
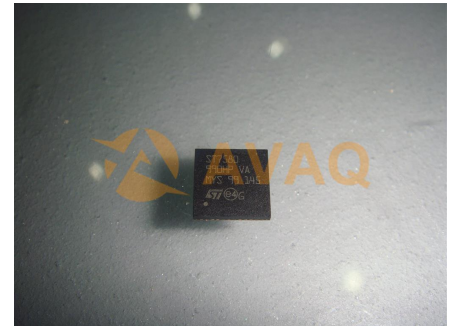


Single Transmitter/Receiver 48-Pin QFN EP Tray

Manufacturer:	STMicroelectronics, Inc
Package/Case:	QFN48
Product Type:	Drivers
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active



Images are for reference only

[Inquiry](#)

General Description

The ST7580 is a flexible power line networking system-on-chip combining a high performing PHY processor core and a protocol controller with a fully integrated analog front-end (AFE) and line driver for a scalable future-proof, cost effective, single chip, narrow-band power line communication solution.

Key Features

Fully integrated narrow-band power line networking system-on-chip

High-performing PHY processor with embedded turnkey firmware featuring:

B-FSK modulation up to 9.6 kbps

B-PSK, Q-PSK, 8-PSK modulations up to 28.8 kbps

Dual channel operation mode

Convolutional error correction coding

Signal-to-noise ratio estimation

B-PSK with PNA mode against impulsive noise

B-FSK modulation up to 9.6 kbps

B-PSK, Q-PSK, 8-PSK modulations up to 28.8 kbps

Dual channel operation mode

Convolutional error correction coding

Signal-to-noise ratio estimation

B-PSK with PNA mode against impulsive noise

Protocol engine embedding turnkey communication protocol

Framing service

Error detection

Sniffer functionality

Framing service

Error detection

Sniffer functionality

Host controller UART interface up to 57.6 kbps

AES-128 based authentication and confidentiality services

Fully integrated analog front-end:

ADC and DAC

Digital transmission level control

PGA with automatic gain control

High sensitivity receiver

ADC and DAC

Digital transmission level control

PGA with automatic gain control

High sensitivity receiver

Fully integrated single-ended power amplifier for line driving

Up to 1 A RMS, 14 V p-p output

Configurable active filtering topology

Very high linearity

Embedded temperature sensor

Current control feature

Up to 1 A RMS, 14 V p-p output

Configurable active filtering topology

Very high linearity

Embedded temperature sensor

Current control feature

8 to 18 V power amplifier supply

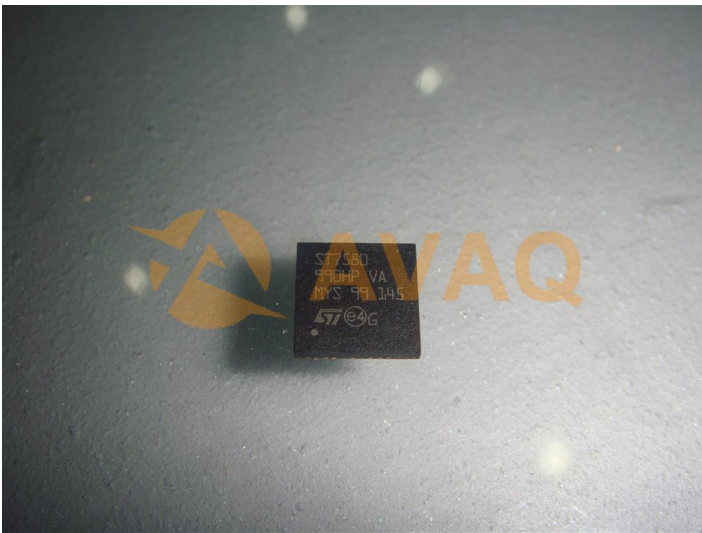
3.3 V or 5 V digital I/O supply

Zero crossing detection

Suitable for EN50065, FCC part 15 and ARIB compliant applications

Communication carrier frequency programmable up to 250 kHz

VFQFPN48 7x7x1.0 48L exposed pad package



Recommended For You

ST7540

STMicroelectronics, Inc
SSOP28

STE10/100A

STMicroelectronics, Inc
QFP

ST7590

STMicroelectronics, Inc
QFP100

ST20196

STMicroelectronics, Inc
BGA

ST5090TQFP

STMicroelectronics, Inc
QFP44

ST7580TR

STMicroelectronics, Inc
QFN48

STI5518BVC

STMicroelectronics, Inc
QFP

ST5090ADTR

STMicroelectronics, Inc
SOP28

E-ST20196

STMicroelectronics, Inc
BGA

ST7554TQF7

STMicroelectronics, Inc
TQFP

ST5090AD

STMicroelectronics, Inc
SOP28

STRADA431-TR

STMicroelectronics, Inc
QFN

LS1240A

STMicroelectronics, Inc
DIP8

LS1240AD1

STMicroelectronics, Inc
SOP-8

M22100B1

STMicroelectronics, Inc
DIP-16