NFC Pairing

Bluetooth & Wi-Fi pairing with NFC

NFC is the faster, simpler way to associate wireless devices, without creating conflicts. Just tap your mobile phone to a Bluetooth or Wi-Fi device to establish a secure, two-way connection. No menus, no waiting. A double tap disconnects the pairing.

FOR CONSUMER

- Faster, simpler connections – no need for BT/Wi-Fi sub-menus or searching through lists to find surrounding devices
- No conflicts – pair only the devices you intend to pair
- Secure exchanges – share credentials securely with just a tap
- Easier disconnects – tap twice to unpair
- Save power – use NFC field to enable/disable sleep mode from a battery-driven BT/Wi-Fi device

FOR MANUFACTURERS

- Add value – NFC is an easy upgrade to existing products
- Simplify interactions – devices are friendlier, easier to use
- Reduce support costs – fewer requests for tech help
- Eliminate cables – support the trend toward wireless peripherals

View images and videos on a big screen with a tap of your mobile device to the set-top box, remote controls or TV

Tap your phone to the camera to transfer pictures quickly over the camera's own WiFi

Multi-audio systems that share music between two headphones or speakers (peer-to-peer communication)

Allow friends to tap your NFC-enabled gateway to establish a WiFi connection

Use NFC to pair your phone to your new wearable device

Pair with Bluetooth speakers or headphones with just a tap

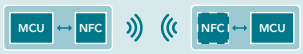
WHY NFC?

- Pair devices 20x faster than with Bluetooth or Wi-Fi
- Identify a device instantly, without conflicts
- Share the listening experience by pairing to two headphones
- Send images from your phone to a TV screen with just a tap
- Use NFC as a trigger, to make devices protocol agnostic

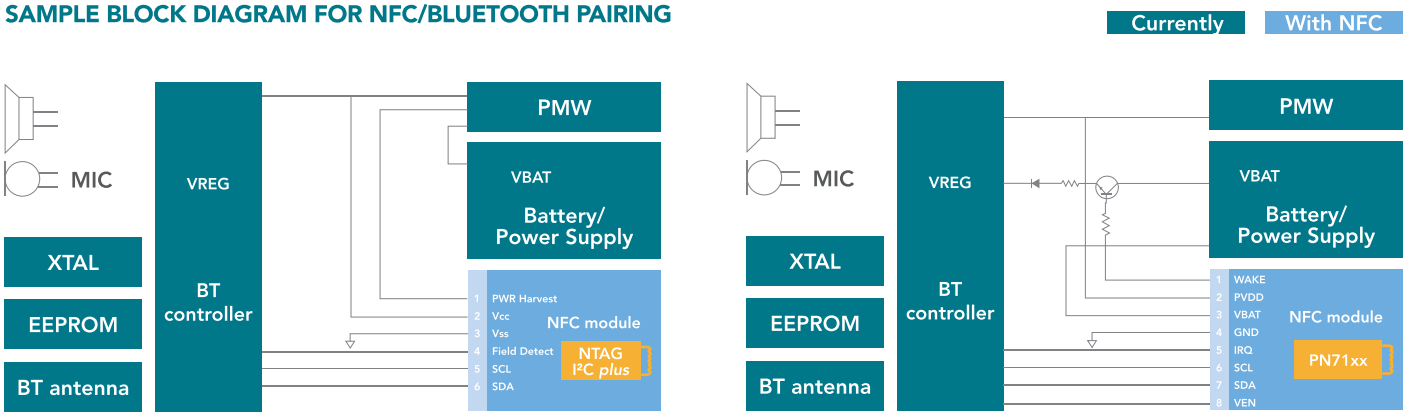
THE ADVANTAGES OF NFC PAIRING

	Traditional push button pairing	NFC pairing
Action for pairing	Push sync button as long as requested in the user manual	Tap two devices to each other
Connection time for Bluetooth pairing	5 to 30 sec	1 sec
Repeatability	• Depending on environment • Sometimes fails	Always repeatable
Scalability	• Same manual action required for each new device • Can connect to wrong (Bluetooth) device if multiple ones are nearby	• Same tap-to-pair experience with multiple devices • Instant identification of the device, no probabilty of error
Unpairing	• Must follow carefully the user manual • Risk is that device stays connected if the wrong one was disconnected	• Tap two devices to each other • Instant identification of the device, no probability of error

NXP SOLUTIONS FOR NFC PAIRING

NFC Connected Tag NTAG® I²C *plus* 	If you're working on a battery-powered design that already has a microcontroller, such as a speaker or IoT node, use this tag IC to wake the system and initiate Bluetooth or Wi-Fi pairing. **Applications:** Headphones, portable speakers, cameras, remote controls, etc.
NFC Controller with Integrated Firmware PN71xx 	If you're running an OS, like Android, Windows, or Linux, use the embedded NFC firmware and NCI interface in these controllers to quickly add fully compliant NFC functionality. The PN71xx is also a good choice for routers that will interact with NTAG-equipped nodes. **Applications:** Gateways, STBs, routers, and other systems with an onboard OS

SAMPLE BLOCK DIAGRAM FOR NFC/BLUETOOTH PAIRING



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