

REVISIONS			
REV.	DESCRIPTION	ECN NO.	DATE
01	FIRST RELEASE	N/A	06/12/14

When ordering, please add suffix "T" to the part number for tape & reel packaging (330mm reel).

PAGE 4 & 5 ARE FOR INTERNAL ONLY

PART NUMBER	PART DESCRIPTION
824-00488F	RoHS compliant per EU Directive 2011/65/EU


TITLE
**TRANSFORMER, 100BASE-T(PoE+),
 SINGLE, SOIC, 16 PIN, EXT. TEMP.**

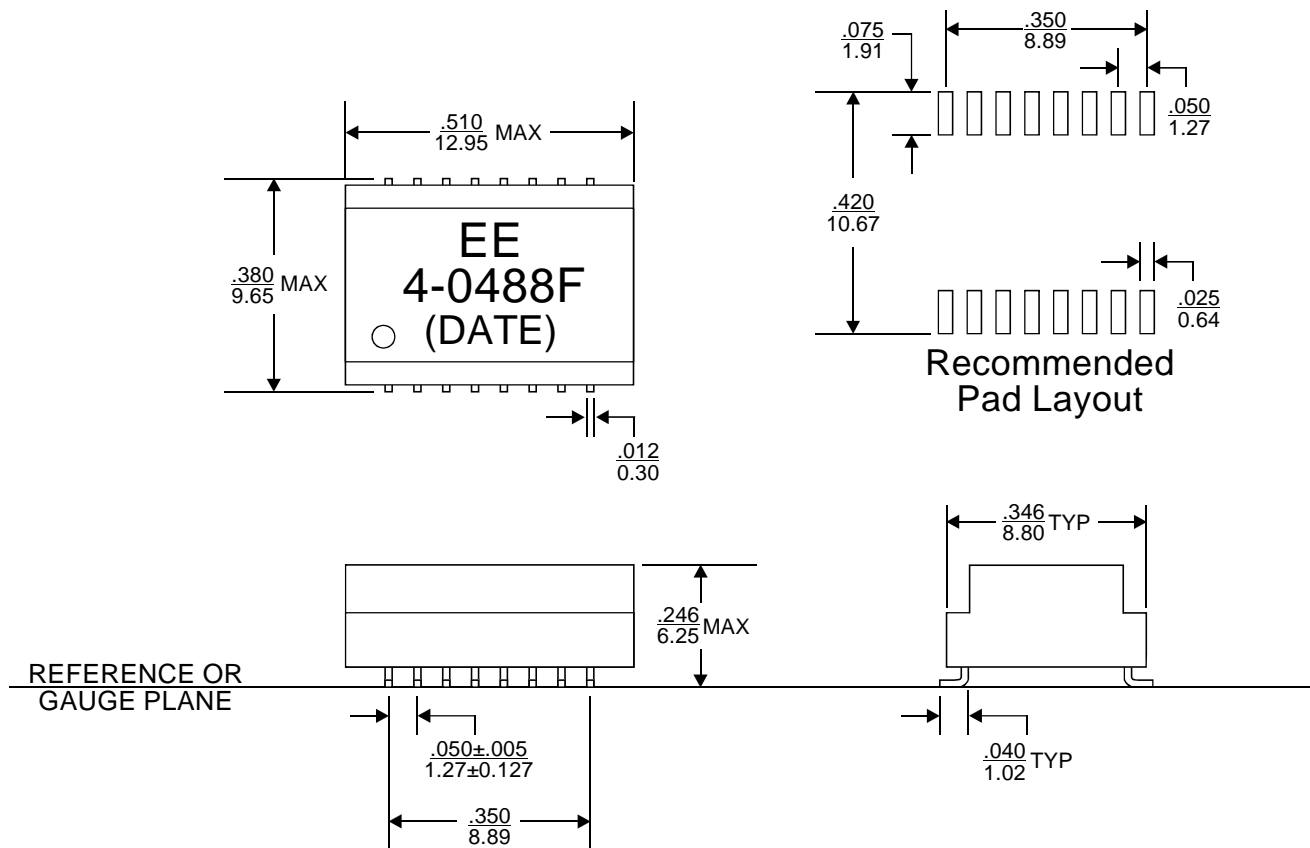
WARNING !
 ALL SHEETS OF THIS DOCUMENT ARE CONTROLLED DOCUMENTATION AND ARE NOT TO BE RELEASED OUTSIDE OF E&E OR ITS SUB-CONTRACTORS WITHOUT AUTHORIZATION.

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCH/mm.

 TOLERANCE ARE:
 INCH mm ANGLE
 .XXX ± .005 .XX ± 0.13 X.X ± 0.3
 .XX ± .02 .X ± 0.5 X. ± 1

APPROVALS	DATE
DRAWN BY Y.L. YUNG	06/12/14
PROJ. ENG Y.L. YUNG	06/12/14
APPROVED BY D. YUNG	06/12/14
Q.A. D. LUO	06/12/14

 E & E Magnetic Products Ltd.	
DRAWING NO./MODEL 824-00488F	REV 01
SCALE DO NOT SCALE	PAGE 1 OF 5



1. Dimensions are specified in $\frac{\text{inches}}{\text{mm}}$ with higher precedence in inches.
2. Unless otherwise specified, all tolerances are $\pm \frac{.010}{0.25}$.
3. Coplanarity: $\frac{.004}{0.10}$ max.
4. "(DATE)" includes at least the manufacturing date code (in YYWW format) plus two character country code.

MECHANICAL OUTLINE



E & E Magnetic Products Ltd.

DRAWING NO./MODEL

824-00488F

REV

01

SCALE

DO NOT SCALE

PAGE

OF

2

OF

5

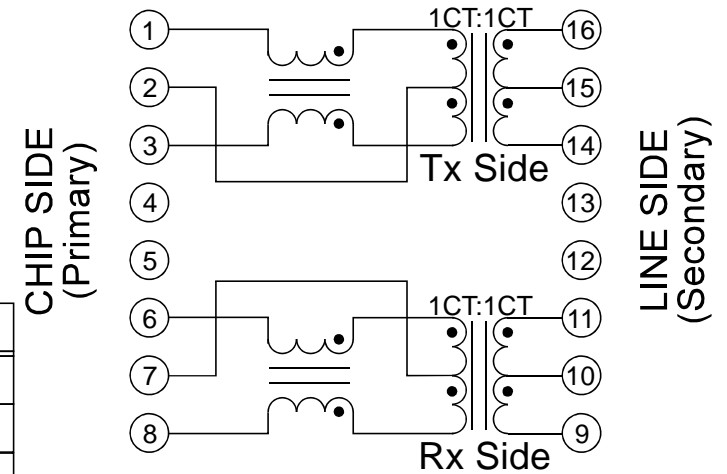
ELECTRICAL SPECIFICATION @25°C:

PARAMETERS	UNIT	TX Side	RX Side
Turn Ratio (Primary):(Secondary)	-	1CT:1CT ± 2%	1CT:1CT ± 2%
Polarity (Primary):(Secondary)	-	Per Schematic	Per Schematic
Inductance, Ls(Primary) @100KHz, 0.1Vrms, 8mADC	uH	350 Min	350 Min
Inductance, Ls(Primary) @100KHz, 0.1Vrms, 19mADC	uH	120 Min	120 Min
Insertion Loss @100KHz	dB	1.2 Max	1.2 Max
Insertion Loss @100MHz	dB	1.5 Max	1.5 Max
Insertion Loss @125MHz	dB	1.9 Max	1.9 Max
Return Loss @1-30MHz	dB	16 Min	16 Min
6 Return Loss @30-60MHz	dB	10-20Log(F/60) Min	10-20Log(F/60) Min
Return Loss @60-80MHz	dB	10 Min	10 Min
CMRR @2MHz	dB	45 Min	45 Min
6 CMRR @30-200MHz	dB	7-28Log(F/200) Min	7-28Log(F/200) Min
Crosstalk @1MHz (TX<=>RX)	dB	50 Min	
6 Crosstalk @10-100MHz (TX<=>RX)	dB	55-22Log(F/10) Min	
Hipot (Primary):(Secondary)	Vrms	1500 Min	1500 Min
DCR (Secondary - half winding)	Ω	0.75 Max	0.75 Max
DCR Imbalance (Secondary)	Ω	±0.065 Max	±0.065 Max

5. Temperature range: -40°C to +85°C.

6. "F" represents the test frequency specified in MHz.

7. Balanced DC line current capability (Line Side): 600mADC maximum.



SCHEMATIC



E & E Magnetic Products Ltd.

DRAWING NO./MODEL

824-00488F

REV

01

SCALE

DO NOT SCALE

PAGE

3

OF

5