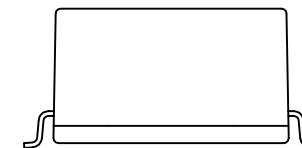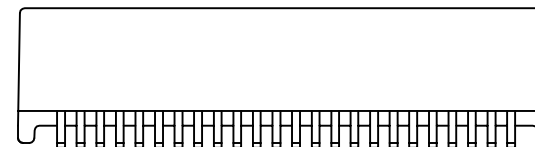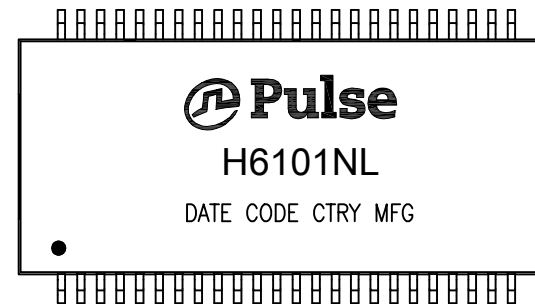**Pulse**
Electronics
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NOTES:

1. ROHS COMPLIANT

2. HEADER: THERMOSET PLASTIC MATERIAL 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 H6101NL BECOMES H6101NLT).
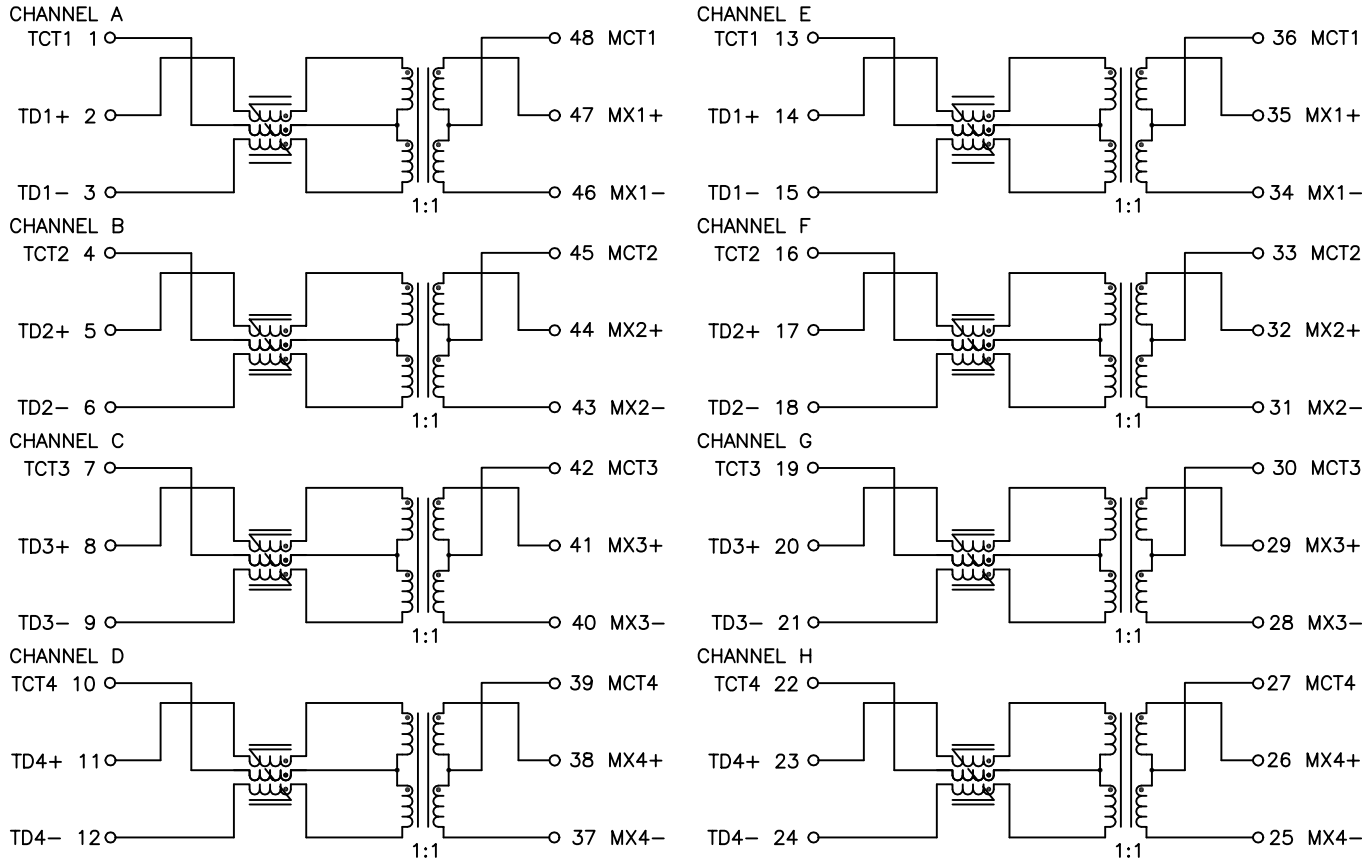
Pulse
H6101NL
DATE CODE CTRY MFG

FINAL OUTLINE

PRODUCT DESCRIPTION	TLA DRAWING	PS DRAWING	SHEET	PART NO.	DATASHEET REV.
MDL,DUAL,1GPP,1:1,SM,TU	H6101NL-12	PS-2007.001-C	1 OF 3	H6101NL	A

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ELECTRICAL CHARACTERISTICS AT +25°C UNLESS OTHER SPECIFIED

MEETS IEEE 802.3 SPECIFICATION

CHANNEL A
- TCT1 1
- TD1+ 2
- TD1− 3
- 48 MCT1
- 47 MX1+
- 46 MX1−
- 1:1

CHANNEL B
- TCT2 4
- TD2+ 5
- TD2− 6
- 45 MCT2
- 44 MX2+
- 43 MX2−
- 1:1

CHANNEL C
- TCT3 7
- TD3+ 8
- TD3− 9
- 42 MCT3
- 41 MX3+
- 40 MX3−
- 1:1

CHANNEL D
- TCT4 10
- TD4+ 11
- TD4− 12
- 39 MCT4
- 38 MX4+
- 37 MX4−
- 1:1

CHANNEL E
- TCT1 13
- TD1+ 14
- TD1− 15
- 36 MCT1
- 35 MX1+
- 34 MX1−
- 1:1

CHANNEL F
- TCT2 16
- TD2+ 17
- TD2− 18
- 33 MCT2
- 32 MX2+
- 31 MX2−
- 1:1

CHANNEL G
- TCT3 19
- TD3+ 20
- TD3− 21
- 30 MCT3
- 29 MX3+
- 28 MX3−
- 1:1

CHANNEL H
- TCT4 22
- TD4+ 23
- TD4− 24
- 27 MCT4
- 26 MX4+
- 25 MX4−
- 1:1

SCHEMATIC

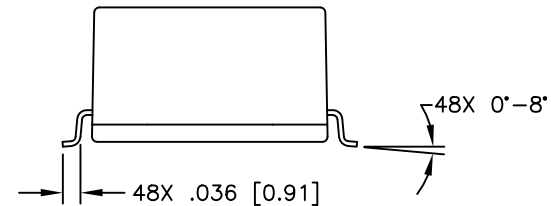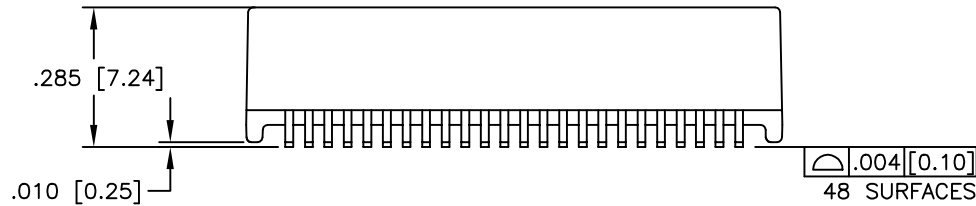| PARAMETER	SPECIFICATIONS	
OPERATING TEMPERATURE	−0°C − +70°C	
TURNS RATIO	1.00 ± 2%	
POLARITY	PER SCHEMATIC	
INSERTION LOSS	100 KHz	1−125 MHz
	−1.2 dB MAX	$-0.2-0.002*f^{1.4}$ dB MAX
RETURN LOSS (Z OUT = 100 OHM ±15%)	1−40 MHz	40−100 MHz
	−16 dB MIN	$-10+20*\log_{10}(f/80\ MHz)$ dB MIN
INDUCTANCE (OCL) (MEDIA SIDE, −0 − +70°C)	350 uH MIN (MEASURED AT 100 KHz, 100 mVRMS WITH 8 mA DC BIAS)	
	120 uH MIN (MEASURED AT 100 KHz, 100 mVRMS WITH 19 mA DC BIAS)	
CROSSTALK, ADJACENT CHANNELS	1 MHz	10−100 MHz
	−50 dB MIN	$-55+22*\log_{10}(f/10)$ dB MIN
COMMON MODE REJECTION RATIO	2 MHz	30−200 MHz
	−50 dB MIN	$-15+20*\log_{10}(f/200)$ dB MIN
DC RESISTANCE, 1/2 WINDING	.30 OHMS TYP.	
DC RESISTANCE BALANCE	±.05 OHMS MAX (CENTER TAP SYMMETRY)	
INPUT − OUTPUT ISOLATION	1500 VRMS MIN @ 60 SECONDS	

NOTE: f IS FREQUENCY IN MHz.
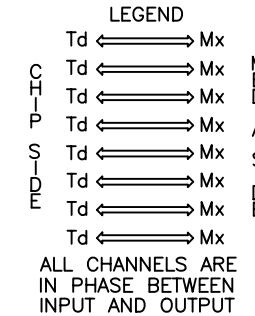
LEGEND

CHIP SIDE — Td ⟺ Mx — MEDIA SIDE (8 pairs)

ALL CHANNELS ARE IN PHASE BETWEEN INPUT AND OUTPUT

PRODUCT DESCRIPTION	TLA DRAWING	PS DRAWING	SHEET	PART NO.	DATASHEET REV.
MDL,DUAL,1GPP,1:1,SM,TU	H6101NL−12	PS−2007.001−C	2 OF 3	H6101NL	A

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1.095 [27.81]

.480 [12.19]

.605 [15.37]

PIN 1 ORIETATION

48X .015 [0.38]

(.040 [1.02])

23X .040 [1.02] (=.920 [23.37])

.490 [12.45]

.625 [15.86]

48X .025 [0.64]

(.040 [1.02])

23X .040 [1.02] (=.920 [23.37])

SUGGESTED LAND PATTERN

.285 [7.24]

.010 [0.25]

.004 [0.10]
48 SURFACES

48X 0°-8°

48X .036 [0.91]
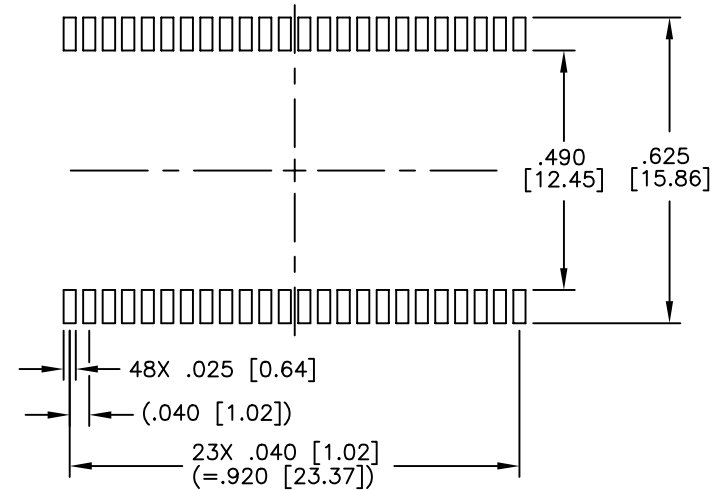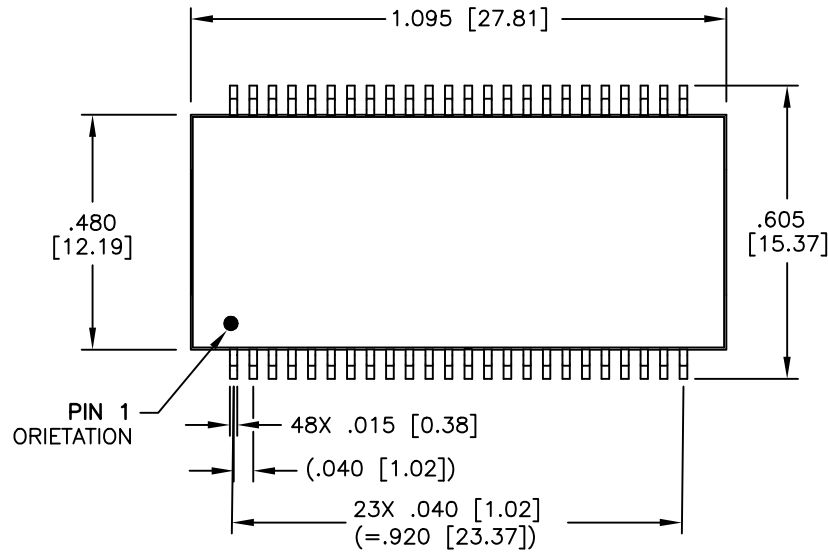
DIMENSIONS ARE IN INCHES [MILLIMETERS] WITH THE FOLLOWING
TOLERANCES: [MILLIMETERS] ARE FOR REFERENCE ONLY.
.XX= ±.02   [±0.50]
.XXX= ±.010 [±0.25]

PRODUCT DESCRIPTION	TLA DRAWING	PS DRAWING	SHEET	PART NO.	DATASHEET REV.
MDL,DUAL,1GPP,1:1,SM,TU	H6101NL-12	PS-2007.001-C	3 OF 3	H6101NL	A

Mouser Electronics

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  [H6101NL](#)