, the latest issue of the document is valid.

| Appl. | Document Title | ALMA Doc. Number |
|--------|---------------------------------------------------------------------|---------------------------------------------|
| [AD01] | APP TTL-LVDS Level Converter Schematic | ALMA-05.11.35.11-0001-A-DWG |
| [AD02] | APP TLL Level Converter PCB Files and Specification for Fabrication | ALMA-05.11.35.11-0002-A-DWG |
| [AD03] | APP TLL-LVDS Level Converter | ALMA-05.11.35.11-0003-A-DWG |

1.2 Reference documents

The following documents contain additional information and are referenced in this document.

| Ref | Document Title | ALMA Doc. Number |
|--------|----------------|------------------|
| [RD01] | | |
| [RD02] | | |

1.3 Acronyms

All acronyms and abbreviations used within this document are given at the [ALMA Acronym Finder](#) web page.



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2 Bill of Materials

| Item | Qty | Part | Value | Description | MFG. | MFG P/N | Ind. Pkg. | Supplier | Supplier P/N |
|------|-----|-----------|-----------------------|---------------------------------------------------------------------------------|--------------------|-------------------|--------------|----------|------------------------|
| 1 | 2 | C1, C2 | 1uf | SMD CAPACITOR, 1uF, 10%, 16V | Kemet | C1206C105K4RACTU | JDEC 1206 | Digi-Key | 399-1254-1-ND |
| 2 | 1 | C3 | 10uf | POLARIZED CAPACITOR, 10uF, 10%, 10V min | AVX | TAJB106K010RNJ | JDEC 1210 | Digi-Key | 478-1672-1-ND |
| 3 | 1 | C4 | 0.1uf | SMD CAPACITOR, 0.1uF, 10%, 16V | any | Kemet | JDEC 1206 | Digi-Key | 399-1167-1-ND |
| 4 | 1 | J1 | 350428-1 | Universal MATE-N-LOK .250 Centerline, 600 V, 19 - 36 A max" | TE Connectivity | 350428-1 | N/A | Digi-Key | A1466-ND |
| 5 | 2 | R1, R3 | 51 Ohms | SMD RESISTOR, 51 Ohms, 1/8W, 5% | Panasonic | ERJ-6GEYJ510V | JDEC 0805 | Digi-Key | P51ACT-ND |
| 6 | 2 | R2, R4 | 0 Ohms | SMD RESISTOR, 0 Ohms, 1/8W, 5% | Panasonic | ERJ-6GEYJR00V | JDEC 0805 | Digi-Key | P0.0ATR-ND |
| 7 ** | 2 | R5, R6 | 100 Ohms | SMD RESISTOR, 100 Ohms, 1/8W, 5% | Panasonic | ERJ-6GEYJ101V | JDEC 0805 | Digi-Key | P100ACT-ND |
| 8 | 2 | U1, U2 | ADN4661BRZ | High Speed Differential Driver | Analog Devices | ADN4661BRZ | SOIC-8 | Digi-Key | ADN4661BRZ-ND |
| 9 ** | 1 | U3 | ADP122AUJZ-3.3- R7 | 5.5 V Input, 300 mA, Low Quiescent Current, 3.3V CMOS Linear Regulator | Analog Devices | ADP122AUJZ-3.3-R7 | TSOT-5 | Digi-Key | ADP122AUJZ-3.3-R7CT-ND |

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| Item | Qty | Part | Value | Description | MFG. | MFG P/N | Ind. Pkg. | Supplier | Supplier P/N |
|-------------|-----|--------------------------------------------------|------------------|----------------------------------------|--------------------|-----------------------------|-----------|----------|-----------------------------|
| 10 | 1 | X2 | HM2J09PE5118N9LF | COMPACT PCI TYPE C - 55 PINS, shielded | FCI | HM2J09PE5118N9LF | | Digi-Key | HM2J09PE5118N9LF-ND |
| 11 | 2 | X1, X3 | 1-1634613-0 | JACK, RIGHT ANGLE, 50 OHM, PCB, BNC | TE Connectivity | 1-1634613-0 | N/A | Digi-Key | A97554-ND |
| 12 | 1 | X4 | 22-23-2021 | .100 (2.54mm) Center Header - 2 Pin" | MOLEX | 22-23-2021 | N/A | Digi-Key | WM4200-ND |
| 13 | 1 | N/A | | TTL-LVDS Bare PCB | Any | ALMA-05.11.35.11-0002-A-DWG | N/A | NRAO | ALMA-05.11.35.11-0002-A-DWG |
| | | | | | | | | | |
| Note: ** | | Do not populate Items 7 and 9 for use in the APP | | | | | | | |