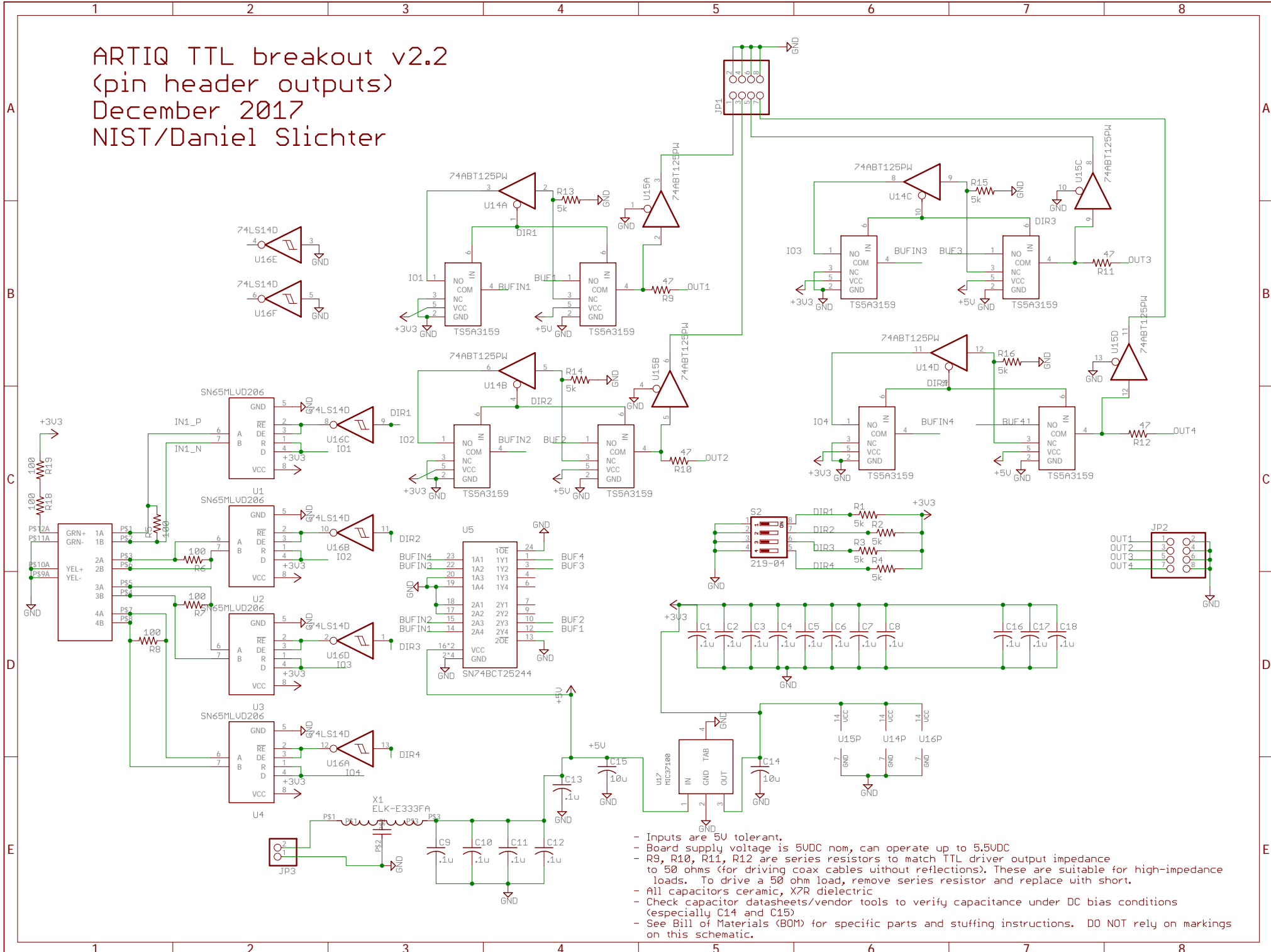


ARTIQ TTL breakout v2.2  
 (pin header outputs)  
 December 2017  
 NIST/Daniel Slichter



- Inputs are 5V tolerant.
- Board supply voltage is 5VDC nom, can operate up to 5.5VDC
- R9, R10, R11, R12 are series resistors to match TTL driver output impedance to 50 ohms (for driving coax cables without reflections). These are suitable for high-impedance loads. To drive a 50 ohm load, remove series resistor and replace with short.
- All capacitors ceramic, X7R dielectric
- Check capacitor datasheets/vendor tools to verify capacitance under DC bias conditions (especially C14 and C15)
- See Bill of Materials (BOM) for specific parts and stuffing instructions. DO NOT rely on markings on this schematic.