

Power Line Communication (PLC) Transformers

- Turns ratio supports variety of PLC chipsets
- Wideband frequency response 1.5~86MHz
- Industrial and Automotive Temperature ranges
- Designed with EN/UL/IEC62368-1 for 250V working voltage
- Designed for Qualcomm, Broadcom, MTK, Intellon & STMicro chipset
- Compliant Automotive spec AEC-Q200
- Custom designs are available

Electrical Specification @25°C:

Model No.	Turns Ratio TX:RX:PL	Inductance ^{1,2,3} (uH)	DCR (mΩ Max)			Leakage ⁴ Inductance (uH Max.)	Cw/w ⁵ (pF Max)	Hi-Pot (Vac)	AES-Q200 Qualified	Insulation Class	Package Size (WxLxH mm Max)
			TX	RX	PL						
UT11348S-A	1:1	12.5 Typ (PL)	—	—	—	—	—	3750	No	Reinforced	8.45x11.4x8.5
UT11387S	1:1	12.5 Typ (PL)	—	—	—	—	—	3750	No	Reinforced	12.5x17.7x5.4
UT11451S	1:1:1	8.7 Min (PL)	500	500	500	—	—	3000	Yes	Reinforced	8.45x11.4x8.5
UT11481S	1:1:1	8 Min (PL)	60	60	60	—	—	3000	No	Supplementary	10.6x12.8x12.5
UT11482S	1:1:1	28 Min (PL)	100	100	100	—	—	3000	No	Supplementary	10.6x12.8x12.5
UT11483S	1:1:2	7 Min (TX)	250	250	500	—	—	3000	No	Reinforced	10.5x14.5x7.8
UT11484S	1:1	7 Min (TX)	500	500	—	—	25	4000	No	Reinforced	10.5x14.5x7.8
UT11485S	1:1:1	20 Min (PL)	65	65	65	—	—	3000	No	Supplementary	10.7x15.5x7.0
UT11486S	1:1:1	5 Min (PL)	500	500	500	0.5	—	500	No	Functional	5.65x7.8x4.0
UTB02157S	1:1.5:1.5CS	10 Min (PL)	160	320	320	0.15	4.5	3750	No	Reinforced	8.8x10.1x6.6
UTB02201S	0.25:1.25:1	10~35 (PL)	20	100	100	0.15	6	3750	Yes	Reinforced	8.45x11.4x8.5
UTB02202S	1:1:1	11.7 Typ (PL)	20	58	30	0.125	9	1875	Yes	Functional	8.45x11.4x8.5
UTB02212S	0.33:1.33:1	11.7 Typ (PL)	8	58	58	0.125	5	3750	No	Reinforced	8.45x11.4x8.5

- Inductance measured at 2MHz, 100mV (UT11348S-A, UT11387S & UT11451S).
- Inductance measured at 100kHz, 100mV (UTB02157S, UTB02201S, UTB02202S & UTB02212S).
- Inductance spec is for -40°C to 125°C and measured at 100kHz, 10mV (UT11481S & UT11485S), 10kHz, 20mV (UT11482S) and 100kHz, 100mV (UT11483S, UT11484S & UT11486S).
- Leakage Inductance measured at 100kHz, 100mV, Pri to Sec. shorted.
- Interwinding Capacitance measured at 100kHz, 100mV, Pri to Sec.
- Operating Frequency range 2 to 70MHz (UT11348S-A, UT11387S & UTB02212S), 2 to 100MHz (UT11451S), 1.5 to 30MHz (UT11481S, UT11482S & UT11485S), 1.8 to 86MHz (UTB02157S), 1.8 to 30MHz (UTB02201S, UTB02202S).
- Designed for chipset applications:
UT11348S-A & UT11387S for Qualcomm's AR7420, UT11451S for MTK's MSE102x, UTB02201S & UTB02202S for Qualcomm's QCA7000, UTB02212S for QCA7500/7550 & QCA6410, UTB02157S for Broadcom's BCM60333 & BCM60500, UT11483S/84S/85S for Qualcomm's QCA700x, Intellon's INT5500/INT1200 & STMicro's ST2100.
- Operating Temperature is -40°C to 125°C on UT11451S, UT11481S~UT11486S, UTB02201S & UTB02202S.
Operating Temperature is -40°C to 85°C on UT11348S-A, UT11387S, UTB02157S & UTB02212S.

Notes: 1. For RoHS compliant products:

- Ordering code (Manufacturer Part Number): ex. TG-UTB02202S
- Date Code suffix to "G".

2. For RoHS and AEC-Q200 Compliant products:

- Ordering code (Manufacturer Part Number): ex. TG-UTB02202S-Q
- Date Code suffix to "GQ"

3. Solder: Sn/Ag/Cu

4. Construction patents (Taiwan and Foreign, China Patent No.CN205016333U) on UT11348S-A, UT11451S, UTB02201S, UTB02202S & UTB02212S.



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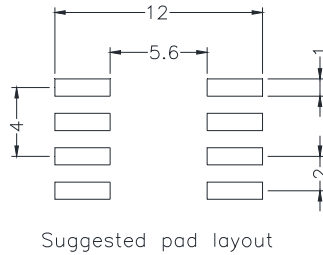
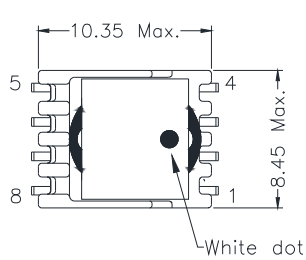


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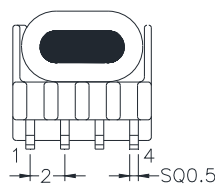
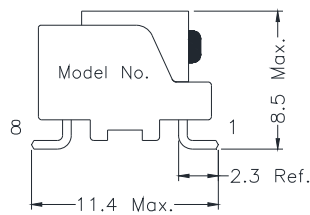
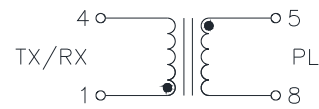
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Mechanicals & Schematics

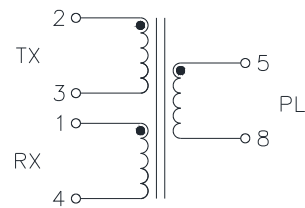
UT11348S-A, UT11451S, UTB02201S, UTB02202S, UTB02212S



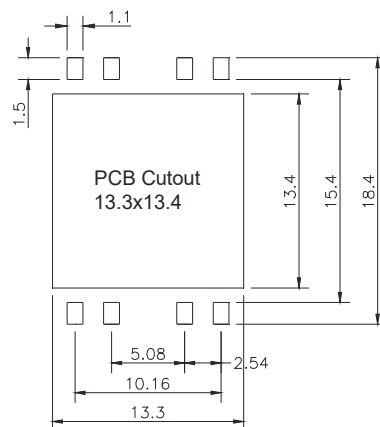
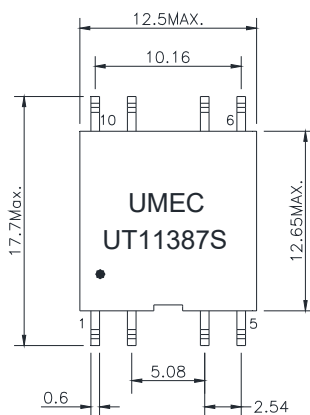
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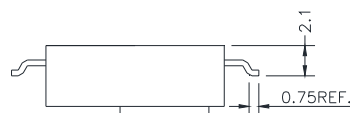
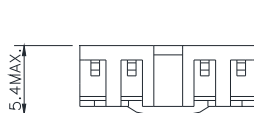
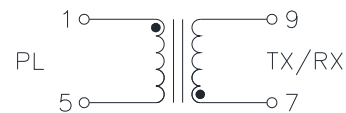
UT11451S, UTB02201S
UTB02202S, UTB02212S



Unit: mm
Tolerance: ± 0.25 mm



Suggested pad layout



Unit: mm
Tolerance: ± 0.25 mm

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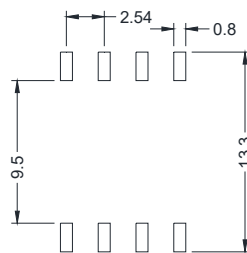
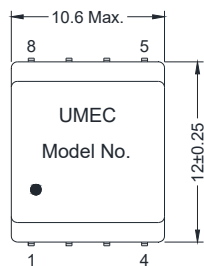


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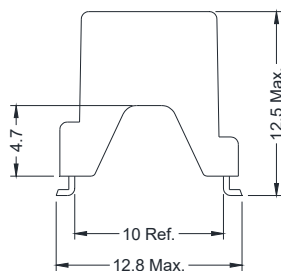
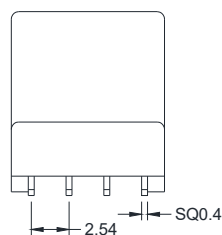
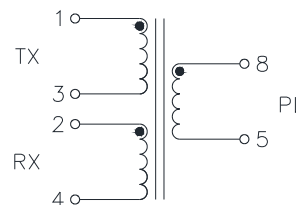
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UT11481S, UT11482S

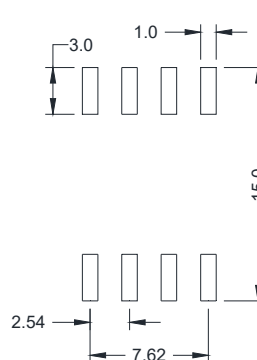
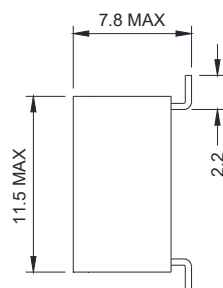
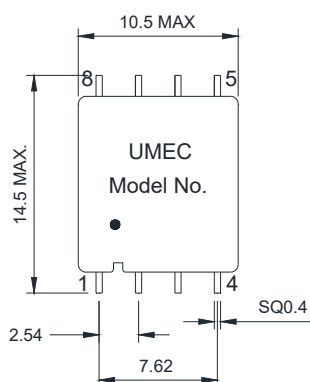


Suggested pad layout



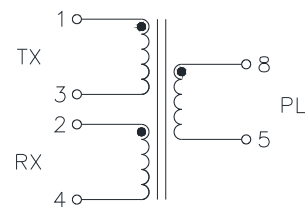
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UT11483S, UT11484S

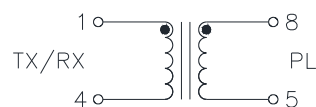


Suggested pad layout

UT11483S



UT11484S



Unit: mm
Tolerance: $\pm 0.25\text{mm}$

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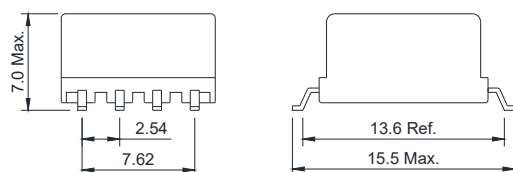
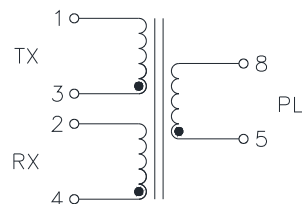
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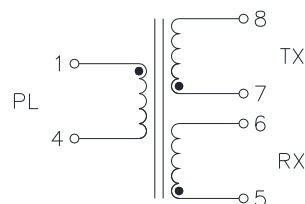
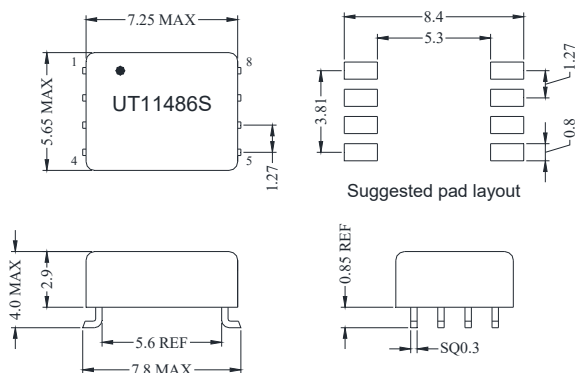
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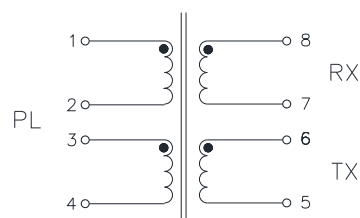
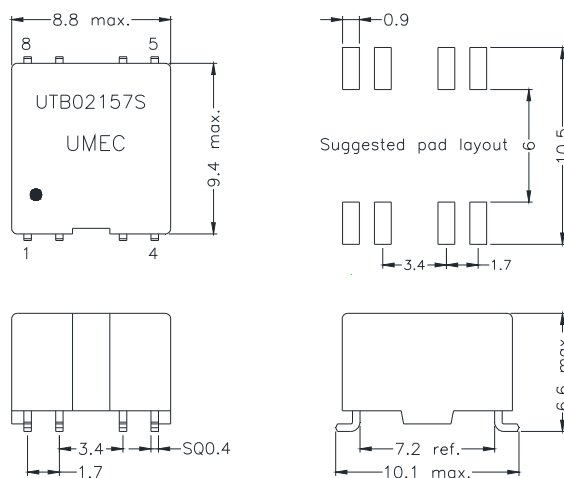
Mechanicals & Schematics



Unit: mm
Tolerance: $\pm 0.25\text{mm}$



Unit: mm
Tolerance: $\pm 0.2\text{mm}$



Unit: mm
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