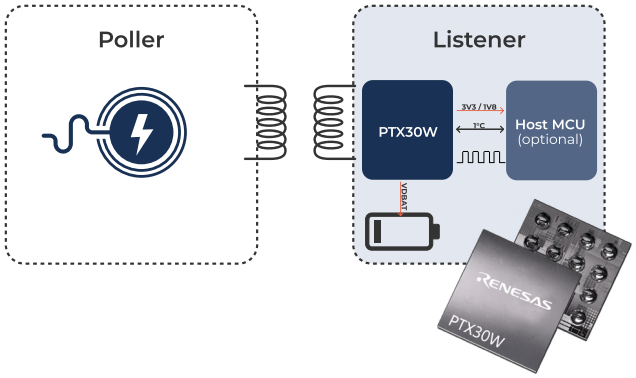
PTX30W NFC WIRELESS CHARGING LISTENER

Groundbreaking, innovative, and fully integrated NFC Wireless Charging Listener chip



The PTX30W is the first ever device to provide fully integrated wireless charging listener solution.

- Compact standalone NFC wireless charging listener integrating NFC tag with digital interface, power harvesting, and battery charger
- Fully autonomous listener operation with on-chip power regulation control
- Protocol following NFC Forum wireless charging specifications

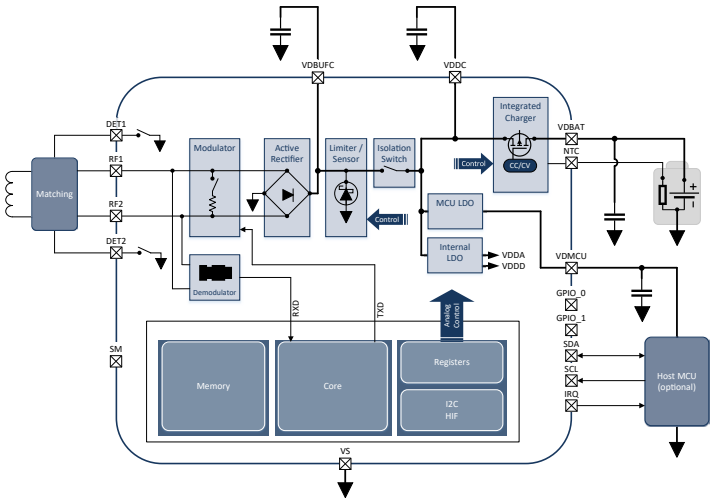


Features and Benefits

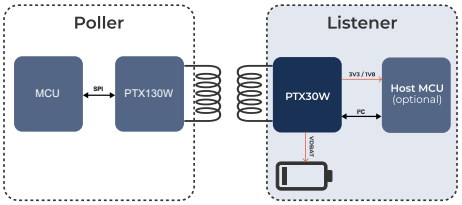
Requirement	Product feature	Product benefit
BOM reduction	Integrated NFC Tag, active rectifier, limiter, battery charger and dedicated core	All functionalities integrated into 16 pin WL-CSP package 1.78x1.78m
Standalone operation	Integrated protocol handling	NFC Forum WLC protocol with negotiated mode
Lithium battery charging	Integrated linear battery charger	Charging current from 5mA to 250mA
Overpower protection	Integrated detuning circuit	Prevent dissipation of over power on the IC, by detuning the antenna
Minimized power dissipation	Advanced power regulation	Power regulation algorithm based on battery voltage measurement
Shipping mode	Integrated power down mode	Shipping mode with current consumption < 100nA
Data exchange	Integrated dedicated data exchange buffer	Bidirectional data exchange based on NFC Type A 106kbps
GPIO control	Multifunction GPIOs	Two GPIOs which can be configured for different functions
NDEF message	Type 2 Tag NDEF	NDEF message exchange with a mobile phone

PTX30W NFC WIRELESS CHARGING LISTENER

PTX30W Block Diagram



Renesas Electronics provides turnkey NFC wireless charging solution, combining PTX130W NFC wireless charging poller with PTX30W NFC wireless charging listener.

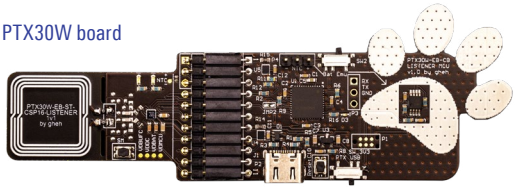


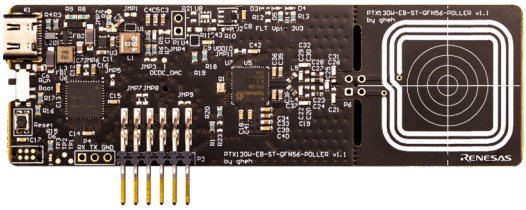
PTX130W/PTX30W NFC WLC Evaluation Kit

Evaluation Kit Development Features

- NFC Wireless Charging evaluation kit for high-efficiency, high-power PTX130W NFC WLC IC
- Fully integrated high-power harvesting WLC Listener (PTX30W) with integrated PMIC and LDO
- Support of NFC Forum NFC Wireless Charging protocol
- Easy-to-use, ready-to-go SW integration
- Reader functions supporting all type of NFC and standard protocols
- Bi-directional transparent data channel
- EMI filter less (DiRAC®) for high-power end-application
- RF-design supported with Config Tool and SDKs

PTX30W board





WLC Poller (PTX130W) board

Typical Applications

- Personal safety tracker
- Stylus
- Smart Ring
- Smart Glasses
- Wearable Devices
- Hearing Aid
- Medical Sensors



For more details, please visit: renesas.com/PTX30W

© 2023 Renesas Electronics Corporation. All rights reserved.
All trademarks are the property of their respective owners.

Document No. R19PF0088EU0100
Date of release: August 2023