

FOXCON ABSOLUTE STANDBY ZERO INTERNET OF SWITCH INTEGRATED DIGITAL I/O

**- AC HIGH VOLTAGE SOLID STATE ABSOLUTE STANDBY
ZERO AC SWITCH -**

**RELIABILITY, AVAILABILITY, MAINTAIN FREE, AND
DURABILITY TECHNOLOGY PROVIDES IEC62301 UNIVERSAL
STANDBY ZERO FOR IOT**

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SPECIAL CONSIDERATIONS

Standby power, also called **vampire power**, **vampire draw**, **phantom load**, or **leaking electricity** ("phantom load" and "**leaking electricity**" are defined technical terms with other meanings, adopted for this different purpose), refers to the **electric power** consumed by electronic and electrical appliances while they are switched off (but are designed to draw some power) or in a **standby mode**. This only occurs because some devices claimed to be "switched off" on the electronic interface, but are in a different state from switching off from the plug, or disconnecting from the plug, which can solve the problem of standby power completely. In fact, switching off at the plug is effective enough, there is no need to disconnect all devices from the plug. Some such devices offer **remote controls** and **digital clock** features to the user, while other devices, such as **power adapters** for disconnected electronic devices, consume power without offering any features (sometimes called **no-load power**). All of the above examples, such as the remote control, digital clock functions and, in the case of adapters, no-load power, are switched off just by switching off at the plug. However, for some devices with built-in internal battery, such as the phone, the standby functions can be stopped by removing the battery instead.

In the past standby power was largely a non-issue for users, electricity providers, manufacturers, and government regulators. In the first decade of the twenty-first century awareness of the issue grew and it became an important consideration for all parties. Up to the middle of the decade, standby power was often several watts or even tens of watts per appliance. By 2010 regulations were in place in most developed countries restricting standby power of devices sold to one watt (and half that from 2013).

The **One Watt Initiative** was launched by the **IEA** in 1999 to ensure through international cooperation that by 2010 all new appliances sold in the world only use one watt in standby mode. This would reduce CO₂ emissions by 50 million tons in the OECD countries alone by 2010.

In July 2001 **U.S.** President **George W. Bush** signed an **Executive Order** directing federal agencies to "purchase products that use no more than one watt in their standby power consuming mode".^[12]

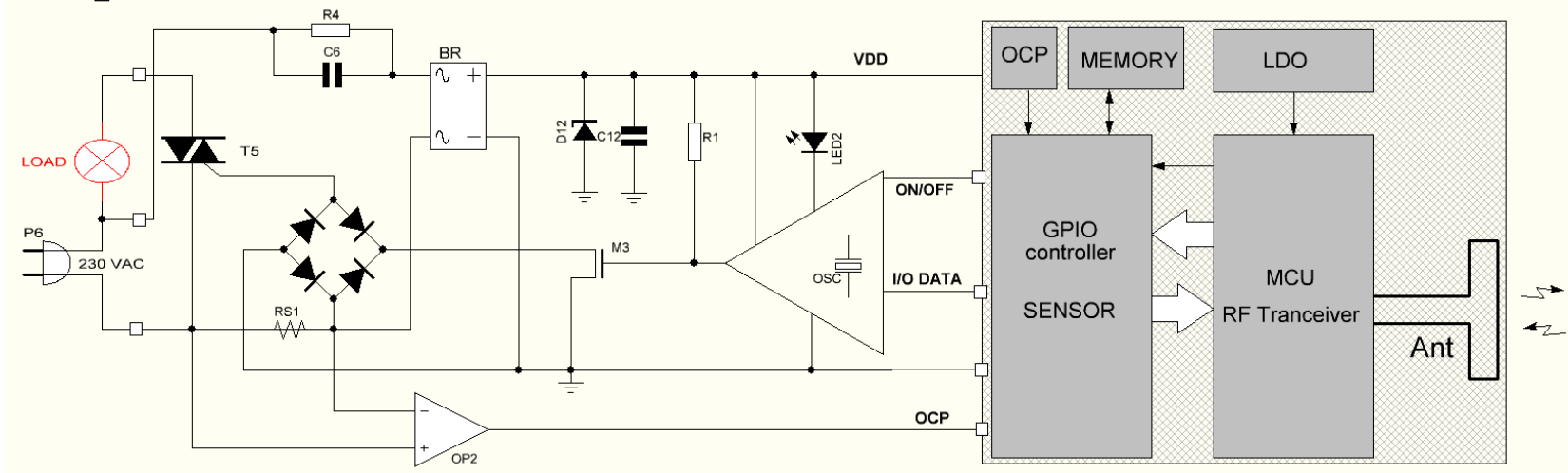
In July 2007 California's 2005 appliance standards came into effect, limiting external power supply standby power to 0.5 watts.^[13]

On 6 January 2010 the **European Commission** (EC) Regulation No 1275/2008 came into force. The regulations mandate that from 6 January 2010 "off mode" and standby power for electrical and electronic household and office equipment shall not exceed 1W, "standby plus" power (providing information or status display in addition to possible reactivation function) shall not exceed 2W. Equipment must where appropriate provide off mode and/or standby mode when the equipment is connected to the mains power source. These figures were halved on 6 January 2013.^[14]

RF IOT STANDBY ZERO BLOCK

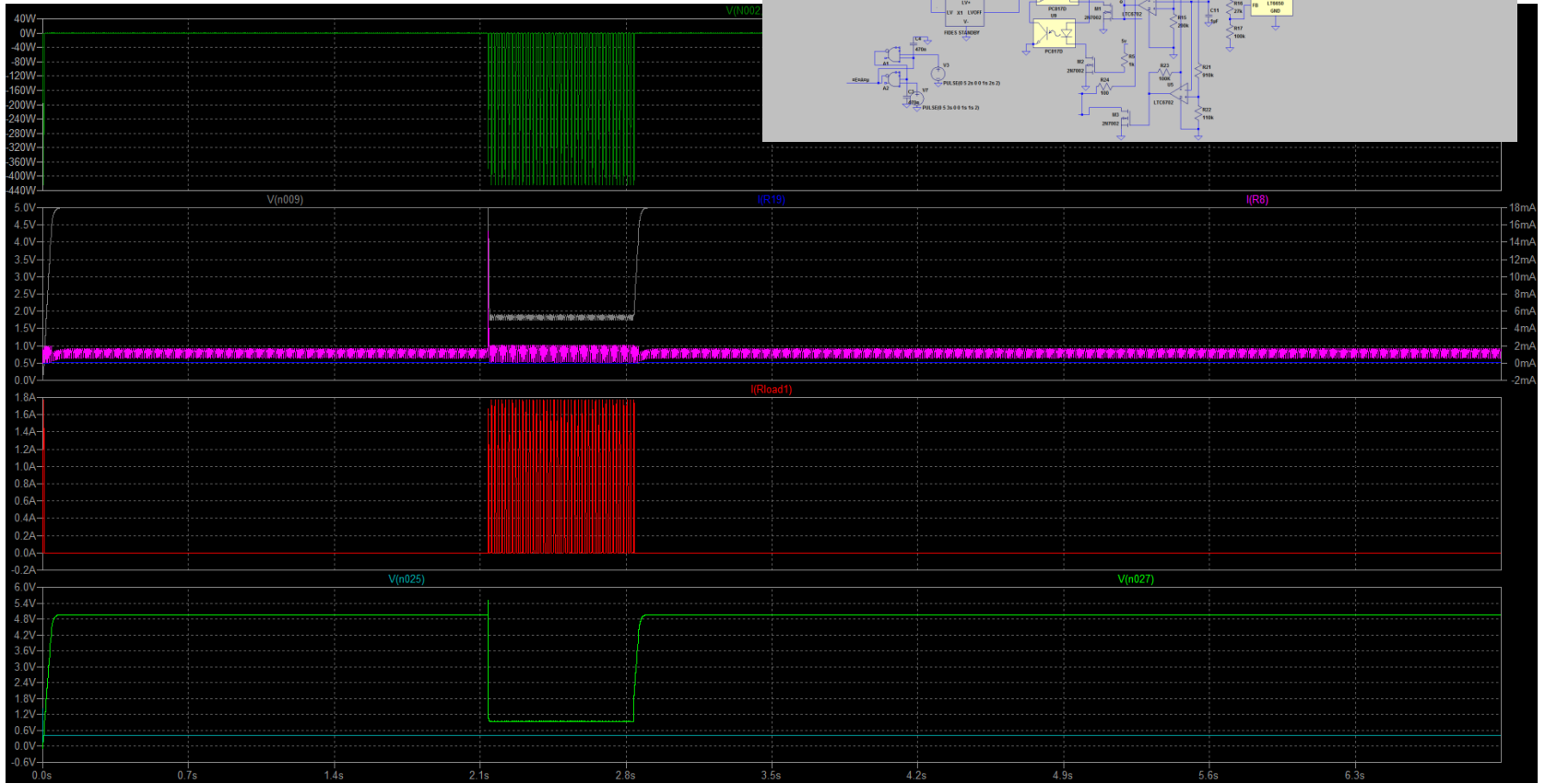
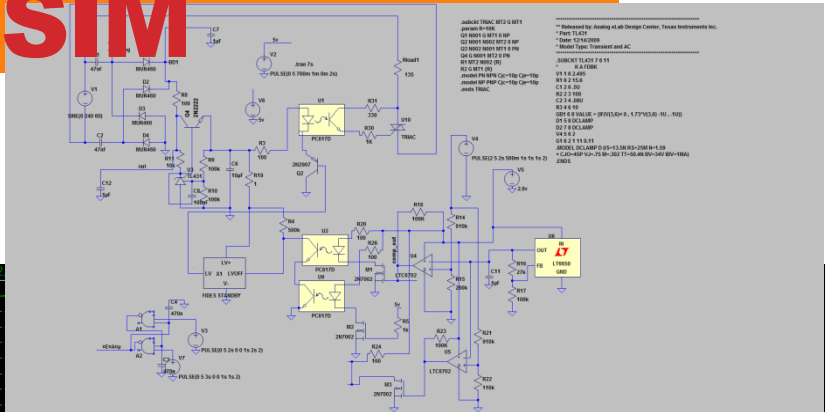
PSU power drive ability;

$$I_{out_eff} = V_{in} \times 2\pi \times f_{line} \times C6$$

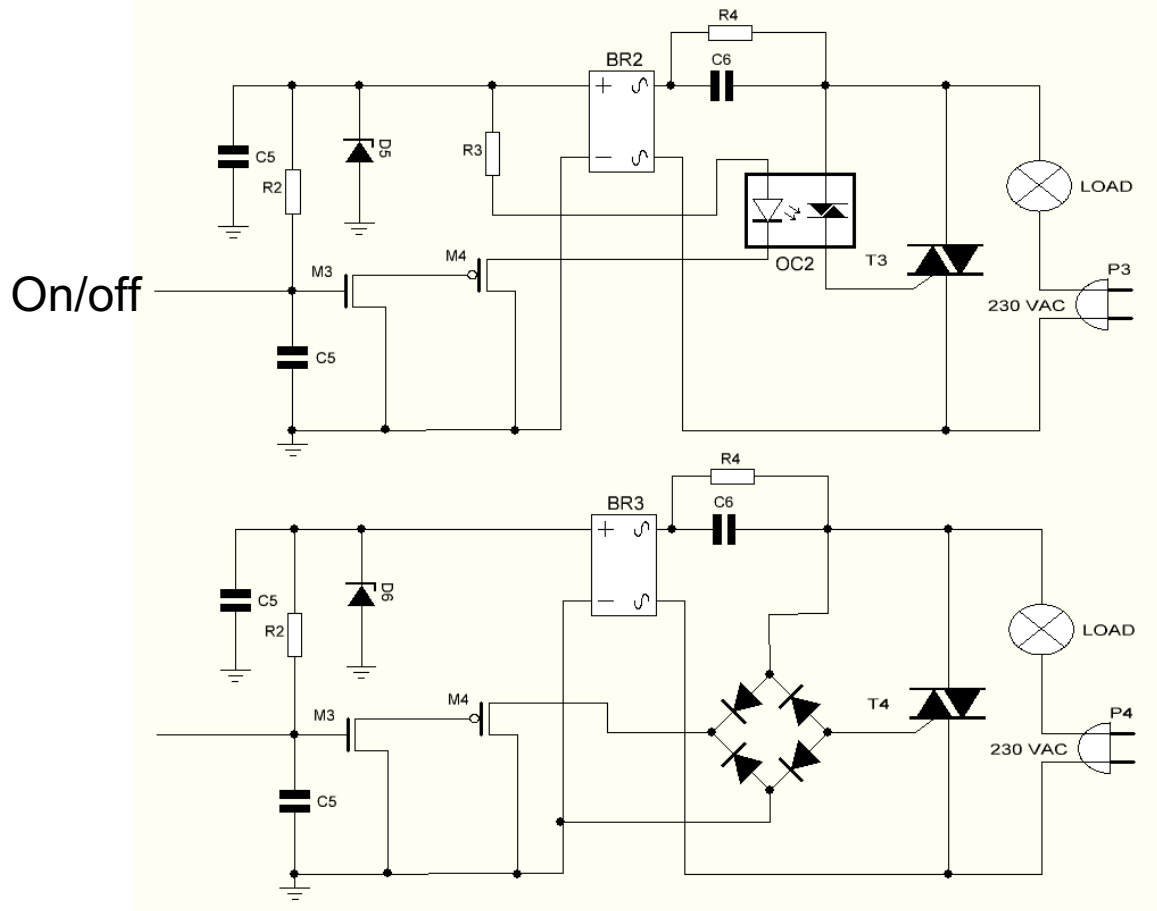


This is evaluation of absolute standby zero with AC power switch by IoT. Standby power consumption are 0.1watts at standby mode when periodic wake-up of RF receiver status data and control.

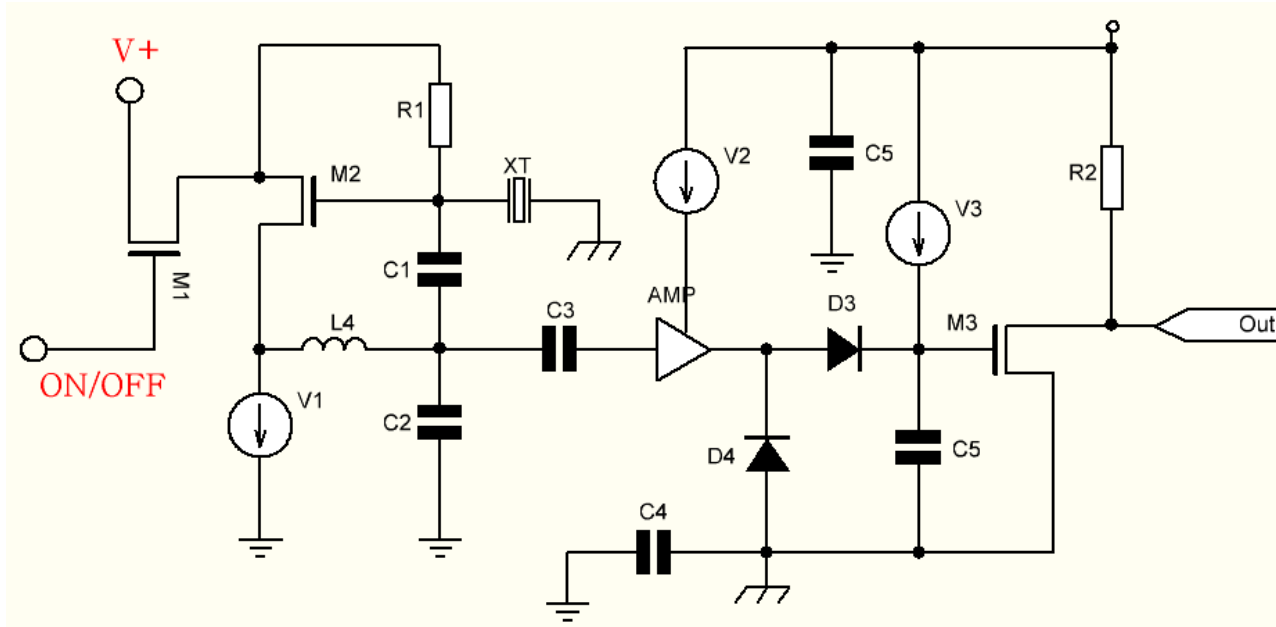
STANDBY ZERO SIM



BASIC BLOCK OF ZERO CROSSING TRACIC STANDBY CIRCUIT



RF ISOLATION SWITCH



Standby zero are comprehensive portfolio of high performance RF couplers offers best-in-class noise immunity as a result from its proprietary RF oscillator technology. The patented JEONG RF OSC technology ensures a safe insulation and high speed data transfer of more than AC load control to attain reliable high voltage isolation, certified by UL1577 and DIN EN/IEC60747-5-2 standards.

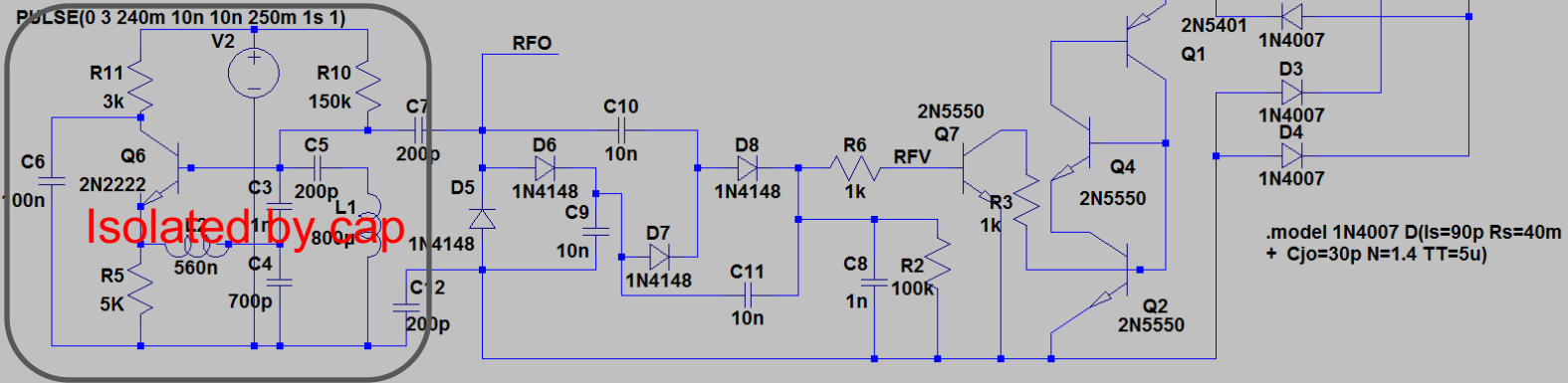
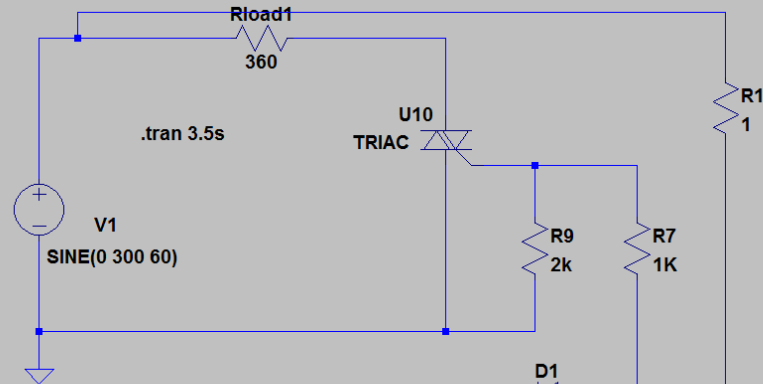
AC POWER ISOLATED STANDBY ZERO CIRCUIT

```

.subckt TRIAC MT2 G MT1
.param R=10K
Q1 N001 G MT1 0 NP
Q2 N001 N002 MT2 0 NP
Q3 N002 N001 MT1 0 PN
Q4 G N001 MT2 0 PN
R1 MT2 N002 {R}
R2 G MT1 {R}
.model PN NPN Cjc=10p Cje=10p
.model NP PNP Cjc=10p Cje=10p
.ends TRIAC
    
```

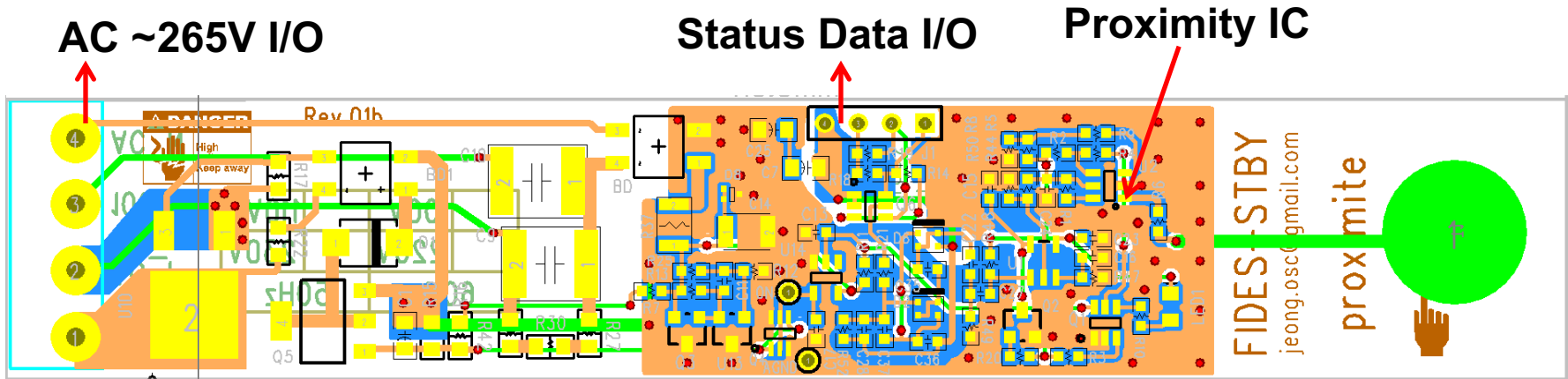
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Isolated by cap

ABSOLUTE STANDBY ZERO PROXIMITY SWITCH DEMO



Function	Electrical Characteristics	AC 220V/60Hz
AC_P	0~300V	IT(rms)=~1A(Max 5A)**
AC_N1	0~300V	IT(rms)=~1A(Max 5A)**
AC_N2	0~300V	IT(rms)=~1A(Max 5A)**
AC_LOAD	0~300V	IT(rms)=~1A(Max 5A)**
OUT1	Normal ON status out of AC Switch	
OUT2	Normal OFF status out of AC Switch	
V+	Isolated Out pull up Bias +VCC (~10V / ~10mA)	
GND	Isolated Digital GND	

- See page 4
- ** Request order for more information

Jeong.osc@gmail.com

**SIMPLY PUT, THE FIDES-P4 0.03W STANDBY POWER SWITCH ARE
AC SMPS OR ANY AC LOADS
COMBINATION IS CREATING A DEVASTATING 0.5W STANBY POWER
OF MODERN IEC62301.**

ANY QUESTIONS?

