

Silvertel

**Ag320T
Evaluation Board
User Manual**

Version 1.1 – Jan 2020

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3 Introduction

This manual is intended to be a guide to using the “EVALAg320T evaluation board” with a Silvertel Ag320T or Ag321T wireless power transmitter module.

4 Board Description

The EVALAg320T evaluation board should be powered using a DC Power supply delivering between +11.5V to +12.5V. The positive supply should be connected to either the center pin of J2 or J1 and 0V to either the outer ring of J2 or J3.

4.1 Operation

The EVALAg320T polls for a Power receiver placed on the power transfer Primary coil L1, at intervals of 500ms. When an EVALAg320R or 5W Qi compatible receiving device (or 15W Qi compatible receiving device when the Ag321T is fitted) has been placed on the coil, The EVALAg320T will negotiate with the receiver and establish a wireless power transfer contract. When this happens D1 will be illuminated and D2 will remain **not** illuminated.

When a new power transfer contract is established a 500ms beep will be produced by BUZ to audibly indicate it has correctly connected.

In case of an Error D2 will be illuminated and D1 will **not** be illuminated. These errors include:-

- Non compatible receiver / metal object placed on primary coil
- Non recoverable Communications error
- Receiver over loaded
- Receiver regulation error

When the power receiver indicates a non-error related end of power transfer, such as battery fully charged, both D1 & D2 will be illuminated.

If pin 2 of J4 is pulled low (or shorted to pin 1 of J4) power transmission will be halted and disabled indicating an error with D2 illuminated and D1 will **not** be illuminated. When this pull down or short circuit is removed the Ag320T will return to normal operation.

If the link on J5 is removed, all status outputs are disabled so D1 and D2 will **not** be illuminated and BUZ will remain silent.

J6 can be used in conjunction with J5 of the EVALAG320R to receive data from the powered application for the user. See section 5.6 of the datasheet for full description of communications operation.

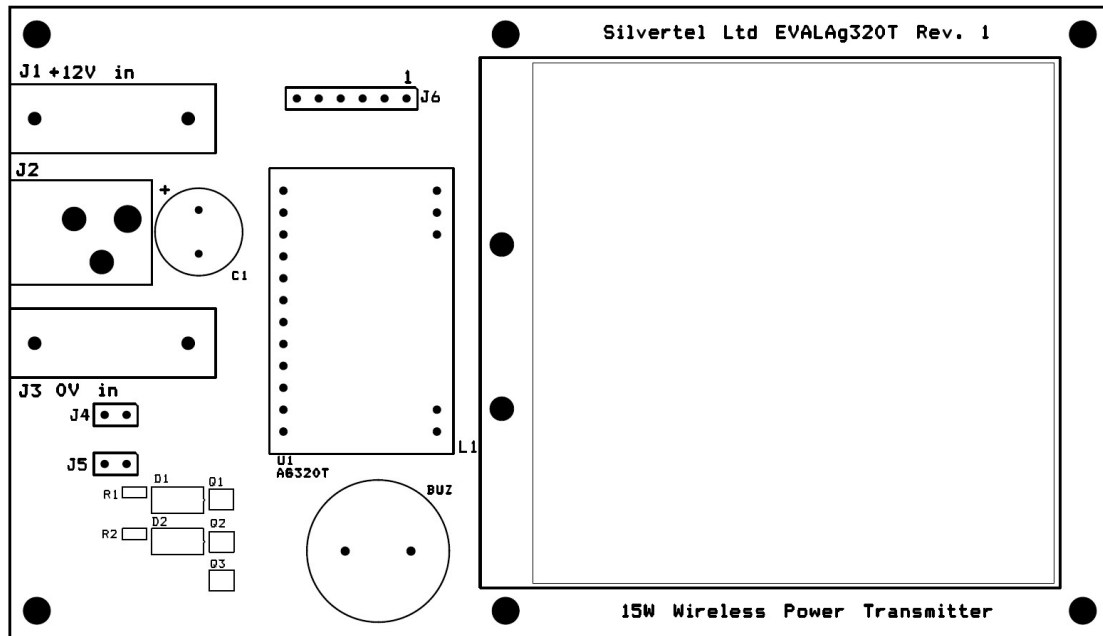


Figure 1: EVALAg320T Board Layout

5 Test Setup

5.1 Basic set-up

Figure 2 shows the basic set up using the EVALAG320R evaluation board powered by the EVALAG320T evaluation board. The EVALAG320R should have the load connected before placing it on the primary coil of the EVALAG320T.

The equipment required: -

- Power supply Input +12V IN e.g. 12V bench power supply
- Output power cable and load

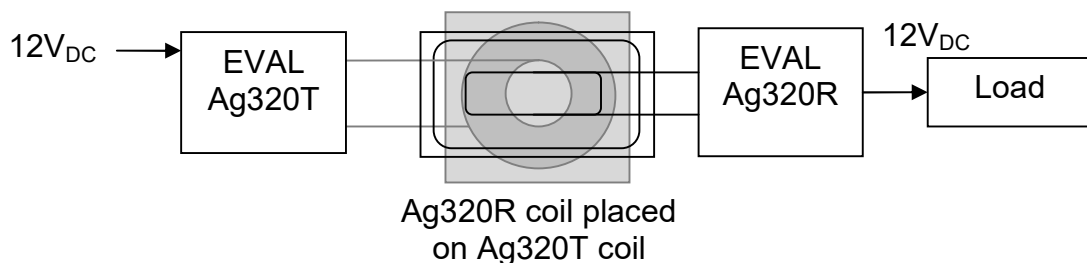


Figure 2: Basic set-up

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