


## Power Factor Correction Controller 38-Pin TSSOP Tube

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| <b>Manufacturer:</b> | <a href="#">STMicroelectronics, Inc</a>  |
| <b>Package/Case:</b> | 38-TSSOP   |
| <b>Product Type:</b> | Power Management ICs   |
| <b>RoHS:</b>         | RoHS Compliant/Lead free  |
| <b>Lifecycle:</b>    | Obsolete   |



Images are for reference only

[Inquiry](#)

## General Description

The STNRGPF01 is a digital controller designed specifically for interleaved PFC boost topologies and intended for use in high power applications. The controller is capable of driving up to 3 interleaved channels, generating the proper signals in each condition. Moreover, it implements a flexible phase shedding strategy that enables the correct number of PFC channels based on the actual load condition. With this function, the STNRGPF01 is always able to guarantee the highest power efficiency across a wide range of load current requirements. The device works in CCM at fixed frequency with average current mode control, and implements mixed signal (analog/digital) control. The inner current loop is performed by hardware, ensuring cycle-by-cycle regulation. The outer voltage loop is performed by a digital PI controller with fast dynamic response. The controller implements several functions: inrush current control, soft start-up, burst mode cooling management and status indicators. It also features a full set of embedded protections against overvoltage, overcurrent, and thermal faults. The STNRGPF01 is configured through a visual dedicated software tool (eDesignSuite) to match a wide range of specific applications. Using eDesignSuite, the user can customize the PFC conversion configuration and all the relevant electrical components. As a result, the tool will automatically generate a full schematic which includes a complete list of material and the final binary object code (FW) to be downloaded to the STNRGPF01.

## Key Features

InterleavedboostPFC

Upto3interleavedchannels

CCM, fixedfrequency

Averagecurrentcontrol, cycle-by-cycle

Inrushcurrentcontrol

Burstmodesupport

Overcurrentandthermalprotection

## Recommended For You

**STIS14PHR**

STMicroelectronics, Inc  
HSOP-8

**ST890CDR**

STMicroelectronics, Inc  
SOP-8

**STWD100YNYWY3F**

STMicroelectronics, Inc  
SOT23-5

**STC3100IQT**

STMicroelectronics, Inc  
QFN

**STM706TM6F**

STMicroelectronics, Inc  
SOP-8

**STWD100NYWY3F**

STMicroelectronics, Inc  
SOT23-5

**STPD01PUR**

STMicroelectronics, Inc  
24-QFN

**STGAP2SICSNTR**

STMicroelectronics, Inc  
SOIC-8

**STSPIN230**

STMicroelectronics, Inc  
VFQFPN16

**STNS01PUR**

STMicroelectronics, Inc  
DFN-12

**STWBC**

STMicroelectronics, Inc  
QFN32

**STWBC2**

STMicroelectronics, Inc  
SOP

**STMPS2171MIR**

STMicroelectronics, Inc  
SO-8

**STSPIN240**

STMicroelectronics, Inc  
QFN16

**STMPS2151MIR**

STMicroelectronics, Inc  
SOP8