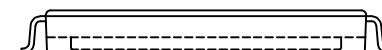
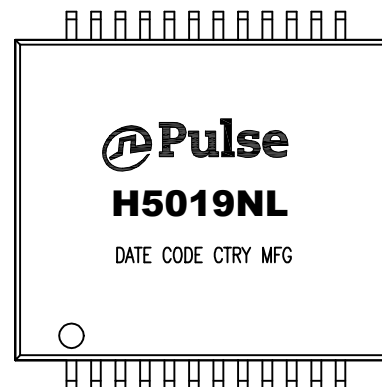


NOTES:

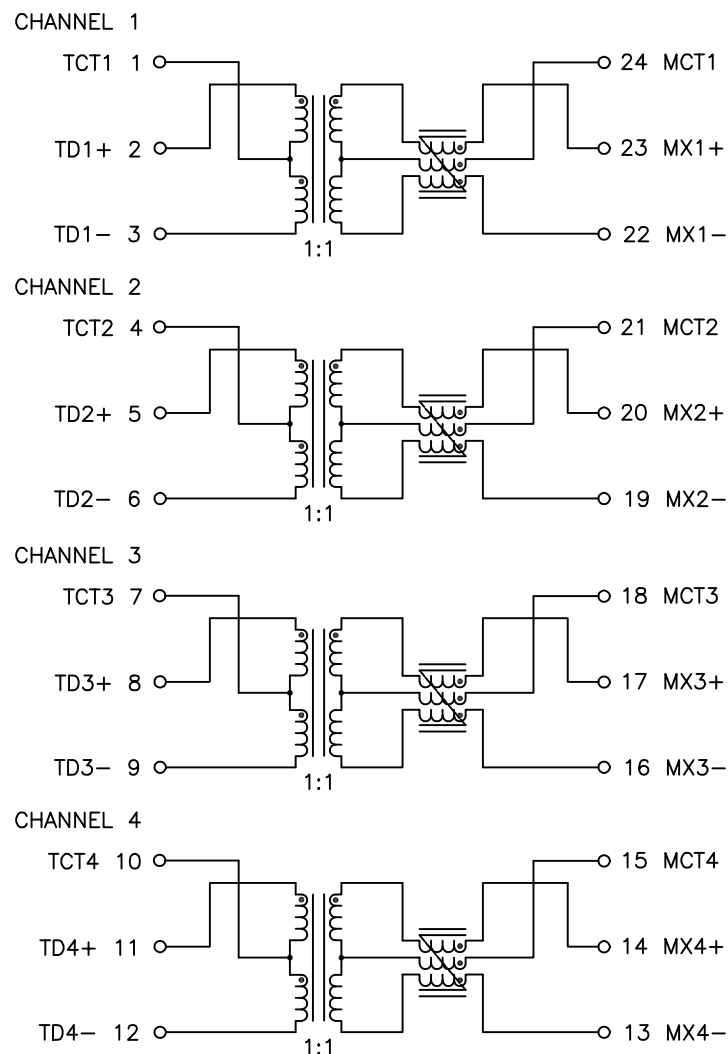
1. ROHS COMPLIANT
2. HEADER: DAP (DIALLYL PHTHALATE) WITH FLAMMABILITY RATING UL 94V-0 OR BETTER.
3. STORAGE TEMPERATURE: -20°C TO +125°C
4. COMPLIANCE TO J-STD:
  - A. J-STD-002: SOLDERABILITY AT 245°C REFLOW PROFILE
  - B. J-STD-020: LEVEL 1, NO MOISTURE SENSITIVE
  - C. J-STD-075: R7, 245°C MAXIMUM THROUGH REFLOW SOLDER
5. TO ORDER TAPE & REEL PACKAGING ADD A "T" SUFFIX TO THE PART NUMBER(i.e H5019NL BECOMES H5019NLT).



FINAL OUTLINE

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| PRODUCT DESCRIPTION   | TLA DRAWING | PS DRAWING    | SHEET  | PART NO. | DATASHEET REV. |
|-----------------------|-------------|---------------|--------|----------|----------------|
| MDL,SIN,1GD,1:1,SM,TU | H5019NL-16  | PS-2051.001-K | 1 OF 3 | H5019NL  | B              |



SCHEMATIC

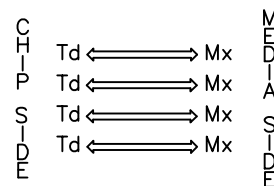
ELECTRICAL CHARACTERISTICS AT +25°C UNLESS OTHER SPECIFIED

MEETS IEEE 802.3 SPECIFICATION

| PARAMETER                                | SPECIFICATIONS                            |  |  |
|--|---|--|--|
| OPERATING TEMP                           | 0°C – 70 °C                               |  |  |
| URNS RATIO                               | 1 : 1 ±2%                                 |  |  |
| POLARITY                                 | PER SCHEMATIC                             |  |  |
| OCL, TRANSMIT CHANNEL                    | 350 uH MIN. WITH 8mA DC BIAS, –0 TO 70 °C |  |  |
| INSERTION LOSS                           | 100 KHz                                   | 1–100 MHz                              | 125 MHz                                |
|  | –1.2 dB MAX                               | –1.0 dB MAX                            | –3.0 dB MAX                            |
| RETURN LOSS<br>(Z OUT = 100 OHM ±15%)    | 1–40 MHz                                  |  | 40–100 MHz                             |
|  | –16 dB MIN                                | –18 dB MIN<br>(ZOUT=100 OHMS)          | –10+20*LOG <sub>10</sub> (f/80) dB MIN |
| CROSSTALK (TX–RX)                        | 1 MHz                                     | 30–100 MHz                             |  |
|  | –50 dB MIN                                | –55+24*LOG <sub>10</sub> (f/10) dB MIN |  |
| DIFFERENTIAL TO COMMON<br>MODE REJECTION | 2 MHz                                     | 30–100 MHz                             |  |
|  | –50 dB MIN                                | –43+22*LOG <sub>10</sub> (f/30) dB MIN |  |
| INPUT – OUTPUT<br>ISOLATION              | 1500 VRMS @ 60 SECONDS                    |  |  |

NOTE: f IS FREQUENCY IN MHZ.

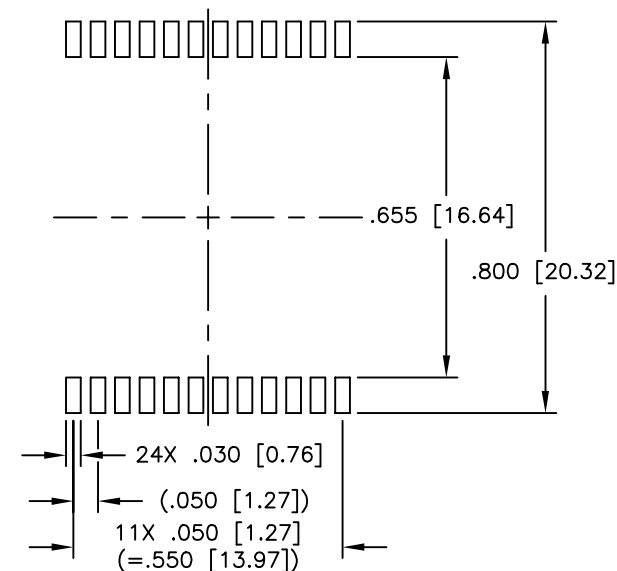
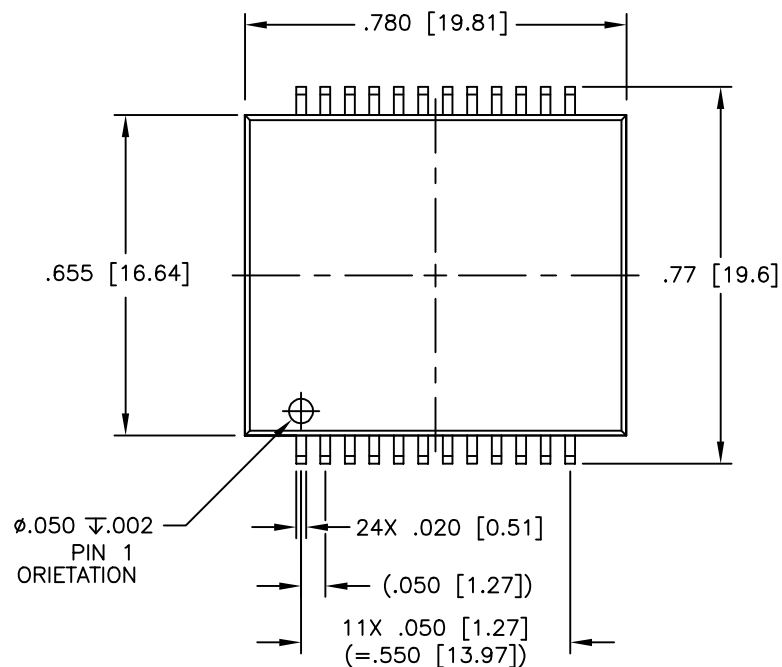
LEGEND



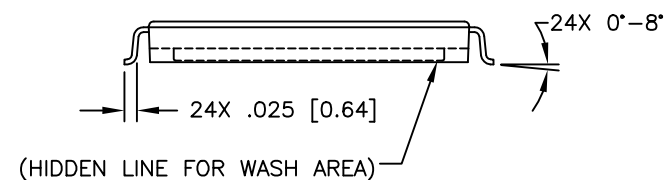
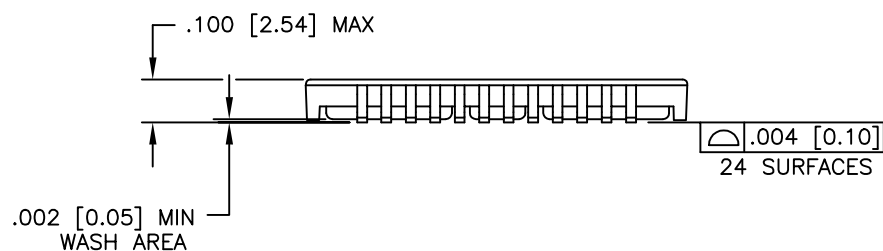
ALL CHANNELS ARE  
IN PHASE BETWEEN  
INPUT AND OUTPUT

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|-----------------------|-------------|---------------|--------|----------|----------------|
| MDL,SIN,1GD,1:1,SM,TU | H5019NL–16  | PS–2051.001–K | 2 OF 3 | H5019NL  | B              |



SUGGESTED LAND PATTERN



DIMENSIONS ARE IN INCHES [MILLIMETERS] WITH THE FOLLOWING TOLERANCES: [MILLIMETERS] ARE FOR REFERENCE ONLY.  
.XX=  $\pm .01$  [ $\pm 0.25$ ]  
.XXX=  $\pm .005$  [ $\pm 0.13$ ]

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| PRODUCT DESCRIPTION   | TLA DRAWING | PS DRAWING    | SHEET  | PART NO. | DATASHEET REV. |
|-----------------------|-------------|---------------|--------|----------|----------------|
| MDL,SIN,1GD,1:1,SM,TU | H5019NL-16  | PS-2051.001-K | 3 OF 3 | H5019NL  | B              |

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