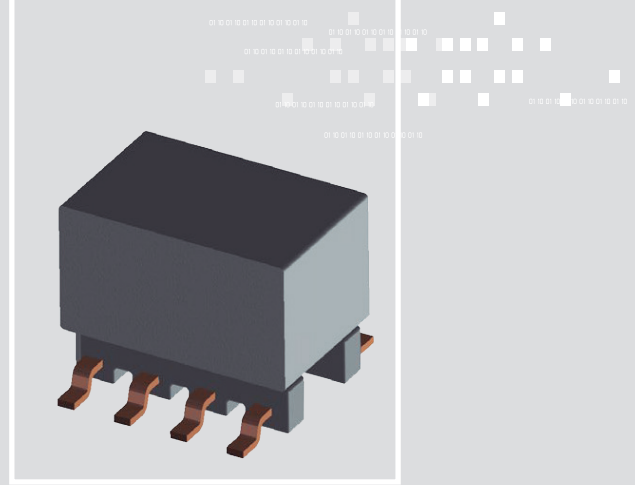


New

PLC-LW-001

2-30MHz 1:1 15μH

INDUCTIVE COMPONENTS / PLC TRANSFORMERS



APPLICATIONS

- › Automotive EV/PHV AC/DC onboard battery chargers

01 FEATURES

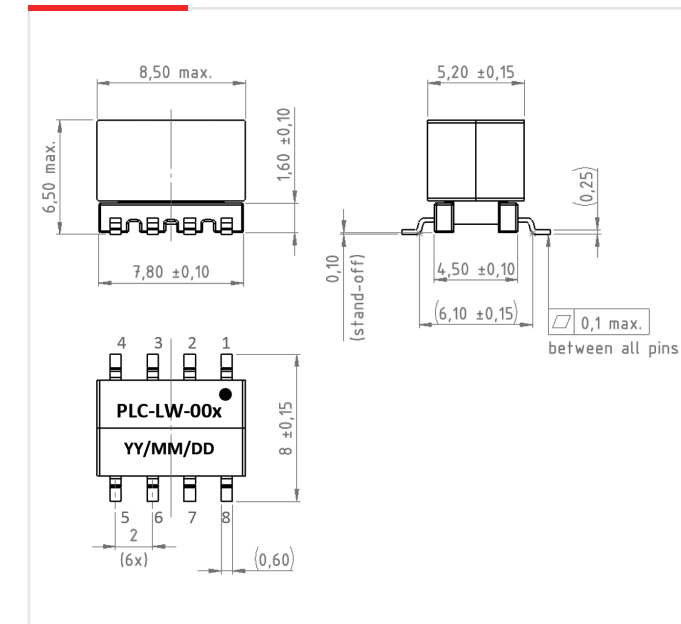
- › Signal transformer for HPGP (HomePlug Green PHY™) PLC modems
- › For power line communication devices acc. to IEC 15118 standard
- › For charging systems according to IEC 61851-1
- › Insertion loss < 1dB on 2-30MHz (100-120 Ohms)
- › SMD coil-former technology
- › Wide operating temperature range -40 to +125°C
- › UL94 and RoHS materials
- › Designed for AEC-Q200
- › Weight: approx 3grams

02 OPERATION

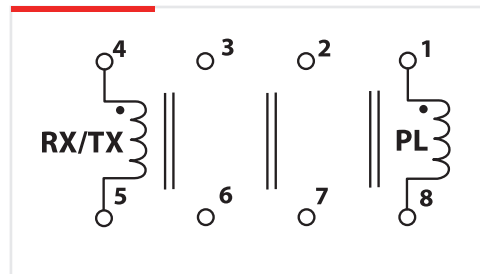
- › PLC signal transmission
- › OBC with communication with the charging station

03 SPECIFICATIONS

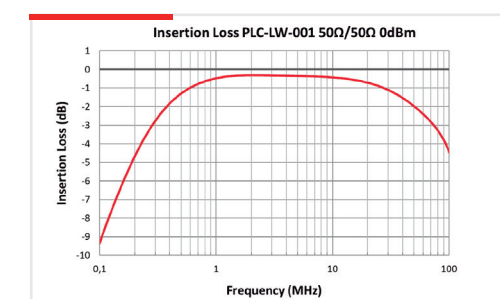
DIMENSIONS (mm)



ELECTRICAL DIAGRAM



TYPICAL INDUCTANCE



ELECTRICAL SPECIFICATIONS

INDUCTANCE at 25°C	
$L_{1-8} = L_{4-5}$ (2MHz/1Vac)	9μH MIN (15μH TYP)
TURN-RATIO	
$N_{1-8} : N_{4-5}$ (10kHz/1Vac)	1:1
DC RESISTANCE at 25°C	
$DCR_{1-8} = DCR_{4-5}$	80mΩ MAX (65mΩ TYP)
LEAKAGE INDUCTANCE	
L_{LK} (100kHz/1Vac)	0.25μH MAX (0.1μH TYP)
STRAY CAPACITANCE	
C_{PS} (100kHz/1Vac)	7pF MAX (5pF TYP)
DIELECTRIC STRENGTH	
Between Windings	500Vac (50Hz/1mA/1min)